

FORMER BOMARC SITE
100 OLD COUNTRY ROAD
WESTHAMPTON, NEW YORK
NYSDEC SITE: 152262

PFAS SOURCE AREA INVESTIGATION WORK PLAN

SUBMITTED TO:

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233

PREPARED FOR:

Suffolk County Department of Health Services
Office of Pollution Control
15 Horseblock Place
Farmingville, New York 11738

PREPARED BY:



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PWGC Project Number: SHD2504

MAY 2026

**PFAS SOURCE AREA INVESTIGATION WORK PLAN
FORMER BOMARC SITE (152262)**

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FORMER BOMARC SITE (152262)**

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1.0 INTRODUCTION

P.W. Grosser Consulting Engineer & Hydrogeologist D.P.C. (PWGC) has prepared this Work Plan on behalf of the Suffolk County Department of Health Services (SCDHS) to document proposed investigation activities intended to evaluate potential sources of Per- and Polyfluoroalkyl Substances (PFAS) at the subject site.

The scope of work in this Work Plan is based on the findings of SCDHS's BOMARC Off-Site and Vicinity Groundwater Investigation (September 11, 2025), and a NYSDEC letter dated October 30, 2025 requesting additional investigation.



2.0 SITE DESCRIPTION AND HISTORY

2.1 Site Description

The Site is located at 100 Old Country Road, in the hamlet of Westhampton, New York. The Site is in the Town of Southampton, Suffolk County. The property is identified in the Suffolk County Tax Map as: 0900-331.00-01.00-Lot Nos. 001.100, and 002.000 through 015.000.

The Site measures approximately 186 acres in size and is located to the north of Old Country Road and west of Old Westhampton Road. The property includes 56 structures which originally housed BOMARC missiles, along with other structures utilized by Suffolk County. Large parking lots are also present at the site along with a police firing range. The Site is bounded to the north by undeveloped pine barrens, to the east by commercial/industrial land uses, to the south by Old Country Road, and to the west by a multi-family residential development.

A Vicinity Map is included as **Figure 1** and a Site Plan is included as **Figure 2**.

2.2 Site History

The former BOMARC Missile Base was operated by the US Air Force as one of 10 BOMARC facilities protecting the east coast from a potential Soviet air attack from 1959 until it was decommissioned in 1964. Fifty-six nuclear-tipped missiles were located at this facility which utilized tritium and required frequent maintenance (every 90 days). After decommissioning, the property was turned over to Suffolk County as surplus property in the 1960s.

2.3 Previous Investigations

SCDHS implemented environmental investigations at the site in 2019, documented in a 2020 BOMARC Groundwater and Soil Investigation Report, and from 2020 to 2021 documented in a 2025 BOMARC Off-Site and Vicinity Groundwater Investigation.

Relevant findings of the investigations are summarized as follows.

- In 2019, a total of 186 groundwater samples were collected from 32 profile wells and two monitoring wells located on the Former BOMARC site.
- From 2020 to 2021, a total of 184 groundwater samples were collected from 36 profile wells and eight existing sewage treatment plant (STP) monitoring wells located both up and down gradient of the Former BOMARC site.
- Groundwater flow beneath the site and surrounding area is generally south-southwest with some local variation in the vicinity of a Suffolk County Water Authority (SCWA) well field adjacent to the south of the site.



- Based on data from the two investigations, SCDHS identified multiple plumes of PFAS impacted groundwater on and in the vicinity of the site. The two most significant of these plumes appear to be one related to a potential onsite source or sources, and one that appears to be related to a potential offsite source at or in the vicinity of the adjoining property to the west (former drag racing track, current multi-family residential development). Plume locations are illustrated in **Figure 2**.
- Based on PFAS concentrations in groundwater, several potential onsite sources of PFAS impact were identified including a former fireworks burn pit area, a current fireworks detonation area, a police firing range, and a damaged vehicle impound lot.

Copies of the 2020 and 2025 investigation reports are included in **Appendix A** and **Appendix B**, respectively.

2.4 Regional Geology/Hydrogeology

The geologic setting of Long Island is well documented and consists of crystalline bedrock composed of schist and gneiss overlain by layers of unconsolidated deposits. Immediately overlying the bedrock is the Raritan Formation, consisting of the Lloyd sand confined by the Raritan clay Member. The Lloyd sand is an aquifer and consists of discontinuous layers of gravel, sand, sandy and silty clay, and solid clay. The Raritan clay is a solid and silty clay with that is gray, red or white in color with few lenses of sand and gravel and abundant lignite and pyrite.

Above the Raritan Clay lies the Magothy Formation. The Magothy aquifer consists of layers of fine to coarse sand of moderate to high permeability, with inter-bedded lenses of silt and clay of low permeability resulting in areas of preferential horizontal flow. Therefore, this aquifer generally becomes more confined with depth. The Magothy Formation is overlain by the Upper Glacial deposits which contains the Upper Glacial aquifer. The Upper Glacial aquifer is the water-table aquifer at this location and is comprised of medium to coarse sand and gravel with occasional thin lenses of fine sand and brown clay. This aquifer extends from the water table to the top of the Magothy and, therefore, is hydraulically connected to the Magothy aquifer.

The aquifer of concern at the former BOMARC site is the Upper Glacial aquifer which is an unconsolidated mixture of sand and gravel. The Upper Glacial aquifer is approximately 100 feet thick (saturated zone) at the site, and has an estimated average horizontal hydraulic conductivity (permeability) of 270 feet/day and a vertical hydraulic conductivity of 27 feet/day (Franke & Cohen, 1972).

Clay layers, such as the Gardiners clay and the “20-Foot-clay,” where present, may act as local confining units, separating the Upper Glacial aquifer from the underlying Magothy aquifer which is the principal source of drinking



water in Suffolk County. These clay layers extend throughout much of the south shore of Long Island and are likely present just south of the site.

2.5 Site Features

The project site elevation is approximately 50 feet above mean sea level and is generally level, with the exception of several earthen berms at the northern end of the property associated with the police firing range. The site is developed with multiple warehouse and office buildings used by Suffolk County, 56 former BOMARC missile bunkers currently used for storage, and a police firing range. There are multiple unpaved parking areas throughout the property used as vehicle impound lots by Suffolk County.

2.6 Current and Future Site Use

The site is currently utilized by Suffolk County as a police training facility/firing range, police impound lot, and county storage area. Significant changes in use of the site are not planned for the near future.



3.0 STANDARDS CRITERIA AND GUIDANCE

Based on previous investigations at the site, the primary chemicals of potential concern (COPC) related to this investigation are PFAS related to the current and historical usage of the site.

PFAS soil data will be compared to the Guidance Values specified in NYSDEC's Sampling, Analysis, and Assessment of Per-And Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (April 2023).



4.0 OBJECTIVES SCOPE AND RATIONALE

Based on the September 2025 groundwater investigation, four potential onsite PFAS source areas have been identified. The objective of this investigation is to evaluate and delineate the areal and vertical extent of PFAS impact to soils in these potential source areas to the extent practical. Potential PFAS source areas based on the 2025 groundwater investigation include:

- Former fireworks burn pits – this location on the northwestern portion of the site consists of two concrete pits that were formerly used to incinerate fireworks that were seized by SCPD.
- Current fireworks detonation bunker – this location on the central portion of the site is where SCPD currently incinerates seized fireworks.
- Firing range – this location on the northern portion of the site consists of several firing ranges with earthen berm backstops that are used for firearms training by SCPD and other law enforcement agencies.
- Damaged vehicle storage area – this location on the southeastern portion of the site is used for the storage of damaged vehicles impounded by SCPD.

4.1 Soil Delineation

To delineate potential PFAS impact to soil at the site, a minimum of five soils borings will be installed at each of the above referenced potential source areas.

Soil borings will be installed utilizing a Geoprobe® direct-push drill rig outfitted with a macro-core sampler and dedicated acetate liners. Soils will be collected continuously from ground surface to the water table (approximately 35 feet below grade). Soils will be classified by a hydrogeologist using the Unified Soil Classification System (USCS) and recorded in a soil boring log. Boring logs will include USCS characterization data and field screening results.

Soil sampling will be performed in accordance with the Division of Environmental Remediation (DER) DER-10 Technical Guidance for Site Investigation and Remediation (May 2010), and Sampling, Analysis, and Assessment of Per-And Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (April 2023).

Proposed boring locations are illustrated in **Figure 3** through **Figure 6**; boring locations may be adjusted based on field conditions.

4.1.1 Sampling Protocol

At each boring location, samples will be collected as shown in the table below. Initially, the two shallow samples and the deepest sample above the water table will be submitted for laboratory analysis with deeper samples to be placed on hold at the laboratory to be analyzed as needed based on shallow results.



Depth Interval (feet below grade)	Submitted for Analysis
0 to 0.5 (below the vegetative root layer and/or pavement)	Yes
0.5 to 1	Yes
3 to 5	Yes
8 to 10	If UUSCOs are exceeded in the preceding sample
13 to 15	If UUSCOs are exceeded in the preceding sample
18 to 20	If UUSCOs are exceeded in the preceding sample
23 to 25	If UUSCOs are exceeded in the preceding sample
28 to 30	If UUSCOs are exceeded in the preceding sample
33 to 35*	Yes

*The 33 to 35 foot is presumed to be the deepest two-foot interval above the water table. The specific depth submitted for analysis (deepest two-foot interval above the water table) will be adjusted as needed based on field observations.

Soil samples will be placed in a properly decontaminated stainless steel mixing bowl and homogenized prior to collection. Samples will be placed in pre-cleaned, laboratory supplied glassware and stored in a cooler on ice for transport to the analytical laboratory under chain-of-custody procedures.

4.1.2 Sample Analysis

Samples will be analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for PFAS by USEPA Method 1633.

Quality Assurance/Quality Control (QA/QC) samples, including blind duplicates, matrix spike/matrix spike duplicates (MS/MSD), equipment blanks, and field blanks will be collected as specified in the project Quality Assurance Project Plan (QAPP) detailed in Section 5.0/Appendix C.

4.2 Background Soil Concentrations

To evaluate baseline background concentrations of PFAS in the vicinity of the site, one soil boring will be installed within the undeveloped county land located adjacent to the north of the site. This boring will be installed utilizing a Geoprobe® direct-push drill rig outfitted with a macro-core sampler and dedicated acetate liners or a properly decontaminated stainless-steel hand auger, depending on access limitations. Soils will be collected continuously from ground surface to approximately four feet below grade. Soils will be classified by a hydrogeologist using the USCS and recorded in a soil boring log. Boring logs will include USCS characterization data and field screening results.

Soil sampling will be performed in accordance with DER-10 Technical Guidance for Site Investigation and Remediation (May 2010), and Sampling, Analysis, and Assessment of Per-And Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (April 2023).

The proposed background boring location is illustrated in **Figure 2**.

4.3 Contingent Soil Delineation

If PFAS is detected at concentrations exceeding Unrestricted Use SCOs in samples collected as described in Section 4.1, it may be necessary to install additional step out borings to fully delineate PFAS impact. Should this be necessary, preliminary lab data and a site plan with additional proposed boring locations will be provided to NYSDEC prior to remobilization.

Should additional soil borings and soil sampling be necessary, such will be collected and analyzed as described in Section 4.1.



5.0 QUALITY ASSURANCE PROJECT PLAN

5.1 Quality Assurance Project Plan

The project Quality Assurance Project Plan (QAPP) presents the objectives, functional activities, methods, and QA/QC requirements associated with sample collection and laboratory analysis for characterization activities. The QAPP follows requirements detailed in DER-10, Section 2, and Appendix A of Sampling, Analysis, and Assessment of Per-And Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (April 2023).

A copy of the project QAPP is included as **Appendix C**.

5.2 Project Organization

The project team for this Supplemental RI is specified below. Specific responsibilities of the project team are detailed in §2.0 of the QAPP.

NYSDEC Project Manager	Crystal Wolf
PWGC Project Director	Thomas Melia, PG
PWGC Quality Assurance Manager	Andrew Lockwood, PG
PWGC Project Manager	Kylie Benz, IG
PWGC Field Team Leader	To Be Determined
Analytical Laboratory	To Be Determined
Third Party Data Validator	To Be Determined
Drilling Subcontractor	To Be Determined

6.0 HEALTH AND SAFETY

Field operations will be performed in accordance with the health and safety requirements to be provided in the site-specific project Health and Safety Plan (HASP) included as **Appendix D**. The HASP outlines the requirements for training, medical surveillance, daily tailgate meetings, emergency response, and accident and injury reporting.

Activity hazard analyses (AHAs) have been completed for identified work activities planned for the investigation.

The PWGC Field Team Leader will be responsible for implementing the HASP, completing the daily tailgate safety meetings and performing necessary Industrial Hygiene (IH) monitoring as specified in the HASP.



7.0 COMMUNITY AIR MONITORING PLAN

A project Community Air Monitoring Plan (CAMP) has been prepared to provide measures for protection for the downwind community from potential airborne contaminants as a direct result of the Remedial Investigation. The CAMP is included as **Appendix E**.

The Community Air Monitoring Plan will be implemented and executed in accordance with the New York State Department of Health's (NYSDOH) Generic Community Air Monitoring Plan.



8.0 REPORTING

Investigation data will be incorporated into an Investigation Report. The Report will include the methods and findings of the investigation activities performed as outlined in this work plan. The report will identify specific contamination concentrations throughout each media sampled, delineate the extent of contamination in soil to the extent practical and provide conclusions and recommendations for additional investigation and/or remedial action. Electronic copies of the Investigation Report will be submitted to the NYSDEC along with hard copies. Analytical results of the investigation will be submitted in the electronic data delivery (EDD) format through the Department's environmental information management system.



9.0 REFERENCES

NYSDEC, Division of Environmental Restoration, 6 NYCRR Part 375 Subpart 6, Remedial Program Soil Cleanup Objectives

NYSDEC, Division of Environmental Remediation, May 2012, DER-10, Technical Guidance for Site Investigation and Remediation.

NYSDEC, Division of Environmental Remediation, April 2023, Sampling, Analysis, And Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs

NYSDEC, Division of Water, June 1998, Addendum April 2000, Addendum June 2004, Addendum February 2023, Technical and Operational Guidance Series 1:1:1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations

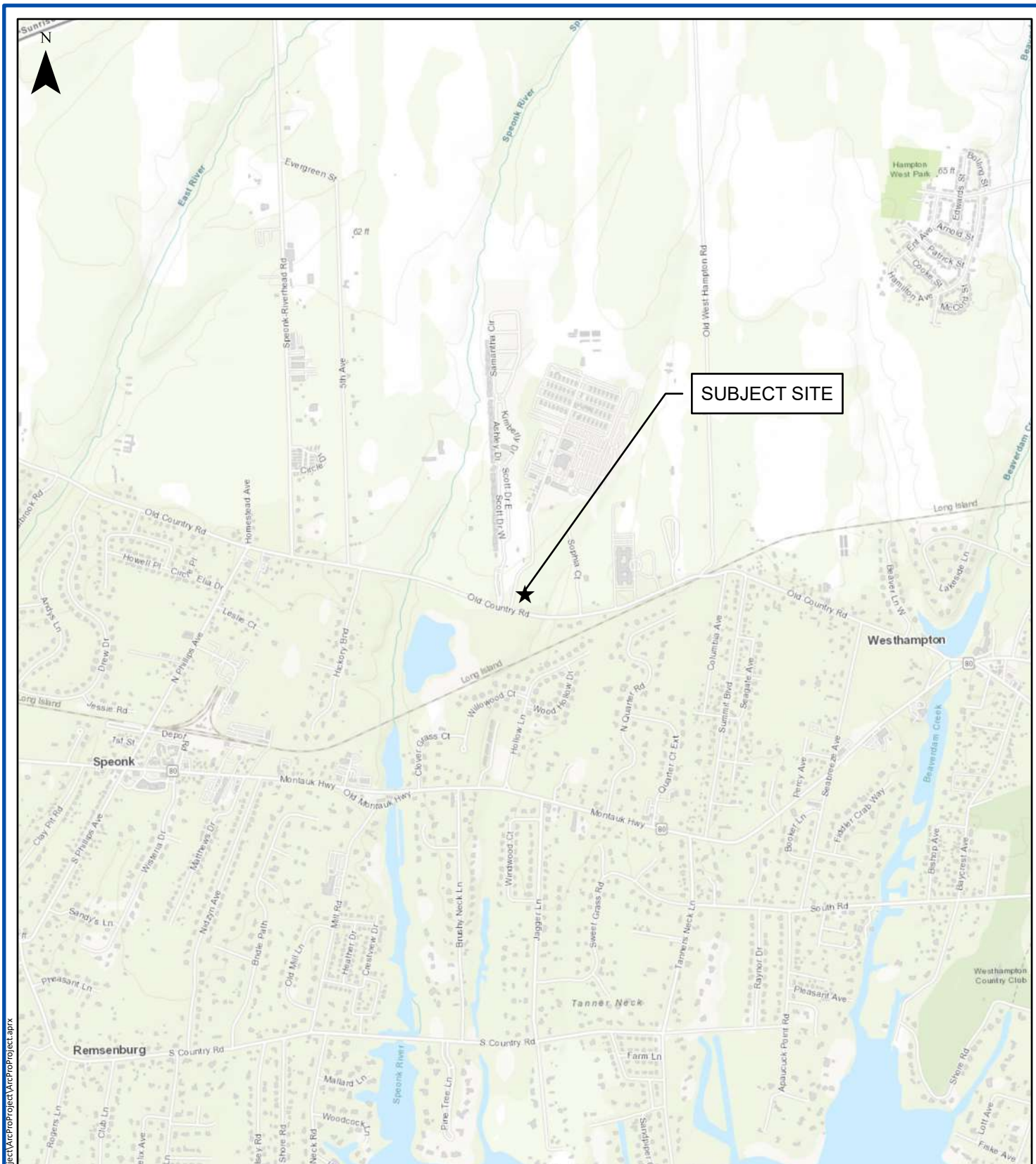
NYSDOH, October 2006, Guidance for Evaluating Soil Vapor Intrusion in the State of New York

SCDHS Office of Water Resources, September 2020, BOMARC Soil and Groundwater Investigation

SCDHS Office of Water Resources, September 2025, BOMARC Off-Site and Vicinity Groundwater Investigation

FIGURES





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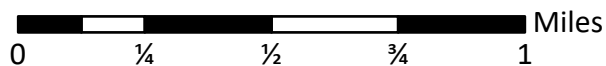
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CLIENT DRIVEN SOLUTIONS

P.W. Grosser Consulting, Inc.

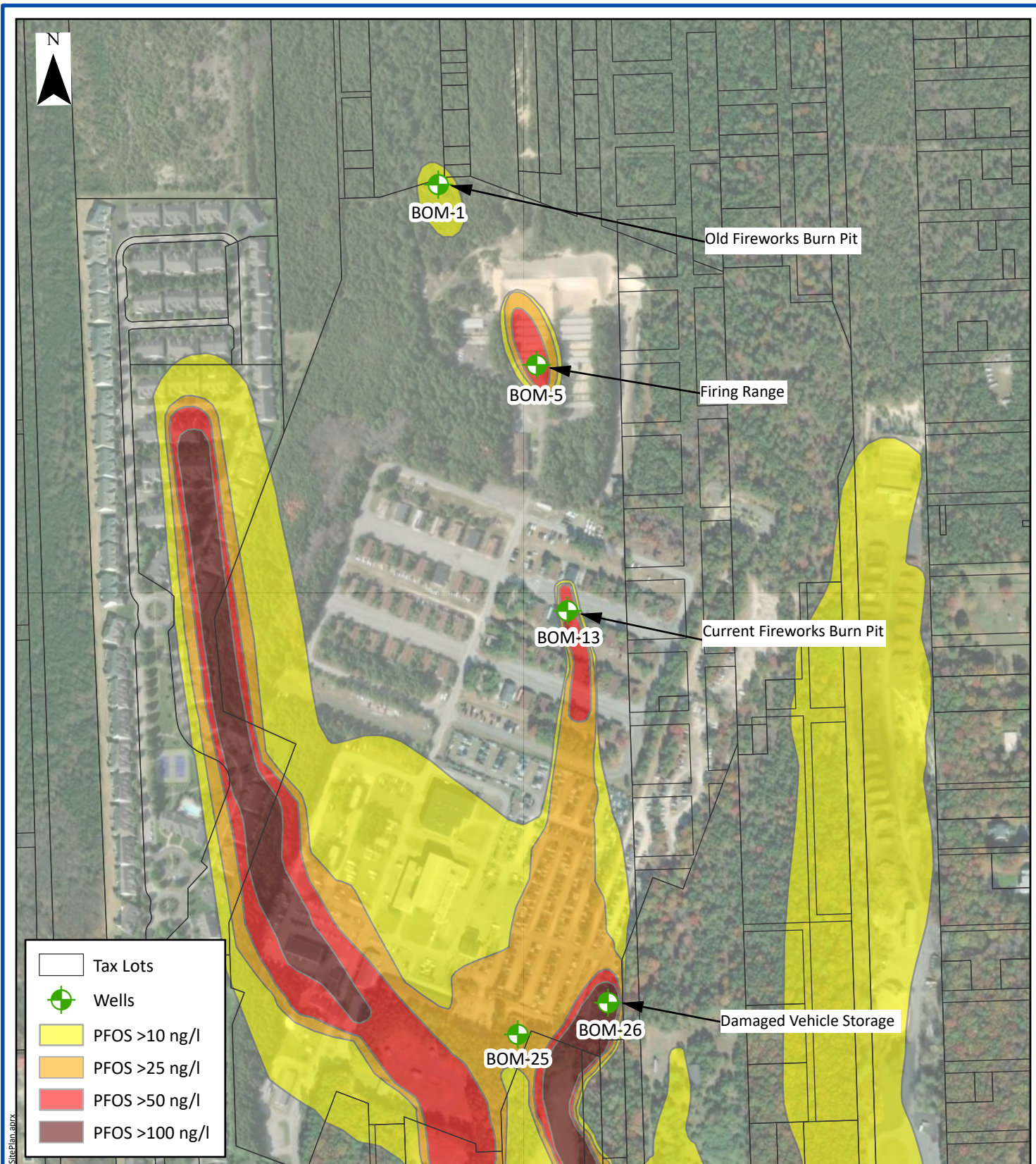
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Bohemia, NY 11716
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SITE LOCATION

98 Old Country Road
Westhampton, NY



Project:	SHD2201
Date:	4/4/2022
Designed by:	JP
Drawn by:	OA
Approved by:	JP
Figure No:	1



Site Plan

BOMARC
Westhampton, NY

0 375 750 1,500 Feet

Project:	SHD2504
Date:	5/14/2026
Designed by:	TM
Drawn by:	AM
Approved by:	TM
Figure No:	2

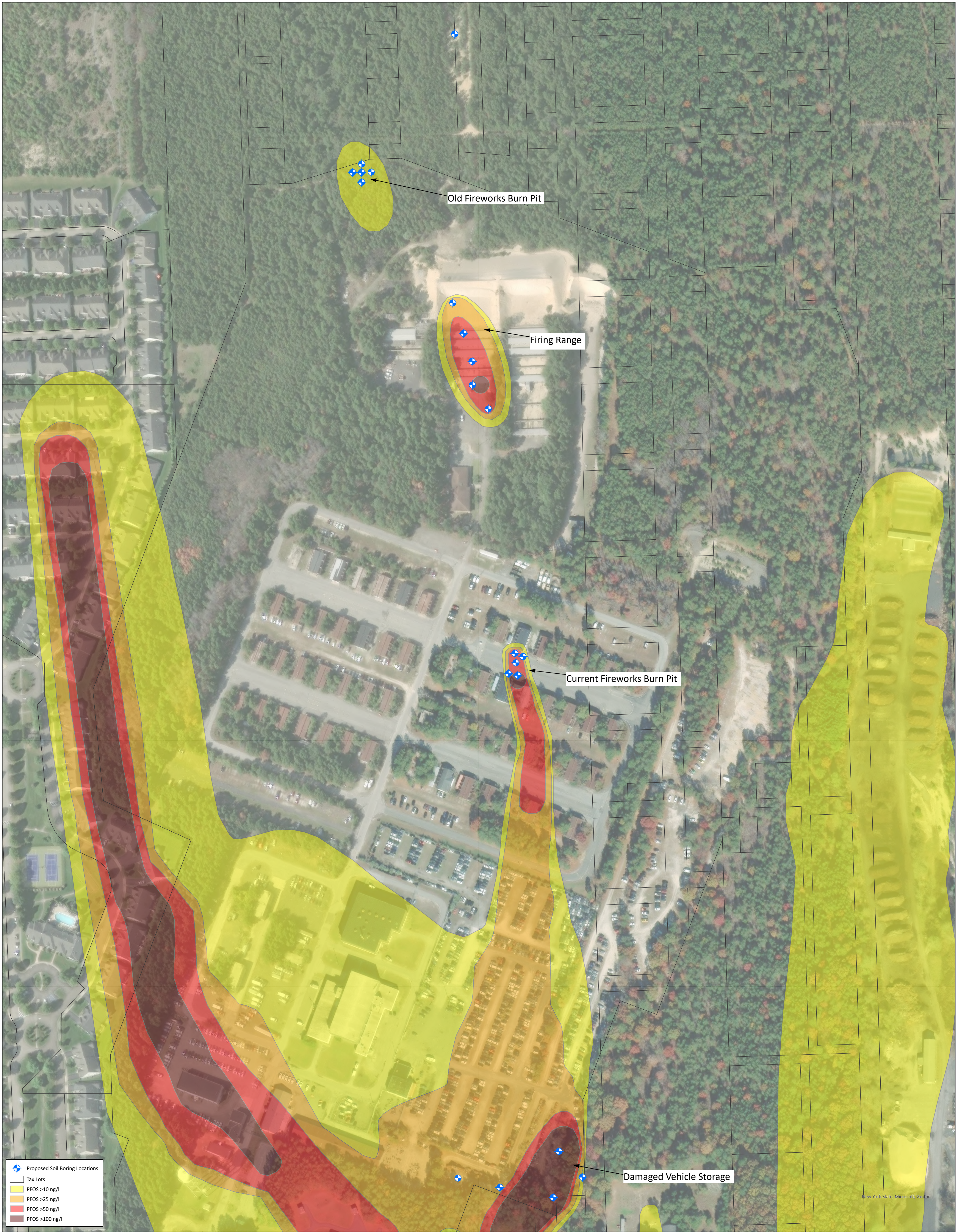


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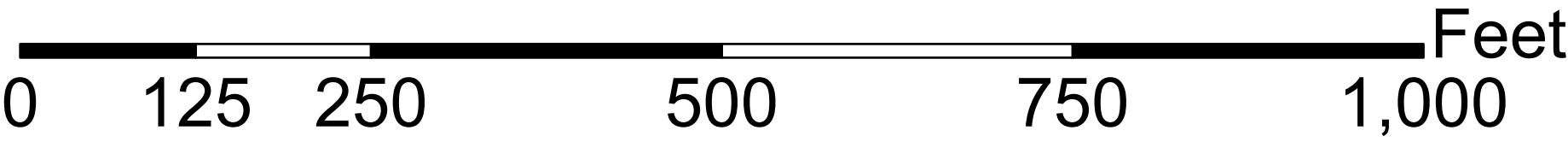




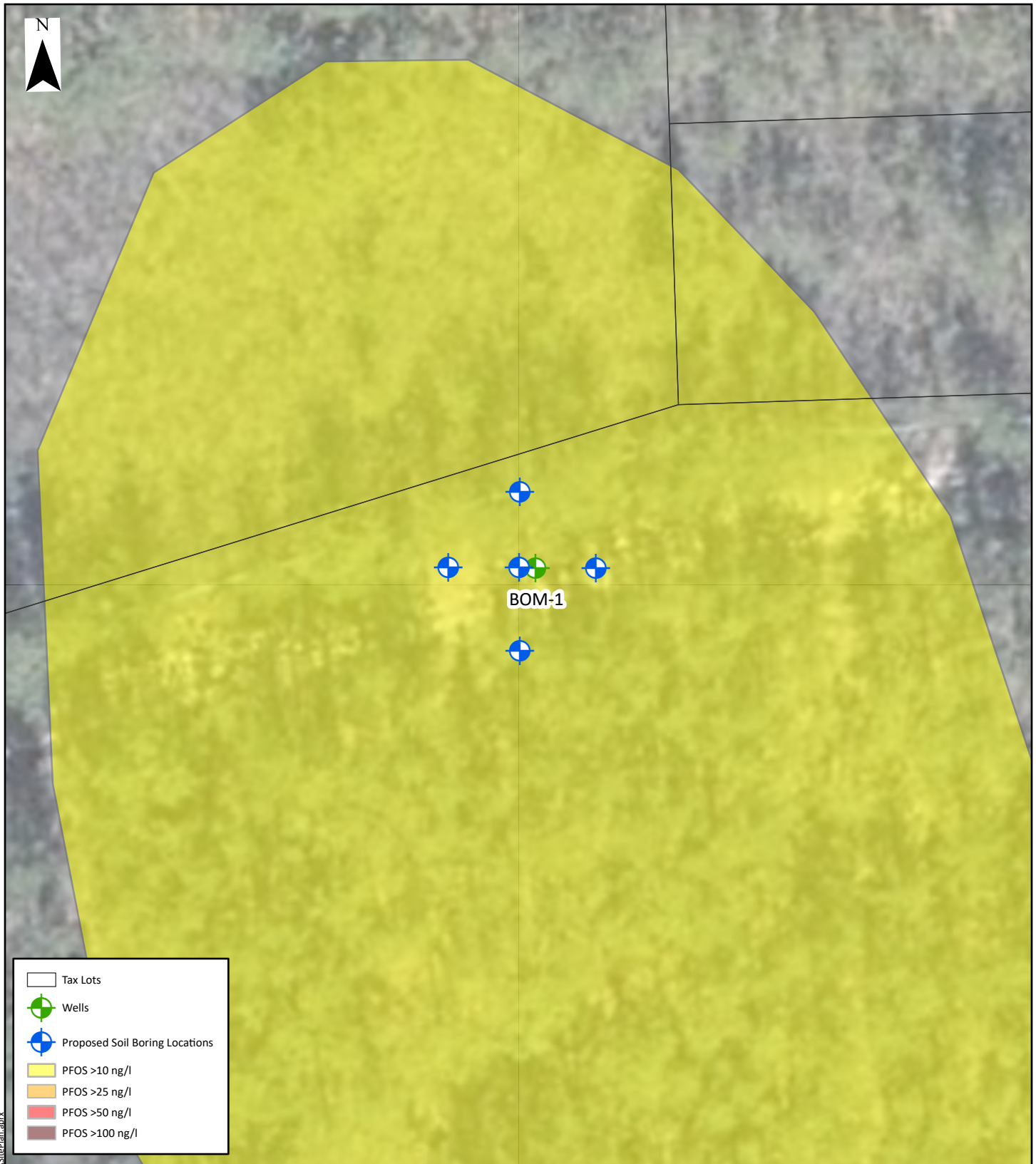
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Site Plan with Proposed
Soil Boring Location
BOMARC
Westhampton, NY



Date:	5/15/2026
Designed by:	TM
Drawn by:	AM
Approved by:	TM
Figure No:	3



-  Tax Lots
-  Wells
-  Proposed Soil Boring Locations
-  PFOS >10 ng/l
-  PFOS >25 ng/l
-  PFOS >50 ng/l
-  PFOS >100 ng/l



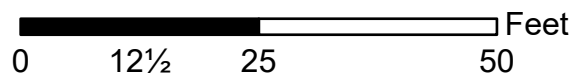
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& HYDROGEOLOGIST, D.P.C.

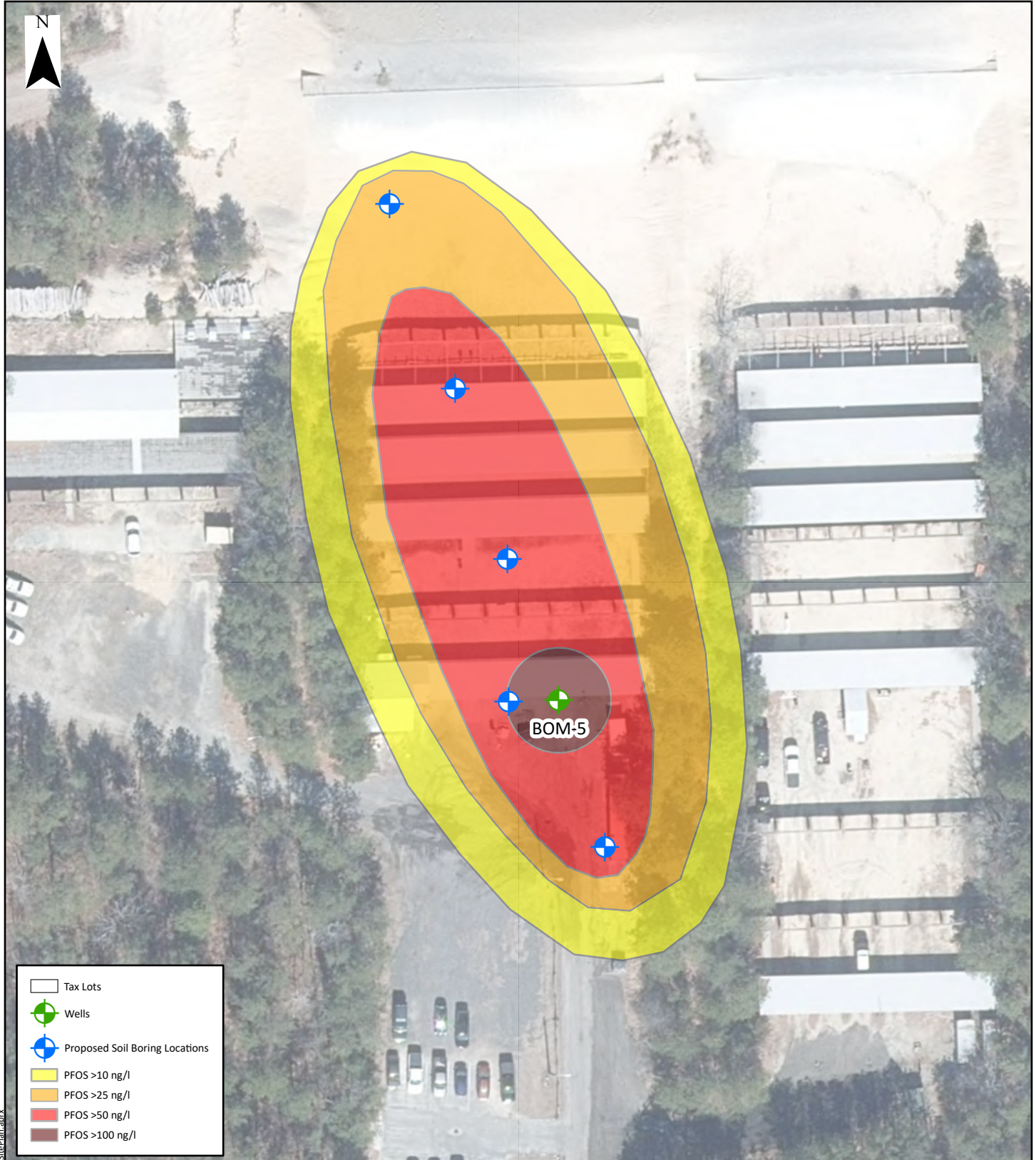
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Old Fireworks Burn Pit

BOMARC
Westhampton, NY



Project:	SHD2504
Date:	5/14/2026
Designed by:	TM
Drawn by:	AM
Approved by:	TM
Figure No:	4



- Tax Lots
- Wells
- Proposed Soil Boring Locations
- PFOS >10 ng/l
- PFOS >25 ng/l
- PFOS >50 ng/l
- PFOS >100 ng/l



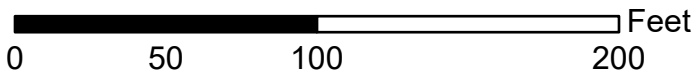
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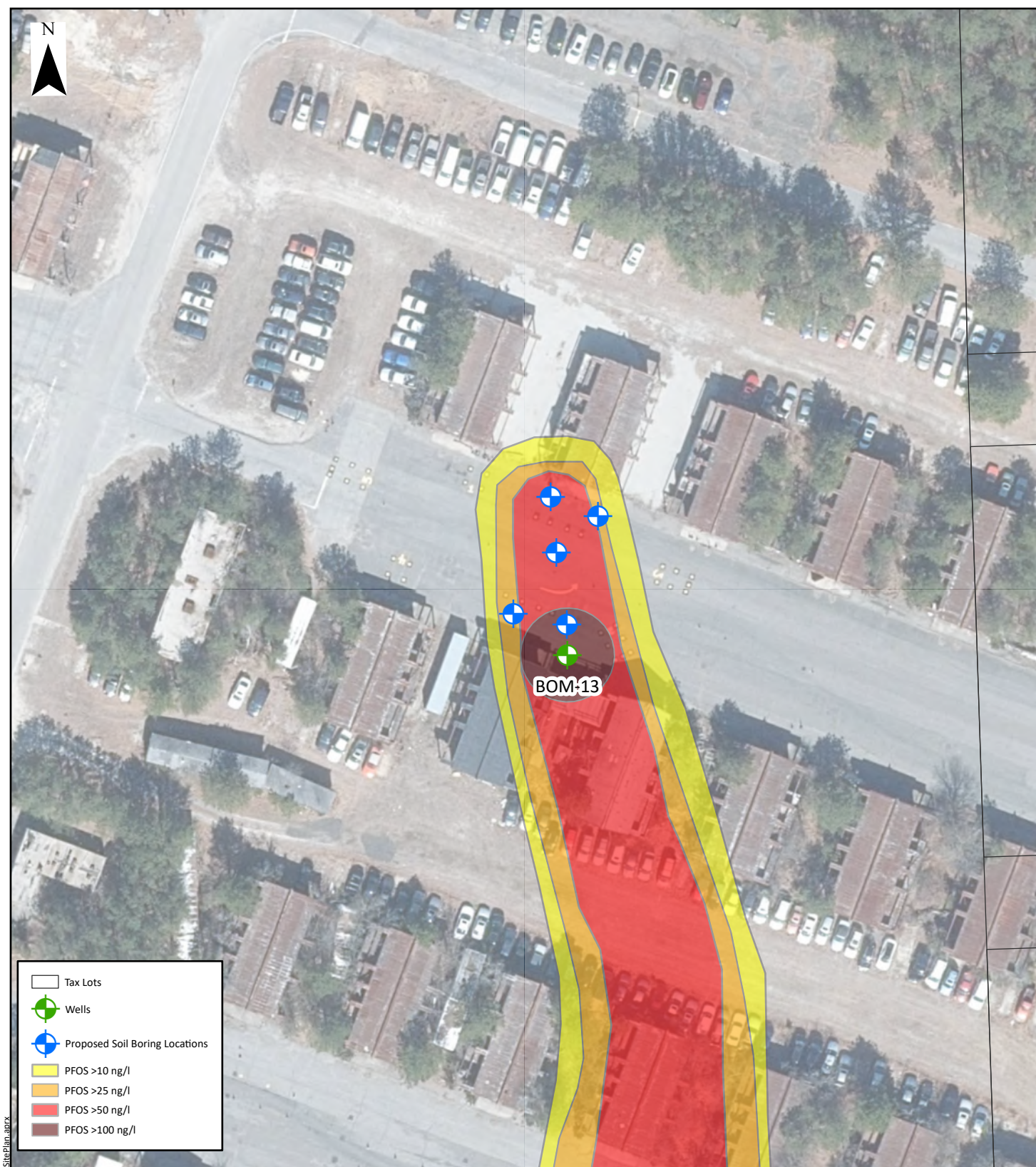
Firing Range

BOMARC
Westhampton, NY



Project:	SHD2504
Date:	5/14/2026
Designed by:	TM
Drawn by:	AM
Approved by:	TM
Figure No:	5

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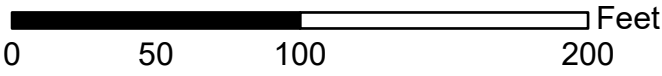
- Tax Lots
- Wells
- Proposed Soil Boring Locations
- PFOS >10 ng/l
- PFOS >25 ng/l
- PFOS >50 ng/l
- PFOS >100 ng/l



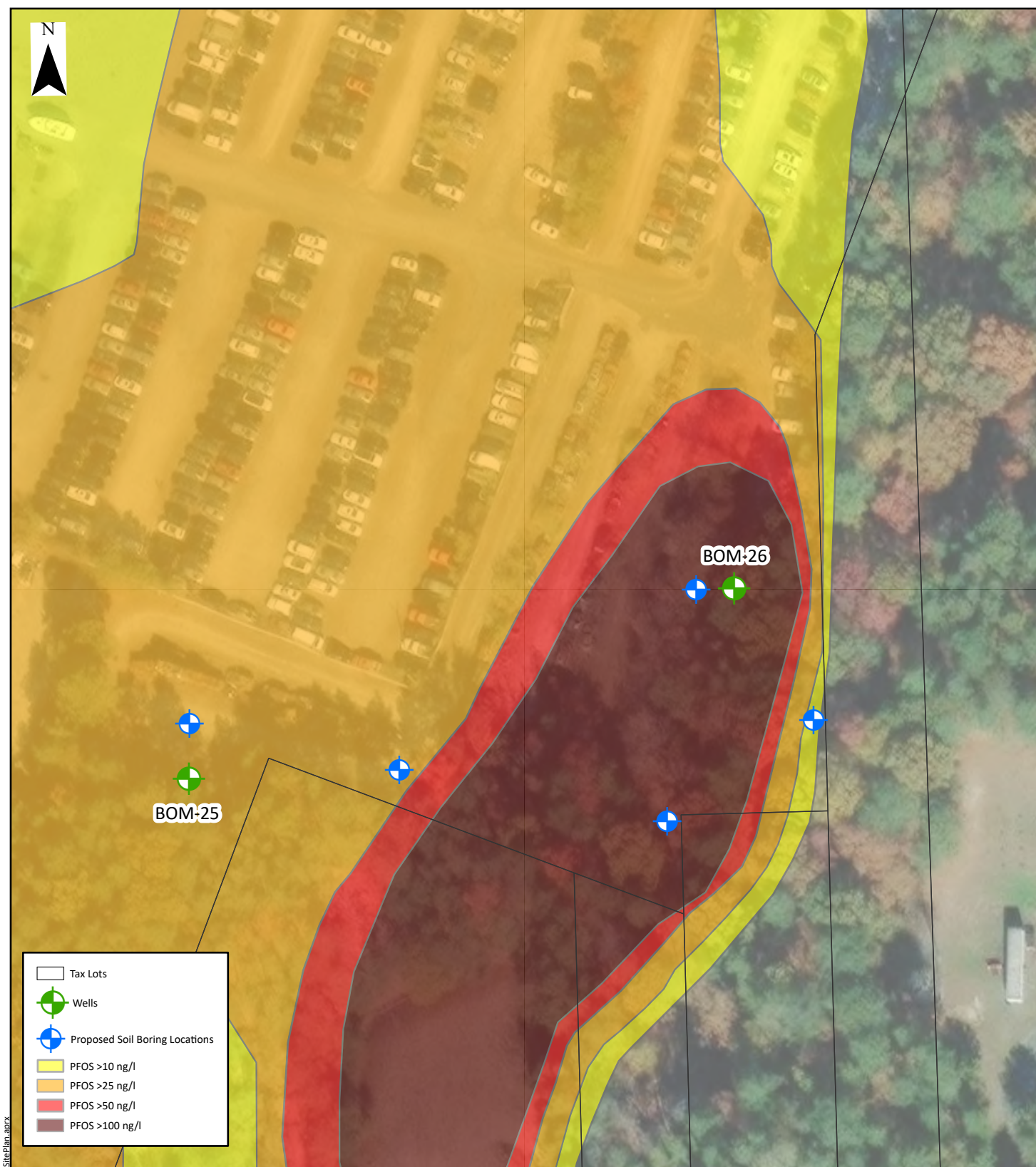
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Current Fireworks Burn Pit

BOMARC
 Westhampton, NY



Project:	SHD2504
Date:	5/14/2026
Designed by:	TM
Drawn by:	AM
Approved by:	TM
Figure No:	6



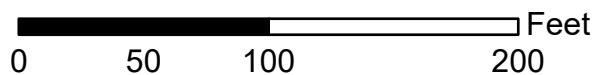
- Tax Lots
- Wells
- Proposed Soil Boring Locations
- PFOS >10 ng/l
- PFOS >25 ng/l
- PFOS >50 ng/l
- PFOS >100 ng/l



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Damaged Vehicle Storage

BOMARC
 Westhampton, NY



Project:	SHD2504
Date:	5/14/2026
Designed by:	TM
Drawn by:	AM
Approved by:	TM
Figure No:	7

APPENDIX A BOMARC SOIL AND GROUNDWATER INVESTIGATION (2020)



***Groundwater and Soil Investigation at the
BOMARC Facility, Westhampton N.Y.
In Accordance with Suffolk County Legislative
Resolution No. 1065-2018***



**Suffolk County
Department of Health Services**

**Steve Bellone
Suffolk County Executive**

**Gregson H. Pigott, M.D., M.P.H.
Commissioner**

**Walter Dawydiak, P.E.
Director
Division of Environmental Quality**

Office of Pollution Control ♦ Office of Water Resources

September 2020

Executive Summary:

This report was prepared in response to Suffolk County Resolution 1065-2018 which directed the Suffolk County Department of Health Services (SCDHS) to conduct soil and groundwater testing at the BOMARC property located at Old Country Road in Westhampton. The Division of Environmental Quality Office of Pollution Control (OPC) and Office of Water Resources (OWR) conducted a preliminary environmental assessment of the site. The assessment consisted of the following: records review, personnel interviews, aerial photo survey, site inspection, soil sampling, and a groundwater investigation.

The site is a former military base, which housed BOMARC surface-to-air missiles located in 58 aboveground silos. It was reported that the missiles had nuclear warheads. Military activity ceased at the site in 1969.

The property has approximately 90 developed acres with thirteen commercial buildings, 58 former missile silos, a shooting range, a power plant, several acres of vehicle storage and multiple acres of undeveloped land. The subject property is currently in use by the Suffolk County Police Department, Sheriff's Department, Public Works, and various tenants. Ten buildings are currently occupied.

A records review showed that the site had several asbestos remediations and evidence of lead based paint and mold in certain structures. The OPC database shows 43 historic hazardous material tank records, with 12 petroleum tanks still in service. In 1998, perchlorate was detected in an adjacent Suffolk County Water Authority (SCWA) wellfield and a perchlorate groundwater plume was traced back by SCDHS to fireworks disposal pits located on the BOMARC property. A treatment system was installed at the wellfield to remove perchlorate. The disposal pits are no longer used and fireworks are destroyed in a specially designed unit in one of the missile silos. Records also indicated that several underground leaching structures (UICs, or "underground injection control" structures) were remediated under OPC oversight in 2014.

The initial soil sampling (surface soils and UICs) performed in accordance with Resolution 1065-2018 consisted of 25 samples collected from locations identified as areas of potential environmental concern. All samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOC) and heavy metals. Select samples were also analyzed for PCB's, pesticides and radiation. Soil sampling results were compared to SCDHS standards (UICs only) and New York State Department of Environmental Conservation (NYSDEC) soil cleanup objectives (surface soil samples and all PCB samples).

UIC Results

Four of eleven UIC structures sampled had concentrations of VOCs, SVOCs and/or metals that exceeded Suffolk County standard SOP 9-95, indicating that remediation will be required (see Figure 3a for overview of UIC results). Some of the contaminants detected above standards include: benzene, xylene, chrysene, trimethylbenzene, methyl ethyl ketone, cadmium, chromium, barium, copper and lead. It is not uncommon for these contaminants to concentrate in UIC structures, leading to elevated concentrations that require remediation.

PCBs also exceeded the 6 NYCRR Part 375 soil cleanup objective (SCO) for protection of groundwater in five UICs, three of which also exceed SCDHS SOP 9-95 standards. Samples from floor drains located in building CO206 and CO216 exceeded the SCO by several orders of magnitude (9,560,000 parts per billion (ppb) and 449,000 ppb, respectively, compared to the groundwater protection SCO of 3,200 ppb). Soil Cleanup Objectives were developed by New York State to specify acceptable post-remedial soil concentrations for various site occupancies and uses. For this report, they are used for comparison purposes only. Further discussions with NYSDEC will be necessary to determine remedial requirements for the two UICs that exceeded the PCB groundwater protection SCO but not SCDHS SOP 9-95 standards.

Surface Soil Results

Eight of the fourteen surface soil samples exceeded NYSDEC Unrestricted Use SCOs for VOCs, SVOCs and/or metals (see Figure 3b for overview of surface soil results). Six of those samples also exceeded the Commercial or Protection of Groundwater SCOs, which are possible future remedial goals due to site use and groundwater status. Some of the contaminants detected above the SCOs include: xylene, lead, copper, arsenic, and barium. It should be noted that the sample sites selected were targeted as areas of potential contamination and are not representative of the entire site. Of these six elevated samples, one was an ash sample from the new fireworks burn box, three were soil samples from the shooting range, one was from stained soil adjacent to an aboveground tank, and one was from soil adjacent to a concrete pad suspected of previous hazardous material storage. Elevated concentrations of contaminants in these samples could be expected.

The three samples collected from the firing range had elevated metal concentrations. It is not unusual to find elevated concentration of metals, principally lead, in surface soils at firing ranges. This occurs as a function of the normal operation of the range. Therefore, these detections are not considered hazardous waste disposal while the range is still active and lead is being periodically reclaimed from the range. Suffolk County Police Officers on-

site take precautions to limit exposure to shooting range dust and are routinely monitoring for blood lead levels.

Eight surface soil samples exceeded Unrestricted Use SCOs for PCBs, four exceeded 1.0 parts per million (ppm), the PCB soil concentration for the Residential, Restricted Residential and Commercial SCOs. Due to the prevalence of PCBs in surface soil, a second round of PCB surface soil sampling was performed at 67 locations throughout the site. In the second round of sampling, five samples exceeded the Unrestricted Use SCO. Only one of these samples (behind bldg. C0206) exceeded 1.0 ppm. Additional confirmatory sampling and guidance from the DEC will be required regarding possible remediation.

Five surface soil samples exceeded the Unrestricted Use SCOs for pesticides. None exceeded the Commercial or Protection of Groundwater SCOs. The contaminants detected above their respective SCO include: DDT, aldrin, dieldrin and endrin.

With the possible exception of lead, there is no evidence that the contaminants of concern in UICs or soils have reached groundwater. It should be noted that PCBs were not sampled in groundwater as part of this preliminary investigation, but PCBs typically do not migrate great distances in groundwater in Suffolk County. However, additional soil and groundwater sampling will be performed to ensure that all contaminants have been removed and that groundwater is not impacted by these contaminants.

Groundwater Results

Twenty-eight temporary profile groundwater wells were installed as part of the investigation. Each of the wells were sampled at several levels depending on the depth of the well and height of the water table. The wells were sampled for VOCs, SVOCs, metals, pesticides, radiation, perchlorate and per- and polyfluoroalkyl substances (PFAS).

One groundwater well had three inorganic parameters (chloride, nitrate and sulfide) exceeding their respective groundwater standard. Four metals (iron, lead, manganese and sodium) exhibited concentrations exceeding their drinking water standard, respective action level and/or NYSDEC groundwater standards.

In one groundwater profile well tritium was detected in three of the profile levels, with the reported concentrations significantly below the drinking water standard (MCL). However, since tritium detections in Suffolk County are unusual, six additional wells were installed and sampled. Results showed no additional detections of tritium.

Thirteen profile wells had PFOS and/or PFOA concentrations in excess of the recently adopted New York State MCLs of 10 ng/l for each (see Figures 12-15 for an overview of PFAS results).

Public Water Supply

A public supply wellfield (Old Country Road) is located immediately south of the BOMARC site. The water from this wellfield currently meets all existing drinking water standards. A private well survey was conducted by SCDHS in the vicinity of the SCWA wellfield. PFAS analysis conducted by the New York State Department of Health (NYSDOH) Wadsworth Laboratory found that 25 of the 41 wells sampled had detections of PFOS and/or PFOA. Two wells exhibited combined PFOS and PFOA concentrations above the 70 nanograms per liter (ng/l) (the current USEPA health advisory level). The NYSDEC subsequently installed POET water treatment systems at both locations.

Next Steps

The groundwater and soil sampling data was reported to and discussed with the NYSDEC and the New York State Department of Health. Four UIC systems will require remediation under Suffolk County SOP 9-95. Two additional UICs may require remediation due to PCB contamination. Suffolk County will work with the NYSDEC in developing appropriate remedial action due to PCB contamination in many of these UICs.

On December 5, 2019, Suffolk County was notified that the BOMARC site was being considered a potential inactive hazardous waste disposal site. SCDHS has begun discussion on next steps with NYSDEC, including characterization of other potential PFAS sources of concern in the area, including a former drag racing strip, the Old Westhampton Landfill, possible foam use related to the Pine Barrens Wildfires of 1995, and local sewage treatment plants. Further onsite investigation is also likely.

Introduction

This report was prepared in response to Suffolk County Resolution 1065-2018 (Appendix A) which directed the Suffolk County Department of Health Services (SCDHS) to conduct soil and groundwater testing at the BOMARC property located at Old Country Road, Westhampton, New York. In accordance with this resolution the SCDHS, Division of Environmental Quality, Office of Pollution Control (OPC), and Office of Water Resources conducted a preliminary environmental assessment of BOMARC. On December 5, 2019, Suffolk County was notified by the New York State Department of Environmental Conservation (NYSDEC) that the BOMARC site was being considered a potential inactive hazardous waste disposal site. This was based in part upon data collected by SCDHS as part of the preliminary environmental assessment. The SCDHS has begun a discussion on next steps with the NYSDEC, including evaluating other potential PFAS sources of concern in the vicinity, including a former drag race strip, the former Westhampton Landfill, possible foam use related to the Pine Barrens Wildfires of 1995, and local sewage treatment plants.

The property (Suffolk County Tax map numbers 0900-331.00-01.00-1.1 and 0900-331.00-01.00-2 through 15) currently has thirteen commercial buildings, (58) former missile silos, a shooting range, a power plant, several acres of vehicle storage and multiple acres of undeveloped land. The subject property is currently in use by the Suffolk County (SC) Police Department, SC Sheriff's Department, SC Department of Public Works (DPW), and various tenants for multiple uses. The site currently has ten occupied buildings. A map of the site indicating the occupied buildings, along with a listing of all the site buildings, is included in Appendix G. The site is bordered by a former landfill, which is now a Town of Southampton transfer station for compost; a salt storage barn and a rifle range just east of the BOMARC property; a former drag racing strip which is now the Westhampton Pines development to the west; undeveloped Pine Barrens to the north; and residential homes, and assisted living facility and nursing home and rehabilitation center are located to the south.

A field inspection of BOMARC was performed by OPC in October 2018. Inspection of the entire property was not pursued, as many of the undeveloped acres were not easily accessible by vehicle or on foot. A review of all records for this site contained within the SCDHS Office of Pollution Control was conducted as part of this preliminary environmental assessment.

Records Review

Site History

The subject property consists of approximately 90 developed acres. The remaining acreage is undeveloped. The property occupies Suffolk County Tax Map Numbers: 0900-331.00-01.00-1.1 and 0900-331.00-01.00-2 through 15.

The site is a former military complex that is currently owned by Suffolk County and is used for multiple purposes. Based on the review of the available historical data beginning with the late 1940's, the facility was constructed in Westhampton in 1957 by the US Military and was occupied by the 6th Air Defense Missile Squadron of the US Air Force Air Defense Command and was known as the Suffolk BOMARC (BOMARC – Boeing Michigan Aeronautics Research Center) Base. The primary purpose of the base was to defend the US from enemy aircraft. The facility housed such missiles known as the BOMARC A. The BOMARC A was a Surface-to-Air Cruise Missile (SAM) with a length of 46 feet and armed with a 10-Kiloton nuclear warhead. The facility housed 58 missiles within individual silos; none of the missiles were launched (Figure 1). In 1964, technicians removed their nuclear tips and dismantled the weapons. The military activities ceased in 1969.

There are thirteen buildings on the site. The Suffolk County Police Department (SCPD) primarily uses the location for the storage of vehicles damaged in accidents and needed for evidentiary purposes (approximately 2500 to date). In addition, the site is used by Suffolk County as a police training facility, motor vehicle impound lot, fireworks disposal site, rifle/pistol range, Sheriff's training facility, government archives storage and by various tenants for multiple purposes (Figure 2). The Town of Southampton operates a transfer station for compost, a salt storage barn and a rifle range just east of the BOMARC property; a former drag racing strip which is now the Westhampton Pines development to the west; undeveloped Pine Barrens to the north; and residential homes, and assisted living facility and nursing home and rehabilitation center are located to the south.

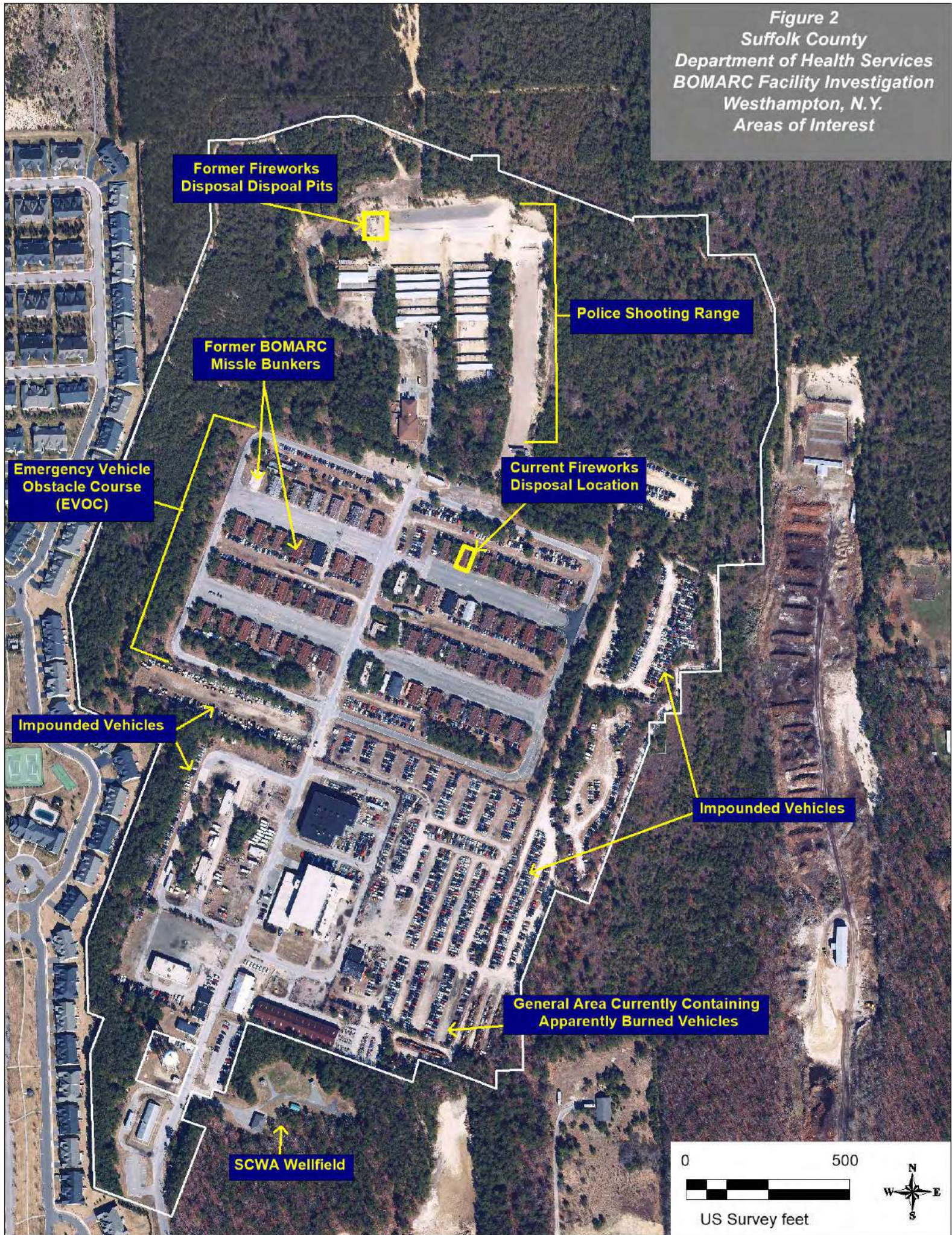
A cursory database search and review of the Office of Pollution Control's records revealed the following environmental history of the BOMARC site.

- 1998. SCWA advises SCDHS that two public water supply wells at BOMARC Westhampton are contaminated with perchlorate. Product is often found in fireworks. SCPD has a fireworks disposal area on site, up gradient of the wells.
- 1998. Monitoring wells placed adjacent to the SCPD fireworks burning pit/disposal site identified the pit as a point source of perchlorate contamination.

Figure 1
Suffolk County
Department of Health Services
BOMARC Facility & Vicinity - 1962
Westhampton, N.Y.



Figure 2
Suffolk County
Department of Health Services
BOMARC Facility Investigation
Westhampton, N.Y.
Areas of Interest



Engineering recommendations were established to control rainwater from infiltrating the burning pits and contaminated liquids from exiting the pits. Removal and proper disposal of existing residue from the pits occurred in 1999.

- As of 2011, there were approximately 13 buildings located on the site. Many of the buildings use a site wide sanitary system although independent sanitary systems are also present. In general, based on past site use, the sanitary systems are considered potential areas of environmental concern.
- The site is primarily used by the SCPD for evidentiary vehicle storage. The storage of compromised vehicles on exposed surface soils poses potential environmental concerns.
- Also on the site are a power plant, pistol and rifle range, and emergency vehicle training area. The presence of a rifle/pistol range is considered a potential area of environmental concern due to residual lead from spent bullets.
- Interior floor drains have been identified in multiple buildings. These floor drains are potential areas of environmental concern based on past activities.
- 2012. Interior floor drain investigation, remediation and closure occurred for Building 205 on-site under the direction of OPC. Contaminants of concern included petroleum compounds, arsenic and chromium in soil.
- A total of 43 storage tanks have been registered with the County. Twelve of these tanks are still in use. Historical tank contents include fuel oil, gasoline, diesel, acid waste and jet fuel.
- A record review by the Office of Wastewater Management indicated that the file for the SCPD Rifle Range building, 905-305-1-1 (C09-97-0020 inactive), was to be microfilmed but was destroyed in error in 2016.

Interviews

Several persons with specialized knowledge of the site were interviewed by OPC during the October 2018 site inspection. Key personnel were able to provide insight into the heating systems formerly and currently in use, the storage of toxic and hazardous materials on site and the areas where such materials were located (e.g. Underground Storage Tanks for fuel oil). Information concerning the types of materials stored within the silos and the tenants occupying the silos was provided as needed. Information was shared by workers knowledgeable of the fireworks destruction areas and the former methods utilized to perform this task, including institution of the engineering controls put in place as a corrective action. These interviews were valuable in identifying areas for targeted soil and groundwater sampling.

Aerial Surveys

Aerial photo from 1947 shows no development on site and land is forested. A 1962 photo shows the site built-out with the larger building complex to the south and the smaller missile silos to the north. The photo also shows two strips of cleared forest oriented in a north/south direction: one that bisects the site and another to the east (Figure 1). A photo

from 1977-1978 shows cleared forest and development of the current shooting range; as well as the appearance of many stored automobiles around the site.

A 1984 aerial shows a clearing of woods with no development northeast of the missile silos. The SCPD building associated with the shooting range appears between the missile silos and the range on a 2001 aerial. The 2001 aerial also depicts the absence of the large round bulk oil storage tank.

Recognized Environmental Conditions

Asbestos-Containing Materials, Lead -Based Paint and Mold

Asbestos had been documented on-site and properly removed from several buildings. It is likely that Asbestos-Containing Materials (ACM) still exist on site; however, (OPC) records do not indicate which buildings or what materials may contain asbestos. The following summarizes asbestos related records that exist in OPC files.

Asbestos abatement was performed in the following years: 1988, 1989, 1991, 1993, 1996, and 1997. Abatement occurred in the following buildings: C- 203, 204, 207, 209, 215, 259, 261 and 264. Abatement consisted primarily of removal of asbestos containing pipe insulation. Ambient air sampling was performed by private contractors during these events and overseen by SCDPW and SCDHS.

In 1991, an asbestos survey for building C-200 was conducted by Anson Environmental. Nine samples were collected which showed negative results but the floor tiles were not sampled because “all floor tiles are assumed to contain asbestos.”

Potential asbestos containing floor tiles were identified in several of the buildings during the site inspection conducted by OPC in October 2018.

Potential lead based paint (LBP) on the wall and ceiling surfaces and piping were identified in several of the buildings during the site inspection conducted by OPC in October 2018.

Mold was noted by visual and olfactory identification in several buildings during the site inspection performed by OPC in October 2018.

Hazardous Material Storage (HMS)

The OPC hazardous materials storage database has 43 historic tank records for the BOMARC property. As of October 2018, the database indicates twelve active tanks on-

site, which were last inspected by OPC in 2017. Eight of these twelve tanks are 275-gallon aboveground storage tanks. One above ground storage tank (AST) containing heating oil, and one 275-gallon AST containing diesel fuel, are located indoors. In addition, three underground storage tanks (USTs) constructed of double wall fiberglass and ranging from 1,000 to 4,000 gallons in volume, are in use on-site.

The remaining 32 tanks were removed, although six tanks were removed without OPC oversight. Fourteen USTs were removed in 1989 and included four 10,000-gallon acid tanks, and ten jet fuel tanks ranging from 5,000-15,000 gallons in volume. A large 840,000-gallon steel AST used for the storage of fuel oil for the power plant existed on site from 1960-1996. The removal of this AST was not documented.

Some of the removed tanks, which were removed, have records indicating whether spillage was noted during removal. The tank removal reports noted no spills for tanks identified in the OPC tank database as numbers 1, 15, and 23. Respectively, these tank numbers represented a 15,000-gallon steel fuel oil UST, 12,000-gallon double wall fiberglass gasoline UST, and a 2,000-gallon steel waste oil UST.

In 1982, an OPC inspection revealed the improper storage of 55-gallon drums of pesticides in missile silos located in Buildings C-274 and 276. OPC files contained correspondence with the facility operator regarding modifying the silo to be compliant with sanitary code requirements because the facility intended to store numerous 55-gallon drums of pesticides. The pesticides (Telone II, Methyl Bromide, Vortex and Vapam) were stored by the US Department of Agriculture who leased the buildings for storage.

Spills and Reports of Site Contamination

This section provides a summary of reports, in chronological order, of spills or other evidence of contamination that may be related to the BOMARC site.

One on-site petroleum spill was reported to have occurred in 1983 when two 15,000 gallon steel fuel oil UST's were found to be leaking. Correspondence between SCDHS Office of Water Resources (OWR) and the SCDPW indicated the removal of the tanks as a first step towards the protection of groundwater.

In 1983, the first trace of a volatile organic compound was detected in the SCWA public drinking water supply well #2 located adjacent to the BOMARC site. The sample contained 6 ppb of trichloroethene. No further information regarding this matter was located in the record.

A search of the NYSDEC Spills database indicated a spill report number NY9313664 generated on February 21, 1994. The spill was due to “human error” as a result of a fill port for an out-of-service tank being broken by a snowplow and subsequently allowing rainwater to enter the fill port. The rainwater displaced petroleum contaminated water onto the ground surface requiring the remediation of surface soils. Subsequent to the remediation, the tank was abandoned in place and the spill was closed by NYSDEC on June 2, 1994.

In 1998, the SCWA advised the SCDHS that two public drinking water supply wells adjacent to the BOMARC site were contaminated with perchlorate. The SCPD maintains a fireworks disposal area on-site behind the gun firing range, upgradient of the public water wells. Groundwater data from a monitoring well placed adjacent to the fireworks burning pit identified the site as a point source of perchlorate contamination. In 1999, a remediation of the fireworks burn pit area (soil excavation of 8-10 yards) was overseen by OPC. In 2000, engineering control recommendations were established to control contaminated liquid discharged from the pits. In 2002, a protocol for the disposal of fireworks ash was developed by SCDHS. During the October 2018 site inspection, it was reported by SCDPW personnel that the fireworks are incinerated in an area other than the original burn pits. No record of this change of location for the current fireworks disposal area exists in OPC files. A subsequent site visit in October 2018 revealed that the new burn pit area consists of two metal explosion-proof boxes that were placed inside of a former missile silo building (Building C-265). Interviews with SCPD, the sole users of the burn pits, provided updated information regarding the current disposal procedures. To the recollection of present staff, the original burn pits were last known to be used as of 12/31/12. As of March 2016, the “burn boxes”, consisting of 30,000 pounds of steel, were installed in Bunker 265. The burning of ordinance and explosive materials occurs infrequently. As such, residue from all materials that have been incinerated since 2016 has remained in either the burn box or the detonation bunker. Debris in the bunker consists mostly of incinerated paper and cardboard from the firework casings. Material within the burn box is primarily ash. No disposal of waste material from the incineration process has occurred since this method has been in place.

P.W. Grosser performed a Limited Phase II report dated January 30, 2014 on behalf of SCDPW. The report identified soils contaminated with VOCs (BTEX), SVOCs, arsenic, lead and chromium within the sanitary system and interior floor drains. Fenley & Nicol completed the remediation of the sanitary systems site-wide and interior floor drains under the direction of OPC.

Underground Injection Control Systems (UICs)

An Underground Injection Control System (UIC) (a USEPA designation for injection wells deeper than its surface width) is a term used to designate on-site underground disposal systems such as sanitary systems, storm drains, and industrial discharges. These are sometimes connected to interior floor drains or exterior catch basins.

Records in the OPC hazardous materials storage database depict several UIC systems on-site. Blueprint plans from the Air Force dated 1962 show several independent UIC systems. One septic tank (ST) and leaching pool (LP) is shown in the middle of the grid of the missile silo buildings, between building C-219 and C-218, with effluent piping shown exiting from building C-219. Power plant building C-215 is shown to have a basement drain leading to an oil/water separator; however, the final discharge point is not shown. Buildings C-200 and C-207 appear to have independent sanitary leaching pools.

The blueprint shows the site-wide shared sanitary system south of buildings C-202 and 204 and west of the water tower, and consists of four leaching pools. Hazardous material storage locations adjacent to buildings C-206, C-216, and C-210 are shown to have two UIC systems designed to manage spills. These two systems consist of pits assumed to be cement with associated leaching pools.

A site map from 2012 by P.W. Grosser depicts several UIC features such as septic tanks, cesspools, storm drains, water drains, floor drains, and a structure referred to as an abandoned 'motor vehicle disposal well.' The main site-wide shared sanitary system appears identical to that depicted on the 1962 plans with the leaching pools shown west of the water tower. The police building at the shooting range is shown to have an independent septic tank and leaching pools. Building C-200 is shown to have an independent cesspool. An 'industrial drainage well' (per P.W. Grosser) is shown associated with building C-215. Several storm drains are shown at the shooting range area, near building C-561, and near the southwest corner of building C-209.

Site Inspection Results

OPC staff performed a site inspection in October 2018. Findings are described below.

- **Military /Enforcement Use of the Property:** The subject property has been in use as a government facility, for military and law enforcement, for approximately six decades. Past military practices included disposal of hazardous materials, including gasoline, diesel, motor oil, products containing petroleum, solvents, lead-containing batteries and paints, and various other chemicals. The use by law enforcement personnel has included the destruction of fireworks containing perchlorate.

- The BOMARC missile site is associated with the storage of Surface-to-Air Missiles (SAMs) containing nuclear warheads. The historic presence of a military base on the subject property and current use for law enforcement purposes represents a possible source of contamination to the local soils and groundwater.
- **Surface Staining:** Large and small isolated areas of black staining were observed on the asphalt, concrete and soil surfaces throughout the developed areas of the subject property. Much of the staining appears to be due to the storage and staging of vehicles in these areas. Apparently, the vehicles stored are for evidentiary purposes resulting from theft and most often collisions. If not properly contained, any automotive liquids released to the ground surface can enter surrounding soils or storm water drainage structures through storm water runoff. Approximately one dozen storm water drains were observed on site. These structures, also classified as Underground Injection Controls (UICs) are often a source of contamination from surface discharges.
- **Underground Injection Controls (UICs):** These areas of concern include on-site sanitary and storm-water leaching systems, and interior floor drains. Based upon recent site inspection and the review of department records there are believed to be an estimated 2-3 dozen sanitary, storm drain and interior floor drain UICs present. Additional subsurface overflow pools may also exist.
- **In-Ground Hydraulic Lifts:** The subject site has a building containing in-ground hydraulic lift(s) within the garage/bay area. The equipment associated with the lift(s) appears to be old and possibly installed at the time of the construction of the building; circa 1950's. Subsurface soils and groundwater may have been affected by petroleum products leaking from the in-ground hydraulic lift(s).
- **Potential Asbestos-Containing Material(ACM):** The original age of the buildings on the subject site (1950's) indicates that potential-ACM may be present in both exposed and unexposed building construction materials and components, particularly in older, un-renovated portions of the buildings.
- **Potential Lead-Based Paint (LBP):** Based on the age of the buildings on the subject site, (1950's), the potential exists for the presence of lead paint in the under layers of paint throughout older, un-renovated portions of the buildings. Both the exterior and interior of the buildings may contain LBP.
- **Mold:** Based on the age of the subject buildings (1950's) and the dilapidated condition, including flooding of several structures, the presence of mold in several structures was noted and may be present in others.
- **Polychlorinated biphenyls (PCBs):** Since the original age of the buildings on the subject property (1950's) pre-dates the federal ban on the manufacture of PCBs in the 1970's, it is possible that any older hydraulic and/or electrical equipment (e.g. fluorescent light ballasts) and other building materials (e.g. caulking, ceiling tiles, adhesives) within older, un-renovated portions of the buildings have PCB-containing components. There is at least one known building on site with hydraulic lifts.
- **Petroleum Storage Tanks:** Active and removed aboveground storage tanks (ASTs) and underground storage tanks (USTs) were identified throughout the subject site. The potential for leaking tanks, spills and overfilling exists with these tanks. Considering the many decades of site operation and the storage of petroleum products on site during this

time, subsurface soils and groundwater may have been affected by products leaking from these tanks.

- **Shooting Range:** Shooting ranges typically have lead in surface soils from the spent bullets. Since this site has had a shooting range for many years, there is a potential for lead to be found in the soil.
- **Burn Pits for Destruction of Fireworks:** Fireworks are known to contain perchlorate. Perchlorate has been identified as a contaminant at this site during a previous groundwater investigation. Due to the destruction of fireworks at this site until 2012, and the potential for the discharge of “waste ash” from the destruction of fireworks, both soil and groundwater may be contaminated.
- **Detonation Bunker for Fireworks:** Fireworks incineration occurring in this location has the potential of creating ash debris. The ash has the potential to contain contaminants that may adversely impact both the nearby soil and groundwater.

Soil Sample Collection Event

A total of 25 soil samples were collected from various environmental points of interest. “Grab” samples (discrete samples) were collected from the surface and each UIC structure. A composite sample (mixed from several locations) was collected from a grouping of four storm water drywells (sample S-9). All samples were analyzed for volatile (VOC), semi-volatile organic compounds (SVOC) and heavy metals. Some of the samples were analyzed for PCB’s, pesticides and radiological. Samples were preserved with ice and transported with proper chain-of-custody to the Suffolk County Public Environmental Health Lab (PEHL). Refer to Figure 3a and 3b for all subsurface UIC and surface soil sample locations and Appendix B for photo documentation.

Subsurface soil results were compared to the County Standard Operating Procedure (SOP) No.9-95 “Pumpout and Soil Cleanup Criteria”. SOP No.9-95 contains action levels and cleanup objectives for UICs with respect to VOCs, SVOCs and heavy metals. When the concentration of a contaminant in a UIC equals or exceeds the “Action Level”, a remediation of the impacted structure is required. Remaining soil must be below the contaminant’s “Cleanup Objective” or additional remediation will typically be required.

SOP 9-95 cleanup standards were developed primarily for subsurface discharges and only consider impact on groundwater resources. Direct contact was not considered in the development of these standards so SOP 9-95 is not typically used for analysis of surface soil samples. Surface soil results were compared to the Soil Cleanup Objectives found in 6NYCRR Part 375 (see Appendix C).

The soil-sampling event was limited in nature and targeted toward areas of potential contamination identified during the records review and site inspection. Only those UIC

structures that were accessible were sampled. Overflow leaching pools associated with interior floor drains, sanitary systems and storm-water drains that were not accessible may also exist and require additional investigation.

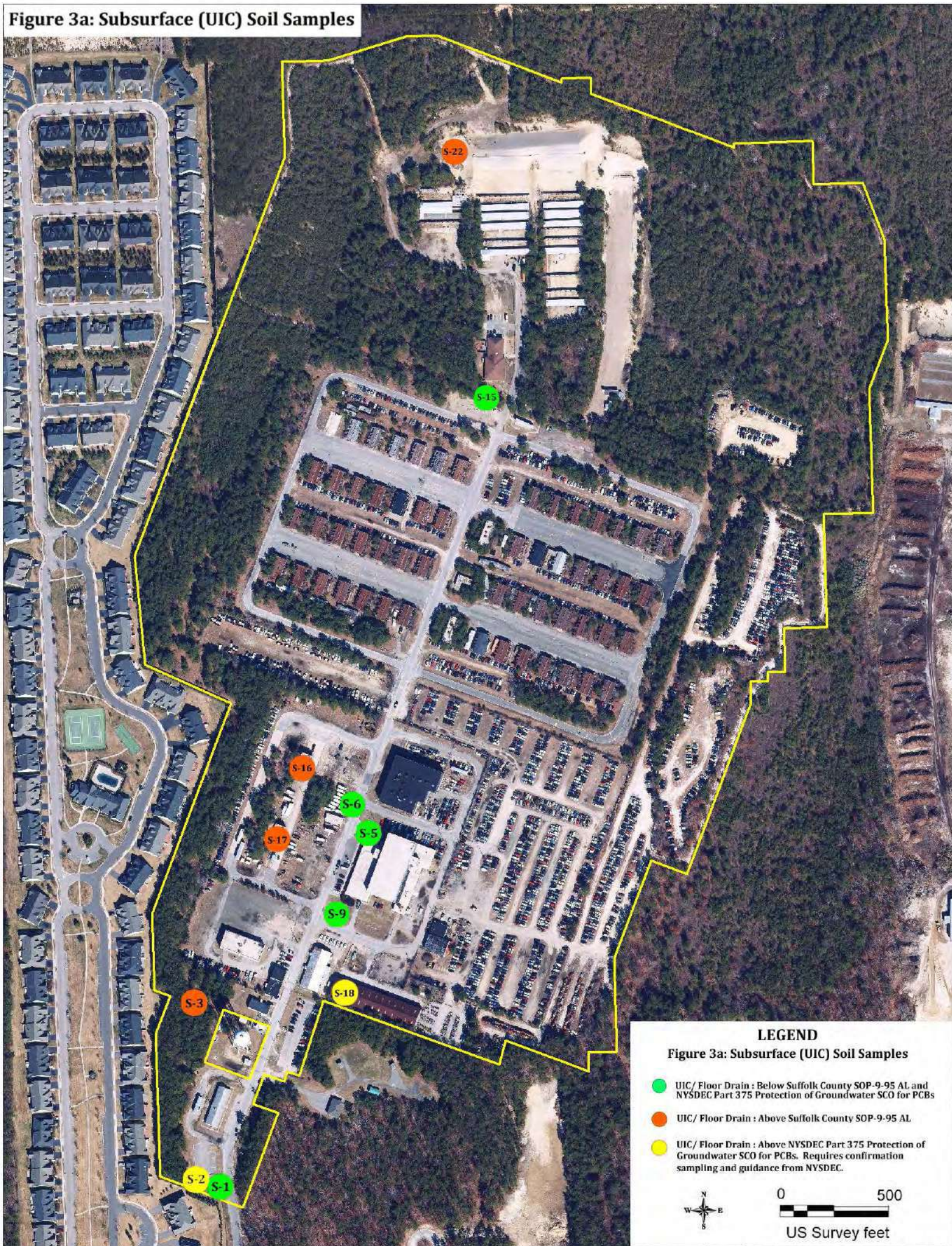
Subsurface UIC Soil Sample Results

Table 1, below, summarizes a comparison of each UIC sample to SCDHS SOP No.9-95. Results are shown as “BELOW” or “EXCEEDED”, with respect to their regulatory guidelines. A “BELOW” value indicates that no exceedance of an action level was detected. “EXCEEDED,” means one or more compounds were present over their respective action level, and a remediation of the structure would be required. Four of eleven UIC structures sampled had concentrations of VOCs, SVOCs and/or metals that exceeded Suffolk County standard SOP 9-95. There are no standards for PCBs in SOP 9-95. For UICs, PCB results were compared to the NYSDEC Part 375 “Protection of Groundwater” Soil Cleanup Objective (SCO). Samples from floor drains located in building CO206 and CO216 exceeded the SCO by several orders of magnitude (9,560,000 parts per billion (ppb) and 449,000 ppb, respectively, compared to the groundwater protection SCO of 3,200 ppb). Figure 3a provides subsurface soil sample locations and comparison to these standards.

Table 1: Sampling Summary, Underground Injection Controls, VOCs, SVOCs, Heavy Metals, PCBs						
Sample ID	UIC Description, Location	Suffolk County SOP-9-95			Part 375 PCBs	Disposition
		VOCs	SVOCs	Metals		
S-1	storm-water drywell, south parking lot	BELOW	BELOW	BELOW	BELOW	No remediation based upon SOP-9-95
S-2	storm-water drywell, south parking lot	BELOW	BELOW	BELOW	EXCEEDED	No remediation based upon SOP-9-95
S-3	sanitary septic tank, south wooded area	EXCEEDED	BELOW	BELOW	N/A	Remediation required
S-5	storm-water drywell, bldg C0209	BELOW	BELOW	BELOW	N/A	No remediation based upon SOP-9-95
S-6	storm-water drywell, bldg C0209	BELOW	BELOW	BELOW	N/A	No remediation based upon SOP-9-95
S-9	storm-water drywell composite, grass area	BELOW	BELOW	BELOW	N/A	No remediation based upon SOP-9-95
S-15	cesspool, firing range bldg C0960	BELOW	BELOW	BELOW	N/A	No remediation based upon SOP-9-95
S-16	floor drain, bldg C0216	EXCEEDED	EXCEEDED	EXCEEDED	EXCEEDED	Remediation required
S-17	floor drain, bldg C0206	BELOW	EXCEEDED	EXCEEDED	EXCEEDED	Remediation required
S-18	floor drain, bldg C0205	BELOW	BELOW	BELOW	EXCEEDED	No remediation based upon SOP-9-95
S-22	former fireworks burn pit	EXCEEDED	BELOW	EXCEEDED	EXCEEDED	Remediation required
BELOW = No values detected over SOP-9-95 action levels OR Part 375 Protection of Groundwater						
EXCEEDED = Values detected over SOP-9-95 action levels OR Part 375 Protection of Groundwater						
N/A = Not analyzed						

Principal contaminants found in the UIC samples above SOP-9-95 cleanup criteria include benzene, xylene, chrysene, trimethylbenzene, methyl ethyl ketone, cadmium, chromium, barium, copper and lead.

Figure 3a: Subsurface (UIC) Soil Samples



Surface Soil Sample Results

Table 2, below, summarizes results of surface soil samples to NYSDEC Part 375. The “Unrestricted Use” SCO was used as a baseline. Please refer to Table 4 for the pesticide surface soil results. A “BELOW” value indicates all parameters meet the Unrestricted Use SCO. “EXCEEDED” means one or more parameters exceed the Unrestricted SCO. In instances where the “Unrestricted Use” SCO was exceeded, the Part 375 restricted land use that was met is indicated in the “Comment” column of Table 2 as a measure of the degree of contamination. It should be noted that the Unrestricted Use SCO was used for comparison purposes only and does not necessarily indicate that remediation is required. This initial comparison does not take into account current site use and does not reflect an evaluation of potential exposures to workers on-site.

Figure 3b depicts surface soil locations above an Unrestricted Use SCO. While it is unknown at this time which SCOs will be appropriate for determining remedial actions, Protection of Groundwater SCOs typically apply to all sites in Suffolk County. Commercial Use SCOs may be reflective of current use. Therefore, surface soil samples that exceeded Protection of Groundwater SCOs or Commercial Use SCO are also shown on Figure 3b.

It should be noted that the sample sites selected were targeted as areas of potential contamination and are not representative of the entire site. Of these six elevated samples, one was an ash sample from the new fireworks burn box, three were soil samples from the shooting range, one was from stained soil adjacent to an aboveground tank, and one was from soil adjacent to a concrete pad suspected of previous hazardous material storage. Elevated concentrations of contaminants in these samples could be expected.

Further investigation and evaluation will be required in order to determine appropriate remedial actions. This will be determined with guidance from New York State Department of Health (NYSDOH) and after consultation with NYSDEC.

Metals, principally lead, were elevated in surface soils at the firing range. This is not unusual and occurs as a function of the normal operation of the range. Therefore, these soils are not considered hazardous waste as long as the range remains active. Suffolk County Police Officers on-site take precautions to limit exposure to shooting range dust and are routinely monitoring for blood lead levels.

Principal contaminants found in the surface soil samples above Part 375 cleanup criteria include PCBs, lead, xylene, chrysene, barium and arsenic.

Figure 3b: Surface Soil Samples

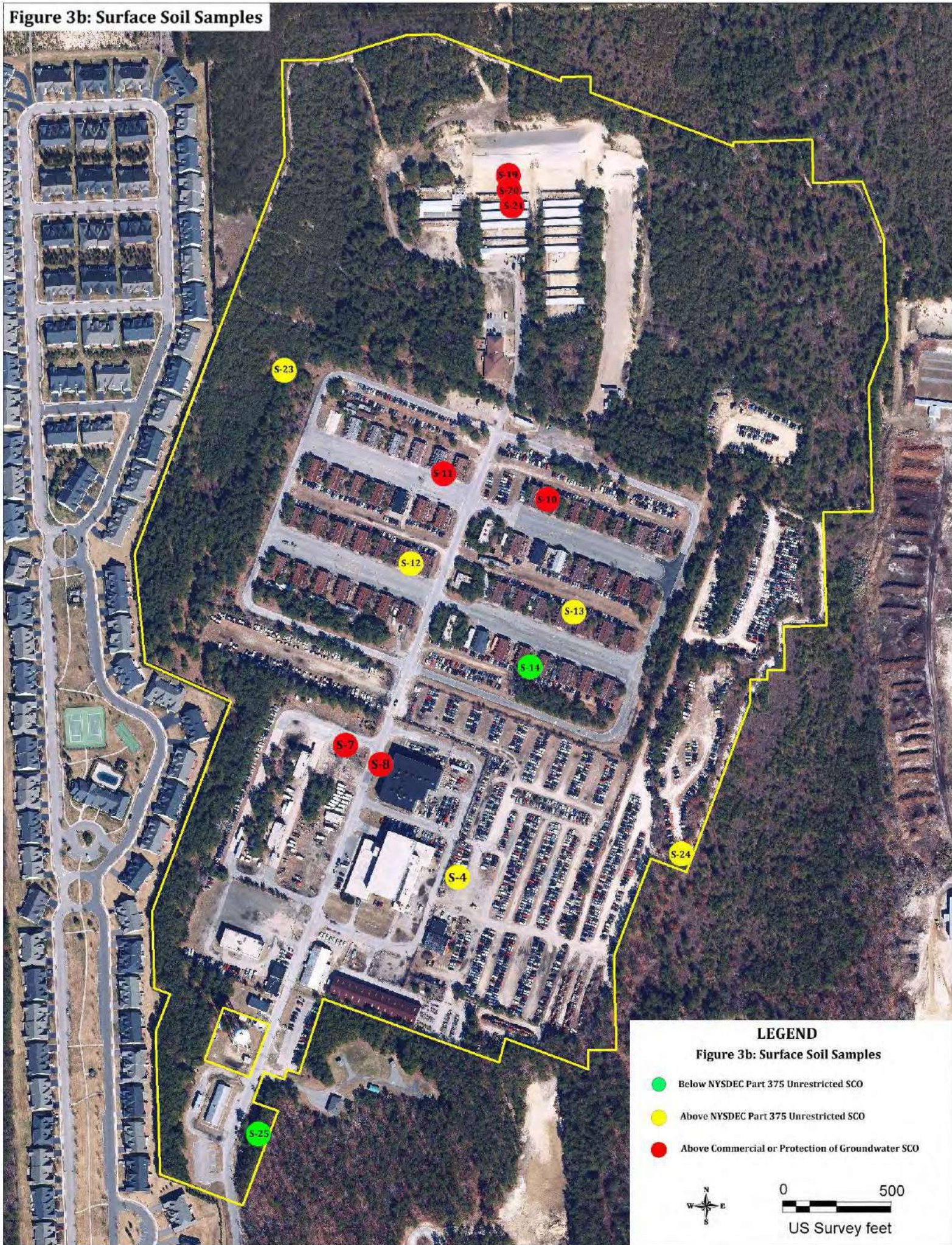


Table 2: Sampling Summary, Surface Soils, VOCs, SVOCs, Heavy Metals, PCBs

Sample ID	Surface Sample Description, Location	Part 375 Unrestricted				Comment
		VOCs	SVOCs	Metals	PCBs	
S-4	surface sample, gasoline storage area	BELOW	BELOW	EXCEEDED	BELOW	Meets Part 375 Residential
S-7	surface sample, bldg C0210	EXCEEDED	BELOW	EXCEEDED	EXCEEDED	Meets Part 375 Industrial
S-8	surface sample, bldg C0215	BELOW	EXCEEDED	BELOW	EXCEEDED	SVOCs Exceed all PART 375 standards
S-10	fireworks burn box, silo 265	BELOW	BELOW	EXCEEDED	N/A	Meets Part 375 Industrial
S-11	surface sample, s/w corner of silo 261	BELOW	EXCEEDED	EXCEEDED	EXCEEDED	Meets Part 375 Restricted Res.
S-12	surface sample, between silos 231 & 233	BELOW	BELOW	BELOW	EXCEEDED	Meets Part 375 for Residential
S-13	surface sample, between silos 243 & 245	BELOW	BELOW	BELOW	EXCEEDED	Meets Part 375 for Residential
S-14	surface sample, s/w corner of silo 242	BELOW	BELOW	BELOW	BELOW	Meets Part 375 for Unrestricted
S-19	surface, firing range-front wall	BELOW	BELOW	EXCEEDED	EXCEEDED	Metals Exceed all PART 375 standards
S-20	surface, firing range-ground	BELOW	BELOW	EXCEEDED	EXCEEDED	Meets Part 375 Industrial
S-21	surface, firing range-rear collection point	BELOW	BELOW	EXCEEDED	EXCEEDED	Meets Part 375 Industrial
S-23	surface, west point	BELOW	BELOW	BELOW	N/A	Meets Part 375 for Unrestricted
S-24	surface, east point	BELOW	BELOW	BELOW	N/A	Meets Part 375 for Unrestricted
S-25	surface, south point	BELOW	BELOW	BELOW	N/A	Meets Part 375 for Unrestricted

BELOW = All analyte concentrations are below PART 375 standards for UNRESTRICTED USE

EXCEEDED = Analyte concentrations are present above PART 375 standards for UNRESTRICTED USE

N/A = Not analyzed.

Heavy metals analyses for surface soil samples have been adjusted to “dry weight” in order to compare to Part 375 values. This data is included in Appendix D.

- Supplemental PCB Surface Soil Sampling

Based upon review of the initial PCB data resulting from the April/May 2019 testing, SCDHS determined additional investigation was warranted due to the presence of PCBs in surface soils. These samples were collected in December 2019.

The sampling scope primarily focused on further evaluation of the firing ranges and an area south of the firing range where automobiles were being stored. Seventy samples were obtained from two grids in these areas, and were only analyzed for the presence of PCBs. Three of the seventy samples were obtained at a deeper interval (6-8 inches from surface). Refer to the site figures below for all grid sample locations.



PCB concentrations were generally low or non-detect within the surface grids. The PCB levels detected in the pistol range were significantly lower than those found in the samples taken in the April/May 2019 testing. Results from the initial and supplemental soil sampling are summarized in Table 3, below. The sample IDs have the prefix “S” for the initial sampling round and “SS” for the supplemental sampling round. All positive detections are in red. Analytical laboratory reports for this supplemental sampling effort are included in Appendix E.

Table 3 –PCB Surface Soil and UIC Sampling Results

Sample ID	Date Collected	Sample Location	Sample Type	PCBs, parts per billion							PCB, Total
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	
S1	4/30/2019	south parking lot	storm drain, UIC	<44.8	<91.0	<44.8	<44.8	<44.8	49.1	<44.8	49.1
S2	4/30/2019	south parking lot	storm drain, UIC	<683	<1390	<683	<683	<683	4300	<683	4300
S4	4/30/2019	gas storage area	surface soil	<37.7	<76.6	<37.7	<37.7	<37.7	<37.7	<37.7	<76.6
S7	4/30/2019	parking lot, bldg C0210	surface soil	<765	<1550	<765	<765	<765	6310	<765	6310
S8	4/30/2019	concrete pad, bldg C0215	surface soil	<36.2	<73.4	<36.2	125	<36.2	193	105	317
S11	4/30/2019	silo 261	surface soil	<44.5	<90.4	<44.5	<44.5	<44.5	433	<44.5	433
S12	4/30/2019	silo 231/233	surface soil	<35.9	<72.8	<35.9	<35.9	<35.9	337	<35.9	337
S13	4/30/2019	silo 243/245	surface soil	<38.3	<77.8	<38.3	<38.3	<38.3	168	<38.3	168
S14	4/30/2019	silo 242	surface soil	<35.9	<72.9	<35.9	<35.9	<35.9	<35.9	<35.9	<72.9
S16	5/1/2019	bldg C0216, floor drain	soil, UIC	<41400	<84100	<41400	<41400	<41400	449000	<41400	449000
S17	5/1/2019	bldg, C0206 floor drain	soil, UIC	<1200000	<2440000	<1200000	<1200000	<1200000	9560000	<1200000	9560000
S18	5/1/2019	bldg C0205, floor drain	soil, UIC	<3440	<6990	<3440	<3440	<3440	7110	<3440	7110
S19	5/1/2019	firing range, front wall	surface sand	<1730	<3510	<1730	<1730	<1730	10900	<1730	10900
S20	5/1/2019	firing range, ground	surface sand	<1730	<3520	<1730	<1730	<1730	10500	<1730	10500
S21	5/1/2019	firing range, rear	surface soil	<699	<1420	<699	<699	<699	5640	<699	5640
S22	5/1/2019	former firewoks burn pit	sludge	<871	<1770	<871	<871	<871	6070	<871	6070
SS1	12/30/2019	Hogans Alley	surface soil	<33.3	<67.5	<33.3	<33.3	<33.3	<33.3	<33.3	<67.5
SS2	12/30/2019	Hogans Alley	surface soil	<32.8	<66.5	<32.8	<32.8	<32.8	<32.8	<32.8	<66.5
SS3	12/30/2019	firing range	surface soil	<35.6	<72.3	<35.6	<35.6	<35.6	<35.6	<35.6	<72.3
SS4	12/30/2019	firing range	surface soil	<36.4	<73.8	<36.4	<36.4	<36.4	<36.4	<36.4	<73.8
SS5	12/30/2019	rifle range	surface soil	<35.6	<72.2	<35.6	<35.6	<35.6	<35.6	<35.6	<72.2
SS6	12/30/2019	rifle range	surface soil	<36.9	<74.9	<36.9	<36.9	<36.9	<36.9	<36.9	<74.9
SS7	12/30/2019	rifle range	surface soil	<36.6	74.3	<36.6	<36.6	<36.6	<36.6	<36.6	74.3
SS8	12/30/2019	rifle range	surface soil	<39.7	<80.6	<39.7	<39.7	<39.7	<39.7	<39.7	<80.6
SS9	12/30/2019	rifle range	surface soil	<37.5	<76.1	<37.5	<37.5	<37.5	<37.5	<37.5	<76.1
SS10	12/30/2019	sniper range	surface soil	<36.9	<75.0	<36.9	<36.9	<36.9	<36.9	<36.9	<75.0
SS11	12/30/2019	sniper range	surface soil	<38.2	<77.7	<38.2	<38.2	<38.2	<38.2	<38.2	<77.7
SS12	12/31/2019	sniper range	surface soil	<37.5	<76.2	<37.5	<37.5	<37.5	50.2	<37.5	50.2
SS13	12/31/2019	sniper range	surface soil	<37.9	<77.0	<37.9	<37.9	<37.9	49.7	<37.9	49.7
SS14	12/31/2019	sniper range	surface soil	<35.4	<71.9	<35.4	<35.4	534	<35.4	<35.4	534
SS15	12/31/2019	sniper range	surface soil	<36.9	<74.9	<36.9	<36.9	<36.9	55.4	<36.9	55.4
SS16	12/31/2019	sniper range	surface soil	<36.6	<74.3	<36.6	<36.6	<36.6	<36.6	<36.6	<74.3
SS17	12/31/2019	sniper range	surface soil	<36.2	<73.4	<36.2	<36.2	<36.2	40.2	<36.2	40.2
SS18	12/31/2019	sniper range	surface soil	<36.2	<73.5	<36.2	<36.2	<36.2	<36.2	<36.2	<73.5
SS19	12/31/2019	sniper range	surface soil	<37.7	<76.5	<37.7	<37.7	<37.7	41.9	<37.7	41.9
SS20	12/31/2019	firing range	surface soil	<34.8	<70.6	<34.8	<34.8	<34.8	<34.8	<34.8	<70.6
SS21	12/31/2019	firing range	surface soil	<34.9	<70.8	<34.9	<34.9	<34.9	<34.9	<34.9	<70.8
SS22	12/31/2019	firing range	surface soil	<34.8	<70.7	<34.8	<34.8	<34.8	<34.8	<34.8	<70.7
SS23	12/31/2019	firing range	surface soil	<34.8	<70.7	<34.8	<34.8	<34.8	<34.8	<34.8	<70.7
SS24	12/31/2019	firing range	surface soil	<35.0	<71.0	<35.0	<35.0	<35.0	<35.0	<35.0	<71.0
SS25	12/31/2019	firing range	surface soil	<34.8	<70.7	<34.8	<34.8	<34.8	<34.8	<34.8	<70.7
SS26	12/31/2019	firing range	surface soil	<35.0	<71.0	<35.0	<35.0	<35.0	<35.0	<35.0	<71.0
SS27	12/31/2019	firing range	surface soil	<35.0	<71.0	<35.0	<35.0	<35.0	<35.0	<35.0	<71.0
SS28	12/31/2019	firing range	surface soil	<34.2	<69.3	<34.2	<34.2	<34.2	<34.2	<34.2	<69.3
SS29	12/31/2019	firing range (repeat from 5/1/19)	surface soil	<34.5	<70.0	<34.5	<34.5	<34.5	<34.5	<34.5	<70.0
SS29B	12/31/2019	firing range (2nd depth)	surface soil	<33.7	<68.3	<33.7	<33.7	<33.7	<33.7	<33.7	<68.3
SS30	12/31/2019	firing range	surface soil	<34.8	<70.7	<34.8	<34.8	<34.8	<34.8	<34.8	<70.7
SS31	12/31/2019	firing range	surface soil	<34.7	<70.4	<34.7	<34.7	<34.7	<34.7	<34.7	<70.4
SS32	12/31/2019	firing range	surface soil	<34.8	<70.6	<34.8	<34.8	<34.8	<34.8	<34.8	<70.6
SS33	12/31/2019	firing range	surface soil	<34.3	<69.6	<34.3	<34.3	<34.3	<34.3	<34.3	<69.6
SS34	12/31/2019	firing range	surface soil	<36.2	<73.5	<36.2	<36.2	<36.2	<36.2	<36.2	<73.5
SS35	12/31/2019	firing range	surface soil	<34.4	<69.7	<34.4	<34.4	<34.4	<34.4	<34.4	<69.7
SS36	12/31/2019	rifle range	surface soil	<34.1	<69.3	<34.1	<34.1	<34.1	<34.1	<34.1	<69.3
SS37	12/31/2019	rifle range	surface soil	<34.8	<70.6	<34.8	<34.8	<34.8	<34.8	<34.8	<70.6
SS38	12/31/2019	rifle range	surface soil	<34.6	<70.3	<34.6	<34.6	<34.6	<34.6	<34.6	<70.3
SS39	12/31/2019	rifle range	surface soil	<35.5	<72.0	<35.5	<35.5	<35.5	<35.5	<35.5	<72.0
SS40	12/31/2019	rifle range	surface soil	<36.0	<73.1	<36.0	<36.0	<36.0	<36.0	<36.0	<73.1
SS41	12/31/2019	rifle range	surface soil	<36.0	<73.2	<36.0	<36.0	<36.0	<36.0	<36.0	<73.2
SS42	12/31/2019	rifle range	surface soil	<34.5	<70.0	<34.5	<34.5	<34.5	<34.5	<34.5	<70.0
SS43	12/31/2019	rifle range (repeat from 5/1/19)	surface soil	<33.8	<68.7	<33.8	<33.8	<33.8	<33.8	<33.8	<68.7
SS43B	12/31/2019	rifle range (2nd depth)	surface soil	<34.6	<70.2	<34.6	<34.6	<34.6	<34.6	<34.6	<70.2
SS44	12/31/2019	rifle range	surface soil	<34.3	<69.6	<34.3	<34.3	<34.3	<34.3	<34.3	<69.6
SS45	12/31/2019	rifle range	surface soil	<34.4	<69.8	<34.4	<34.4	<34.4	<34.4	<34.4	<69.8
SS46	12/31/2019	rifle range	surface soil	<34.7	<70.4	<34.7	<34.7	<34.7	<34.7	<34.7	<70.4
SS47	12/31/2019	rifle range	surface soil	<33.4	<67.8	<33.4	<33.4	<33.4	<33.4	<33.4	<67.8
SS48	12/31/2019	firing range	surface soil	<33.3	<67.7	<33.3	<33.3	<33.3	<33.3	<33.3	<67.7
SS49	12/31/2019	firing range	surface soil	<34.0	<68.9	<34.0	<34.0	<34.0	<34.0	<34.0	<68.9
SS50	12/31/2019	firing range	surface soil	<33.4	<67.7	<33.4	<33.4	<33.4	<33.4	<33.4	<67.7
SS51	12/31/2019	auto storage	surface soil	<39.6	<80.4	<39.6	<39.6	<39.6	<39.6	<39.6	<80.4
SS52	12/31/2019	auto storage	surface soil	<36.1	<73.3	<36.1	<36.1	<36.1	57.6	<36.1	57.6
SS53	12/31/2019	auto storage	surface soil	<34.1	<69.3	<34.1	<34.1	<34.1	<34.1	<34.1	<69.3
SS54	12/31/2019	auto storage	surface soil	<37.8	<76.7	<37.8	<37.8	<37.8	45.0	<37.8	45.0
SS55	12/31/2019	auto storage	surface soil	<38.3	<77.7	<38.3	<38.3	<38.3	232	<38.3	232
SS56	12/31/2019	auto storage	surface soil	<39.6	<80.4	<39.6	<39.6	<39.6	56.6	<39.6	56.6
SS57	12/31/2019	auto storage	surface soil	<35.4	<71.9	<35.4	<35.4	<35.4	<35.4	<35.4	<71.9
SS58	12/31/2019	auto storage	surface soil	<41.3	<83.8	<41.3	<41.3	<41.3	<41.3	<41.3	<83.8
SS59	12/31/2019	auto storage	surface soil	<36.6	<74.4	<36.6	<36.6	<36.6	<36.6	<36.6	<74.4
SS60	12/31/2019	auto storage	surface soil	<37.5	<76.1	<37.5	<37.5	<37.5	<37.5	<37.5	<76.1
SS61	12/31/2019	auto storage	surface soil	<37.2	<75.5	<37.2	<37.2	<37.2	<37.2	<37.2	<75.5
SS62	12/31/2019	auto storage	surface soil	<37.7	<76.6	<37.7	<37.7	<37.7	<37.7	<37.7	<76.6
SS63	12/31/2019	auto storage	surface soil	<35.8	<72.6	<35.8	<35.8	<35.8	102	<35.8	102
SS64	12/31/2019	auto storage	surface soil	<36.8	<74.6	<36.8	<36.8	<36.8	164	<36.8	164
SS65	12/31/2019	auto storage	surface soil	<41.2	<83.7	<41.2	<41.2	<41.2	41.5	<41.2	41.5
SS65B	12/31/2019	auto storage (2nd depth)	surface soil	<35.8	<72.7	<35.8	<35.8	<35.8	<35.8	<35.8	<72.7
SS66	12/31/2019	bldg C0206 rear	surface soil	<43.4	<88.0	<43.4	<43.4	<43.4	<43.4	<43.4	<88.0
SS67	12/31/2019	bldg C0216 rear	surface soil	<387	<785	<387	<387	<387	2360	<387	2360

Pesticide and Radiological Analysis of Surface Soil

Due to historic use of the property, pesticides and radiological samples were also obtained from random locations throughout the site. Pesticide data were compared to NYSDEC Part 375 SCOs. Pesticide results are shown in Table 4, below. Sample locations with SCO exceedances are reflected in Figure 3b.

Table 4 - Pesticide Surface Sample Results

Pesticide	Unrestricted SCO (ppb)	Sample Results (ppb)						
		S-11	S-12	S-13	S-14	S-23	S-24	S-25
Aldrin	5	12.9	N/D	N/D	N/D	N/D	N/D	N/D
alpha-BHC	20	18	N/D	N/D	N/D	N/D	N/D	N/D
beta-BHC	36	31.1	N/D	N/D	N/D	N/D	N/D	N/D
delta-BHC	40	2.4	N/D	N/D	N/D	N/D	N/D	N/D
Lindane	100	28	N/D	N/D	N/D	N/D	N/D	N/D
Chlordane	94	N/D	N/D	N/D	N/D	N/D	N/D	N/D
4,4-DDD	3.3	38.4	N/D	N/D	N/D	N/D	N/D	N/D
4,4-DDE	3.3	183	13.6	N/D	N/D	N/D	N/D	N/D
4,4-DDT	3.3	200	9	5.2	N/D	N/D	5.3	N/D
Dieldrin	5	N/D	N/D	N/D	N/D	19.3	N/D	N/D
Endosulfan I	2,400	N/D	N/D	N/D	N/D	N/D	N/D	N/D
Endosulfan II	2,400	N/D	N/D	N/D	N/D	20.7	N/D	N/D
Endosulfan Sulfate	2,400	295	N/D	N/D	N/D	N/D	N/D	N/D
Endrin	14	38.8	N/D	N/D	N/D	17.4	N/D	N/D
Heptachlor	42	7.8	N/D	N/D	N/D	N/D	N/D	N/D

Note: N/D indicates "Not Detected"

Analytical data for radiological parameters are included in Appendix E. All radiological detections in soil were consistent with background concentrations.

Groundwater Investigation

Groundwater Well Construction

As part of a preliminary groundwater investigation of the former BOMARC facility, in 2019 the SCDHS Office of Water Resources installed 28 temporary profile wells. Twenty-five of the temporary profile wells were installed using a Geoprobe percussion drill rig. All twenty-five temporary profile wells were installed using virgin schedule 40 flush fit PVC pipe in five-foot lengths with a flush fit schedule 40 five foot 0.010 slot screen and finished with a well point. The one-inch temporary profile wells were installed from seventy to

ninety feet below grade (fbg). Three of the temporary profile wells were installed to a depth of one hundred fifty feet bgs using a CME-55 hollow stem auger rig. These augered wells were installed with virgin two-inch diameter schedule 80 flush fit casing in ten-foot lengths. A two-inch diameter flush fit schedule 80 five foot 0.010 slot screen, with a two inch diameter flush fit schedule 80 five foot sump with a well point, was installed at the bottom of each of the three wells. All wells were capped with a J-plug and a rain tight manhole cover was placed over the casings to further protect the wells.

Groundwater Sampling Technique and Sample Analyses

Each of the temporary profile wells were initially sampled at the deepest level and then pulled up ten feet and sampled again. This process was repeated until the top of the water table was reached. This procedure resulted in the collection of five to seven samples in each of the twenty-five one inch temporary profile wells and eleven to twelve samples from each of the three two-inch diameter temporary profile wells. This method produces an analytical profile of the groundwater from the top of the water table down to the depth at which the wells were drilled.

High density polyethylene (HDPE) tubing was used with a Waterra Hydrolift portable actuator with a stainless steel inertial pump (foot valve) attached to extract groundwater from the wells. The wells were purged a minimum of three well casing volumes. Samples were not collected until field parameters were stabilized and the turbidity was ≤ 50 NTU. Field parameters recorded included temperature, dissolved oxygen, conductivity, oxidation-reduction potential (ORP), and pH. Samples were collected by SCDHS Office of Water Resources public health sanitarians and analyzed by the SCDHS - Public and Environmental Health Laboratory (PEHL) for nutrients, volatile organic compounds, semi-volatile organic compounds, metals, pesticides, and radiation. Per- and polyfluoroalkyl substance (PFAS) samples were analyzed by Eurofins Test America. Perchlorate samples were analyzed by Pace Analytical. Table 5 summarizes groundwater sample analytical methods.

Nutrients

Groundwater samples were analyzed by the PEHL in accordance with “Standard Operating Procedure for Sampling for Inorganic Compounds in Aqueous Samples” (US EPA, 2002). The samples were stored on ice at 4° C and transported to the PEHL for analysis utilizing US EPA method 350.1 for Ammonia; US EPA method 300.1 for Nitrates; US EPA method 353.2/354.1 for Nitrites; and US EPA method 300.0 for Chlorides.

Volatile Organic Compounds

Groundwater samples were analyzed for Volatile Organic Compounds by the PEHL in accordance with “Standard Operating Procedure for Head Space Screening for Volatile Organic Compounds in Aqueous Samples” (US EPA, 2002). The samples were stored on ice

at 4° C and transported to the PEHL for analysis using US EPA method 524.2 (US EPA, 1995).

Table 5 – Groundwater Sample Analytical Methods

Analysis	Method	Analysis	Method
Inorganics	EPA 300.0	Semi-volatile organics	EPA 525.2
Metals	EPA 200.8	Carbamates	SM 21 6610B
Volatile Organics	EPA 524.2	Herbicide metabolites	SCDHS LC/MS
Chlorinated pesticides	EPA 505	Dacthal metabolites	SCDHS HPLC/LC-UV
Microextractables	EPA 504.1	1,4-Dioxane	EPA 522
PFAS	Mod. EPA 537	Perchlorate	EPA 314

Semi - Volatile Organic Compounds

Groundwater samples were analyzed for Semi-Volatile Organic Compounds by the SCPEHL following the “Standard Operating Procedure for Sampling for Semi Volatile Organic Compounds in Aqueous Samples” (US EPA, 2002). The samples were stored on ice at 4° C and transported to the PEHL for analysis using US EPA method 525.2 (US EPA, 1995)

Metals

Groundwater samples were analyzed by the PEHL following the “Standard Operating Procedure for Dissolved Metals for in Aqueous Samples” (US EPA, 2002). The samples were stored on ice at 4° C and transported to the PEHL for analysis using US EPA method 200.8 (US EPA, 1995).

Pesticides

Groundwater samples were analyzed for pesticides by the PEHL following the “Standard Operating Procedure for Sampling for Pesticide Compounds in Aqueous Samples” (US EPA, 2002). The samples were stored on ice at 4° C and transported to the PEHL for validation analysis by US EPA methods 505, 531.1, SM21 6610B, LC-MS and SCM method developed at PEHL.

Radiology

Groundwater samples were analyzed for radiation by the PEHL. The samples were stored on ice at 4° C and transported to the PEHL for validation analysis by US EPA methods 906.0, 900.0 and SM207110C.

1,4-Dioxane

Groundwater samples were analyzed for 1,4-dioxane and were stored on ice at 4° C and

transported to PEHL for validation by US EPA method 522.

PFAS

Groundwater samples were stored at 4° C and were analyzed for 21 analytes by Eurofins Test America using modified method EPA 537.

Perchlorate

Groundwater samples were stored at 4° C and were analyzed for perchlorate by Pace Analytical Laboratory using method EPA 314.

Groundwater Investigation Approach

Summary of Previous Groundwater Investigations:

1998 Perchlorate Investigation

A previous groundwater investigation was initiated at the site in late 1998 due to perchlorate impacts observed in the Suffolk County Water Authority (SCWA) Old Country Road Wellfield located downgradient of the facility. The subsequent groundwater investigation included the installation and sampling of eighteen profile wells at that time. The purpose and scope of this investigation was to determine if a Suffolk County Police fireworks disposal pit located on the northwest side of the police shooting range was the source of the perchlorate contamination observed in the SCWA supply wells. The investigation identified a perchlorate groundwater plume on the site, initiating from the fireworks disposal pit. A south to slightly southeast groundwater flow direction was determined to exist on the site, generally travelling from the fireworks disposal area toward the SCWA wellfield. A treatment system was installed at the SCWA wellfield to remove the perchlorate. Six monitoring wells were sampled for perchlorate annually or bi-annually until 2015. The perchlorate concentrations in these wells exhibited considerable fluctuations during the monitoring period, particularly in the well located nearest to the fireworks disposal pit, BM-1 (Figure 4).

2018 PFAS Sampling

In 2014, one of the three public water supply wells at the adjacent SCWA Old Country Road Wellfield reported a detection of PFOS at 48 nanograms per liter (ng/l). Though no federal or state drinking water standards were available at that time for PFOS, the United States Environmental Protection Agency (USEPA) had established a Health Advisory Level (HAL). Currently the USEPA HAL is 70 ng/l for the combined concentration of PFOS and PFOA. [Note: New York State has recently adopted individual drinking water standards (MCLs) for PFOS and PFOA, each set at 10 ng/L. The public water supply in this area currently meets all drinking water standards.] A subsequent private well survey conducted

Figure 4

Suffolk County
Department of Health Services
BOMARC Facility Investigation
Westhampton, N.Y.

1999 - 2015 Perchlorate Groundwater Results
Existing Permanent Monitoring Wells

BM-1 (30-40 fbg*)

Sample Date	Perchlorate ug/l
7/9/08	275
11/9/09	77
8/30/10	7.5
7/5/11	334
6/26/12	1,118
4/1/13	1,067
4/23/14	84
10/2/14	122
8/6/15	138

Former Fireworks
Disposal Pits

P-1 (40-50 fbg)

Sample Date	Perchlorate ug/l
4/5/00	910
2/1/02	44
6/26/06	69
4/24/07	147
7/9/08	277
11/5/09	168
8/30/10	78
7/5/11	14
6/26/12	2.3
4/1/13	17
4/23/14	7.1
10/2/14	9.4
8/26/15	10

P-3 (40-50 fbg)

Sample Date	Perchlorate ug/l
04/06/00	42
06/26/06	12
04/23/07	5
07/09/08	11
11/09/09	22
08/30/10	7.4
07/06/11	9.7
06/26/12	2.4
04/01/13	2.9
10/02/13	1.1
04/22/14	2.9
10/02/14	1.2
08/6/15	1.0

P-4 (35-45 fbg)

Sample Date	Perchlorate ug/l
04/06/00	760
02/01/02	4
06/26/06	<2
04/23/07	5
07/09/08	4
11/05/09	2.7
08/30/10	28
07/05/11	4.1
06/26/12	0.4
04/01/13	0.9
10/02/13	1.0
04/22/14	0.6
08/26/15	1.4

P-2 (40-50 fbg)

Sample Date	Perchlorate ug/l
04/05/00	66
02/01/02	7
06/26/06	<2
04/24/07	3
07/09/08	10
11/09/09	3.3
08/30/10	6.3
07/06/11	4.3
06/26/12	0.7
04/01/13	0.8
10/02/13	2
04/23/14	2.7
10/02/14	1.2
08/26/15	1.4

P-5 (65-70 fbg)

Sample Date	Perchlorate ug/l
04/13/00	37
02/01/02	<2
06/26/06	<2
04/23/07	38
07/07/08	<2
11/05/09	2.6
08/30/10	38
07/05/11	9.8
06/26/12	0.2
04/01/13	0.4
10/02/13	<0.2
04/22/14	<0.2
10/02/14	0.6
08/05/15	0.9

SCWA
Wellfield

Legend

Monitoring Well

Groundwater Flow Direction



US Survey feet

* fbg - feet below grade



by SCDHS in the vicinity of the SCWA wellfield identified approximately 54 properties potentially served by private wells. Sampling by SCDHS, and PFAS analysis conducted by the New York State Department of Health (NYSDOH) Wadsworth Laboratory, exhibited detections of PFOS and/or PFOA in 25 of the 41 wells sampled, with two wells reporting concentrations of PFOS/PFOA above the USEPA HAL. The NYSDEC subsequently installed POET water treatment facilities at both homes. An additional 11 wells were found to contain PFOS and/or PFOA at levels exceeding the recently adopted New York State MCL of 10 parts per trillion.

In order to obtain PFAS information from the groundwater at the BOMARC facility, the six existing monitoring wells discussed above as part of the 1998-perchlorate investigation were sampled for PFAS in early 2018. Although the locations and depths of these wells were ideally situated to monitor impacts from the fireworks disposal pit located to the west of the police shooting range, data obtained from these wells, although limited, were used to provide some quickly attainable information with respect to PFAS concentrations on a portion of the site. The PFOS and PFOA results of the 2018 sampling effort indicated that PFOS and PFOA were detected in all six of the monitoring wells sampled (Figure 5). Two samples exhibited concentrations in excess of the recently adopted NYSDOH MCL of 10 ng/l individually for PFOS and PFOA: BM-1- PFOS 13.5 ng/l; and P-4-PFOA 10.4 ng/l. BM-1 is located next to the former fireworks disposal pit, and P-4 is located within the vehicle impound yard.

2019 Preliminary Groundwater Investigation Conducted Pursuant to Suffolk County Resolution 1065-2018

This groundwater investigation was designed to provide an initial snapshot of the overall quality of the groundwater at the BOMARC site. The site is a relatively large site, with approximately 100 acres of area in current use. The site also has a long history of different uses that may have resulted in historic impacts to the groundwater. Currently there are three primary site uses: the police shooting range, located on the northern portion of the site; the emergency vehicle obstacle course (EVOC) which is located generally in the center of the site; and an Impound Yard which is primarily located in the southern portion of the site, however there are also many vehicles stored in the central portion of the site as well. The profile wells were arranged in five generalized east-west transects running from the north to the south of the site (Figure 6). To the extent practicable, the transects were oriented perpendicular to the south-southeast groundwater flow direction which was observed in the 1998 perchlorate investigation. It should be noted that all of the wells are not located along straight line transects because of necessary siting adjustments due to

Figure 5
Suffolk County
Department of Health Services
BOMARC Facility Investigation
Westhampton, N.Y.
2018 PFOS/PFOA Groundwater Results
Existing Permanent Monitoring Wells

Screen	BM-1	
Interval	PFOS	PFOA
30-40	ng/l	ng/l
	13.5	4.9

Screen	P-1	
Interval	PFOS	PFOA
40-50	ng/l	ng/l
	2.4	4.4

Screen	P-2	
Interval	PFOS	PFOA
40-50	ng/l	ng/l
	2.3	3.1

Screen	P-3	
Interval	PFOS	PFOA
40-50	ng/l	ng/l
	3.7	6.8

Screen	P-4	
Interval	PFOS	PFOA
35-45	ng/l	ng/l
	4.6	10.4

Screen	P-5	
Interval	PFOS	PFOA
65-75	ng/l	ng/l
	1.0	1.7

Legend

- PFOS and/or PFOA Concentration Equal to or Below 10 ng/l
- PFOS and/or PFOA Concentration Above 10 ng/l *

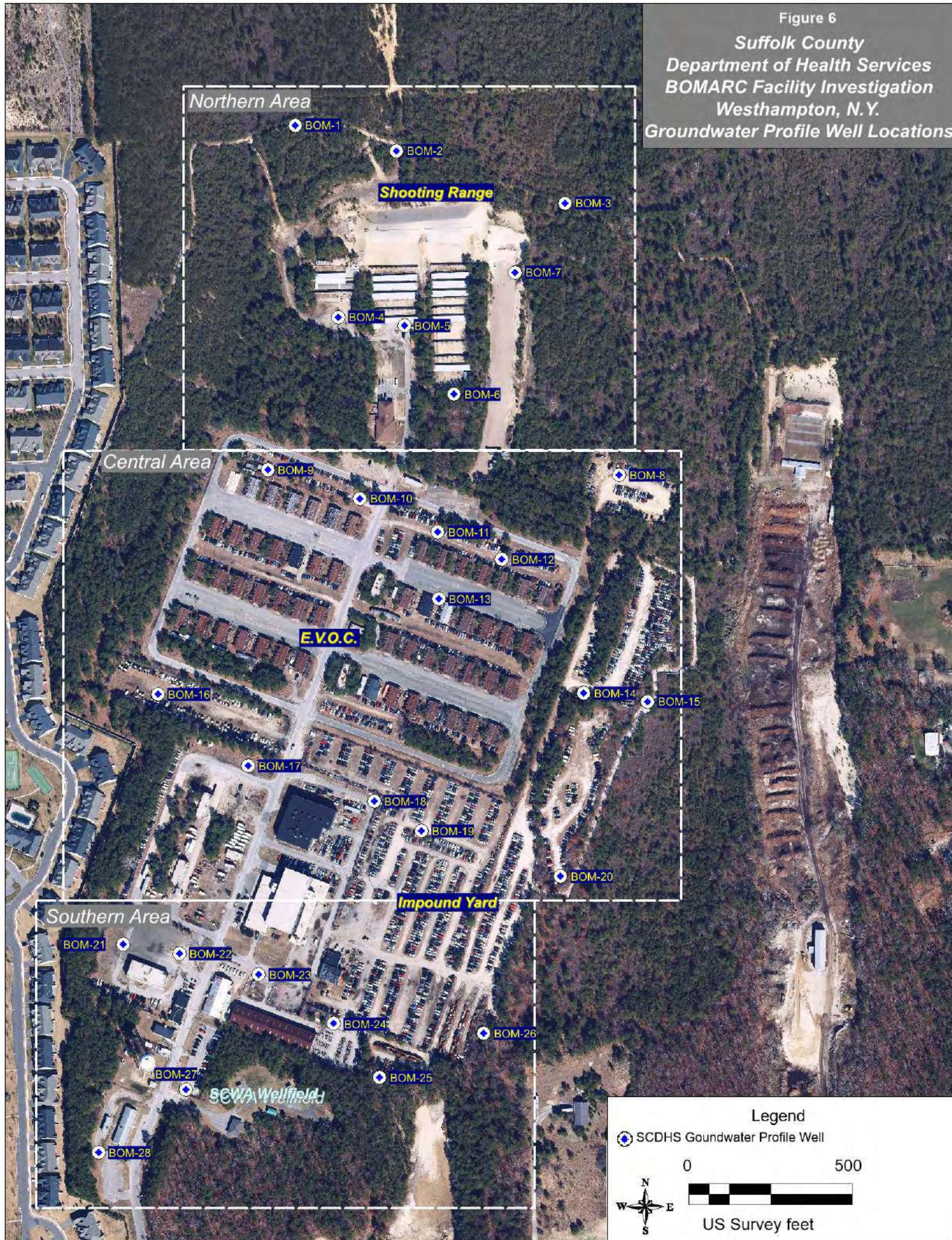
← Groundwater Flow Direction

* In August 2020 the individual NYSDOH drinking water standard of 10 ng/l for PFOS and PFOA became effective.



US Survey feet

Figure 6
Suffolk County
Department of Health Services
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Westhampton, N.Y.
Groundwater Profile Well Locations



localized constraints. Wells were also located upgradient or downgradient of specific site uses and/or potential contamination source areas (e.g., well BOM-13 was located downgradient of the current fireworks disposal area).

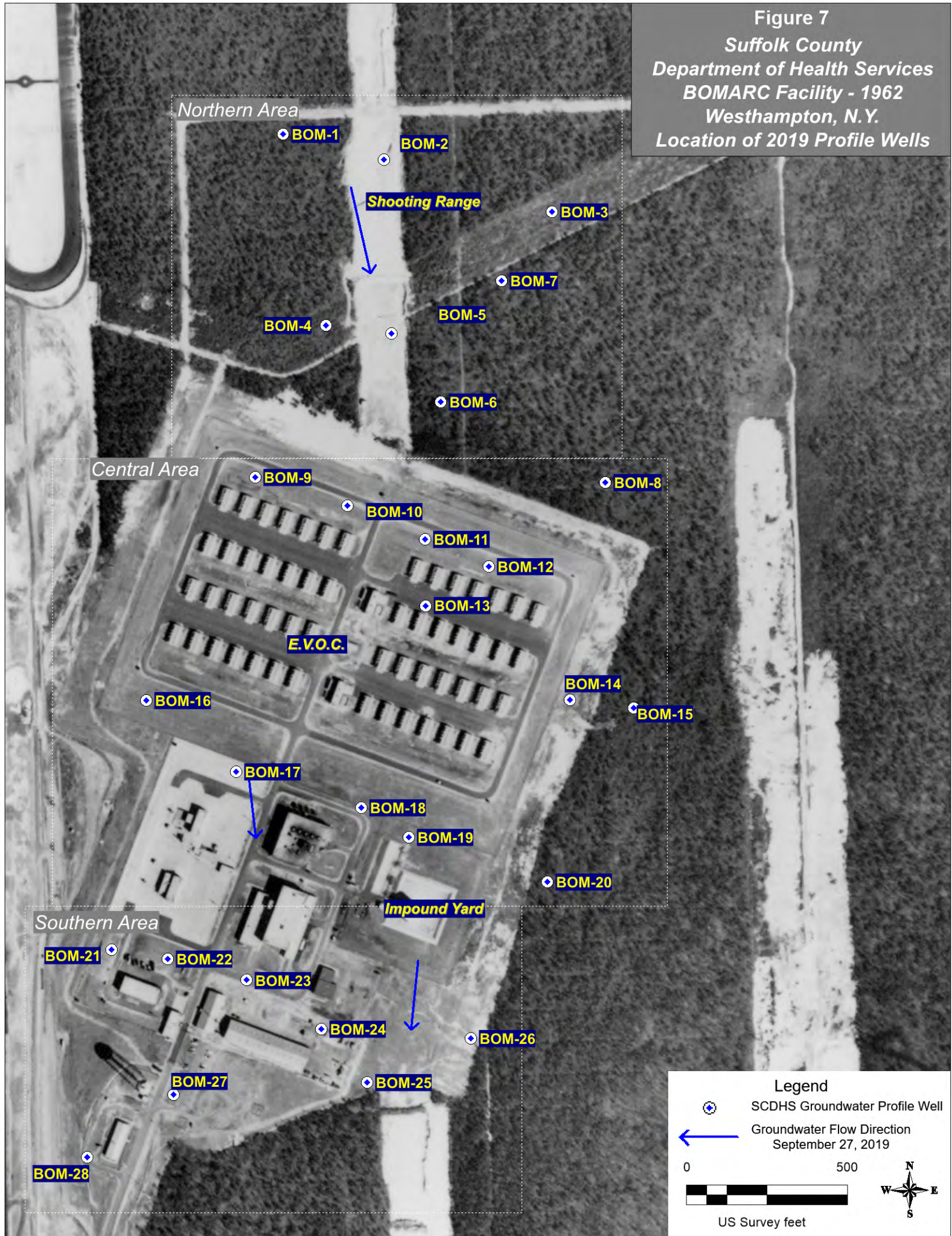
Two transects were located in the Northern Area which consists of the police shooting range. The most northern transect (wells BOM-1, BOM-2 and BOM-3) is located north of the shooting range and was placed upgradient of the currently active portion of the site. The second transect in this area (BOM-4, BOM-5 and BOM-6) is located downgradient of the police shooting range. Two transects were located in the Central Area of the site that contains the EVOC area and portions of the Vehicle Impound Yard. BOM-9 through BOM-13 are located on the northern portion of the EVOC area, downgradient of the police shooting range, and BOM-16 through BOM-20 are located within the northern portion of the main Vehicle Impound Yard, downgradient of the EVOC area. A final transect consisting of wells BOM-21 through BOM-26 is generally located on the southern portion of the active site. BOM-8, BOM-14, BOM-15 and BOM-20 are located on the eastern portion of the site in an area that contains impounded vehicles separated from the main portions of the site. BOM-27 is located in close proximity to the SCWA Old Country Road Wellfield at the southern end of the site, and BOM-28 is the southernmost well located on the western side of the site. Figure 7 illustrates the locations of the wells on the 1962 aerial photograph, in order to provide context to the well locations relative to the active areas when the missile base was in operation.

Most of the wells were drilled to depths that would yield approximately five, ten foot profile sampling levels. The overall depths of the wells varied between seventy and ninety feet below grade (fbg), depending on the specific depth to water encountered. Three of the monitoring wells located in close proximity to the SCWA wellfield (BOM-23, BOM-24 and BOM-25) were drilled to a deeper depth (145 fbg) in order to help assess impacts to the SCWA wells. BOM-23 and 24 yielded eleven profile samples, while BOM-25 yielded twelve profile samples.

Groundwater Flow Direction

In order to determine an updated site-specific groundwater flow direction, 27 of the 28 wells installed were surveyed to a relative benchmark, and groundwater level measurements were collected. The tops of the well casings were surveyed as measuring points after profiling and sampling of the wells was completed, with the wells screened near the top of the water table. Sufficient time was allowed for the wells to equilibrate since the last well was sampled in July. Water level measurements were recorded on September 27, 2019, and

Figure 7
Suffolk County
Department of Health Services
BOMARC Facility - 1962
Westhampton, N.Y.
Location of 2019 Profile Wells



at that time the depth to groundwater varied across the site from approximately 23 feet to 41 fbg (Table 6).

The water level measurement data was used to calculate relative water table elevation heights observed in each of the wells. This information was used to construct groundwater table elevation contours (Figure 8). Groundwater flows perpendicular to the water table elevation contours.

The site specific groundwater flow direction for the site was determined to be primarily south with a very slight easterly component throughout the majority of the site. The Suffolk County Water Authority Old Country Road Well field located just south of the site has 3 active public water supply wells, and an influence on the groundwater flow direction from the pumping of these wells is evident in Figure 8 as curved lines in the vicinity of the wellfield. This indicates that the groundwater flow direction changes and groundwater is flowing toward the wells. This influence appears most pronounced on the west side of the wellfield.

Groundwater Sampling Results

A total of 161 samples were collected in the twenty-eight profile wells installed across the site. An additional six wells (four profile and two permanent wells) were installed and twenty-five samples were collected as a follow-up to detections of tritium in one of the profile wells. All of the water samples were analyzed for the following analytical sample groups: metals, inorganics, Dacthal metabolites, carbamate pesticides, chlorinated pesticides, perchlorate, volatile organic compounds (VOCs), radiologicals, semi-volatile compounds, herbicide metabolites, 1,4-dioxane and PFAS. All samples with the exception of perchlorate and PFAS were analyzed by the SCDHS - PEHL. Perchlorate and PFAS samples were analyzed through a contract with Pace Analytical Laboratories. The findings observed in each of the sampling groups are discussed in the following sections. Appendix F contains a data summary of the analytes that were detected in the groundwater samples collected in this investigation.

Metals

Twenty-four different metals were detected in the groundwater samples. Four metals (iron, lead, manganese and sodium) exhibited concentrations exceeding their respective NYSDOH MCL, or drinking water standard, action level and/or New York State Department of Environmental Conservation (NYSDEC) groundwater standard. Iron concentrations ranged

Figure 8
Suffolk County
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BOMARC Facility Investigation
Westhampton, N.Y.
Relative Water Table Contours



Table 6 - Water Table Elevation Data

Water Level Information – BOMARC Site September 27, 2019								
Well ID	Measuring Pt (feet)	Depth to Water (feet)	Relative Groundwater Elevation (feet)		Well ID	Measuring Pt (feet)	Depth to Water (feet)	Relative Groundwater Elevation (feet)
BOM-1	107.63	31.17	76.46		BOM-15	97.98	25.02	72.96
BOM-2	114.63	38.36	76.27		BOM-16	109.04	35.57	73.47
BOM-3	117.72	41.86	75.86		BOM-17	109.22	36.05	73.17
BOM-4	113.47	37.98	75.49		BOM-18	108.30	35.73	72.57
BOM-5	114.33	38.97	75.36		BOM-19	107.66	35.35	72.31
BOM-6	113.86	38.86	75.00		BOM-20	96.06	24.08	71.98
BOM-7	107.76	32.31	75.45		BOM-21	106.64	34.87	71.77
BOM-8	110.68	36.34	74.34		BOM-22	105.21	-	-
BOM-9	111.71	36.97	74.74		BOM-23	106.06	34.62	71.44
BOM-10	112.07	37.58	74.49		BOM-24	105.42	34.53	70.89
BOM-11	110.43	36.28	74.15		BOM-25	101.96	31.53	70.43
BOM-12	109.67	35.72	73.95		BOM-26	94.55	23.63	70.92
BOM-13	110.28	36.49	73.79		BOM-27	102.81	32.09	70.72
BOM-14	106.54	33.43	73.11		BOM-28	100.00	28.63	71.37

from 0.13 milligrams per liter (mg/l) to 4.7 mg/l, with 150 of the 161 profile well groundwater samples exceeding the MCL of 0.3 mg/l for iron. Lead was detected in 46 of the samples. One sample collected from well BOM-4 at the 75-80 feet below grade (fbg) interval reported a lead concentration of 21 micrograms per liter (µg/l), exceeding the NYSDOH lead action level of 15 µg/l. This well is located in the northwestern portion of the site, hydraulically downgradient of the western part of the shooting range. Manganese was detected in all of the samples collected, with one sample in BOM-27 (75-80 fbg) reporting 346 µg/l, which exceeds the NYSDOH MCL of 300 µg/l. Sodium was also detected in all of the samples, with reported concentrations ranging from 2.7 mg/l to 82 mg/l. Although the NYSDOH does not have an MCL for sodium, 30 samples had concentrations in excess of the 6 NYCRR Part 703 Class GA Groundwater Standard of 20 mg/l.

Inorganic Parameters

A profile level from well BOM-22 (45-50 fbg) had three inorganic parameters exceeding their respective MCL and NYSDEC Groundwater Standard. This was the only sample that exhibited an exceedance of inorganic parameters. The chloride concentration was 470 mg/l, exceeding the MCL and Groundwater Standard of 250 mg/l. The same profile level from

this well exceeded the MCL and Groundwater Standard for nitrate and sulfate. The nitrate concentration was reported to be 27 mg/l, exceeding the MCL and Groundwater Standard of 10 mg/l, and the sulfate concentration was 278 mg/l, exceeding the MCL and Groundwater Standard of 250 mg/l.

Radiologicals

Gross alpha, gross beta and tritium were analyzed in all 161 profile well groundwater samples. Gross alpha was not detected and relatively low concentrations of gross beta (indicative of background concentrations from natural sources) were observed in 92 of the samples. Concentrations of gross beta adjusted for potassium-40 concentrations were less than 5 picocuries per liter (pCi/l), compared with a NYSDOH action level of 50 pCi/l. Three profile levels in well BOM-12 exhibited detections of tritium at 561 ($\pm$ 386) pCi/l, 1,451 ($\pm$ 715) pCi/l and 306 ($\pm$ 43) pCi/l in the 45-50, 55-60 and 65-70 fbg profile intervals, respectively. Although all of these concentrations are significantly below the NYSDOH tritium MCL of 20,000 pCi/l, these detections of tritium are unusual in Suffolk County's groundwater.

In order to confirm these detections and gather more information regarding potential tritium concentrations in the groundwater, six additional wells BOM-29 – BPM 34) were installed in the vicinity (four profile wells and two permanent wells, Figure 9 and Figure 10), and twenty-five samples were collected. Samples were analyzed for radiation, as well as all the full suite of SCDHS-PEHL analyses (PFAS and perchlorate were not analyzed in these samples). Results of this supplemental sampling effort indicated no additional detections of tritium in any of the samples (all samples were reported as < 200 pCi/l). The results of all the other parameters were consistent with what was observed in the groundwater from the other wells across the site, primarily 24 of the 25 samples exceeded the 0.3 mg/l MCL for iron (the highest observed was 4.86 in the 45-50 fbg profile level of well BOM-31). One sample exceed the 300 μ g/l MCL for manganese (353 μ g/l in BOM-31- 65-70 fbg). One sample exceeded the 20 mg/l NYSDEC Groundwater Standard for sodium (35 mg/l in BOM-32-35-40 fbg). A summary of the sampling results of these twenty-five supplemental wells are included in Appendix F.

Perchlorate

Perchlorate was detected in eighteen samples in nine different wells (Figure 11). The concentration of 18.6 μ g/l in BOM-13 (35-40 fbg) was the only sample that exceeded the NYSDOH action level of 18 μ g/l. Perchlorate detections were reported in all five profile levels of BOM-13. This well is located downgradient of the current fireworks disposal

Figure 9
Suffolk County
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Westhampton, N.Y.
Tritium Groundwater Results



Figure 10
Suffolk County
Department of Health Services
BOMARC Facility Investigation
Westhampton, N.Y.
Tritium Groundwater Results
Area of Detail

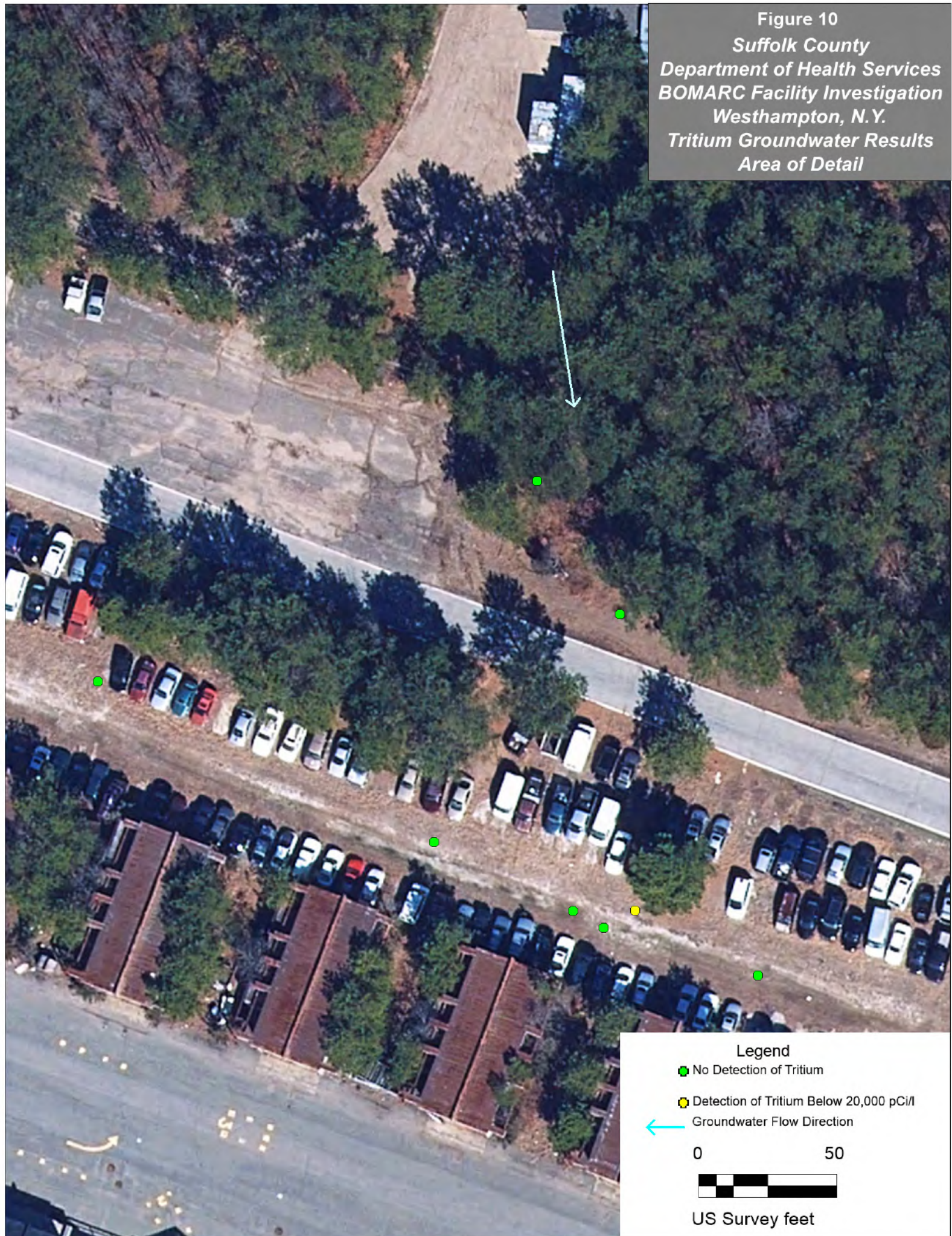
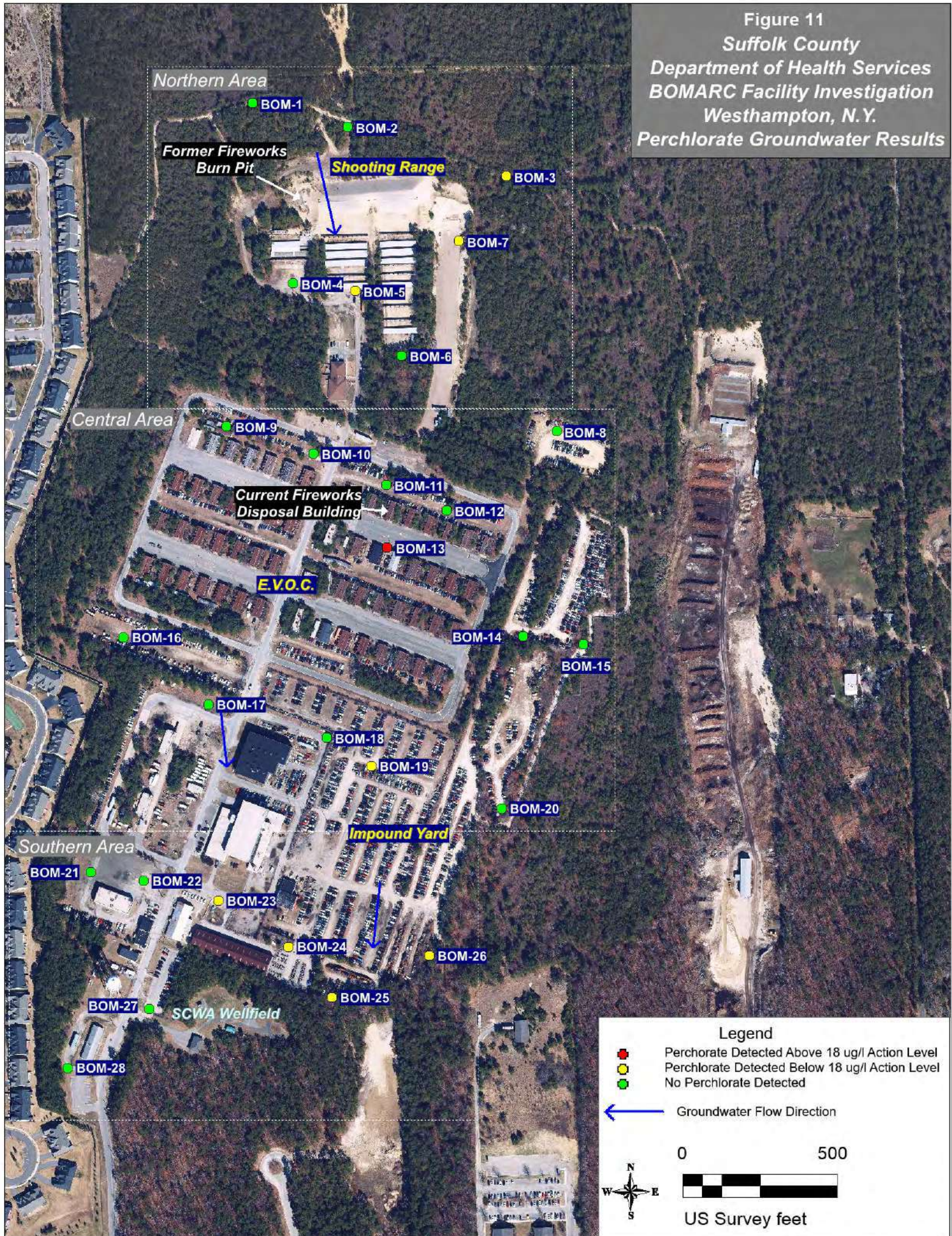


Figure 11
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Westhampton, N.Y.
Perchlorate Groundwater Results



location. BOM-24 had perchlorate detections in four profile levels (60-65 fbg, 70-75 fbg, 80-85 fbg and 90-95 fbg) ranging from 1.3 µg/l to 10.8 µg/l. Two other perchlorate detections of note were 12.6 µg/l in BOM-19 (35-40 fbg) and 8.2 µg/l in BOM-23 (50-55 fbg).

Semi-Volatile Organic Compounds

Semi-volatile organic compounds (SVOCs) were analyzed in all of the 161 groundwater samples collected. Three SVOCs were detected, (Bisphenol A, Dichlorvos, Diethyltoluamide (DEET)) at trace or low concentrations (less than 1 µg/l). These concentrations are significantly below the 50 µg/l MCL.

Herbicide Metabolites

Four analytes in the Herbicide Metabolite analysis group were detected. Metolachlor metabolite (CGA-67125), 2-HydroAtrazine, Phenytoin (Dilatin) and Trichlorfon. The concentrations of all of these detections were less than 2 µg/l, significantly below the 50 µg/l MCL.

Volatile Organic Compounds (VOCs)

Chloroform was the only volatile organic compound detected in the groundwater samples analyzed as part of this investigation. There were eighty-two detections of chloroform in 26 of the 28 profile wells. The detected concentrations of chloroform ranged from 0.5 µg/l to 2.1 µg/l, which are below both the 6 NYCRR Part 703 groundwater standard of 7 µg/l and the NYSDOH MCL of 80 µg/l.

1,4-Dioxane

Two detections of 1,4-dioxane were reported; 0.18 µg/l in well BOM-4 (75-80 fbg), and 0.20 µg/l in BOM-21 (45-50 fbg). Both of these concentrations are below the recently adopted drinking water standard or maximum contaminant level (MCL) for 1,4-dioxane of 1 µg/L.

Per- and Polyfluoroalkyl Substances (PFAS)

Twenty-one different PFAS parameters were analyzed in each of the samples. Seventeen of the twenty-one PFAS parameters were detected. Twenty-six of the twenty-eight profile wells had at least one PFAS parameter detected (Figure 12). The NYSDOH has recently adopted drinking water standards (MCLs) for PFOS and PFOA, each at 10 ng/l. Figure 13 through Figure 15 illustrate the well locations and profile sample level PFOS and PFOA results for the wells located in the Northern, Central, and Southern Areas of the site.

Figure 12
Suffolk County
Department of Health Services
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Westhampton, N.Y.
PFOS/PFOA Groundwater Results

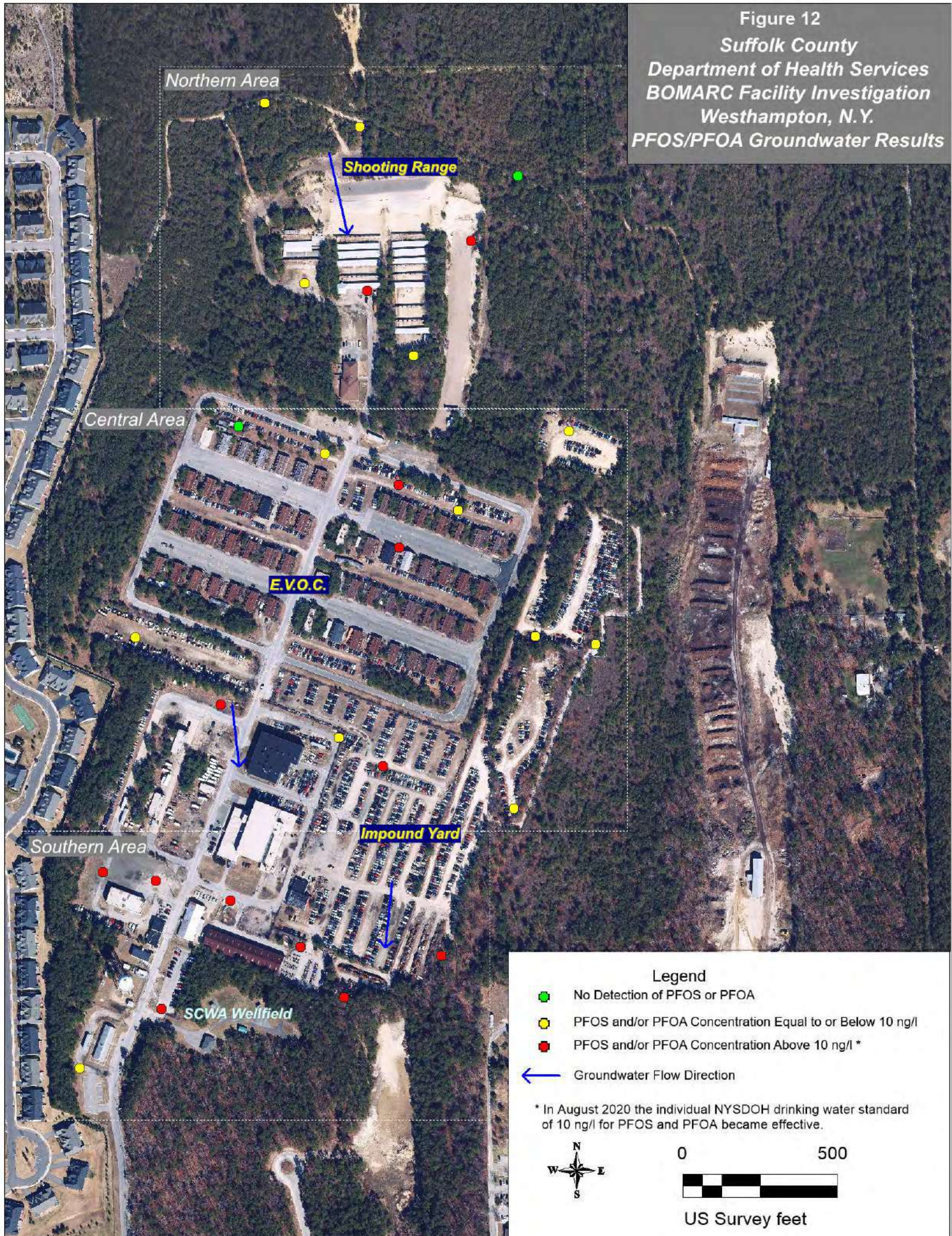


Figure 13
 Suffolk County
 Department of Health Services
 BOMARC Facility Investigation
 Westhampton, N.Y.
 Northern Area
 PFOS/PFOA Groundwater Results

BOM-1

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	9.8	<0.85
45-50	<1.7	<0.87
55-60	<1.7	0.26J
65-70	<1.8	<0.89
75-80	<1.7	<0.86
75-80D	<1.7	<0.84

BOM-2

Screen Interval	PFOS ng/l	PFOA ng/l
40-45	<1.8	1.8
50-55	<1.8	<0.88
60-65	<1.7	<0.85
70-75	<1.7	<0.84
70-75D	<1.7	<0.85
80-85	<1.7	<0.86

BOM-3

Screen Interval	PFOS ng/l	PFOA ng/l
45-50	<1.9	<1.9
55-60	<1.9	<1.9
65-70	<1.8	<1.8
75-80	<1.8	<1.8
75-80D	<1.8	<1.8
85-90	<1.8	<1.8

BOM-4

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	1.4J	2.5
45-50	0.43J	0.3J
55-60	<1.6	0.82
55-60D	<1.7	<0.83
65-70	<1.7	<0.86
75-80	1.5J	<0.83

BOM-7

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	1.4J	13
45-50	<1.7	<0.83
55-60	<1.7	0.29J
65-70	<1.8	<0.92
75-80	<1.9	<0.93
75-80D	<1.8	<0.88

BOM-5

Screen Interval	PFOS ng/l	PFOA ng/l
40-45	56	6.9
50-55	0.47J	0.63J
60-65	<1.7	<0.87
70-75	<1.8	<0.88
70-75D	<1.7	<0.84
80-85	<1.7	<0.85

BOM-6

Screen Interval	PFOS ng/l	PFOA ng/l
40-45	2.5	2.9
50-55	<1.8	1.2
60-65	<1.8	<0.92
70-75	<1.8	<0.90
80-85	<1.8	<0.90
80-85D	<1.9	<0.94

Legend

- No Detection of PFOS or PFOA
 - PFOS and/or PFOA Concentration Equal to or Below 10 ng/l
 - PFOS and/or PFOA Concentration Above 10 ng/l*
- * In August 2020 the individual NYSDOH drinking water standard of 10 ng/l for PFOS and PFOA became effective.
 "J" indicates estimated value
 "D" indicates duplicate sample



Figure 14
Suffolk County
Department of Health Services
BOMARC Facility Investigation
Westhampton, N.Y.
Central Area
PFOS/PFOA Groundwater Results

BOM-9

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	<1.8	<0.89
45-50	<1.8	<0.90
55-60	<1.8	<0.89
65-70	<1.8	<0.89
65-70D	<1.8	<0.89
75-80	<1.8	<0.89

BOM-10

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	<1.9	3.8
45-50	1.5J	0.9J
55-60	<1.9	<1.9
55-60D	<1.9	<1.9
65-70	<1.9	<1.9
75-80	0.77J	<1.9

BOM-11

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	2	11
45-50	1.7J	2.3
45-50D	1.7J	2.4
55-60	<2	<2
65-70	<1.9	<1.9
75-80	<2	<2

BOM-8

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	<1.8	2
45-50	<1.8	<0.89
55-60	<1.8	<0.88
65-70	<1.8	<0.88
75-80	<1.8	<0.91
75-80D	<1.8	<0.91

BOM-16

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	0.46J	1.4
45-50	7.6	5.6
55-60	9.2	8.9
65-70	4.8	3.8
75-80	4.7	5.6
75-80D	4.5	5.8

BOM-13

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	2.3	4.2
45-50	75	7
55-60	38	6.2
65-70	11	1.8
75-80	4.7	<0.90
75-80D	4.8	<0.86

BOM-12

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	0.82J	1
45-50	1.1J	1.9
55-60	<1.8	0.84J
55-60D	<1.8	0.91J
65-70	1J	<0.85
75-80	<1.7	<0.87

BOM-14

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	2.6	8
45-50	<1.8	3.1
55-60	<1.8	1.8
65-70	<1.8	2.9
75-80	<1.8	<1.8
75-80D	<1.8	<1.8

BOM-15

Screen Interval	PFOS ng/l	PFOA ng/l
25-30	<1.8	0.8J
35-40	<1.7	<0.86
45-50	<1.7	<0.87
55-60	<1.8	<0.89
65-70	<1.7	<1.7
65-70D	<1.8	<1.8

BOM-17

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	0.73J	1.2
45-50	6.8	5.6
55-60	22	4.2
65-70	3.6	2.1
75-80	5.2	9.1
75-80D	5.1	13

BOM-18

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	2.5	4.1
55-50	1.2J	1.8
45-50D	0.66J	1.5J
55-60	0.52J	0.83J
65-70	<1.8	<1.8
75-80	<1.7	<1.7

BOM-19

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	39	15
45-50	4.7	6.6
55-60	1.3J	1.7
65-70	<1.9	<1.9
75-80	<1.9	<1.9
75-80D	<1.9	3.8

BOM-20

Screen Interval	PFOS ng/l	PFOA ng/l
25-30	<1.9	<1.9
35-40	5.8	3.1
45-50	2.1	3.7
55-60	<1.9	1.7J
65-70	<1.9	<1.9
65-70D	1.3J	<1.9

Legend

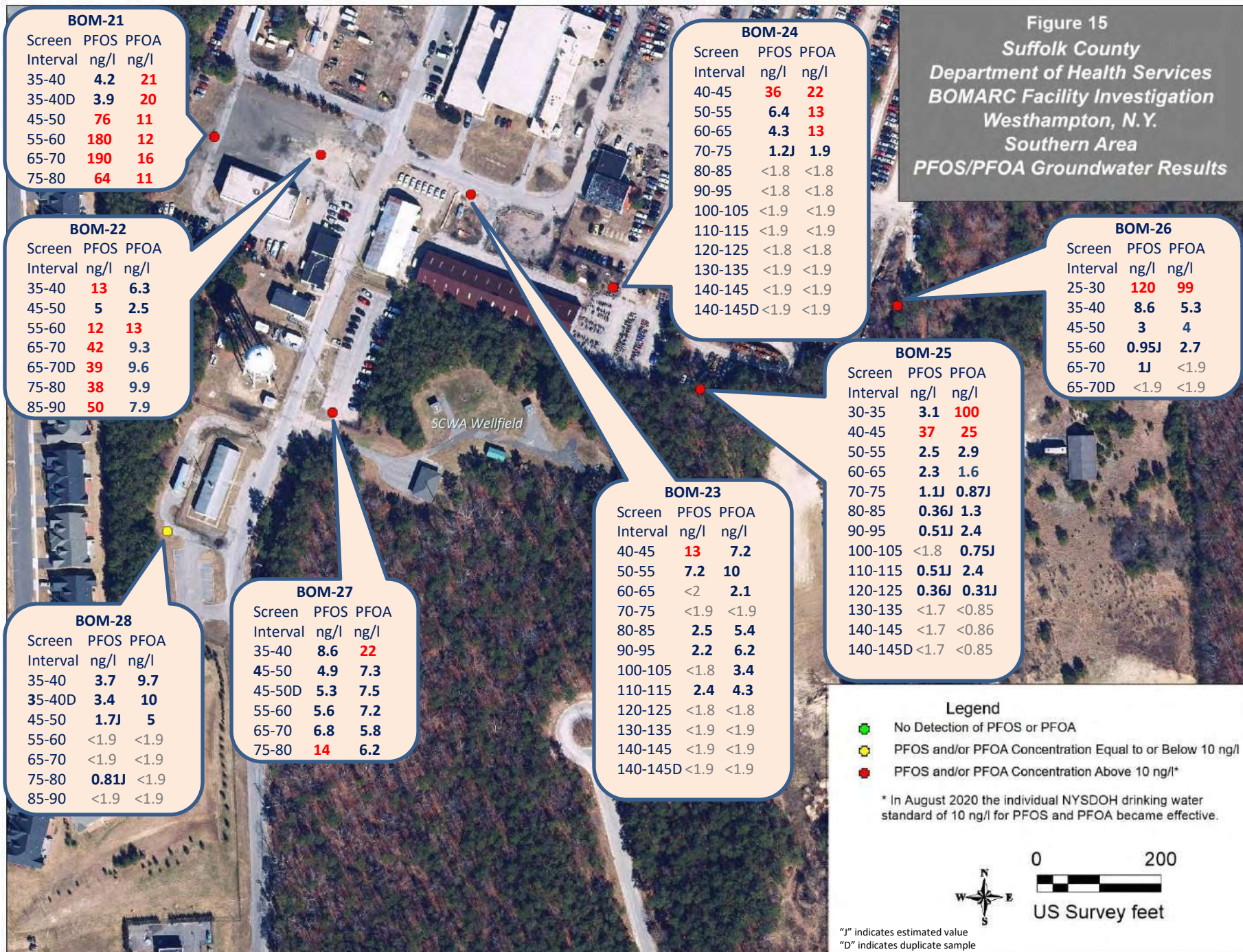
- Green dot: No Detection of PFOS or PFOA
- Yellow dot: PFOS and/or PFOA Concentration Equal to or Below 10 ng/l
- Red dot: PFOS and/or PFOA Concentration Above 10 ng/l*

* In August 2020 the individual NYSDOH drinking water standard of 10 ng/l for PFOS and PFOA became effective.



"J" indicates estimated value
 "D" indicates duplicate sample

Figure 15
Suffolk County
Department of Health Services
BOMARC Facility Investigation
Westhampton, N.Y.
Southern Area
PFOS/PFOA Groundwater Results



PFOS and/or PFOA

Twenty-seven samples and 3 duplicate samples in thirteen different profile wells had PFOS and/or PFOA concentrations in excess of the recently adopted New York State MCLs of 10 ng/l. The profile wells that exhibited at least one PFOS and/or PFOA concentration exceeding 10 ng/l are summarized in Table 7.

Table 7
Profile Well and Sampling Interval Exceeding NYSDOH MCL

Profile Well	Sample Depth (feet below grade)	PFOS (ng/l)	PFOA (ng/l)
BOM-5	40-45	56	6.9
BOM-7	35-40	1.4J	13
BOM-11	35-40	2	11
BOM-13	45-50	75	7
	55-60	38	6.2
	65-70	11	1.8
BOM-17	55-60	22	4.2
	75-80D	5.1	13
BOM-19	35-40	39	15
BOM-21	35-40	4.2	21
	35-40D	3.9	20
	45-50	76	11
	55-60	180	12
	65-70	190	16
	75-80	64	11
BOM-22	35-40	13	6.3
	55-60	12	13
	65-70	42	9.3
	65-70D	39	9.6
	75-80	38	9.9
	85-90	50	7.9
BOM-23	40-45	13	7.2
BOM-24	40-45	36	22
	50-55	6.4	13
	60-65	4.3	13
BOM-25	30-35	3.1	100
	40-45	37	25
BOM-26	25-30	120	99
BOM-27	35-40	8.6	22
	75-80	14	6.2

Note: J is a laboratory qualifier that indicates an estimated value
D indicates a duplicate sample

Significant PFAS Concentrations Other than PFOS and/or PFOA

In addition to PFOS and PFOA, six other PFASs (6:2FTS, PFBA, PFHpA, PFHxA, PFHxS, PFPeA) were detected in four different profile wells above 100 ng/l. The wells and sampling intervals of these detections are summarized in Table 8 through Table 13.

Table 8 - 6:2FTS

Profile Well	Sample Depth (feet below grade)	6:2FTS ng/l
BOM-25	30-35	210
BOM-26	25-30	160

Table 9 - PFBA

Profile Well	Sample Depth (feet below grade)	PFBA ng/l
BOM-25	30-35	150

Table 10 - PFHpA

Profile Well	Sample Depth (feet below grade)	PFHpA ng/l
BOM-25	30-35	230
BOM-26	25-30	350

Table 11 - PFHxA

Profile Well	Sample Depth (feet below grade)	PFHxA ng/l
BOM-25	30-35	830
BOM-26	25-30	230

Table 12 - PFHxS

Profile Well	Sample Depth (feet below grade)	PFHxS ng/l
BOM-21	55-60	110
	65-70	160
BOM-22	75-80	110
BOM-25	40-45	120
BOM-26	25-30	120

Table 13 - PFPeA

Profile Well	Sample Depth (feet below grade)	PFPeA ng/l
BOM-25	30-35	650
BOM-26	25-30	210

Dacthal Metabolites, Chlorinated Pesticides, Carbamate Pesticides

There were no reported detections of any parameters in the Dacthal metabolite, chlorinated pesticide, or carbamate pesticides analytical sampling groups.

Reporting Requirements

When a compound exceedance relative to SOP No.9-95 is detected, remediation of the impacted structure(s) is/are required by Articles 7 and 12 of the Suffolk Sanitary Code. Such exceedances are reported to SCDHS for remediation oversight.

However, the determination whether a remediation is required due to detections for compounds regulated by NYSDEC Part 375 is more complex. All exceedances of Part 375 must be reported to NYSDEC. The appropriate SCOs are determined by the proposed future use of the property and fall under one of seven categories:

<u>Category</u>	<u>Description</u>
Unrestricted:	No restrictions on the site for the protection of public health, groundwater and ecological resources due to contaminants present.
Residential:	Residential (Single family housing only).
Restricted Residential:	Includes active recreational and public use with reasonable potential for soil contact. Restricts vegetable garden use.
Commercial:	Primary purpose of buying, selling or trading of merchandise or services. Limited potential for soil contact.
Industrial:	Primary purpose of manufacturing, production or fabrication. Limited potential for soil contact.
Protection of Ecological Resources:	Presence of fish and wildlife, plants and habitats both on or adjacent to the site.
Protection of Groundwater:	Identified soil contamination can threaten the quality of groundwater.

The magnitude of remediation work to be completed greatly depends upon the selection of the SCO outlined above, and generally increases with a more stringent classification.

Next Steps

The groundwater and soil sampling data was reported to and discussed with the NYSDEC and the New York State Department of Health. Four UIC systems will require remediation under Suffolk County SOP 9-95. However, due to PCB contamination in many of these UICs, Suffolk County will work with the NYSDEC in developing appropriate remedial action.

On December 5, 2019, Suffolk County was notified that the BOMARC site was being considered a potential inactive hazardous waste disposal site. SCDHS has begun discussion on next steps with NYSDEC, including characterization of other potential PFAS sources of concern in the area, including a former drag racing strip, the Old Westhampton Landfill, possible foam use related to the Pine Barrens Wildfires of 1995, and local sewage treatment plants.

APPENDIX B
BOMARC OFF-SITE AND VICINITY
GROUNDWATER INVESTIGATION (2025)



***BOMARC Off-Site and Vicinity
Groundwater Investigation
Westhampton N.Y.***



**Suffolk County
Department of Health Services**

**Edward P. Romaine
Suffolk County Executive**

**Gregson H. Pigott, M.D., M.P.H.
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**John Sohngen, P.E.
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September 11, 2025

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Appendix A

Table 1 Groundwater Data, PFAS, PCBs, and Summary of Detected SCDHS Public and Environmental Health Laboratory Analytes

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List of All Analytes Tested by the SCDHS Public and Environmental Health Laboratory

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Executive Summary

Background:

In 2018, the Suffolk County Department of Health Services (SCDHS) initiated a preliminary site investigation at the Suffolk County former Boeing Michigan Aeronautics Research Center (BOMARC) facility in Westhampton, NY. The results of this investigation, which were compiled in a report known as *Groundwater and Soil Investigation at the BOMARC Facility, Westhampton, N.Y., In Accordance with Suffolk County Legislative Resolution No. 1065-2018, September 2020* (2020 BOMARC Groundwater and Soil Report), revealed the presence of per- and polyfluoroalkyl substances (PFAS), specifically perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), in onsite groundwater at concentrations exceeding New York State Department of Health (NYSDOH) drinking water maximum contaminant levels (MCLs) of 10 nanograms per liter (ng/L) each for both PFOS and PFOA. This subsequent investigation aimed to refine the groundwater flow direction, evaluate additional offsite PFAS sources, determine the extent of offsite PFAS migration from the BOMARC site (if any), and assess polychlorinated biphenyl (PCB) presence in BOMARC off-site groundwater.

Site History:

The BOMARC site, originally constructed in 1957 as a U.S. military facility housing BOMARC surface-to-air cruise missiles, spans approximately 90 developed acres. The facility ceased military activities in 1969. The site currently serves multiple purposes including vehicle storage, police training, and use by various tenants. The surrounding area includes residential homes, assisted living facilities, sewage treatment plants, and government-operated facilities such as a town operated yard waste transfer station, highway yard and police rifle/pistol range at the site of the former Westhampton Landfill. The Suffolk County Water Authority's (SCWA) Old Country Road wellfield, located just south of the BOMARC site, had detections of PFOS in untreated water as high as 26 ng/L, which exceeds the New York State maximum contaminant level (MCL) of 10 ng/L. To ensure safe drinking water, SCWA installed treatment systems on all three wells at the site, effectively reducing PFAS concentrations to below the state's MCLs before the water is delivered to customers.

Groundwater Investigation:

From 2020 to 2021, the SCDHS conducted extensive groundwater testing, including the installation and sampling of 36 profile wells and sampling of eight existing permanent sewage treatment plant (STP) monitoring wells. The investigation aimed

to establish the groundwater flow direction, identify potential offsite PFAS sources, and determine the extent of PFAS contamination migrating off of the BOMARC site.

Key Findings:

1. PFAS Contamination:

- a. Thirty-six (36) profile wells were drilled, with the highest PFOS concentration of 120 ng/L reported in well BOM20-60.
- b. Sixty-two (62) properties were tested in the private well survey area, with 16 of those wells exceeding the NYS MCLs of 10 ng/L each for PFOS and PFOA. An estimated 57 properties within the survey area are still served by private wells.
- c. Based on results acquired to prepare this report and the findings from the 2020 BOMARC Groundwater and Soil Report, potential significant PFAS sources include the former Westhampton Raceway (now Westhampton Pines senior housing), local sewage treatment plants, Southampton Town's Westhampton Transfer Station and Former Landfill, fireworks disposal areas and impounded vehicles involved with fires stored at the BOMARC facility.

2. Groundwater Flow:

- a. Groundwater flow in the study area generally trends south/southeast with localized influences from the nearby SCWA public water supply wells and natural water bodies.
- b. The investigation identified several distinct PFOS and PFOA plumes, suggesting multiple source areas contributing to the identified groundwater impacts.

3. PCB Testing:

- a. PCBs were not detected in the off-site groundwater samples collected downgradient of the BOMARC site.

Additional Potential PFAS Source Areas in the Vicinity of the BOMARC Site:

Monitoring wells were sampled downgradient of several potential PFAS source areas in the vicinity of the BOMARC site. The following wells exhibited PFOS and/or PFOA concentrations exceeding the 10 ng/L NYS MCLs for drinking water :

- *Former Westhampton Raceway/Westhampton Pines Senior Housing:* Profile wells BOM20-59, BOM20-60, and BOM20-61 indicated PFOS and/or PFOA detections above the MCL, with exceedances ranging from 14 ng/L to 120 ng/L.
- *Westhampton Pines STP:* Permanent STP monitoring wells MWG-WH-1, MWG-WH-2, and MWG-WH-3 exhibited PFOS and PFOA detections with MCL exceedances ranging from 12 ng/L to 64 ng/L.

- *Westhampton Nursing Home STP*: Downgradient permanent STP monitoring well GMW-3-WH showed PFOS concentrations exceeding the MCL at 11 ng/L.
- *Southampton Town's Westhampton Transfer Station and Former Landfill*: Profile wells BOM-68, BOM-69, and BOM-70 located on the transfer station site had PFOS and PFOA detections exceeding MCLs, ranging from 11 ng/L to 19 ng/L. Profile wells BOM20-49, BOM21-77, BOM21-78, BOM20-57 and BOM20-58, located downgradient of the transfer station, had PFOS and/or PFOA MCL exceedances ranging from 11 ng/L to 93 ng/L. Thirty-seven (37) properties which utilize a private well for potable water are located downgradient of this facility. Eleven of these wells exceeded the NYS MCL for PFOS and/or PFOA. Evaluation of the analytical data from groundwater profile wells and private wells indicates a co-located landfill leachate and PFAS groundwater plume is apparently migrating up to 9,000 feet southeast from the Westhampton Transfer Station and former landfill site.
- *Westhampton Beach Fire Department Property*: Profile wells BOM20-53 and BOM20-54 had PFOS and/or PFOA concentrations above the MCL, with exceedances ranging from 11 ng/L to 23 ng/L.

Conclusions:

The investigation determined that PFAS contamination in the groundwater originates from the BOMARC site as well as other significant offsite sources located within the vicinity (e.g., Westhampton Pines senior housing/former Westhampton Raceway property and the Town of Southampton's Westhampton Transfer Station and former landfill) (see Figure 13).

To address PFAS groundwater contamination in the private well survey area, the Suffolk County Water Authority is commencing a project to extend public water in the survey area to 57 properties, mainly downgradient of the Westhampton Transfer Station and former landfill, that are still utilizing private wells as their domestic water source. This public water extension project is funded by a number of sources including a grant from the New York State Water Infrastructure Improvement Act, a Congressionally Directed Spending grant, the Town of Southampton Community Preservation Fund, and Suffolk County's American Rescue Plan Act.

Finally, the investigation determined that PCBs do not appear to be migrating in the groundwater off the BOMARC site.

Suffolk County will continue to coordinate with the New York State Department of Environmental Conservation in identifying and addressing potential PFAS sources located on the BOMARC property.

Background

In 2018 the Suffolk County Department of Health Services (SCDHS) initiated a preliminary site investigation at the Suffolk County Boeing Michigan Aeronautics Research Center (BOMARC) facility in Westhampton, N.Y. The results of this investigation were compiled into a report issued in September of 2020.¹ Among other findings, the investigation revealed that two per-and polyfluoroalkyl substances (PFAS), perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), were present in onsite groundwater at concentrations exceeding the New York State Department of Health (NYSDOH) drinking water maximum contaminant levels (MCLs) of 10 nanograms per liter (ng/L) each for PFOS and PFOA. However, PFAS detections were also observed in an upgradient well (north of the site) and in other wells situated close to the western property boundary, suggesting that additional PFAS source(s) could be located off of the BOMARC site. Properties served with private wells located southeast of the BOMARC site were found to be impacted with PFAS at concentrations exceeding the PFOS and PFOA MCLs. These properties do not appear to be located directly downgradient of the BOMARC facility, suggesting a possible PFAS source east of the BOMARC site. Also, soil samples collected on the BOMARC site indicated detections of polychlorinated biphenyls (PCBs)².

In the fall of 2020, the SCDHS initiated additional groundwater testing that was designed to:

1. Establish a more refined groundwater flow direction in the vicinity of the BOMARC site
2. Evaluate other potential PFAS source areas located in the vicinity of the BOMARC site
3. Determine if PFAS impacted groundwater is migrating off of the BOMARC property
4. Determine, to the extent practicable, PFAS source(s) impacting private wells in the vicinity of the site
5. Determine if PCBs are present in the groundwater off-site, downgradient of the BOMARC facility

¹ Groundwater and Soil Investigation at the BOMARC Facility, Westhampton, N.Y. In Accordance with Suffolk County Legislative Resolution No. 1065-218, September 2020,
<https://www.suffolkcountyny.gov/Portals/0/FormsDocs/Health/EnvironmentalQuality/Final%20Complete%20BOMARC%20Report%209-22-20.pdf>

² Ibid, pages 10-14

Site History

The subject property consists of approximately 90 developed acres. The remaining acreage is undeveloped. The property occupies Suffolk County Tax Map Numbers: 900-331-1-1.1 and 900-331-1-2 through 15.

The site is a former military complex that is currently owned by Suffolk County and is used for multiple purposes. Based on a review of the available historical data beginning with the late 1940's, the facility was constructed in Westhampton in 1957 by the United States (U.S.) Military and was occupied by the 6th Air Defense Missile Squadron of the U.S. Air Force Air Defense Command and was known as the Suffolk BOMARC Base (Figure 1). The primary purpose of the base was to defend the U.S. from enemy aircraft. The facility housed such missiles known as the BOMARC A. The BOMARC A was a Surface-to-Air Cruise Missile (SAM) with a length of 46 feet and armed with a 10-kiloton nuclear warhead.

The facility housed 58 missiles within individual silos; none of the missiles were launched. In 1964, technicians removed their nuclear tips and dismantled the weapons. Military activities ceased in 1969.

There are thirteen buildings on the site. The Suffolk County Police Department (SCPD) primarily uses the location for the storage of vehicles damaged in accidents and needed for evidentiary purposes (approximately 2,500 to date). In addition, the site is used by Suffolk County as a police training facility, motor vehicle impound, fireworks disposal site, rifle/pistol range, Sheriff's training facility, government archives storage and by various tenants for multiple purposes (Figure 2). The Town of Southamptton operates a transfer station for compost, a salt storage barn and a rifle/pistol range just east of the BOMARC property at the site of the former Westhampton Landfill. A former drag racing strip, which is now the Westhampton Pines senior housing development, is located to the west; undeveloped Pine Barrens are bordering to the north; a Suffolk County Water Authority wellfield, residential homes, an assisted living facility and a nursing home/rehabilitation center are located to the south (Figure 3).

Groundwater Investigation³

This groundwater investigation was designed to complement the 2018 preliminary site investigation work and included the installation and sampling of 36 profile wells and sampling of eight existing permanent sewage treatment plant (STP) groundwater

³ Details regarding the profile well construction methodology and groundwater sampling procedures are included in Appendix C.

monitoring wells. Groundwater well installation began in October 2020 and continued through June 2021. A New York State Department of Environmental Conservation (NYSDEC) contract laboratory (Pace Analytical Laboratories) was utilized for PFAS analysis in groundwater samples collected from 30 profile wells, which were located for evaluation of PFAS sources other than the BOMARC site, and the eight permanent STP monitoring wells. A SCDHS contract laboratory (Pace Analytical Laboratories) was utilized to analyze PFAS and PCBs in six off-site wells located on Old Country Road, downgradient of the BOMARC facility. Seven additional wells were installed and used only for the collection of geophysical information and water level measurements. Figure 4 displays the locations of all 36 profile wells and eight permanent STP monitoring wells which were sampled in this effort. The Suffolk County Public and Environmental Health Laboratory (PEHL) performed analysis for the following analytical groups on all of the groundwater samples⁴: metals; inorganic parameters; volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); radiological parameters (gross alpha, gross beta, tritium)⁵; chlorate; 1,4-dioxane; herbicide metabolites; aldicarb pesticides; chlorinated pesticides; ammonia; and dacthal. All analytical results for PFAS and PCBs, and a summary of the detected parameters analyzed by the SCDHS PEHL, are provided in Appendix A, Table 1. A complete list of analytes tested in the groundwater samples by the PEHL is provided in Appendix B. A total of 184 groundwater samples were collected. The PFOS and PFOA results for all 44 of the profile and STP monitoring wells sampled are shown on Figure 5 through Figure 8.

1. Groundwater Flow Direction in the Study Area

Thirty-seven (37) wells were surveyed for elevation using a relative benchmark which had been established for the 2018 preliminary site investigation work. In March of 2021 synoptic water level measurements were collected on 62 wells that were installed on and off of the BOMARC site. The water level information from these wells was used to construct relative water table elevation contours (Figure 9) with the groundwater flow direction indicated as dark blue arrows. The central portion of the BOMARC site shows a general south/southeasterly groundwater flow. A significant impact on the groundwater elevation and flow direction is evident from the pumping of the Suffolk County Water Authority (SCWA) Old

⁴ Methylene blue activated substance (MBAS) analysis for the presence of detergents were performed only on the groundwater samples collected from the eight wells located at the sewage treatment plants.

⁵ Radiological parameters were not analyzed in the following four profile wells: BOM20-72, BOM20-76, BOM20-77 and BOM20-78.

Country Road wellfield located at the southern end of the BOMARC site.⁶ Groundwater is drawn toward the wellfield, particularly from the west, as it passes the pumping wells. The flow pattern returns to a more southerly direction before it reaches Old Country Road. Once groundwater passes south of Old Country Road, there is a southwestern component to the flow influenced by the Speonk River, which is located to the west, and a southeasterly flow toward Beaverdam Creek located to the east. A general southerly groundwater flow was observed on the Westhampton Transfer Station and former landfill property. As the groundwater in this area travels south past Old Country Road, the flow direction changes to more southeasterly as the influence of Beaverdam Creek becomes more predominant.

2. Evaluation of Potential PFAS Source Areas in the Vicinity of the BOMARC Site

Data collected as part of the BOMARC preliminary site investigation indicated a potential for other PFAS source areas to exist off of the site, in the vicinity of the BOMARC property. These areas were identified as follows: 1995 Wildfire Area; Former Westhampton Raceway Track; Sewage Treatment Plants (STPs) at Westhampton Pines senior housing, Westhampton Nursing Home, and the Westhampton Senior Living facilities; Southampton Town's Westhampton Transfer Station and former landfill; and a Westhampton Beach Fire District property. The assessment of these areas included the installation and sampling of 30 profile wells, and the sampling of eight permanent groundwater monitoring wells located at the three nearby STP sites. For reference, Figure 10 displays the locations of the wells sampled in both the 2019 preliminary on-site investigation, and in 2020/2021 for the BOMARC Offsite and Vicinity Groundwater Investigation. A summary of the detected analytes in the groundwater samples collected for the 2019 investigation is included in Appendix D.

- **1995 Wildfire Area (BOM20-62 through BOM20-66)**

The September 2020 report indicated that 2 of the 3 wells installed just north of the Suffolk County Police firing range, along the northern perimeter of the developed BOMARC site, exhibited detections of 9.8 ng/L PFOS and 1.8 ng/L PFOA in BOM-1 and BOM-2 respectively (Figure 11). These wells were intended to assess the upgradient water quality flowing onto the site from the

⁶ The SCWA Old Country Road wellfield has exhibited PFOS and PFOA detections in all three of the wells at the site with maximum concentrations of 26 ng/L and 6 ng/L respectively. SCWA has installed a treatment system at the wellfield that reduces PFAS concentrations below MCLs prior to service to their customers.

undeveloped woodland to the north. Although there are no obvious potential upgradient PFAS sources, this area was subjected to a significant wildfire in 1995 where firefighting foam potentially could have been used. To further assess this potential, five profile wells (Figure 11, BOM20-62 through BOM20-66) were located in the northern portion of the study area, north of the previous wells. No PFAS detections were observed in any of these five wells indicating no apparent PFAS source areas exist upgradient (north) of the BOMARC site.

- *Former Westhampton Raceway (BOM20-59 through BOM20-61)*

Profile wells BOM-21 and BOM-22 were installed and sampled in 2019 in the southwestern portion of the site as part of the initial BOMARC preliminary site investigation. Both wells exhibited elevated concentrations of PFOS in deeper profile levels (190 ng/L at 65-70 feet below grade (fbg) and 50 ng/L at 85-90 fbg, respectively) (Figure 12). The depth of the contamination and southeastern groundwater flow direction in the vicinity of these wells indicate a potential PFAS source area located a distance northwest of these wells, most likely off of the BOMARC property.

To further investigate the source of the PFAS in these wells, three profile wells (BOM20-59, BOM20-60 and BOM20-61) were installed along the western boundary of the BOMARC property, north (upgradient) of BOM-21 and BOM-22 (Figure 12). All three wells indicated PFOS and/or PFOA detections above the 10 ng/L NYSDOH MCLs for drinking water. These MCL exceedances ranged from 14 ng/L to 120 ng/L. The property located to the immediate west is the former Westhampton Raceway, which closed in 2004. In 2005 the property was developed into Westhampton Pines, a senior housing complex consisting of 189 townhomes. The groundwater flow direction indicates that this PFAS source area is northwest of the BOM20-59, BOM20-60 and BOM20-61 wells, potentially on the Westhampton Pines/former Westhampton Raceway property (Figure 13). The depth distribution of the PFOS concentrations in BOM-21 and BOM-22 is illustrated in Hydrogeologic PFOS Cross Section A-A' on Figure 14.

- Westhampton Pines Senior Housing, Westhampton Nursing Home, and the Westhampton Senior Living STPs

The Westhampton Pines senior housing, Westhampton Nursing Home, and the Westhampton Senior Living STPs are all located to the south of the BOMARC property, in the near vicinity of the site (Figure 3). To assess the potential PFAS contributions from these STPs to the groundwater in the area, sampling for PFAS was conducted from the permanent monitoring wells installed at each STP. These monitoring wells are used to monitor the groundwater for the treatment plant's discharge permits.

- Westhampton Pines Senior Housing (MWG-WH-1, MWG-WH-2 & MWG-WH-3)

All three groundwater monitoring wells exhibited detections of PFOS and PFOA, with MWG-2-WH at 13 ng/L of PFOS, exceeding the MCL. PFOA concentrations exceeded the MCL in all three wells, with the highest reported in MWG-2-WH at 64 ng/L. MWG-1-WH (upgradient well) had PFOA at 12 ng/L indicating a potential PFOA source area upgradient of the STP (Figure 7). PFOS and PFOA were detected in a profile well located on Old Country Road (BOM20-38) at 18 ng/L and 22 ng/L in profile depth levels consistent with a source from this STP. The PFOS and PFOA plumes downgradient from this STP are depicted in Figures 13 and 17, respectively. No profile wells were located downgradient of Old Country Road; therefore, the southerly extent of these plumes is inferred. Two private wells are known to be located south of Old Country Road, north of Montauk Highway. Sampling of these private wells in 2018 and 2020 indicated PFOS and PFOA did not exceed the 10 ng/L MCL at the time they were sampled.

- Westhampton Nursing Home (GMW-1-WH, GMW-2-WH, GMW-3-WH)

PFOS and PFOA were detected in both downgradient groundwater monitoring wells (GMW-2-WH and GMW-3-WH), with the PFOS concentration in GMW-3-WH (11 ng/L) exceeding the MCL (Figure 6). There were no PFOS or PFOA detections in the upgradient well (GMW-1-WH). This indicates the PFAS concentrations observed in the downgradient wells are most likely from the Westhampton Nursing Home STP.

- Westhampton Senior Living (MW-1-WH Senior, MW-2-WH Senior)
PFOS and PFOA were detected at 2.9 ng/L and 1.9 ng/L respectively in the downgradient well MW-WH-2. These concentrations are below the MCLs. PFOS and PFOA were not detected in the upgradient well (MW-WH-1) suggesting that the Westhampton Senior Living STP is the likely source of the PFAS detected in the downgradient well (Figure 7).
- Southampton Town's Westhampton Transfer Station and Former Landfill (BOM20-66 through 70)
Two profile wells located generally upgradient of the Southampton Town's Westhampton Transfer Station & former landfill property (BOM20-66 and BOM20-67) exhibited no PFAS detections (Figure 5). Three profile wells (BOM20-68, BOM20-69, BOM20-70) located on the transfer station site downgradient of the Southampton Police Firing Range, within the area of stored vegetative organic waste, each had PFOS and PFOA detections exceeding MCLs ranging from 12 ng/L to 19 ng/L (Figure 5 and Figure 6). The depth distributions of the PFOS and PFOA in wells BOM20-68 and BOM20-69 show that detections were predominantly at or near the top of the water table, indicating that the Southampton Police Firing Range and/or the vegetative organic waste storage area may be a source of the PFOS and PFOA observed in the groundwater of these wells. Data collected from additional profile wells further downgradient of the transfer station property, primarily BOM21-77 (PFOA 23 ng/L), BOM21-78 (PFOS 93 ng/L), BOM20-57 (PFOS 26 ng/L), and BOM20-58 (PFOS 85 ng/L), along with the data collected from private wells located in the area, indicate a PFOS and PFOA groundwater plume may extend up to 9,000 feet downgradient of the Westhampton Transfer Station and former landfill site (Figure 13 and Figure 17).
- Westhampton Beach Fire Department Property (BOM20-51, 53 & 54)
To assess potential PFAS contributions to the groundwater from a Westhampton Beach Fire Department property, three profile wells (BOM20-51, BOM20-53 & BOM20-54) were installed in the downgradient vicinity of a Westhampton Beach Fire Department property (Figure 8). Two of these profile wells (BOM20-53 and BOM20-54) had PFOS and/or PFOA concentrations above the MCL ranging from 11 ng/L to 23 ng/L. One well (BOM20-51) had PFOS and PFOA detections below the MCL. The depth

distribution of elevated PFOS and PFOA within the aquifer in these profile wells (MCL exceedances at 55-60 fbg in BOM20-53, at 45-50 fbg in BOM20-54 and a PFOA exceedance at 65-70 fbg in BOM20-54) indicate that the source of these elevated PFOS/PFOA concentrations in the groundwater is most likely upgradient of the fire department property.

3. Evaluation of PFAS Impacted Groundwater Migrating Off of the BOMARC Site

Six profile wells (BOM20-35, BOM20-40, BOM20-41, BOM20-42, BOM20-43, BOM20-44) were installed downgradient (south) of the BOMARC site to assess if impacted groundwater is present downgradient of the BOMARC property. BOM20-35 was installed on a cul-de-sac on Sophie Court, and BOM20-40 through BOM20-44 were installed in a west-to-east line along Old Country Road (Figure 4). PFOS was detected in four of five profile levels in BOM20-35, ranging from 15 ng/L to 67 ng/L, and PFOA was also detected in four of the profile levels, with concentrations ranging from 14 ng/L to 31 ng/L (Figure 6). BOM20-43 and BOM20-44 also had PFOS and PFOA detections. PFOS was reported in BOM20-43 in four of five profile levels ranging in concentration from 2 ng/L to 53 ng/L, and PFOA was detected in all five levels ranging from 2 ng/L to 21 ng/L. PFOS was reported in all five profile levels of BOM20-44, with concentrations ranging from 2 ng/L to 18 ng/L, and PFOA was also detected in all five levels ranging from 2 ng/L to 11 ng/L (Figure 7).

Figure 13 and Figure 17 depict PFOS and PFOA isoconcentration contours using the PFAS data collected to date.⁷ Figure 13, created using data from this study and data collected in 2019 that was presented in the **2020 BOMARC Groundwater and Soil Investigation Report**, depicts two distinct groundwater plumes with PFOS concentrations greater than 100 ng/L located on the BOMARC site; a western plume that potentially originates on the property west of BOMARC (former Westhampton Raceway/current Westhampton Pines senior housing property); an eastern plume that appears to originate at the

⁷ The graphical depiction of the groundwater plumes in Figure 13 through Figure 28 are based upon the following: data collected from profile and permanent monitoring wells from 2019 to 2021; March 2021 groundwater flow direction as illustrated in Figure 2; and private well data. Note that to protect homeowner privacy, only the generalized locations of properties served with private wells are displayed. The depth of the screen zones on private wells are unknown and were estimated to be 40 feet below the water table.

southeast portion of the BOMARC site (in the vicinity of the vehicle-fire storage area). As both PFOS plumes migrate south they are pulled toward each other due to the influence of pumping from the SCWA Old Country Road wellfield, which is located immediately south of the BOMARC site between the plumes. After passing the SCWA wellfield, the PFOS plumes resume a more southerly flow with the eastern plume mixing with lower PFOS concentrations (less than 25 ng/L) downgradient from the Westhampton Nursing Home STP. These two distinct PFOS plumes are evident in profile wells installed along Old Country Road and can be seen in the B-B' hydrogeologic cross-section in Figure 15 (wells BOM20-43 and BOM20-46).

Figure 17 shows the PFOA isoconcentration contours and indicates that a relatively large area of groundwater on the southern portion of the BOMARC site exhibits PFOA concentrations between 10 ng/L and 25 ng/L. A portion of this PFOA appears to be flowing onto the site from the neighboring former Westhampton Raceway/current Westhampton Pines senior housing property, similar to PFOS. Higher concentration PFOA (100 ng/L) are evident in the groundwater on the southeastern side of the BOMARC site, in the vicinity of the vehicle-fire storage area. As with the PFOS plume, the PFOA plume is influenced by the SCWA Old Country Road Wellfield as it migrates off the site. This PFOA plume is evident at Old Country Road in profile well BOM-43 and is depicted in hydrogeologic cross-section B-B' in Figure 19.

Since no profile wells were installed south of Old Country Road in this area, the extent of both the PFOS and PFOA groundwater plumes downgradient of Old Country Road is unknown, therefore the southerly extent of these plumes illustrated in Figure 13 and Figure 17 are inferred.

4. Evaluation of Potential PFAS Source(s) Impacting Private Wells in the Vicinity of the Site

After reports of PFAS detections at SCWA's Old Country Road Wellfield, a private well sampling survey was conducted in the area in 2017, and private well sampling was repeated in 2020. In total, 62 properties were tested in the survey area, with 16 properties having wells with PFOS and/or PFOA concentrations exceeding New York State MCLs. As of August 2024, 57 properties in the area

are still served by on-site wells, and seven of those properties have point of use treatment (POET) filters installed for the removal of PFAS. Thirty-seven (37) of the known properties served with on-site wells identified since 2017 are in the downgradient vicinity of Southampton Town's Westhampton Transfer Station and former landfill property. Of these 37 properties, 26 had a detectable concentration of PFOS and/or PFOA, 11 of which exceeded the NYS MCL of 10 ng/L for PFOS and/or PFOA⁸.

The Westhampton Town Transfer Station and former landfill began operating in the late 1960s and historically contained leaching pits where septic wastes were disposed⁹. The site currently operates as a refuse transfer station, yard waste management site and a storage yard for highway maintenance materials. Figure 9 indicates a general southerly groundwater flow direction on the transfer station property that becomes southeasterly downgradient (i.e., south) of the site.

The concentration distribution of manganese and specific conductance, two parameters commonly associated with groundwater impacts from landfills, were evaluated in profile wells and off-site private wells to determine if groundwater impacts from the transfer station/former landfill site are evident. Manganese and specific conductance groundwater concentration contours are depicted in Figure 21 and Figure 25, respectively, and in cross-section in Figure 22 through Figure 24, and Figure 26 through Figure 28, respectively. These figures indicate that a plume of elevated manganese concentrations and elevated specific conductance is apparently migrating south/southeast from the Westhampton Town Transfer Station and former landfill site and is likely a result of landfill impacts to the groundwater. The impacted groundwater appears to extend downgradient from the transfer station/former landfill site, consistent with the groundwater flow direction, south of South Road. Other parameters also commonly associated with landfill impacts such as chlorides and ammonia were also found to be elevated in some of the profile wells within the depicted plume at depths consistent with a source from the transfer station/former landfill site (e.g., chlorides >200 milligrams per liter (mg/L) and ammonia >4 mg/L in well BOM21-78) (Table 1). Elevated concentrations of parameters often associated with landfill impacts were also observed in several private wells located within

⁸ All eleven of these properties have had a treatment system (e.g., POET) installed or have since connected to public water and no longer use their well for potable purposes.

⁹ Summary Report, Preliminary Site Assessment, Westhampton Landfill, Town of Southampton, Suffolk County, Site No. 152060, Parsons Engineering Science, Inc., September 1995, p.2

the defined plume (e.g., data from a private well located in the northern portion of the defined plume reported specific conductance >900 microsiemens per centimeter ($\mu\text{S}/\text{cm}$), manganese >4,000 micrograms per liter ($\mu\text{g}/\text{L}$), and chlorides >200 mg/L).

The PFOS and PFOA concentration distributions south of the Westhampton Transfer Station and former landfill depicted in Figure 13 and Figure 17, respectively, appear to have a very similar lateral distribution pattern as the landfill related parameters (e.g., manganese and specific conductance, Figure 21 and Figure 25). The same holds true for the PFAS concentrations' vertical distribution pattern depicted in the north-south Hydrogeologic Cross-Section C-C' in Figure 16 and Figure 20, and the manganese and specific conduction vertical distribution illustrated in Hydrogeologic Cross-Section C-C' Figure 24 and Figure 28. Elevated PFOS and PFOA concentrations were observed in a profile well on Old Country Road, hydraulically downgradient of the Westhampton Transfer Station and former landfill site (BOM20-49 PFOS 45 ng/L, PFOA 26 ng/L). Data collected from additional profile wells further downgradient of the landfill (BOM21-77 PFOA 23 ng/L, BOM21-78 PFOS 93 ng/L and BOM20-57 PFOS 26 ng/L, BOM20-58 PFOS 85 ng/L), along with the data collected from private wells located in the area, indicate a groundwater PFAS plume may extend up to 9,000 feet downgradient of Southampton Town's Westhampton Transfer Station and former landfill site.

5. Polychlorinated Biphenyl (PCB) Testing in Off-site Groundwater Downgradient of the BOMARC Site

The September 2020 preliminary site investigation report documented the presence of polychlorinated biphenyls (PCBs) in soils located on the BOMARC site. To assess potential PCB impacts to BOMARC off-site groundwater, six profile wells installed to assess off-site (BOM20-35, BOM20-40, BOM20-41, BOM20-42, BOM20-43 and BOM20-44) (Figure 4) had samples analyzed by Pace Analytical Laboratories for PCBs. All six wells are located south and hydraulically downgradient of the BOMARC site and each of the well's five profile levels analyzed for PCBs (30 samples total, see Table 1). PCBs were not detected in any of these samples; therefore, PCBs do not appear to be migrating in the groundwater off the BOMARC site.

Conclusions

Groundwater Flow Direction in the Study Area

This investigation refined the groundwater flow direction in the study area and established that there is a general south/southeasterly groundwater flow direction in the central portion of the BOMARC site that is influenced on the southern portion of the site by pumping of the SCWA's Old Country Road Wellfield. Once the groundwater flows past the wellfield, a portion travels more southwesterly toward the Speonk River, and a portion travels southeasterly toward the Beaverdam Creek. A general southerly groundwater flow was observed on the Town of Southampton's Westhampton Transfer Station and former landfill property. As the groundwater in this area travels south past Old Country Road, the flow direction changes to more southeasterly as the influence of Beaverdam Creek becomes more predominant.

Evaluation of Potential PFAS Sources in the Vicinity of the BOMARC Site

Several potential significant offsite PFAS sources were identified in the vicinity of the BOMARC site. These include the Westhampton Pines senior housing/former Westhampton Raceway property and the Town of Southampton's Westhampton Transfer Station and former landfill (see Figure 13). PFOS concentrations downgradient of the former Westhampton Raceway property, as high as 120 ng/L, were identified (BOM20-60), and PFOS concentrations as high as 93 ng/L were identified downgradient of the Westhampton Transfer Station and former landfill (BOM20-78). PFOS and/or PFOA concentrations exceeding NYS MCLs were also noted in downgradient permanent monitoring wells at two of the three STPs in the area. Two of the three profile wells installed in the downgradient vicinity of the Westhampton Beach Fire Department property exhibited PFOS and/or PFOA concentrations exceeding NYS MCLs. However, the depth distribution of the elevated concentrations indicates the source is likely located upgradient of the fire department property.

Evaluation of PFAS Impacted Groundwater Migrating off the BOMARC Site

Two distinct groundwater plumes with elevated PFOS concentrations greater than 100 ng/L were identified on the BOMARC site; a western plume that potentially originates on the property west of BOMARC (former Westhampton Raceway/current Westhampton Pines senior housing property); an eastern plume that appears to originate at the southeast portion of the BOMARC site (in the vicinity of the vehicle-

fire storage area). As both PFOS plumes migrate south and off-site, they are pulled toward each other due to the influence of pumping from the SCWA Old Country Road wellfield. After passing the SCWA wellfield, the PFOS plume resumes a more southerly flow, with the eastern plume comingling with lower PFOS concentrations (less than 25 ng/L) downgradient from the Westhampton Nursing Home STP. Elevated PFOS concentrations are evident downgradient of the BOMARC site in profile wells along Old Country Road. PFOA (up to 100 ng/L) in the groundwater was identified on the southeastern side of the BOMARC site, in the vicinity of the vehicle-fire storage area. As with the PFOS plume, the PFOA plume is influenced by the SCWA Old Country Road Wellfield as it migrates off the site. This PFOA plume is evident at Old Country Road in profile well BOM-43 and is depicted in hydrogeologic cross-section B-B' in Figure 19.

Since no profile wells were installed south of Old Country Road, the extent of both the PFOS and PFOA groundwater plumes downgradient of Old Country Road is unknown, therefore the southerly extent of these plumes illustrated in Figure 13 and Figure 17 are inferred.

Evaluation of Potential PFAS Source(s) Impacting Private Wells in the Vicinity of the BOMARC Site

In 2017, in order to identify any private wells that may have been impacted by PFAS contaminated groundwater, the SCDHS initiated a private well sampling survey in the vicinity of the BOMARC site. This private well sampling survey was repeated in 2020. In total, 62 properties were tested in the survey area, with 16 properties having wells with PFAS concentrations exceeding MCLs. Data from groundwater profile wells and private wells located in the area was used to create PFOS and PFOA plume maps (Figure 13 and Figure 17, respectively). These maps indicate a groundwater PFOS and PFOA plume, as well as landfill leachate impacted groundwater (Figure 21 and Figure 25), may extend up to 9,000 feet downgradient of Southampton Town's Westhampton Transfer Station and former landfill site. Many of the private wells are located downgradient of the Town's site.

To address PFAS groundwater contamination in the private well survey area, the Suffolk County Water Authority is commencing a project to extend public water in the survey area to 57 properties, mainly downgradient of the Town of Southampton

Transfer Station/former landfill that are still utilizing private wells as their domestic water source. This public water extension project is funded by a number of sources including a grant from the New York State Water Infrastructure Improvement Act, a Congressionally Directed Spending grant, the Town of Southampton Community Preservation Fund, and Suffolk County's American Rescue Plan Act.

Polychlorinated Biphenyl (PCB) Testing on Off-Site Groundwater Downgradient of the BOMARC Site

The investigation determined that PCBs do not appear to be migrating in the groundwater off of the BOMARC site.

Suffolk County will continue to coordinate with the New York State Department of Environmental Conservation in identifying and addressing potential PFAS sources located on the BOMARC property.

Figures

Figure 1
Suffolk County
Department of Health Services
BOMARC Facility & Vicinity - 1962
Westhampton, N.Y.

Westhampton Drag
Race Track

Suffolk BOMARC Base

0 1,000

US Survey feet



Figure 2
Suffolk County
Department of Health Services
BOMARC Facility
Westhampton, N.Y.
Areas of Interest

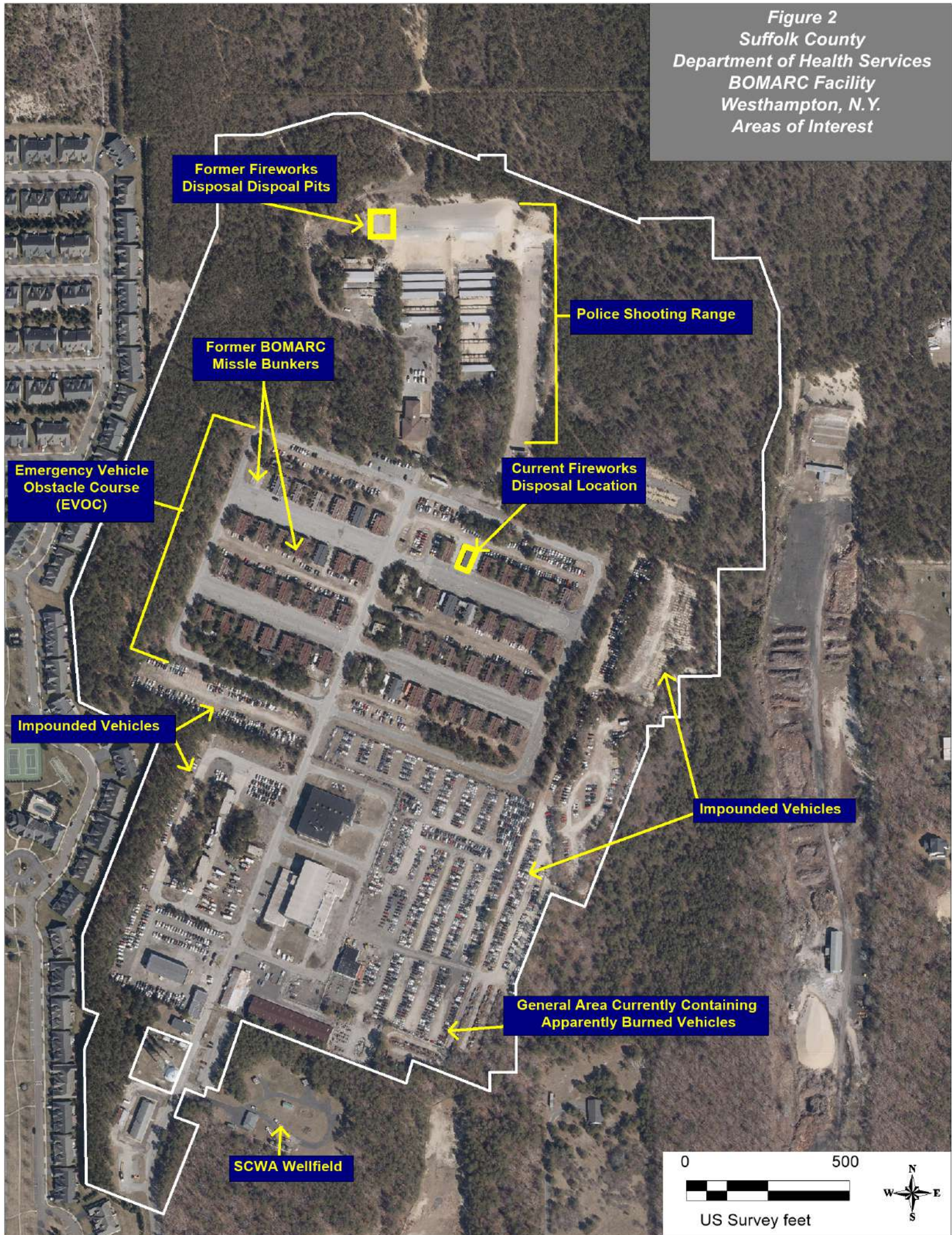


Figure 3
Suffolk County
Department of Health Services
Potential PFAS Sources
Vicinity of the BOMARC Facility
Westhampton, N.Y.



Figure 4
Suffolk County
Department of Health Services
Location of BOMARC
Offsite & Vicinity Wells Sampled
Westhampton, N.Y.



Legend

-  BOMARC Vicinity Wells
-  BOMARC Off-site Wells
-  Groundwater Flow Direction

* Permanent monitoring wells installed for STP, not a profile well

Note: Indicated well designations reflect the last two digits of well name.

0 1,000



US Survey feet



Figure 5
Suffolk County
Department of Health Services
PFOS & PFOA Concentrations
Profile Wells BOM20-61 through BOM20-69
BOMARC Site & Vicinity
Westhampton, NY

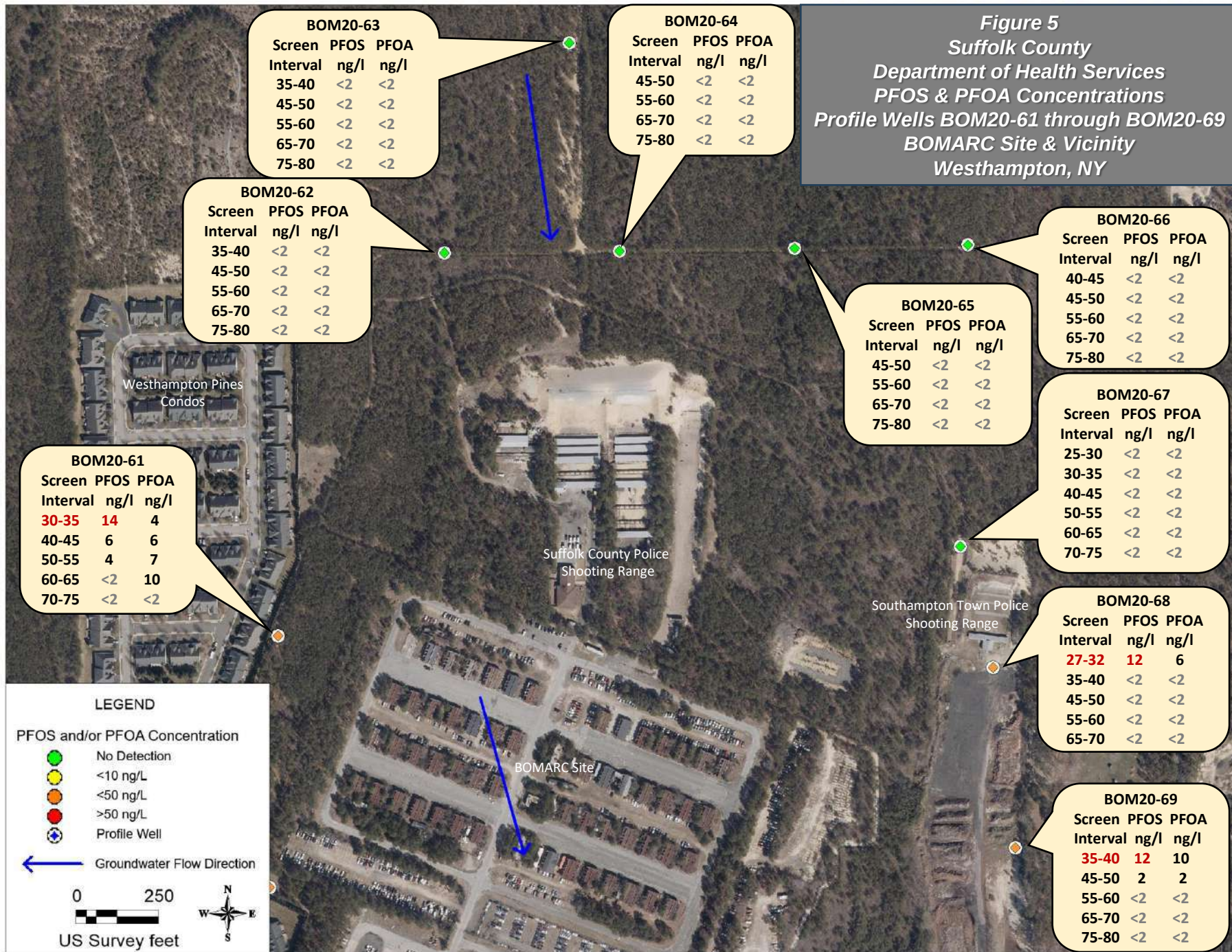


Figure 6
Suffolk County
Department of Health Services
PFOS & PFOA Concentrations
Profile Wells BOM20-35, BOM20-59, BOM20-60,
BOM20-69, BOM20-70, &
Westhampton Nursing Home STP Wells
BOMARC Site & Vicinity
Westhampton, NY

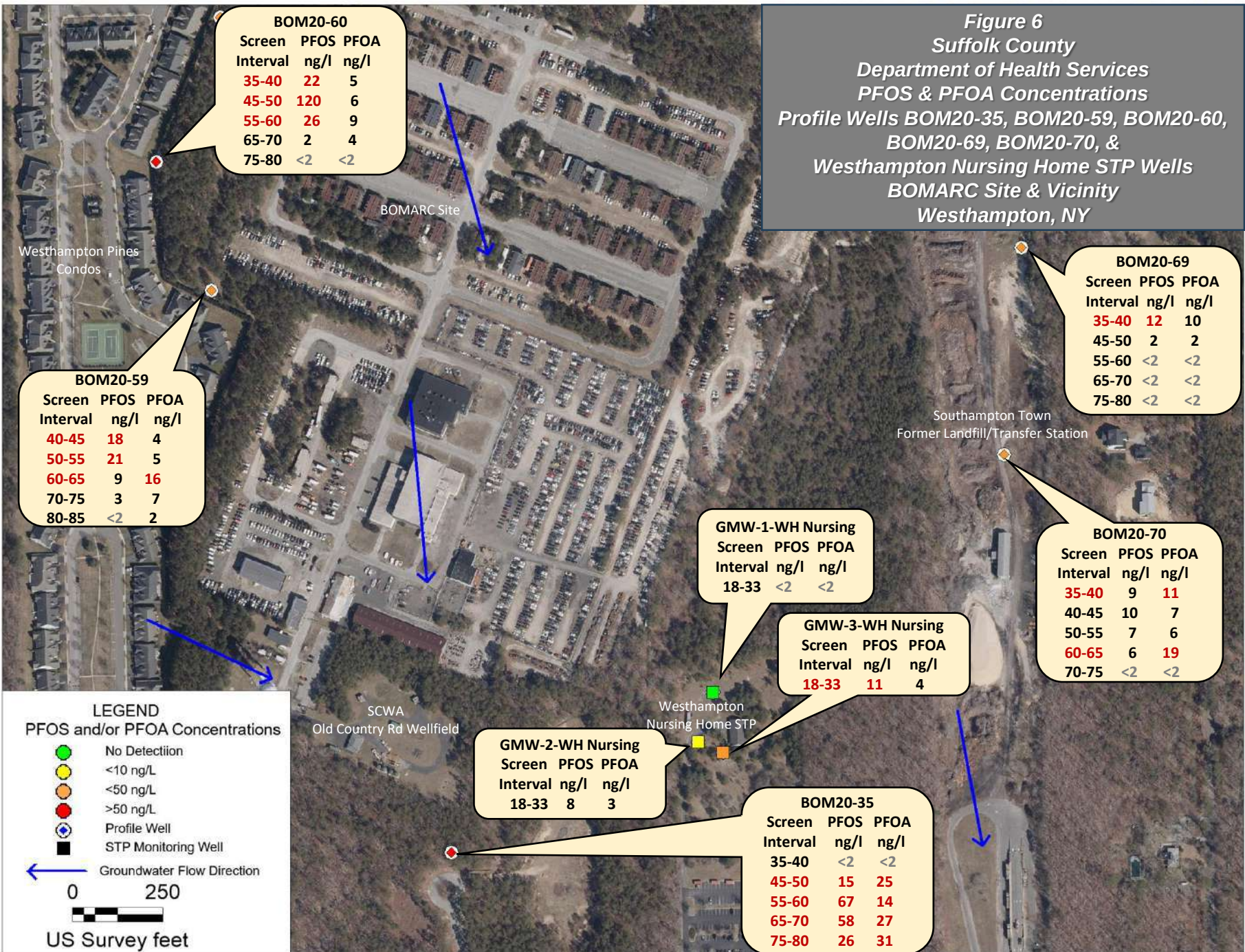


Figure 7
Suffolk County
Department of Health Services
PFOS & PFOA Concentrations
Profile Wells BOM20-36 Through BOM20-50,
BOM21-76, Westhampton Pines & Senior STP Wells
BOMARC Site & Vicinity
Westhampton, NY

MWG-1-WH Pines
 Screen PFOS PFOA
 Interval ng/l ng/l
 22-37 3 12

Westhampton Pines STP

MWG-3-WH Pines
 Screen PFOS PFOA
 Interval ng/l ng/l
 18-33 5 16

MWG-2-WH Pines
 Screen PFOS PFOA
 Interval ng/l ng/l
 20-35 13 64

BOM20-37
 Screen PFOS PFOA
 Interval ng/l ng/l
 30-35 3 4
 40-45 2 6
 50-55 <2 7
 60-65 <2 <2
 70-75 <2 <2

BOM20-38
 Screen PFOS PFOA
 Interval ng/l ng/l
 25-30 <2 8
 35-40 18 11
 45-50 10 22
 55-60 4 4
 65-70 2 4

BOM20-40
 Screen PFOS PFOA
 Interval ng/l ng/l
 15-20 4 4
 25-30 <2 2
 35-40 3 6
 45-50 4 6
 55-60 <2 2

BOM20-42
 Screen PFOS PFOA
 Interval ng/l ng/l
 40-45 <2 <2
 50-55 2 3
 60-65 2 4
 70-75 2 6
 80-85 <2 3

BOM20-36
 Screen PFOS PFOA
 Interval ng/l ng/l
 30-35 4 2
 40-45 2 <2
 50-55 <2 <2
 60-65 <2 3
 70-75 <2 7

BOM20-41
 Screen PFOS PFOA
 Interval ng/l ng/l
 15-20 2 2
 25-30 <2 <2
 35-40 <2 5
 45-50 <2 5
 55-60 <2 2

BOM20-43
 Screen PFOS PFOA
 Interval ng/l ng/l
 35-40 <2 2
 45-50 16 5
 55-60 53 30
 65-70 25 31
 75-80 6 6

BOM20-44
 Screen PFOS PFOA
 Interval ng/l ng/l
 35-40 16 11
 45-50 18 10
 55-60 16 9
 65-70 9 7
 75-80 2 2

MW-1-WH Senior
 Screen PFOS PFOA
 Interval ng/l ng/l
 30-45 <2 <2

BOM20-49
 Screen PFOS PFOA
 Interval ng/l ng/l
 35-40 4 5
 45-50 17 11
 55-60 39 22
 65-70 45 26
 75-80 17 17

BOM20-50
 Screen PFOS PFOA
 Interval ng/l ng/l
 30-35 <2 <2
 35-40 <2 2
 45-50 <2 4
 55-60 <2 4
 65-70 <2 <2
 75-80 <2 <2

Westhampton Senior Living STP

MW-2-WH Senior
 Screen PFOS PFOA
 Interval ng/l ng/l
 30-45 3 2

BOM21-76
 Screen PFOS PFOA
 Interval ng/l ng/l
 30-35 <2 <2
 40-45 9 9
 50-55 3 6
 60-65 3 7
 70-75 3 6

BOM20-45
 Screen PFOS PFOA
 Interval ng/l ng/l
 30-35 <2 <2
 40-45 <2 <2
 50-55 16 6
 60-65 23 6
 70-75 23 6

BOM20-46
 Screen PFOS PFOA
 Interval ng/l ng/l
 35-40 5 3
 45-50 27 7
 55-60 19 5
 65-70 2 <2
 75-80 <2 <2

BOM20-47
 Screen PFOS PFOA
 Interval ng/l ng/l
 35-40 2 <2
 45-50 <2 <2
 55-60 <2 <2
 65-70 <2 <2
 75-80 <2 <2

LEGEND

PFOS and/or PFOA Concentrations

No Detections

<10 ng/L

<50 ng/L

>50 ng/L

Profile Well

STP Monitoring Well

Groundwater Flow Direction

0 250

US Survey feet



Southampton Town
 Former Landfill/Transfer Station

N Summit Blvd

Columbia St

Hollow Ln

Old Country Rd

Figure 8
Suffolk County
Department of Health Services
PFOS & PFOA Concentrations
Profile Wells BOM20-51 Through BOM20-58,
BOM21-77 & BOM21-78
BOMARC Site & Vicinity
Westhampton, NY

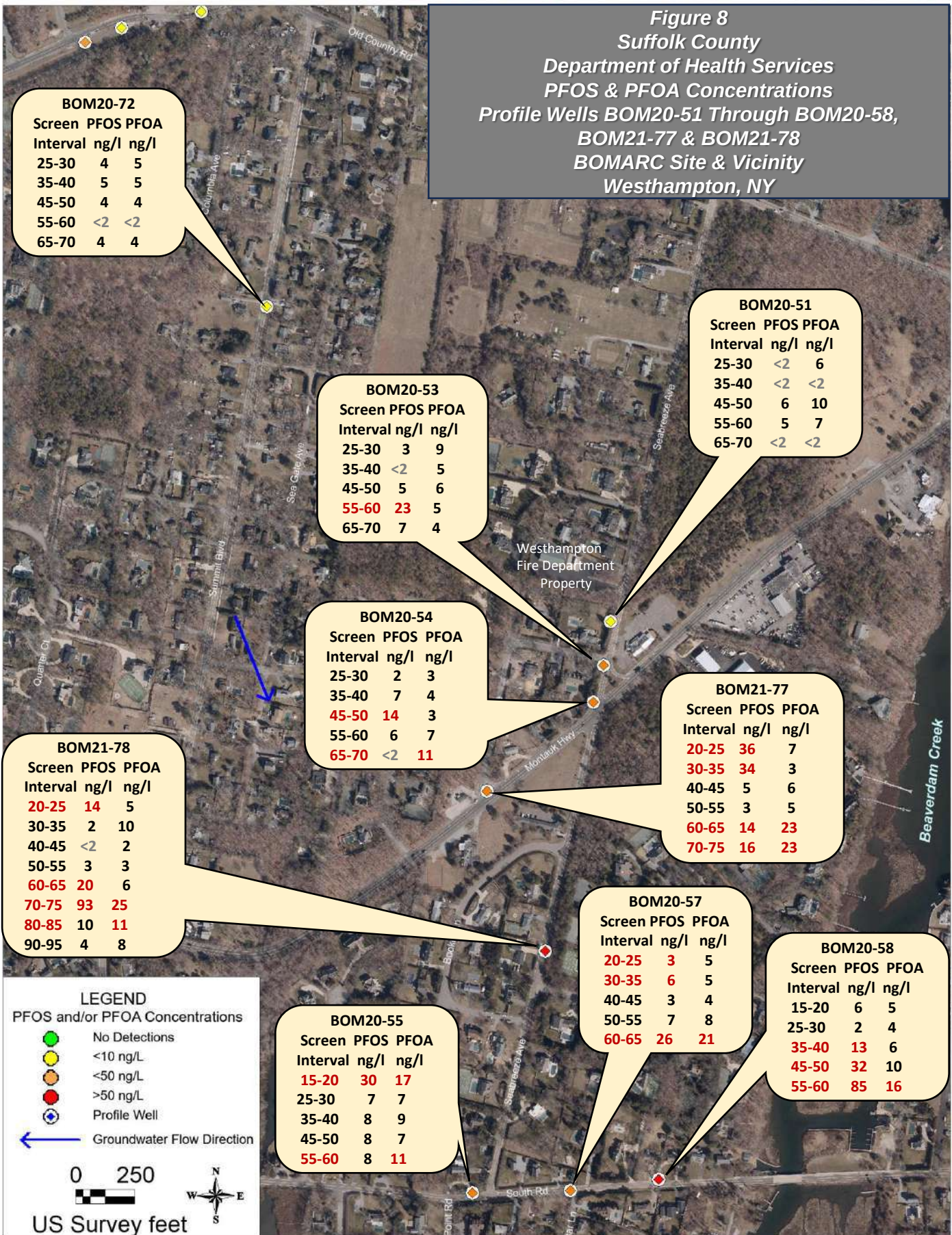


Figure 9
Suffolk County
Department of Health Services
March 2021 Relative Groundwater
Elevation Contours & Groundwater
Flow Direction



Figure 10
Suffolk County
Department of Health Services
BOMARC Facility & Vicinity
2019 & 2020/2021 Monitoring Well Locations
Westhampton, N.Y.



Figure 11
Suffolk County
Department of Health Services
PFOS & PFOA Concentrations
2019 and 2020/2021 Profile Wells
Upgradient of SCPD Shooting Range
Westhampton, NY

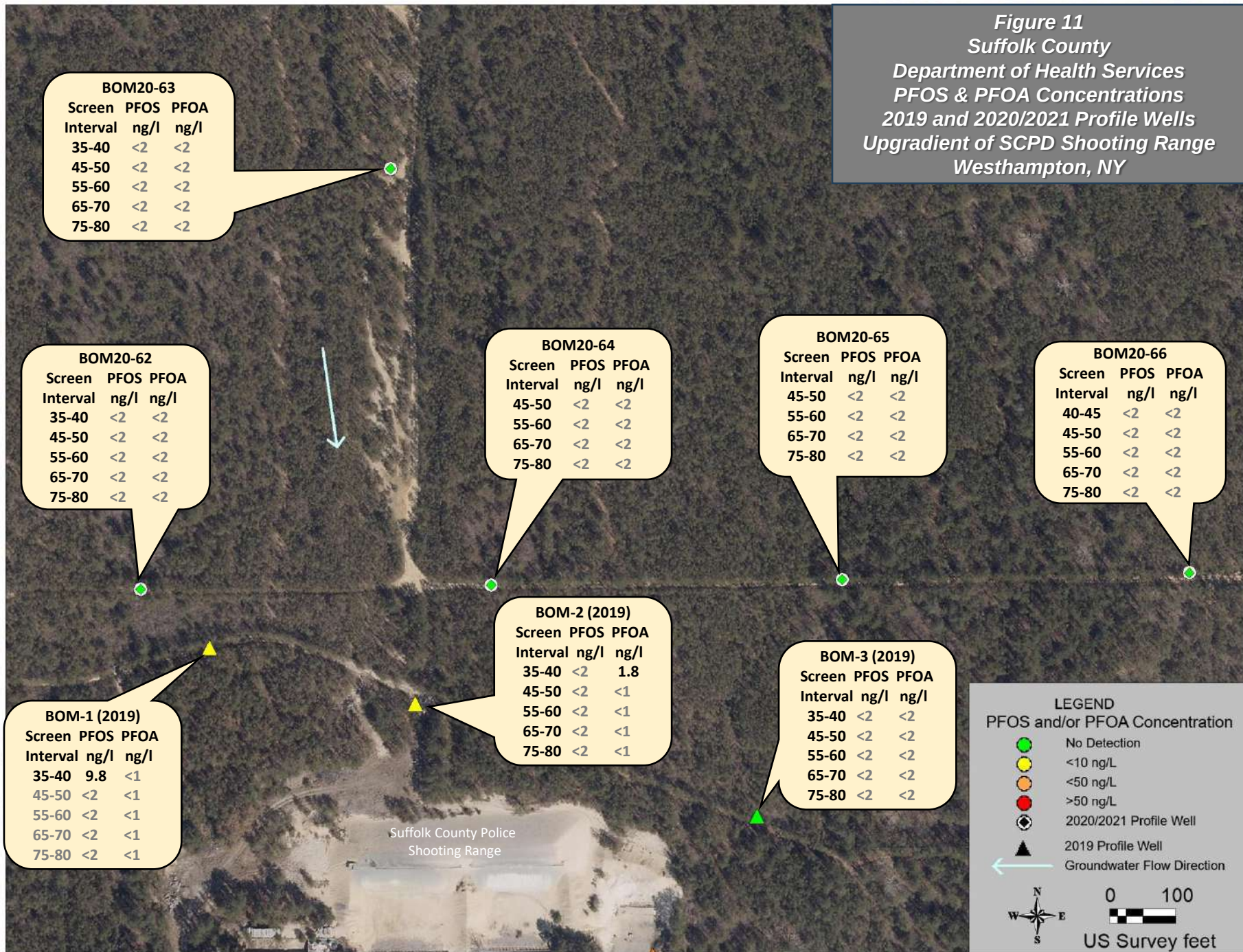


Figure 12
Suffolk County
Department of Health Services
PFOS & PFOA Concentrations
2019 & 2020/2021 Profile Wells
Southwest Site Area
BOMARC Site & Vicinity
Westhampton, NY

BOM20-61

Screen Interval	PFOS ng/l	PFOA ng/l
30-35	14	4
40-45	6	6
50-55	4	7
60-65	<2	10
70-75	<2	<2

BOM20-60

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	22	5
45-50	120	6
55-60	26	9
65-70	2	4
75-80	<2	<2

BOM16 (2019)

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	<1	1
45-50	8	6
55-60	9	9
65-70	5	4
75-80	5	6

BOM20-59

Screen Interval	PFOS ng/l	PFOA ng/l
40-45	18	4
50-55	21	5
60-65	9	16
70-75	3	7
80-85	<2	2

BOM21 (2019)

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	4	21
45-50	76	11
55-60	180	12
65-70	190	16
75-80	64	11

BOM22 (2019)

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	13	6
45-50	5	3
55-60	12	13
65-70	42	9
75-80	38	10
85-90	50	8

BOM28 (2019)

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	4	10
45-50	<2	5
55-60	<2	<2
65-70	<2	<2
75-80	5	6
85-90	<2	<2

BOM27 (2019)

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	9	22
45-50	5	7
55-60	6	7
65-70	7	6
75-80	14	6

BOM20-35

Screen Interval	PFOS ng/l	PFOA ng/l
35-40	<2	<2
45-50	15	25
55-60	67	14
65-70	58	27
75-80	26	31

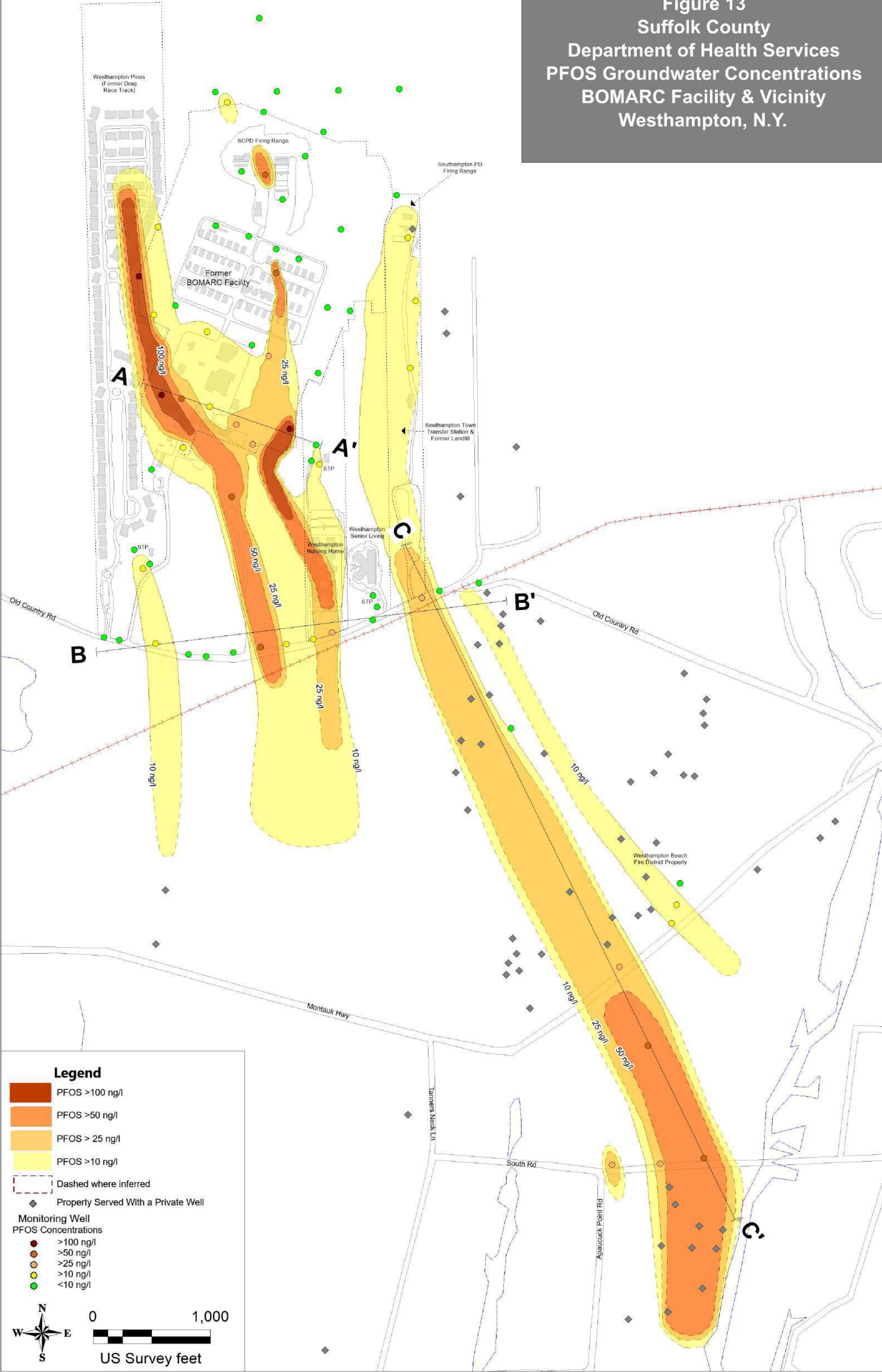
LEGEND
PFOS and/or PFOA Concentrations

- No Detection
- <10 ng/L
- <50 ng/L
- >50 ng/L
- 2020/2021 Profile Well
- ▲ 2019 Profile Well
- Groundwater Flow Direction

0 200

 US Survey feet

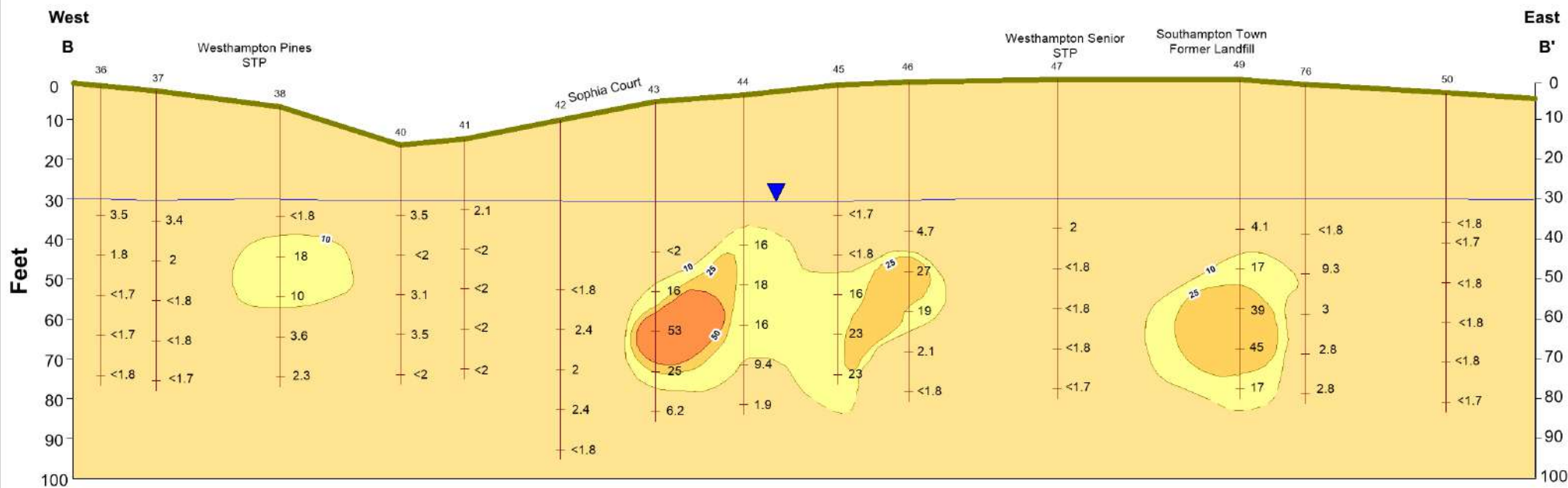
Figure 13
Suffolk County
Department of Health Services
PFOS Groundwater Concentrations
BOMARC Facility & Vicinity
Westhampton, N.Y.



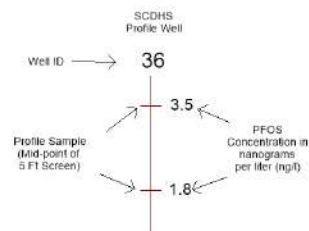
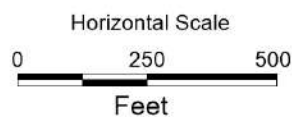
PFOS



Figure 15
Hydrogeologic Cross Section B - B'
PFOS



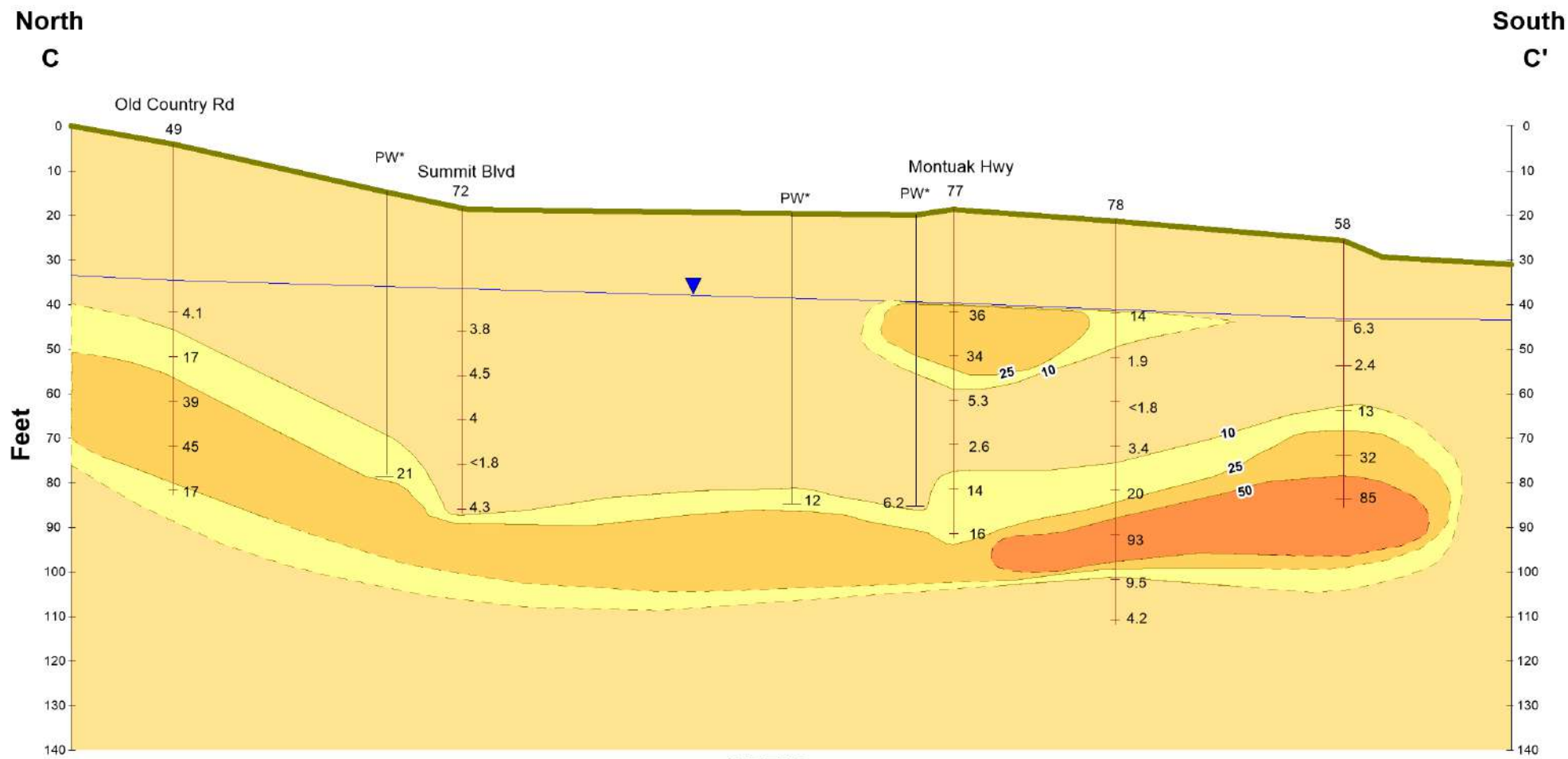
LEGEND



Water Table
as of March 2021



Figure 16
Hydrogeologic Cross Section C - C'
PFOS



LEGEND

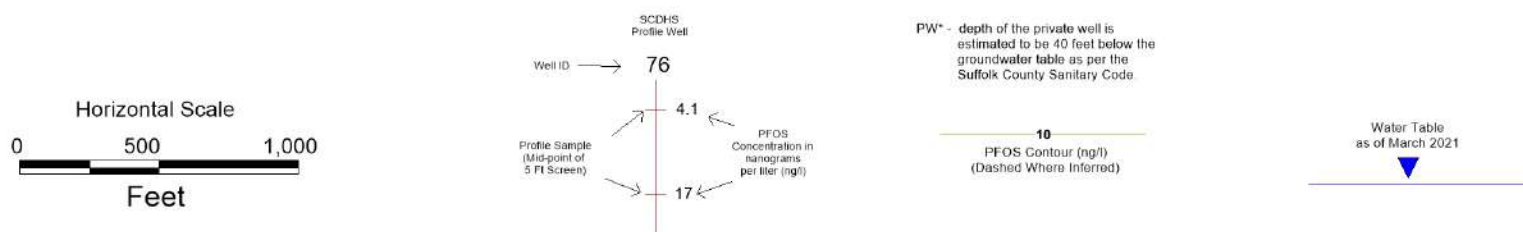
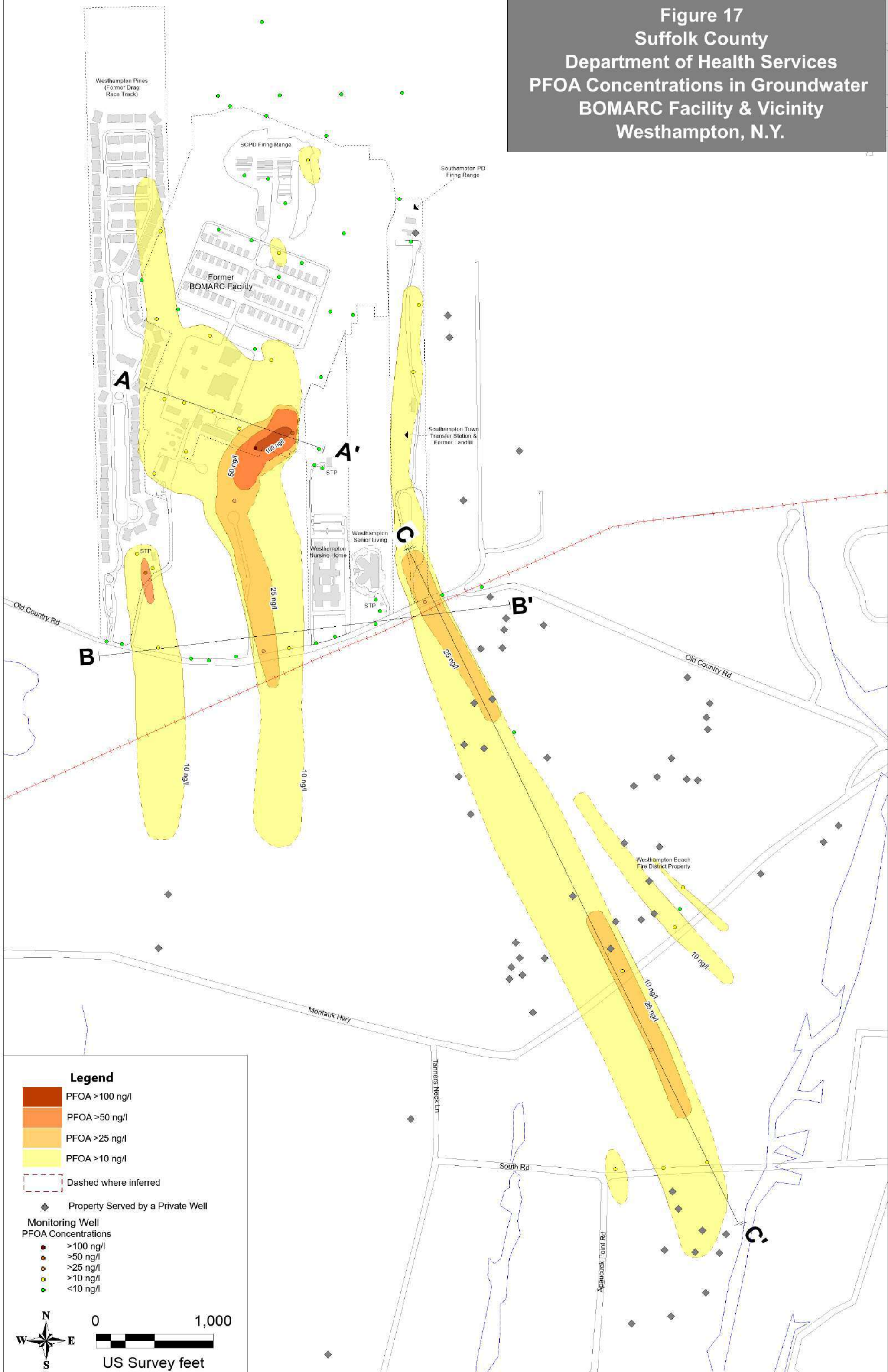


Figure 17
Suffolk County
Department of Health Services
PFOA Concentrations in Groundwater
BOMARC Facility & Vicinity
Westhampton, N.Y.



Legend

- PFOA >100 ng/l
- PFOA >50 ng/l
- PFOA >25 ng/l
- PFOA >10 ng/l

Dashed where inferred

Property Served by a Private Well

**Monitoring Well
PFOA Concentrations**

- >100 ng/l
- >50 ng/l
- >25 ng/l
- >10 ng/l
- <10 ng/l

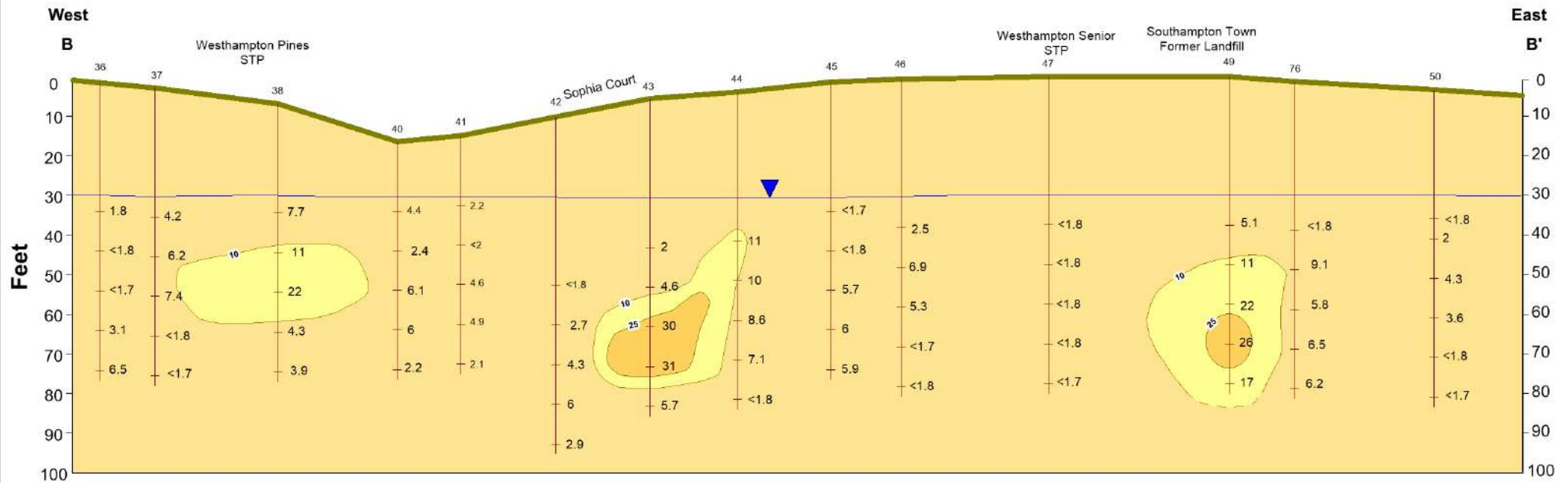


0 1,000

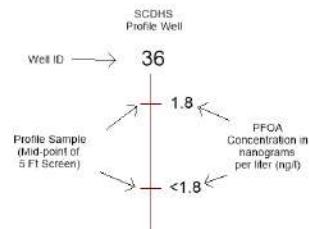
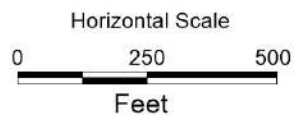


US Survey feet

Figure 19
Hydrogeologic Cross Section B - B'
PFOA



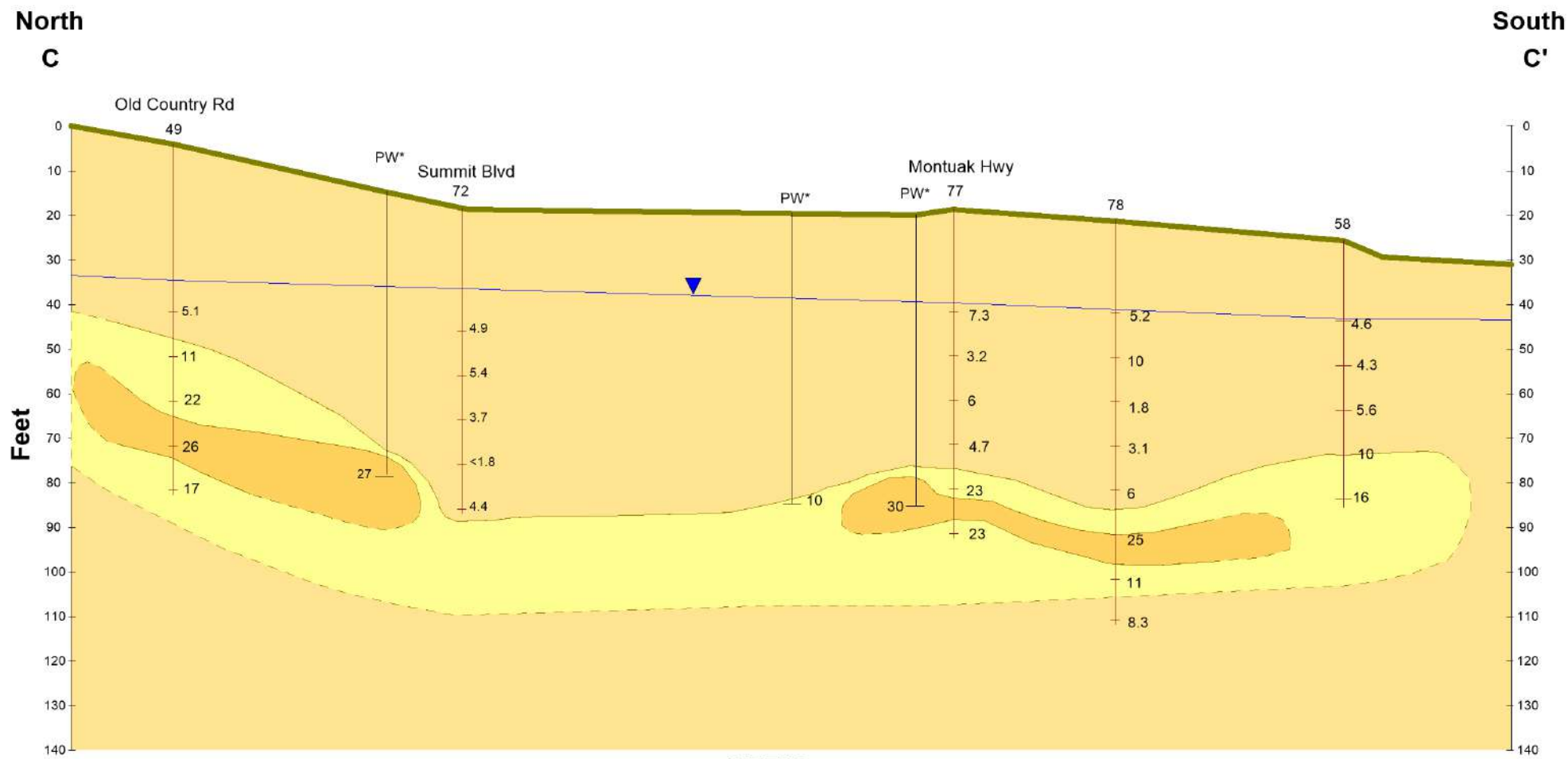
LEGEND



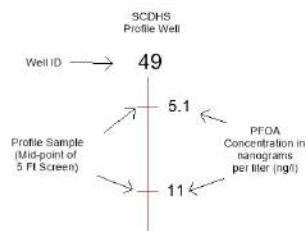
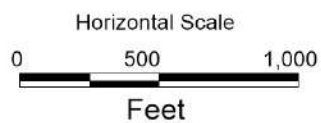
Water Table
as of March 2021



Figure 20
Hydrogeologic Cross Section C - C'
PFOA



LEGEND



PW* - depth of the private well is estimated to be 40 feet below the groundwater table as per the Suffolk County Sanitary Code

10
 PFOA Contour (ng/l)
 (Dashed Where Inferred)

Water Table
 as of March 2021

Figure 21
Suffolk County
Department of Health Services
Manganese Groundwater Concentrations
BOMARC Facility & Vicinity
Westhampton, N.Y.

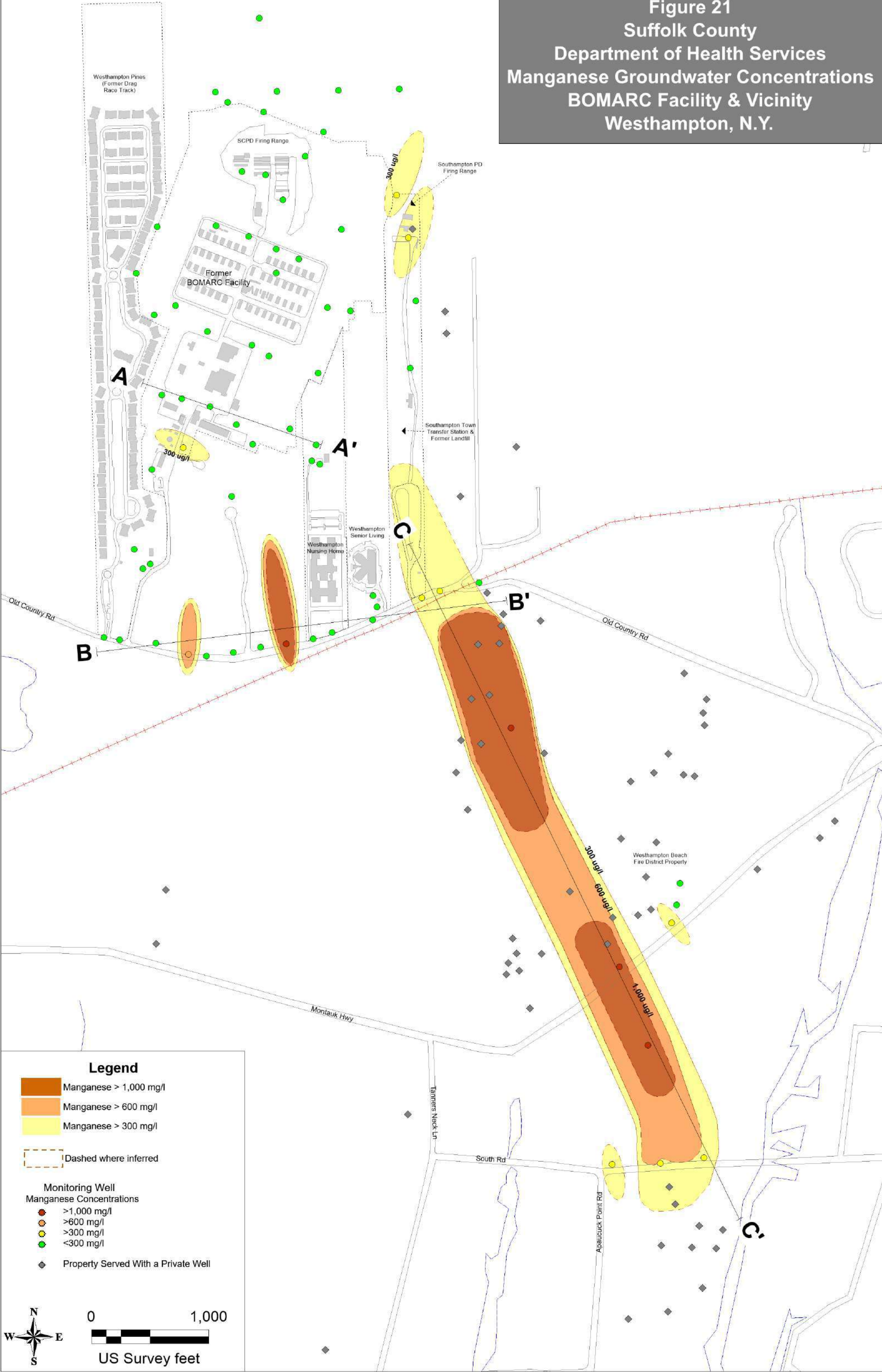


Figure 22
Hydrogeologic Cross Section A - A'
Manganese

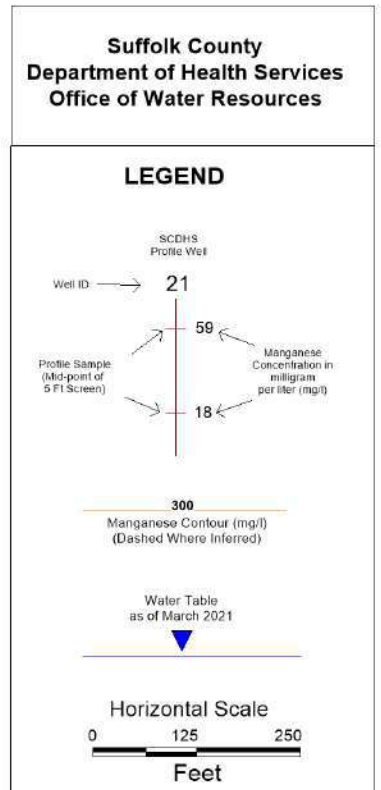
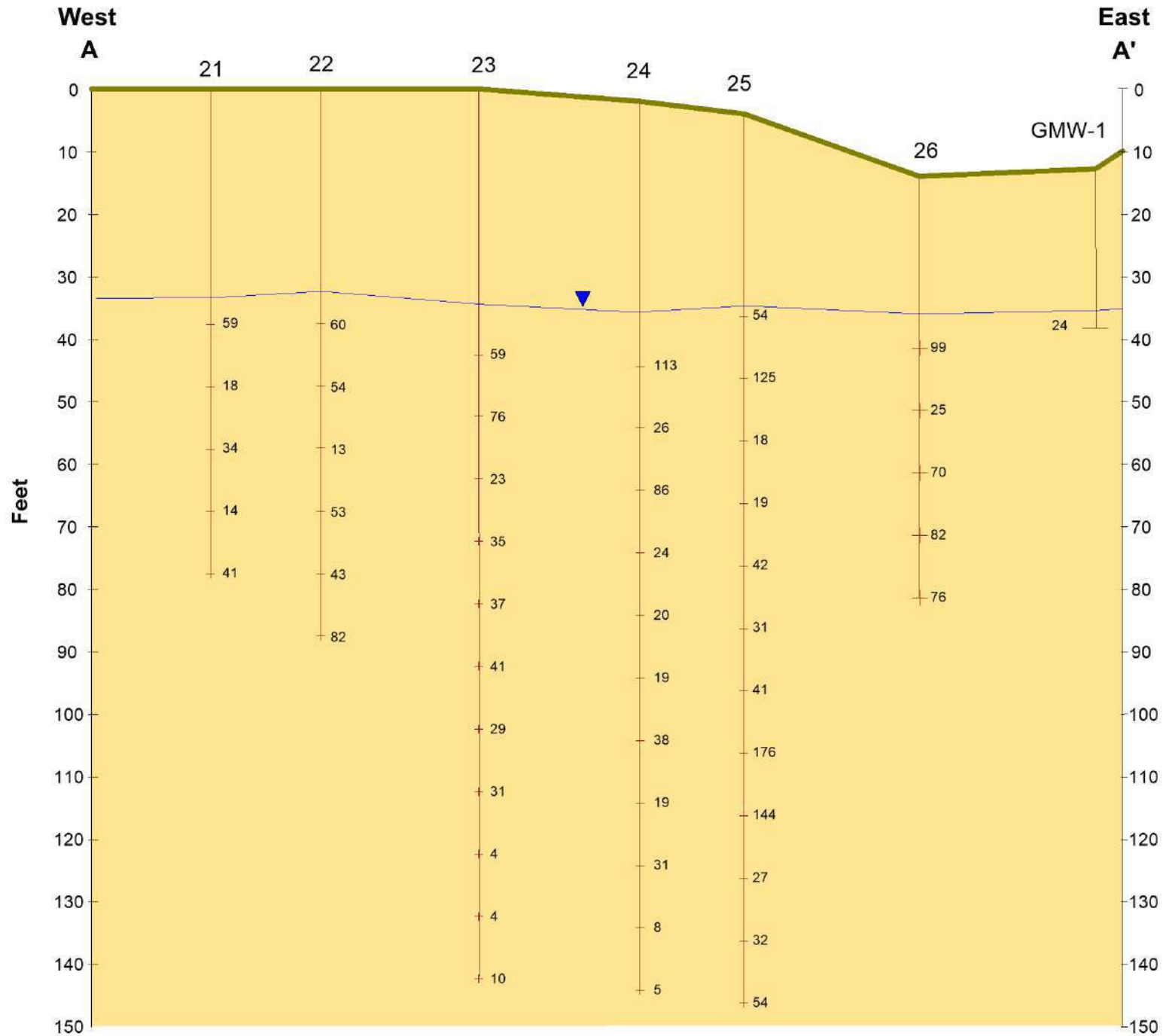
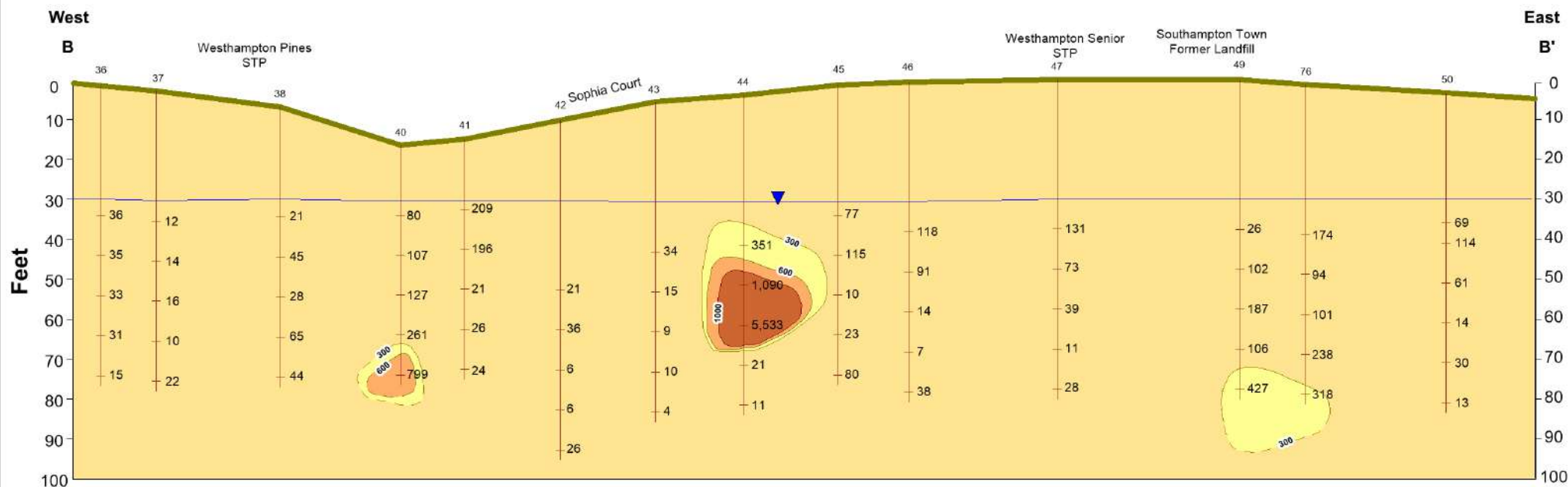


Figure 23
Hydrogeologic Cross Section B - B'
Manganese



LEGEND

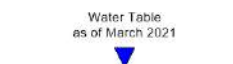
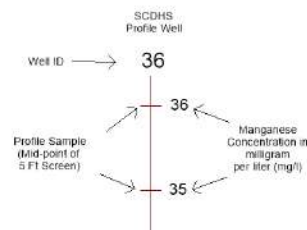
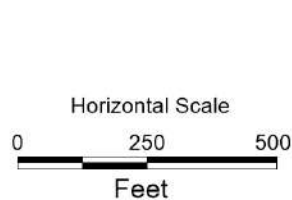
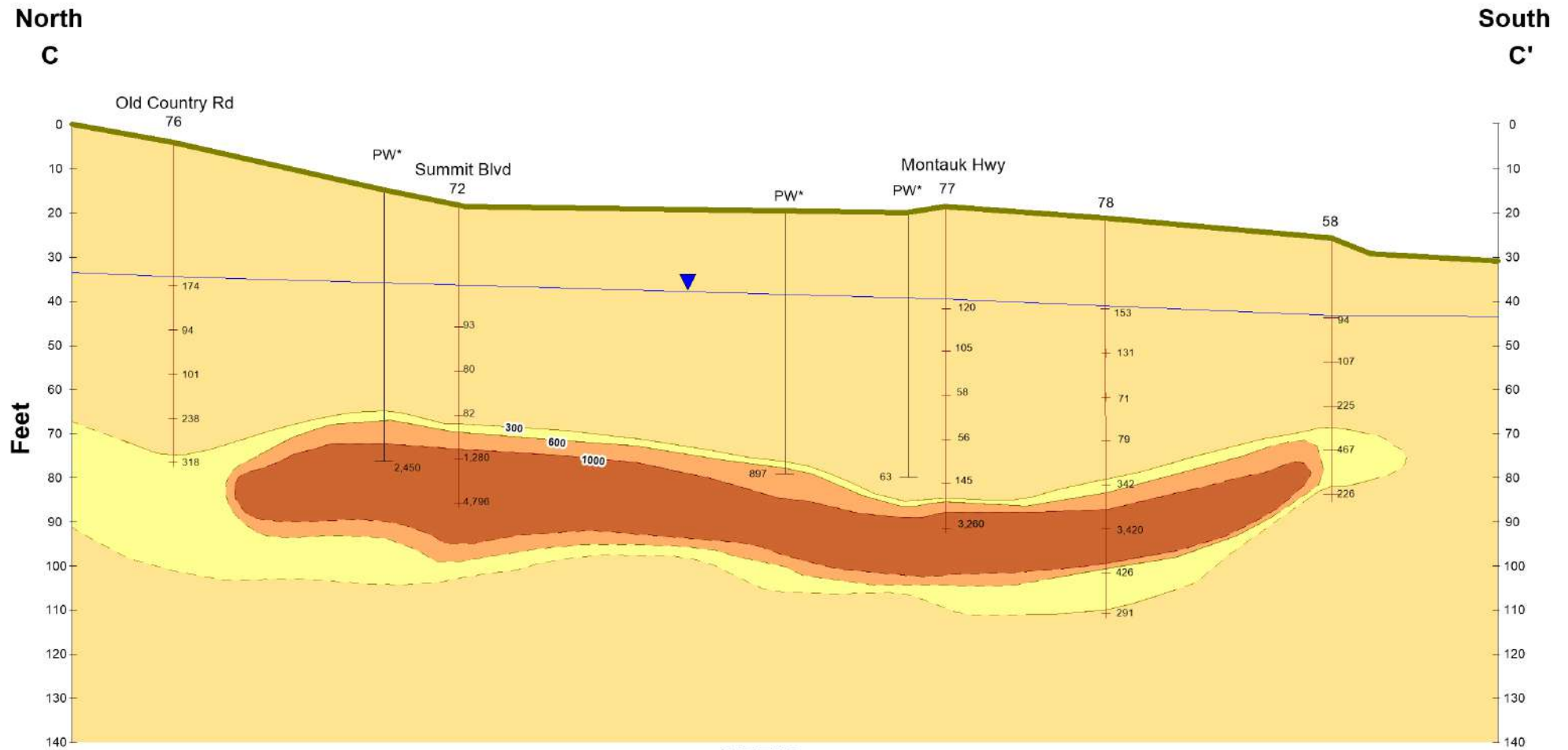
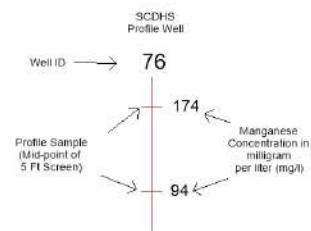
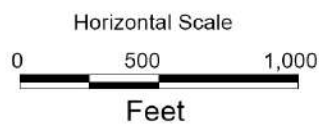


Figure 24
Hydrogeologic Cross Section C - C'
Manganese



LEGEND



300
 Manganese Contour (mg/l)
 (Dashed Where Inferred)

Water Table
 as of March 2021

Figure 25
Suffolk County
Department of Health Services
Specific Conductance
BOMARC Facility & Vicinity
Westhampton, N.Y.

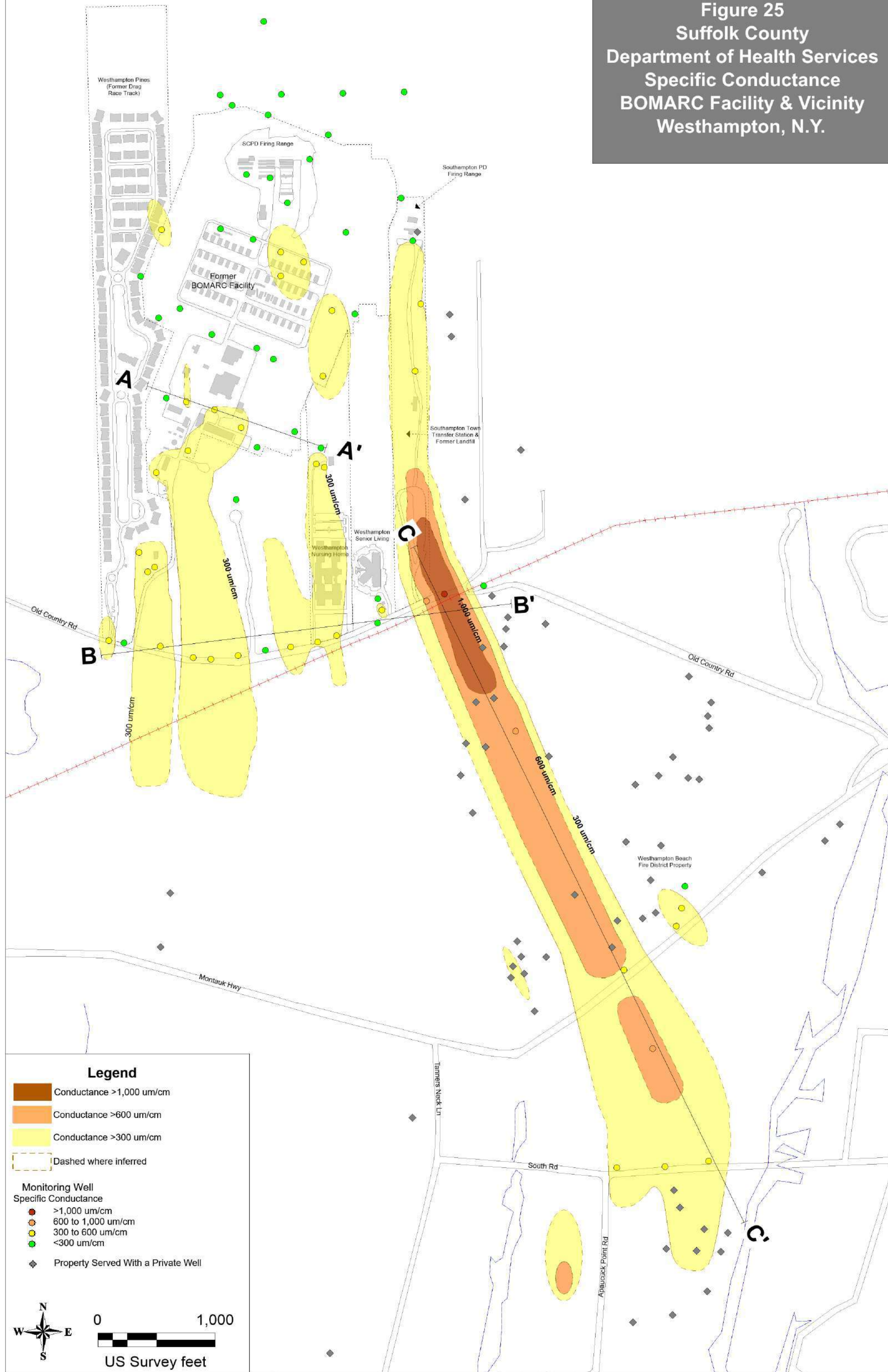
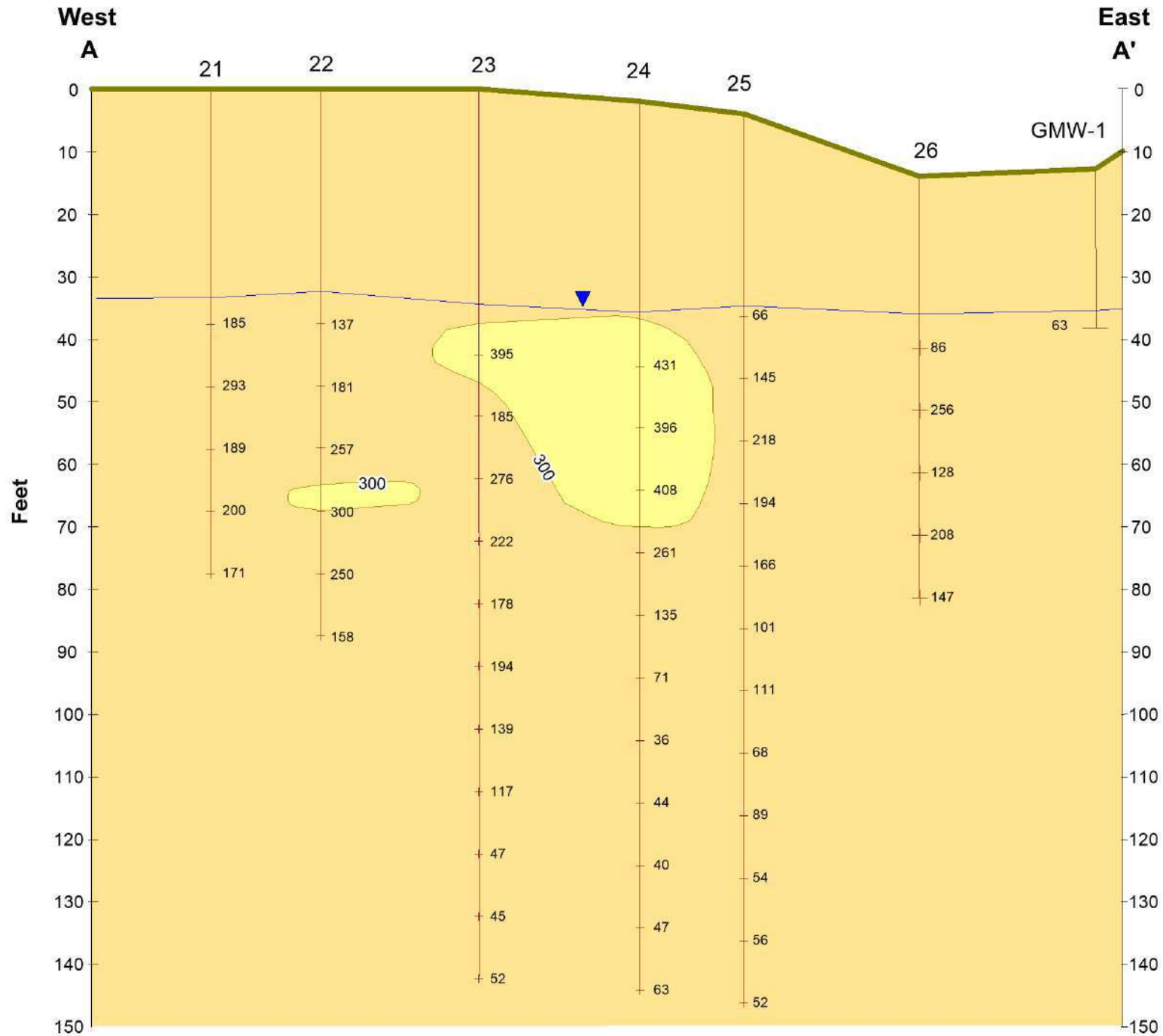


Figure 26
Hydrogeologic Cross Section A - A'
Specific Conductance



Suffolk County
Department of Health Services
Office of Water Resources

LEGEND

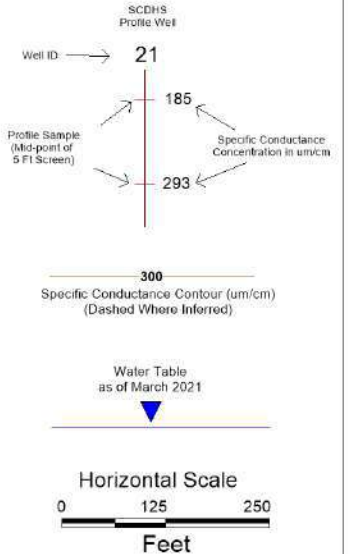
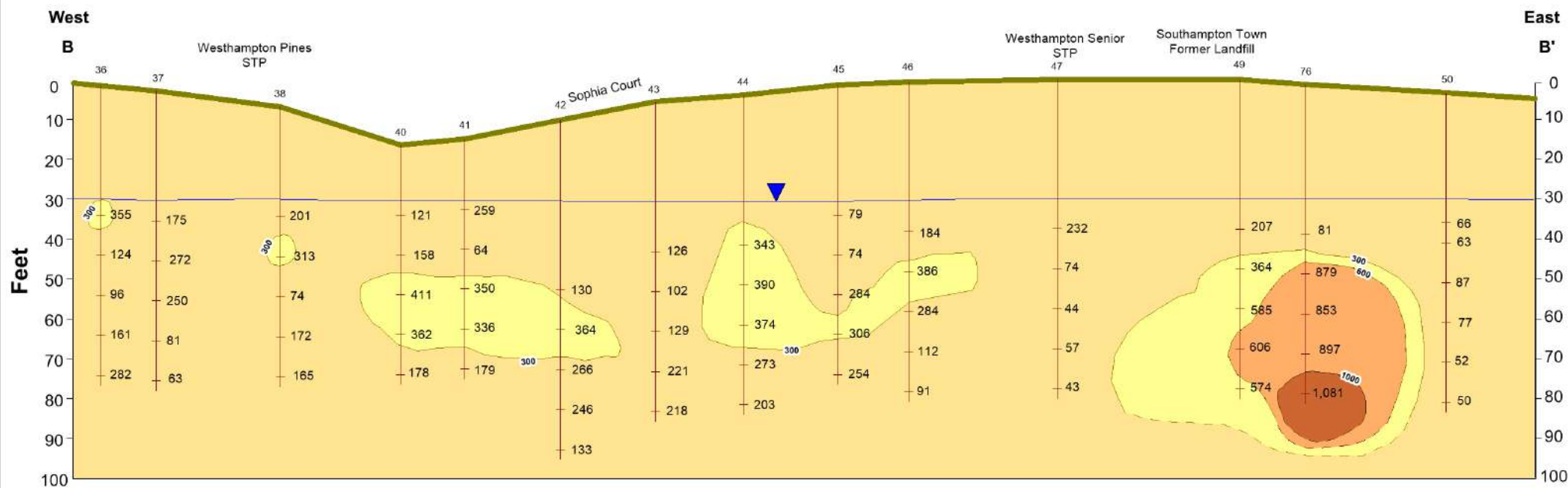
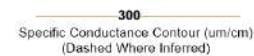
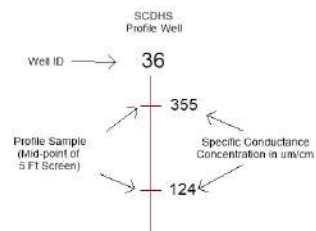
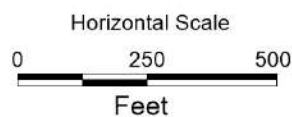


Figure 27
Hydrogeologic Cross Section B - B'
Specific Conductance



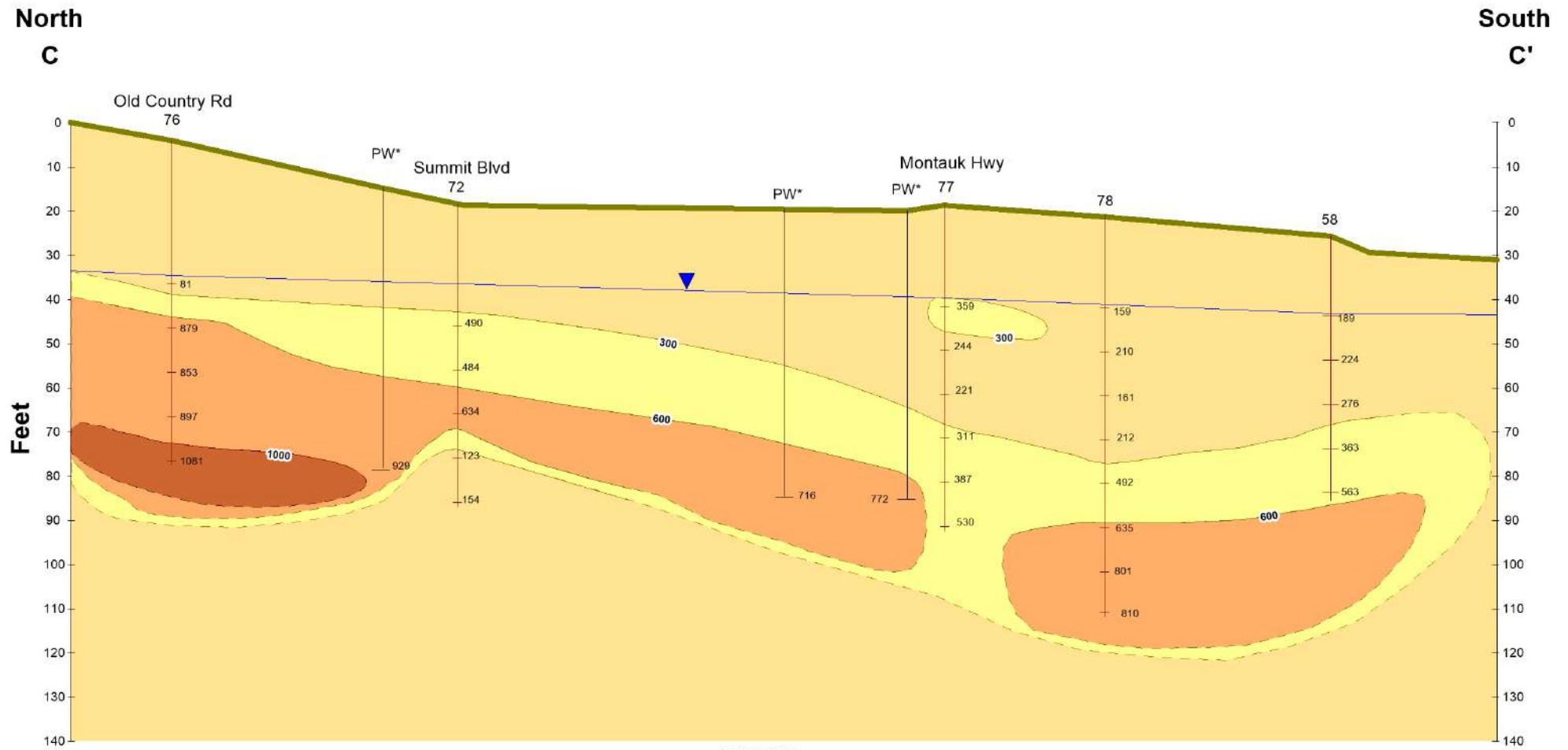
LEGEND



Water Table
as of March 2021



Figure 28
Hydrogeologic Cross Section C - C'
Specific Conductance



LEGEND

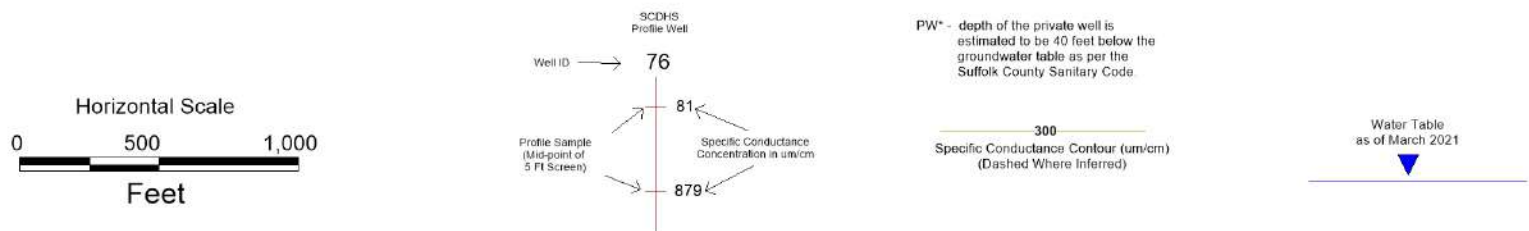


Figure 29
Suffolk County
Department of Health Services
Westhampton
Private Well Survey Area



Appendix A

Table 1

Groundwater Data

PFAS, PCBs and Summary of Detected

SCDHS Public and Environmental Health Laboratory Analytes

Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information				Field Parameters						Metals																										
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	Depth to Water (ft)	Turbidity (NTUs)	Conductivity (µS/cm)	Temp (°C)	pH	Dissolved Oxygen (mg/l)	ORP (mV)	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Selenium ug/l	Sodium mg/l	Strontium ug/l	Thallium ug/l	Tin ug/l	Titanium ug/l	Vanadium ug/l	Zinc ug/l		
DEC TOGS 1.1.1 Guidance Values				-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	0.5	-	-	-	2,000		
DEC Part 703 Class GA Groundwater Standards				-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	10	20	-	-	-	-	-	-		
DOH Drinking Water Standards Part 5-1				-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	1,300*	0.3	15*	-	-	300	-	100	-	50	-	-	2	-	-	-	5,000		
BOM20-35	35-40	1/27/2021	28.80	19.3	51.59	10.3	5.94	12.22	232	598	<0.2	<1	35	<0.2	1.1	23	<1	<5	2	<1	<1	1.3	81	3	5.4	0.65	<5	5.8	20	<0.2	<0.5	21	1.2	6		
	45-50	1/27/2021	28.80	9.25	178.5	10.3	5.99	11.71	190	450	<0.2	<1	15	<0.2	7.7	9.5	<1	<5	0.98	<1	<1	3.2	26	1.3	2.5	0.7	<5	20	55	<0.2	<0.5	16	1.1	<5		
	55-60	1/27/2021	28.8	7.48	118.1	10.9	5.88	11.76	193	147	<0.2	<1	9.9	<0.2	8.4	3	<1	<5	0.31	<1	<1	2.3	11	<1	0.93	0.63	<5	9.9	82	<0.2	<0.5	7.3	<1	<5		
	65-70	1/26/2021	28.8	20.1	139.2	10.6	5.87	11.94	192	310	<0.2	<1	13	<0.2	11	11	<1	<5	1	<1	<1	3	26	1.2	1.5	0.62	<5	9.9	91	<0.2	<0.5	16	1.4	<5		
	75-80	1/26/2021	28.8	24.9	101.5	10.6	5.81	11.83	147	353	<0.2	<1	9.1	<0.2	8.9	11	<1	<5	1.4	<1	<1	2.4	25	1.8	2.5	0.59	<5	7	40	<0.2	<0.5	22	1.5	5.1		
BOM20-36	30-35	11/10/2020	29.75	28.2	354.9	14.6	6.44	6.95	99	392	<0.2	<1	15	<0.2	28	11	<1	<5	1.2	<1	<1	6.3	36	2.5	3.8	3.2	<5	36	102	<0.2	<0.5	15	1.2	<5		
	40-45	11/10/2020	29.75	14.8	123.7	13.9	6.37	6.70	105	286	<0.2	<1	5.1	<0.2	15	5.2	<1	<5	0.71	<1	<1	1.6	35	<1	1.7	3.2	<5	6.4	42	<0.2	<0.5	14	<1	<5		
	50-55	11/9/2020	29.75	16.7	96.04	13.6	6.67	8.00	115	416	<0.2	<1	11	<0.2	10	8.8	<1	<5	1.2	<1	<1	1.3	33	1.4	2.5	2.1	<5	5.3	34	<0.2	<0.5	20	1.3	<5		
	60-65	11/9/2020	29.75	17.2	161.1	13.1	6.07	7.39	164	611	<0.2	<1	23	<0.2	9.9	9.2	<1	<5	1.6	1	<1	2.1	31	2.1	2.5	2.2	<5	19	49	<0.2	<0.5	32	2.4	<5		
	70-75	11/9/2020	29.75	15.8	281.9	13.1	5.56	7.22	215	291	0.22	<1	52	<0.2	14	4.7	<1	<5	0.74	<1	<1	6.2	15	<1	1.8	1.5	<5	29	97	0.23	<0.5	18	1.7	9		
BOM20-37	30-35	11/19/2020	28.9	19.8	174.9	10.0	7.11	7.54	140	118	<0.2	<1	8	<0.2	13	4.1	<1	<5	0.32	<1	<1	2.8	12	1	2.4	0.64	<5	15	35	<0.2	<0.5	<5	<1	<5		
	40-45	11/19/2020	28.90	12.7	272.1	8.4	6.39	6.65	142	171	<0.2	<1	19	<0.2	35	5.2	<1	<5	0.46	<1	<1	5.1	14	<1	1.8	3.8	<5	13	104	<0.2	<0.5	8.4	<1	<5		
	50-55	11/16/2020	12.4	28.9	250.3	11.2	6.73	7.08	139	188	<0.2	<1	18	<0.2	32	4.9	<1	<5	0.44	<1	<1	4.5	16	<1	1.4	0.99	<5	12	49	<0.2	<0.5	10	<1	<5		
	60-65	11/16/2020	28.90	12.1	81.03	11.4	5.71	7.80	220	336	<0.2	<1	17	<0.2	3.7	11	<1	<5	0.87	<1	<1	2	10	1.4	2.2	0.84	<5	8.3	27	<0.2	<0.5	15	1.2	6.6		
	70-75	11/16/2020	28.90	12	62.90	11.3	6.47	8.32	176	549	<0.2	<1	13	<0.2	2.2	7.8	<1	<5	1.4	1.2	<1	2.3	22	<1	1.8	0.76	<5	5.7	23	<0.2	<0.5	28	2.6	<5		
BOM20-38	25-30	12/1/2020	24.35	3.89	200.6	13.4	6.16	5.66	94	9.2	<0.2	<1	6.4	<0.2	9.1	1.5	<1	<5	0.4	<1	<1	2.1	21	<1	3	2.7	<5	26	39	<0.2	<0.5	<5	<1	<5		
	35-40	12/1/2020	24.35	5.57	313.2	13.5	6.39	3.43	26	106	<0.2	<1	24	<0.2	39	5	<1	<5	1.2	<1	<1	5.6	45	3.9	5.2	6	<5	16	50	<0.2	<0.5	<5	<1	<5		
	45-50	11/24/2020	24.35	4.27	74.4	11.9	6.90	3.30	1	19	<0.2	<1	46	<0.2	27	1.1	<1	<5	0.72	<1	<1	4.6	28	1.9	3.6	7.4	<5	37	53	<0.2	<0.5	<5	<1	<5		
	55-60	11/24/2020	24.35	4.07	171.9	12.2	6.73	5.91	46	6.2	<0.2	<1	20	<0.2	19	<1	<1	<5	0.14	<1	<1	2.5	65	1.8	2.1	3.1	<5	12	34	<0.2	<0.5	<5	<1	<5		
	65-70	11/24/2020	24.35	7.83	165.3	13.1	5.54	6.04	119	<5	<0.2	<1	19	<0.2	8.8	<1	<1	<5	1.4	<1	<1	6.7	44	3.8	7.8	0.95	<5	11	62	<0.2	<0.5	<5	<1	<5		
BOM20-40	15-20	1/27/2021	13.71	40.1	120.7	10.6	5.25	5.53	174	2863	<0.2	1.5	13	<0.2	3.7	24	1.6	8.4	3.6	2.8	1.1	0.84	80	3.5	7	0.55	<5	19	8.9	<0.2	0.83	57	4.2	29		
	25-30	1/26/2021	13.71	40.4	157.5	10.2	6.08	7.32	166	1659	<0.2	<1	13	<0.2	8.5	30	1	7.4	3.2	2.5	1	1.9	107	4	6.3	1	<5	20	29	<0.2	0.7	64	3.3	5.1		
	35-40	1/26/2021	24.4	27.25	411.2	10.5	6.49	5.7	123	670	<0.2	<1	24	<0.2	39	11	<1	<5	1.3	1	<1	5.3	127	1.6	2.6	2.8	<5	33	112	<0.2	<0.5	27	1.9	<5		
	45-50	1/26/2021	13.71	20.23	362.1	10.9	6.11	6.11	135	528	<0.2	<1	36	<0.2	38	12	<1	<5	1.4	<1	<1	6.6	261	1.8	2.2	1.2	<5	22	81	<0.2	<0.5	22	1.7	<5		
	55-60	1/26/2021	13.71	28.57	177.9	11	5.22	7.2	139	692	<0.2	<1	85	<0.2	12	17	1.3	6.4	2.5	3	<1	5.7	799	2.5	3.3	1.1	<5	9.9	66	<0.2	<0.5	34	3.8	<5		
BOM20-41	15-20	1/28/2021	15.04	47.55	258.5	7.9	5.95	4.19	154	2873	0.25	1	16	<0.2	3	13	5.7	5.8	2.7	2.6	1.3	1.6	209	2.1	4.9	0.87	<5	43	11	<0.2	0.88	72	3.7	14		
	25-30	1/28/2021	15.04	34.19	63.82	10.0	5																													

Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information				Field Parameters						Metals																									
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	Depth to Water (ft)	Turbidity (NTUs)	Conductivity (µS/cm)	Temp (°C)	pH	Dissolved Oxygen (mg/l)	ORP (mV)	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Selenium ug/l	Sodium mg/l	Strontium ug/l	Thallium ug/l	Tin ug/l	Titanium ug/l	Vanadium ug/l	Zinc ug/l	
DEC TOGS 1.1.1.1 Guidance Values				-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	0.5	-	-	-	2,000
DEC Part 703 Class GA Groundwater Standards				-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	10	20	-	-	-	-	-	-	
DOH Drinking Water Standards Part 5-1				-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	1,300*	0.3	15*	-	-	300	-	100	-	50	-	-	2	-	-	-	5,000	
BOM20-44	35-40	2/24/2021	26.4	16.6	342.8	11.8	6.38	1.54	49	888	<0.2	<1	58	<0.2	37	11	2.9	5.6	5.8	<1	<1	9.8	351	1.1	2.8	5.8	<5	6.3	127	0.48	<0.5	35	2.4	<5	
	45-50	2/24/2021	26.4	13.6	389.9	11.6	6.32	1.45	25	842	<0.2	<1	110	<0.2	42	7.2	21	5.6	12	<1	<1	9	1090	<1	3.2	7.8	<5	8	183	1.6	<0.5	35	1.9	<5	
	55-60	2/24/2021	26.4	3.77	374.1	11.4	6.12	1.82	151	144	<0.2	<1	77	<0.2	40	2.9	<1	<5	0.29	<1	<1	8.7	5533	<1	0.65	6.6	<5	11	233	<0.2	<0.5	7.2	<1	<5	
	65-70	2/23/2021	26.4	13.2	273.4	11.2	5.80	9.68	183	249	<0.2	<1	26	<0.2	12	5.3	<1	<5	0.65	<1	<1	3.5	21	<1	0.83	1.2	<5	34	68	<0.2	<0.5	14	<1	<5	
	75-80	2/23/2021	26.4	6.86	202.8	11.2	5.63	10.41	201	128	<0.2	<1	37	<0.2	7.6	3.7	<1	<5	0.38	<1	<1	4	11	<1	1.2	1.4	<5	21	75	<0.2	<0.5	6.8	<1	<5	
BOM20-45	30-35	12/2/2020	30.35	16.7	78.99	11.3	5.37	8.03	174	508	0.23	<1	37	0.51	2.5	12	<1	<5	1.2	1	<1	1.4	77	1.9	4.6	1.6	<5	9.9	23	<0.2	<0.5	13	<1	<5	
	40-45	12/2/2020	30.35	14.7	73.71	10.7	4.83	8.07	212	402	<0.2	<1	40	0.31	1.8	6	<1	<5	0.51	<1	<1	1.1	115	<1	3	0.82	<5	8.1	13	<0.2	<0.5	6.4	<1	<5	
	50-55	12/1/2020	30.35	9.64	283.7	11.8	6.47	3.15	86	148	<0.2	<1	25	<0.2	8.8	4.1	2.9	<5	0.47	<1	<1	1.7	10	<1	5.3	2.2	<5	47	29	<0.2	<0.5	7.4	<1	<5	
	60-65	11/30/2020	30.35	14.7	305.5	12.4	6.17	1.44	94	283	<0.2	<1	39	<0.2	6.8	7.4	8	<5	1	<1	<1	2.2	23	1.6	5.6	3.3	<5	52	50	<0.2	<0.5	14	1.1	<5	
	70-75	11/30/2020	30.35	13.6	254.3	12.2	6.06	3.34	95	1407	<0.2	1.4	40	<0.2	9.7	23	3	8.2	4.2	4	<1	3	80	2.9	3.9	1.3	<5	37	63	<0.2	<0.5	75	7.3	<5	
BOM20-46	35-40	1/12/2021	29.45	36.32	184.4	12.5	7.13	8.66	125	1776	0.22	2.1	20	<0.2	17	43	1.5	8.2	4.7	2.3	<1	2	118	5.5	7.5	1.8	<5	17	74	<0.2	1.2	76	4.8	<5	
	45-50	1/12/2021	29.45	18.55	385.9	13.0	7.16	5.77	104	751	0.22	<1	55	<0.2	8.5	14	7.2	<5	1.4	<1	<1	2.1	91	1.6	8.6	6.8	<5	68	20	<0.2	<0.5	34	1.6	<5	
	55-60	12/3/2020	31.10	9.15	284.0	11.1	6.25	4.35	139	90	<0.2	<1	22	<0.2	7.1	2.8	5.7	<5	0.24	<1	<1	2.2	14	<1	2.5	5	<5	46	16	<0.2	<0.5	<5	<1	<5	
	65-70	12/3/2020	31.10	9.82	111.9	11.9	5.78	7.66	179	37	<0.2	<1	17	<0.2	6	3.7	<1	<5	0.17	<1	<1	1.4	7	<1	1.8	2.3	<5	12	38	<0.2	<0.5	<5	<1	<5	
	75-80	12/3/2020	31.10	38.8	90.58	11.8	5.46	8.02	167	652	<0.2	<1	28	<0.2	4.6	19	<1	5.4	2.2	1.5	<1	1.2	38	2.6	4.8	1.7	<5	9.6	42	<0.2	0.62	33	2.6	<5	
BOM20-47	35-40	1/13/2021	29.84	24.03	232.2	12.0	6.33	7.29	145	3013	0.5	2.7	26	0.23	17	75	2.1	21	6.5	3.8	1.8	3.7	131	7.8	11	7.2	<5	37	46	<0.2	1.9	162	7.5	8.5	
	45-50	1/13/2021	29.84	29.62	74.19	12.6	5.67	9.22	190	972	0.2	<1	74	0.21	1.9	23	<1	5.4	2.2	<1	<1	1.4	73	3	5.3	1.3	<5	9.4	38	<0.2	0.64	34	1.6	<5	
	55-60	1/13/2021	29.84	33.76	44.38	11.9	6.05	9.30	178	871	<0.2	<1	14	<0.2	1.4	25	<1	5.7	3	1.2	<1	0.94	39	3.7	5	0.72	<5	5.4	23	<0.2	0.75	39	2.1	<5	
	65-70	1/13/2021	29.84	7.98	57.32	11.9	6.19	9.18	186	176	<0.2	<1	11	<0.2	2.2	7.6	<1	<5	0.68	<1	<1	1.4	11	1	1.7	0.78	<5	5.8	27	<0.2	<0.5	8.8	<1	<5	
	75-80	1/12/2021	29.89	23.53	42.55	11.9	7.18	9.23	50	462	<0.2	<1	10	<0.2	1.3	11	<1	<5	1.6	<1	<1	1.3	28	1.9	2.4	0.71	<5	4	14	<0.2	<0.5	23	2.4	<5	
BOM20-49	35-40	1/20/2021	29.74	29.97	206.9	11.3	6.06	6.75	151	637	0.22	<1	7.3	<0.2	13	35	<1	5.4	1.8	<1	<1	2.8	26	4.4	11	1	<5	23	42	<0.2	0.91	27	1.2	<5	
	45-50	1/20/2021	29.74	24.04	363.6	11.5	6.15	1.57	151	645	<0.2	<1	18	<0.2	40	13	1.2	5.3	0.84	<1	<1	7.3	102	1.5	2	2.2	<5	28	115	<0.2	0.76	24	1.4	<5	
	55-60	1/19/2021	29.74	18.63	585.3	11.7	6.32	1.61	148	481	0.35	<1	42	<0.2	58	14	1.5	<5	0.97	<1	<1	9.8	187	1.5	5	5.6	<5	47	296	0.2	0.9	24	1.9	<5	
	65-70	1/19/2021	29.74	7.75	606.1	12.2	6.43	1.13	142	195	0.21	<1	77	<0.2	63	5.1	<1	5	0.33	<1	<1	13	106	<1	1.8	6	<5	38	333	0.37	<0.5	11	<1	<5	
	75-80	1/19/2021	29.74	13.71	573.9	12.0	5.98	1.55	113	295	<0.2	<1	16	<0.2	40	5.7	<1	<5	0.59	<1	<1	8.4	427	<1	1.7	9.6	<5	55	298	0.33	<0.5	21	1.8	<5	
BOM20-50	30-35	1/21/2021	26.75	20.0	66.29	10.9	5.58	11.42	231	704	<0.2	<1	8.9	<0.2	2.9	23	<1	<5	2.1	<1	<1	1.6	69	3.1	3.7	0.91	<5	6.7	30	<0.2	<0.5	27	1.7	<5	
	35-40	1/21/2021																																	

Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information				Field Parameters						Metals																											
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	Depth to Water (ft)	Turbidity (NTUs)	Conductivity (µS/cm)	Temp (°C)	pH	Dissolved Oxygen (mg/l)	ORP (mV)	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Selenium ug/l	Sodium mg/l	Strontium ug/l	Thallium ug/l	Tin ug/l	Titanium ug/l	Vanadium ug/l	Zinc ug/l			
DEC TOGS 1.1.1 Guidance Values				-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	0.5	-	-	-	2,000		
DEC Part 703 Class GA Groundwater Standards				-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	10	20	-	-	-	-	-	-			
DOH Drinking Water Standards Part 5-1				-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	1,300*	0.3	15*	-	-	300	-	100	-	50	-	-	2	-	-	-	5,000			
BOM20-54	25-30	10/27/2020	24.58	5.21	380.7	13.7	4.10	2.56	284	4076	<0.2	<1	50	0.63	14	5.1	5.4	58	0.48	<1	3.9	3.5	352	1.3	7.8	6.4	<5	34	69	<0.2	<0.5	<5	<1	53			
	35-40	10/26/2020	24.58	3.40	108.2	13.1	5.50	6.20	176	30	<0.2	<1	20	<0.2	5.7	1.2	<1	<5	0.39	<1	<1	1.5	37	<1	2.3	1.6	<5	10	24	<0.2	NA	<5	<1	<5			
	45-50	10/26/2020	24.58	5.12	158.8	12.5	5.31	5.76	184	144	<0.2	<1	130	0.38	7.6	2.1	<1	<5	1	<1	<1	1.8	134	<1	3.9	3.2	<5	15	36	<0.2	NA	<5	<1	5.2			
	55-60	10/26/2020	24.58	3.74	136.8	12.5	4.89	6.11	249	21	<0.2	<1	37	<0.2	7.6	1.1	<1	<5	0.13	<1	<1	2	76	<1	0.62	2.2	<5	12	40	<0.2	NA	<5	<1	<5			
	65-70	10/22/2020	24.58	4.61	87.74	13.7	5.61	6.62	125	16	<0.2	<1	24	<0.2	3.1	1	1.4	<5	1.2	<1	<1	3.6	74	1.8	4.9	1	<5	5.2	36	<0.2	<0.5	<5	<1	<5			
BOM20-55	15-20	10/15/2020	14.68	39.4	119.9	15.7	5.85	2.25	-18	1327	0.35	1.4	17	<0.2	6.3	20	3.8	6.7	4.5	1.5	<1	2.1	501	4.2	10	0.7	<5	12	41	<0.2	<0.5	37	2.5	7.7			
	25-30	10/15/2020	14.68	45.5	302.7	15.0	5.55	4.21	101	1272	0.35	1.5	49	0.43	8.8	19	3.9	7.2	4.7	1.4	1	2.3	565	3.3	10	1.9	<5	42	32	<0.2	<0.5	39	2.3	17			
	35-40	10/14/2020	14.68	18.7	432.4	13.4	6.22	1.38	33	482	0.25	<1	28	<0.2	9.6	9	2.5	<5	3.8	<1	<1	2.9	367	1.8	6.3	3.1	<5	68	68	<0.2	<0.5	22	<1	7.8			
	45-50	10/14/2020	14.68	32.5	528.5	13.0	6.12	2.17	74	573	0.22	<1	122	<0.2	15	13	2.4	<5	3.4	<1	<1	4.1	569	2.3	6.8	3	<5	76	86	<0.2	<0.5	26	1.6	7.2			
	55-60	10/14/2020	14.68	4.58	351.7	13.3	6.55	1.57	67	93	0.2	<1	67	<0.2	19	3	1.8	<5	1.3	<1	<1	4.2	276	<1	2.6	2.5	<5	41	63	<0.2	<0.5	5.1	<1	<5			
BOM20-57	20-25	10/20/2020	17.33	32.6	112.0	15.7	5.73	2.99	115	929	0.27	1	26	<0.2	7.7	16	1.3	6	2.5	<1	<1	2.1	43	2.9	5.6	2.2	<5	10	31	<0.2	<0.5	29	1.9	11			
	30-35	10/19/2020	17.33	13.9	222.6	14.9	5.65	5.07	131	971	0.25	1.5	19	<0.2	5.3	22	2	6.4	3.9	1.6	<1	1.9	151	3.8	6.6	1.9	<5	35	19	<0.2	<0.5	42	3	8.6			
	40-45	10/19/2020	21.7	17.33	226.1	13.1	5.43	2.35	135	612	0.22	1.1	48	0.25	7.5	12	1.8	<5	2.9	<1	<1	2.4	154	2.3	6.5	1.6	<5	31	41	<0.2	<0.5	28	1.1	11			
	50-55	10/19/2020	17.33	6.81	308.5	13.2	5.57	2.68	119	246	<0.2	<1	148	<0.2	9.3	4.3	1.6	<5	1.6	<1	<1	3.6	276	1.2	3.4	1.8	<5	43	42	<0.2	0.63	<5	<1	<5			
	60-65	10/15/2020	17.33	20.5	420.5	13.5	6.47	1.60	10	242	0.22	<1	67	<0.2	29	7.5	2.9	<5	2	<1	<1	8.4	592	1.2	2.7	5.5	<5	42	118	<0.2	<0.5	15	<1	<5			
BOM20-58	15-20	10/21/2020	12.75	34.1	189.4	15.0	6.31	4.73	74	2273	0.42	1.4	19	<0.2	20	14	1.9	5.1	2.7	1.5	<1	2.8	94	2.9	5	1.8	<5	12	114	<0.2	<0.5	58	3.4	6.7			
	25-30	10/21/2020	12.75	20.2	223.9	14.2	5.82	3.55	102	720	<0.2	1	27	<0.2	9.9	7.9	1.3	<5	2.5	<1	<1	2.5	107	1.6	3.6	2.2	<5	28	47	<0.2	<0.5	32	1.8	<5			
	35-40	10/21/2020	12.75	26.4	275.7	13.6	5.59	1.62	109	666	0.26	<1	42	<0.2	9.8	8.3	1.1	<5	2.3	<1	<1	2.4	225	1.5	3.6	2.1	<5	36	48	<0.2	<0.5	29	1.3	<5			
	45-50	10/21/2020	12.75	27.5	362.9	13.7	5.62	1.37	72	504	0.42	<1	53	<0.2	9.8	13	1.6	<5	3.2	<1	<1	3.3	467	2.9	4.4	2.7	<5	54	42	<0.2	<0.5	24	1.5	<5			
	55-60	10/20/2020	12.75	42.6	562.8	13.6	6.12	1.86	37	596	0.2	<1	101	<0.2	16	15	3.6	5.1	4.2	1.1	<1	13	226	2.5	4.7	4.6	<5	73	129	<0.2	<0.5	33	2	<5			
BOM20-59	40-45	12/8/2020	36.74	23.9	281.7	11.5	6.53	8.45	68	662	<0.2	<1	26	<0.2	39	26	<1	5.2	2.1	<1	<1	4.2	38	4.7	7.2	3.1	<5	9	163	<0.2	<0.5	26	1.4	<5			
	50-55	12/8/2020	36.74	9.83	241.3	11.9	6.12	9.28	83	357	<0.2	<1	27	<0.2	30	12	<1	<5	1.6	<1	<1	3.6	39	2.5	4.1	2.8	<5	9.1	113	<0.2	<0.5	18	1.3	<5			
	60-65	12/7/2020	36.74	11.5	169.5	12.0	5.72	9.61	148	339	<0.2	<1	24	<0.2	18	14	<1	<5	1.5	<1	<1	2.2	27	2.9	4.5	2	<5	7.9	75	<0.2	<0.5	15	1.1	<5			
	70-75	12/7/2020	36.74	NA	105.3	11.9	5.57	10.38	173	94	<0.2	<1	17	<0.2	10	4.9	<1	<5	0.47	<1	<1	1	16	<1	3	1.6	<5	5.8	27	<0.2	<0.5	<5	<1	<5			
	80-85	12/7/2020	36.74	NA	74.66	12.0	5.56	10.66	204	377	<0.2	<1	17	<0.2	3.6	6.7	<1	<5	1	<1	<1	2.4	20	<1	1.9	0.7	<5	5.1	33	<0.2	<0.5	20	1.9	<5			
BOM20-60	35-40	12/8/2020	32.64	42.0	287.2	10.0	6.72	6.8	20	1143	0.41	1.2	25	<0.2	42	33	1.5	8	3.8	1.1	<1	5	101	7.6	9.4	2.3	<5	9.8	143	<0.2	0.65	47	2.5	<5			
	45-50	12/8/2020	32.64	32.0	246.6	9.3	6.19	7.17	30	547	0.23	<1	30	<																							

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PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information				Field Parameters						Metals																											
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	Depth to Water (ft)	Turbidity (NTUs)	Conductivity (µS/cm)	Temp (°C)	pH	Dissolved Oxygen (mg/l)	ORP (mV)	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Selenium ug/l	Sodium mg/l	Strontium ug/l	Thallium ug/l	Tin ug/l	Titanium ug/l	Vanadium ug/l	Zinc ug/l			
DEC TOGS 1.1.1.1 Guidance Values				-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	0.5	-	-	-	-	2,000		
DEC Part 703 Class GA Groundwater Standards				-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	10	20	-	-	-	-	-	-	-		
DOH Drinking Water Standards Part 5-1				-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	1,300*	0.3	15*	-	-	300	-	100	-	50	-	-	2	-	-	-	-	5,000		
BOM20-63	35-40	1/7/2021	33.70	35.5	43.03	10.5	6.38	11.35	134	751	0.55	2.3	27	<0.2	0.88	29	1.7	30	3.4	1	<1	0.85	167	6.4	25	0.51	<5	5	13	<0.2	0.75	28	1.3	752			
	45-50	1/6/2021	33.70	20.7	61.31	10.0	5.78	12.38	127	590	0.31	1.2	17	<0.2	1.3	15	1.3	10	2.3	1.1	<1	1.2	112	3.2	11	0.77	<5	7.6	26	<0.2	<0.5	22	1.8	254			
	55-60	1/6/2021	33.70	6.71	62.95	10.1	5.71	11.70	164	189	0.21	<1	15	<0.2	1.4	4.3	<1	<5	0.6	<1	<1	1	40	<1	3.5	0.69	<5	8.2	16	<0.2	<0.5	7.2	<1	48			
	65-70	1/6/2021	33.70	8.57	56.75	9.7	5.75	11.23	128	190	0.23	<1	11	<0.2	1.6	5.2	<1	<5	1	<1	<1	1.3	50	1.2	4.3	0.66	<5	5.8	15	<0.2	<0.5	7.9	<1	20			
	75-80	1/6/2021	33.70	13.4	53.82	9.6	5.78	11.93	133	214	0.2	<1	13	<0.2	1.5	7.6	1.2	<5	1.1	<1	<1	1.4	78	1.6	4.8	0.64	<5	5.3	15	<0.2	<0.5	11	1.1	46			
BOM20-64	45-50	1/7/2021	41.83	29.9	39.28	10.1	5.40	11.95	178	735	0.24	<1	16	<0.2	0.89	20	1.2	6.3	2.5	<1	<1	0.82	118	3.2	6	<0.5	<5	4.7	17	<0.2	<0.5	29	1.6	14			
	55-60	1/7/2021	41.83	6.70	65.69	9.9	5.70	12.40	212	170	<0.2	<1	13	<0.2	1.3	4.9	<1	<5	0.62	<1	<1	1.1	16	<1	1.7	0.72	<5	8.6	24	<0.2	<0.5	7.8	<1	<5			
	65-70	1/5/2021	41.83	15.4	64.39	9.6	5.44	8.42	189	300	<0.2	<1	15	<0.2	1.8	11	<1	<5	0.93	<1	<1	1.5	53	1.5	5.8	0.74	<5	7.4	21	<0.2	<0.5	14	<1	<5			
	75-80	1/5/2021	41.83	20.7	50.91	9.9	5.45	8.16	155	200	0.21	<1	10	<0.2	1.5	4.1	1.4	<5	0.59	<1	<1	1.2	101	1.1	3.1	0.63	<5	5.6	14	<0.2	<0.5	12	<1	<5			
BOM20-65	45-50	1/7/2021	44.40	35.6	42.75	8.9	5.60	8.18	133	997	0.38	1	17	<0.2	1.1	30	1.7	8.8	3.8	1.2	<1	0.9	207	4.7	11	0.77	<5	5	23	<0.2	0.8	39	2.2	23			
	55-60	1/7/2021	44.40	19.4	43.76	8.5	5.78	9.16	128	399	0.23	<1	14	<0.2	1.1	11	1	<5	1.5	<1	<1	0.85	83	2	5.3	0.65	<5	5.3	27	<0.2	<0.5	17	<1	14			
	65-70	1/7/2021	44.40	20.2	51.30	8.9	5.34	8.70	182	510	0.2	<1	14	<0.2	1.3	12	1	<5	1.6	<1	<1	1	71	1.9	4.2	0.66	<5	6.4	19	<0.2	<0.5	22	1.4	5.2			
	75-80	1/7/2021	44.40	22.3	42.24	9.6	5.28	8.09	198	248	<0.2	<1	11	<0.2	1.3	5.4	<1	<5	0.79	<1	<1	1.3	39	<1	2.4	0.56	<5	4.2	13	<0.2	<0.5	14	1	11			
BOM20-66	40-45	1/6/2021	37.35	16.0	43.58	9.0	5.64	9.36	160	325	0.21	<1	15	<0.2	1	13	<1	5.2	1.4	<1	<1	0.94	48	1.9	4.6	0.64	<5	5.1	21	<0.2	<0.5	13	<1	13			
	45-50	1/6/2021	37.35	17.2	46.41	9.1	5.63	8.95	141	459	0.24	<1	14	<0.2	1.2	19	<1	6.9	1.9	<1	<1	0.96	86	3	7.9	0.77	<5	5.5	25	<0.2	<0.5	18	<1	19			
	55-60	1/6/2021	37.35	17.7	48.95	9.2	5.32	8.31	201	468	<0.2	1	11	<0.2	1.1	8.5	<1	<5	1.6	1.1	<1	0.95	70	1.2	2.8	0.69	<5	6.2	17	<0.2	<0.5	28	1.9	6.2			
	65-70	1/4/2021	37.35	17.6	53.98	10.0	6.09	8.46	152	423	<0.2	<1	12	<0.2	1.5	7.9	<1	<5	1.5	<1	<1	1.4	96	1.1	3.3	0.77	<5	5.9	17	<0.2	<0.5	20	1.7	12			
	75-80	1/4/2021	37.35	12.8	50.13	10.0	6.61	8.68	141	139	<0.2	<1	7.9	<0.2	1.3	3	<1	<5	0.63	<1	<1	1.7	53	<1	2.1	0.52	<5	4.9	15	<0.2	<0.5	6.4	1.4	<5			
BOM20-67	25-30	12/29/2020	21.20	8.27	60.55	11.2	5.79	10.55	109	129	0.21	<1	15	<0.2	1.1	9	1.1	<5	1.5	<1	<1	1	184	4.9	7.4	0.66	<5	7.4	23	<0.2	<0.5	<5	<1	<5			
	30-35	12/29/2020	21.20	0.94	65.0	10.5	5.92	11.13	92	34	<0.2	<1	12	<0.2	1.1	4.2	1.1	<5	0.99	<1	<1	0.99	228	4.6	5.6	0.76	<5	8.4	23	<0.2	<0.5	<5	<1	<5			
	40-45	12/29/2020	21.20	0.65	54.70	10.4	6.29	10.77	90	6.3	<0.2	<1	11	<0.2	1.3	1	1.2	<5	0.81	<1	<1	1	276	4.8	5	0.65	<5	5.8	17	<0.2	<0.5	<5	<1	<5			
	50-55	12/28/2020	21.20	0.52	49.66	10.4	5.72	11.89	151	<5	<0.2	<1	12	<0.2	1.1	1	<1	<5	0.29	<1	<1	1.3	99	<1	2.7	0.61	<5	5.2	13	<0.2	<0.5	<5	<1	<5			
	60-65	12/28/2020	21.20	1.04	55.82	10.4	5.80	11.75	144	23	<0.2	<1	10	<0.2	1.2	3.5	<1	<5	0.32	<1	<1	1.7	107	1	3	0.53	<5	5.7	16	<0.2	<0.5	<5	<1	<5			
BOM20-68	70-75	12/16/2020	21.00	17.6	46.52	8.3	6.09	7.15	70	142	0.25	<1	8.1	<0.2	1.4	5.8	1.5	<5	1.2	3.6	<1	1.3	340	7	3.6	0.51	<5	4.4	13	<0.2	<0.5	5.4	<1	6.4			
	27-32	12/16/2020	26.50	3.50	130.8	9.8	6.39	7.65	50	8.9	0.23	<1	15	<0.2	12	2.1	1.2	<5	0.52	<1	<1	4.8	340	9.2	5.1	1.2	<5	3.6	19	<0.2	<0.5	<5	<1	22			
	35-40	12/15/2020	26.50	4.10	58.11	11.7	6.01	7.53	88	9.6	<0.2	<1	15	<0.2	1.4	<1	1.1	<5	0.8	<1	<1	0.94	425	5.8	3.5	0.67	<5	7.1	14	<0.2	<0.5	<5	<1	16			
	45-50	12/15/2020	26.50	5.78	58.24	10.8	5.92	7.11	97	49	0.22	<1	9.5	<0.2	1.4	3.5	1.1																				

Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information				Field Parameters						Metals																									
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	Depth to Water (ft)	Turbidity (NTUs)	Conductivity (µS/cm)	Temp (°C)	pH	Dissolved Oxygen (mg/l)	ORP (mV)	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Selenium ug/l	Sodium mg/l	Strontium ug/l	Thallium ug/l	Tin ug/l	Titanium ug/l	Vanadium ug/l	Zinc ug/l	
DEC TOGS 1.1.1 Guidance Values				-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	0.5	-	-	-	2,000
DEC Part 703 Class GA Groundwater Standards				-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	10	20	-	-	-	-	-	-	
DOH Drinking Water Standards Part 5-1				-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	1,300*	0.3	15*	-	-	300	-	100	-	50	-	-	2	-	-	-	5,000	
BOM20-72	25-30	6/29/2021	19.5	23.6	489.9	15.3	5.45	6.59	210	1150	<0.2	<1	78	<0.2	22	22	<1	11	2.2	1.3	<1	5	93	2.8	4.2	3.7	<5	53	87	<0.2	<0.5	42	2.2	13	
	35-40	6/28/2021	19.5	16.2	484.4	13.9	5.15	2.13	218	814	<0.2	<1	48	<0.2	10	18	<1	<5	1.6	<1	<1	2.8	80	2.5	4	2.8	<5	69	77	<0.2	<0.5	33	1.5	<5	
	45-50	6/28/2021	19.5	8.35	633.9	13.9	5.15	2.10	199	210	<0.2	<1	146	<0.2	13	5.8	<1	<5	0.52	<1	<1	3.2	82	<1	1.6	3.9	<5	85	97	<0.2	<0.5	11	<1	<5	
	55-60	6/28/2021	19.5	12.6	122.5	13.1	5.53	1.59	124	332	<0.2	<1	31	<0.2	5.8	5.8	<1	<5	0.63	<1	<1	2.5	1280	<1	0.84	4	<5	9	23	<0.2	<0.5	19	1.4	<5	
	65-70	6/28/2021	19.5	44.0	154.4	13.6	5.52	1.69	104	489	<0.2	<1	37	<0.2	10	26	1.3	6.9	2.3	<1	<1	3.4	4796	4.1	4.4	4.3	<5	5.6	30	<0.2	<0.5	22	1.3	<5	
BOM21-76	30-35	6/30/2021	30.0	13.0	80.73	14.6	6.26	9.30	75	697	<0.2	1.1	18	0.26	1.2	20	1.7	21	2.4	1	<1	1.1	174	3.6	14	0.58	<5	10	28	<0.2	<0.5	31	1.9	245	
	40-45	6/30/2021	30.0	12.57	879.4	15.8	7.20	2.20	21	579	<0.2	<1	71	<0.2	21	14	1.1	7.2	2.1	<1	<1	5.2	94	3	6.5	8.3	<5	155	150	<0.2	<0.5	27	1.5	78	
	50-55	6/29/2021	30.0	16.0	852.9	14.2	6.57	1.76	29	517	<0.2	<1	77	<0.2	21	13	1.2	<5	2.3	<1	<1	4.8	101	2.5	4.8	7.7	<5	152	143	0.59	<0.5	23	1.4	<5	
	60-65	6/29/2021	30.0	9.60	896.9	13.9	6.64	1.87	26	280	<0.2	<1	105	<0.2	28	7.2	<1	<5	1.5	<1	<1	6	238	1.3	3.2	7	<5	155	185	0.8	<0.5	13	<1	<5	
	70-75	6/29/2021	30.0	20.8	1081	14.2	6.38	2.20	-22	259	<0.2	<1	165	<0.2	41	9.9	1.4	5.7	2.7	<1	<1	6.9	318	2.1	5	6	<5	191	273	0.72	<0.5	13	<1	22	
BOM21-77	20-25	7/8/2021	20.50	14.2	359.9	14.0	5.51	7.52	131	1010	<0.2	<1	33	0.29	7.3	12	2.6	11	1.8	1.2	1.1	3.4	120	2.4	5.9	1.7	<5	52	41	<0.2	<0.5	28	2	30	
	30-35	7/8/2021	20.50	11.48	243.6	13.9	5.35	3.42	134	543	<0.2	<1	23	<0.2	13	8.8	<1	<5	1.3	<1	<1	2.9	105	1.4	3.4	2.3	<5	25	63	<0.2	<0.5	25	1.3	5.4	
	40-45	7/7/2021	20.50	13.4	220.6	13.6	5.86	6.85	153	613	<0.2	<1	18	<0.2	7.9	12	<1	<5	1.4	<1	<1	2	58	1.7	3.3	1.5	<5	27	25	<0.2	<0.5	26	1.6	<5	
	50-55	7/7/2021	20.50	27.6	310.8	13.7	5.88	7.04	153	469	<0.2	<1	47	<0.2	11	8.4	<1	<5	0.93	<1	<1	2.2	56	1.4	1.7	2	<5	41	47	<0.2	<0.5	23	1.6	<5	
	60-65	7/7/2021	20.50	9.49	386.6	13.7	6.10	2.17	93	165	<0.2	<1	70	<0.2	15	4.8	<1	<5	0.52	<1	<1	5.1	145	1.1	1.1	2	<5	43	122	0.23	<0.5	9.6	1	<5	
BOM21-78	70-75	7/7/2021	20.50	23.2	529.6	14.3	6.11	2.18	-21	306	<0.2	<1	91	<0.2	25	7.2	1.8	<5	4.1	<1	<1	6.8	3260	1.8	4.9	5.5	<5	64	173	0.21	<0.5	17	1.8	<5	
	20-25	7/6/2021	19.75	40.2	158.6	13.4	5.89	6.28	109	1490	<0.2	<1	23	<0.2	7.2	56	3.2	15	6.6	1.5	1.2	2.1	153	9.4	12	0.93	<5	17	21	<0.2	0.71	50	3.1	24	
	30-35	7/6/2021	19.75	41.1	209.7	13.3	5.85	4.47	91	1090	<0.2	<1	25	<0.2	8.4	42	2.3	12	5.2	1.6	<1	2.6	131	7.1	9.2	1.6	<5	23	59	<0.2	0.61	53	2.6	<5	
	40-45	7/6/2021	19.75	11.4	161.2	13.3	6.17	6.55	140	415	<0.2	<1	19	<0.2	5.1	12	<1	<5	1.8	<1	1	1.4	71	1.9	4.5	1.1	<5	20	15	<0.2	<0.5	15	<1	<5	
	50-55	7/6/2021	19.75	5.80	212.1	13.2	6.94	7.66	94	99	<0.2	<1	31	<0.2	4.7	4.1	1.1	<5	1.2	<1	<1	1.3	79	1.9	4.8	0.86	<5	30	24	<0.2	<0.5	5.6	<1	<5	
	60-65	7/1/2021	19.75	31.7	492.4	13.2	6.54	NA	9	534	<0.2	<1	73	<0.2	18	27	3.1	7.7	4.1	1.2	<1	6.5	342	5.8	9.2	3.3	<5	62	120	<0.2	<0.5	32	2.1	<5	
	70-75	7/1/2021	19.75	29.9	634.7	13.5	6.40	NA	5	585	<0.2	<1	88	<0.2	28	20	2.6	5.9	3.4	1.2	<1	4.7	3420	3	5.7	5	<5	78	176	<0.2	<0.5	34	2.9	<5	
80-85	7/1/2021	19.75	15.9	800.7	12.9	6.06	NA	12	524	<0.2	<1	108	<0.2	23	8.7	3.2	<5	2.6	1.1	1	11	426	1.4	5.3	6.6	<5	124	264	<0.2	<0.5	27	1.9	<5		
90-95	6/30/2021	19.75	26.38	809.9	14.9	7.06	2.06	66	561	<0.2	1.4	68	<0.2	15	17	4	5.8	4.4	1	<1	16	291	3	5.3	4.2	<5	121	195	<0.2	<0.5	24	4.3	<5		
GMW-1-WH Nursing	18-33	1/12/2021	22.1	0.53	62.69	11.4	5.59	9.40	226	141	<0.2	<1	13	<0.2	3.1	<1	<1	<5	<0.1	<1	<1	0.88	24	<1	0.72	0.59	<5	6.8	19	<0.2	<0.5	<5	<1	<5	
GMW-2-WH Nursing	18-33	1/12/2021	21.35	1.34	514.9	17.0	6.21	1.79	-58	29	0.43	8.2	32	<0.2	18	2.6	<1	<5	7.4	<1	1.6	3.7	47	<1	1.2	9.5	<5	50	51	<0.2	0.82	<5	1.1	10	
GMW-3-WH Nursing	18-33	1/12/2021	23.26	4.40	553.8	17.4	6.27	1.58	-54	123	0.56	12	36	<0.2	20	371	5.4	15	6.9	<1	2.1	3.8	114	13	199	10	<5	60	53	<0.2	1	5.8	3.9	9.7	
MW-1-WH Senior	30-45	1/13/2021	32.60	0.07	92.30	12.9	5.43	10.80	253	109	<0.2	<1	18	0.32	4.8	3.8	<1	<5	<0.1	<1	<1	1	33	<1	2.5	1.7	<5	9.2	27	<0.2	<0.5	<5	<1	<5	
MW-2-WH Senior	30-45	1/13/2021	32.90	2.50	420.0	15.5	6.22	8.43	132	54	0.4	1.5	15	<0.2	22	15	<1	23	0.14	<1	<1	3.8	8.9	<1	9.1	7.8	<5	60	61	<0.2	<0.5	<5	1.9	5.2	
MWG-1-WH Pines	22-37	1/13/2021	27.50	1.07	512.8	13.4	6.55	9.12	128	285	0.26	<1	28	<0.2	78	67	1.4	<5	0.63	<1	<1	7	36	3.8	39	5.7	5.9	18	346	<0.2	<0.5	13	<1	<5	
MWG-2-WH Pines	20-35	1/14/2021	28.35	1.11	396.0	18.1	5.88	5.65	147	35	0.34	1.4	6.4	<0.2	17	3.5	1.4	33	<0.1	<1	3.8	4.9	21	<1	7.3	11	<5	45	58	<0.2	<0.5	<5	2	26	
MWG-3-WH Pines	21-36	1/14/2021	26.60	4.40	340.0	17.0	6.33	6.75	132	36	0.33	1.4	7.7	<0.2	37	6.4	<1	5.1	<0.1	<1	1.2	10	7.3	<1	3.5	12	5.3.								

Notes:

NA = Analyte not reported

NS = No Sample Collected

"<" = less than, indicating no detection

* Public Water Supply Action Level for Lead and Copper

** Applies to the sum of PCBs

Indicates concentration exceeds a standard and/or guidance v

Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information			Inorganics							VOCs						SVOCs						RADs		MBAS	Chlorate	1,4 Dioxane	Herbicide Metabolites												
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	Bromide mg/l	Chloride mg/l	Fluoride mg/l	Nitrate mg/l N	Ortho-Phosphate mg/l P	Sulfate mg/l SO4	Ammonia (not distilled) mg/l N	Carbon disulfide ug/l	Chlorobenzene ug/l	Chlorodifluoromethane ug/l	Chloroform ug/l	Toluene ug/l	Total Xylene ug/l	Bisphenol A ug/l	Carbamazepine ug/l	Chlordane ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Simazine ug/l	Gross Alpha pCi/l	Gross Beta pCi/l	MBAS mg/l	Chlorate mg/l	1,4-Dioxane ug/l	Acetaminophen ug/l	Alachlor OA ug/l	Caffeine ug/l	Metolachlor OA (CGA-51202) ug/l	Metolachlor Metabolite (CGA-67125) ug/l	Deisopropylatrazine (G-28279) ug/l	Ibuprofen ug/l	Imidacloprid ug/l	Phenytion (Dilantin) ug/l	Trichlorfon ug/l			
DEC TOGS 1.1.1 Guidance Values			2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
DEC Part 703 Class GA Groundwater Standards			-	250	1.5	10	-	250	2	-	5	-	7	5	-	-	-	0.05	-	-	-	-	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DOH Drinking Water Standards Part 5-1			-	250	2.2	10	-	250	-	-	5	5	80	5	5	50	50	2	50	50	50	50	15	-	-	-	1	50	50	50	50	50	50	50	50	50	50	50	50
BOM20-35	35-40	1/27/2021	<0.05	8.2	<0.1	0.13	<0.1	6.4	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	45-50	1/27/2021	<0.05	33	<0.1	1.3	<0.1	11	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.7	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3		
	55-60	1/27/2021	<0.05	20	<0.1	0.49	<0.1	6.7	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3		
	65-70	1/26/2021	<0.05	23	<0.1	0.9	<0.1	6.7	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3		
	75-80	1/26/2021	<0.05	9	<0.1	0.44	<0.1	11	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3		
BOM20-36	30-35	11/10/2020	<0.05	63	<0.1	1.2	<0.1	9.1	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.4	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	Trace	<0.2	<0.2	<0.3		
	40-45	11/10/2020	<0.05	12	<0.1	0.43	<0.1	9	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	3.2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	50-55	11/9/2020	<0.05	9.7	<0.1	0.15	<0.1	9.8	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	60-65	11/9/2020	<0.05	17	<0.1	0.35	<0.1	26	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	0.2	<0.2	<0.2	<0.2	<0.3			
	70-75	11/9/2020	<0.05	65	<0.1	0.76	<0.1	20	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.7	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	0.3	<0.2	<0.2	<0.2	<0.3			
BOM20-37	30-35	11/19/2020	<0.05	24	<0.1	1.3	<0.1	15	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	40-45	11/19/2020	<0.05	16	<0.1	2	<0.1	27	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	3.2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	50-55	11/16/2020	<0.05	16	<0.1	1.6	<0.1	29	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	60-65	11/16/2020	<0.05	11	<0.1	0.13	<0.1	14	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	70-75	11/16/2020	<0.05	11	<0.1	0.3	<0.1	6.2	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
BOM20-38	25-30	12/1/2020	<0.05	32	<0.1	4.4	<0.1	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.3	NS	<0.05	0.13	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3				
	35-40	12/1/2020	<0.05	15	<0.1	3.4	<0.1	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	4.5	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	0.2	<0.2	<0.3				
	45-50	11/24/2020	0.06	34	<0.1	5	<0.1	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	5.4	NS	<0.05	0.28	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3				
	55-60	11/24/2020	<0.05	14	<0.1	1.3	<0.1	6.2	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.9	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	65-70	11/24/2020	<0.05	21	<0.1	1.6	<0.1	18	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
BOM20-40	15-20	1/27/2021	<0.05	23	<0.1	0.8	<0.1	6.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.5	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3				
	25-30	1/26/2021	<0.05	26	<0.1	0.65	<0.1	6.9	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.3	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	35-40	1/26/2021	<0.05	38	<0.1	1.7	<0.1	47	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.5	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3				
	45-50	1/26/2021	<0.05	41	<0.1	1.7	<0.1	57	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.5	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3				
	55-60	1/26/2021	<0.05	20	<0.1	0.64	<0.1	38	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.9	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3				
BOM20-41	15-20	1/28/2021	0.05	54	<0.1	0.4	<0.1	4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3				
	25-30	1/28/2021	<0.05	12	<0.1	<0.1	<0.1	7.3	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.5	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	35-40	1/28/2021	<0.05	53	<0.1	1.5	<0.1	26	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.7	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3				
	45-50	1/27/2021	<0.05	41	<0.1	1.6	<0.1	49	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.5	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3				
	55-60	1/27/2021	<0.05	17	<0.1	0.62	<0.1	39	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.3	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3				
BOM20-42	40-45	2/23/2021	<0.05	23	<0.1	0.39	<0.1	9.9	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.1	NS	0.15	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	50-55	2/17/2021	<0.05	58	<0.1	1.1	<0.1	37	<0.5	<0.5	<0.5	&																											

Notes:
NA = Analyte not reported
NS = No Sample Collected
"<" = less than, indicating no detection
* Public Water Supply Action Level for Lead and Copper
** Applies to the sum of PCBs

 Indicates concentration exceeds a standard and/or guidance value

Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information			Inorganics							VOCs						SVOCs						RADs		MBAS	Chlorate	1,4 Dioxane	Herbicide Metabolites											
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	Bromide mg/l	Chloride mg/l	Fluoride mg/l	Nitrate mg/l N	Ortho-Phosphate mg/l P	Sulfate mg/l SO4	Ammonia (not distilled) mg/l N	Carbon disulfide ug/l	Chlorobenzene ug/l	Chlorodifluoromethane ug/l	Chloroform ug/l	Toluene ug/l	Total Xylene ug/l	Bisphenol A ug/l	Carbamazepine ug/l	Chlordane ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Simazine ug/l	Gross Alpha pCi/l	Gross Beta pCi/l	MBAS mg/l	Chlorate mg/l	1,4-Dioxane ug/l	Acetaminophen ug/l	Alachlor OA ug/l	Caffeine ug/l	Metolachlor OA (CGA-51202) ug/l	Metolachlor Metabolite (CGA-67125) ug/l	Deisopropylatrazine (G-28279) ug/l	Ibuprofen ug/l	Imidacloprid ug/l	Phenytion (Dilantin) ug/l	Trichlorfon ug/l		
DEC TOGS 1.1.1 Guidance Values			2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DEC Part 703 Class GA Groundwater Standards			-	250	1.5	10	-	250	2	-	5	-	7	5	-	-	-	0.05	-	-	-	-	-	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DOH Drinking Water Standards Part 5-1			-	250	2.2	10	-	250	-	-	5	5	80	5	5	50	50	2	50	50	50	50	15	-	-	-	1	50	50	50	50	50	50	50	50	50	50	50
BOM20-44	35-40	2/24/2021	0.07	12	<0.1	0.19	<0.1	11	4.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<2.5	<0.2	<2.5	<1	<0.35	<1	6.9	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	45-50	2/24/2021	0.07	17	<0.1	<0.1	<0.1	18	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<2.5	<0.2	<2.5	<1	<0.35	<1	10	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	55-60	2/24/2021	0.1	26	<0.1	0.29	<0.1	22	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.2	<1	<0.4	<0.14	<1	7.5	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	65-70	2/23/2021	0.11	55	<0.1	0.66	<0.1	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.4	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	75-80	2/23/2021	0.07	48	<0.1	0.48	<0.1	7.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
BOM20-45	30-35	12/2/2020	<0.05	14	<0.1	0.15	<0.1	7.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	40-45	12/2/2020	<0.05	13	<0.1	0.15	<0.1	9.7	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.8	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	50-55	12/1/2020	<0.05	39	<0.1	2.4	<0.1	26	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.8	NS	<0.05	0.13	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	60-65	11/30/2020	0.1	39	<0.1	4.6	<0.1	34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.8	NS	0.07	0.2	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	70-75	11/30/2020	<0.05	35	<0.1	4.3	<0.1	23	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.9	NS	<0.05	<0.2	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
BOM20-46	35-40	1/12/2021	0.17	28	<0.1	0.65	<0.1	9.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.2	<1	<0.4	<0.14	<1	1.5	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	45-50	1/12/2021	<0.05	52	<0.1	5	<0.1	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.2	<1	<0.4	<0.14	<1	4.2	NS	<0.05	0.27	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	55-60	12/3/2020	<0.05	41	<0.1	3.1	<0.1	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.9	NS	<0.05	0.11	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	65-70	12/3/2020	<0.05	19	<0.1	1.2	<0.1	10	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	75-80	12/3/2020	<0.05	6.5	<0.1	0.52	<0.1	23	<0.5	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.6	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
BOM20-47	35-40	1/13/2021	0.05	26	<0.1	2.1	<0.1	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	4.2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	45-50	1/13/2021	<0.05	15	<0.1	<0.1	<0.1	8	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.3	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	55-60	1/13/2021	<0.05	7.8	<0.1	0.13	<0.1	5.2	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	65-70	1/13/2021	<0.05	10	<0.1	0.36	<0.1	5.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	75-80	1/12/2021	<0.05	5.8	<0.1	<0.1	<0.1	6.3	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<1	<1	<0.2	<1	<0.4	<0.14	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
BOM20-49																																						

Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information			Inorganics							VOCs						SVOCs						RADs		MBAS	Chlorate	1,4 Dioxane	Herbicide Metabolites											
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	Bromide mg/l	Chloride mg/l	Fluoride mg/l	Nitrate mg/l N	Ortho-Phosphate mg/l P	Sulfate mg/l SO4	Ammonia (not distilled) mg/l N	Carbon disulfide ug/l	Chlorobenzene ug/l	Chlorodifluoromethane ug/l	Chloroform ug/l	Toluene ug/l	Total Xylene ug/l	Bisphenol A ug/l	Carbamazepine ug/l	Chlordane ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Simazine ug/l	Gross Alpha pCi/l	Gross Beta pCi/l	MBAS mg/l	Chlorate mg/l	1,4-Dioxane ug/l	Acetaminophen ug/l	Alachlor OA ug/l	Caffeine ug/l	Metolachlor OA (CGA-51202) ug/l	Metolachlor Metabolite (CGA-67125) ug/l	Deisopropylatrazine (G-28279) ug/l	Ibuprofen ug/l	Imidacloprid ug/l	Phenytion (Dilantin) ug/l	Trichlorfon ug/l		
DEC TOGS 1.1.1 Guidance Values			2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DEC Part 703 Class GA Groundwater Standards			-	250	1.5	10	-	250	2	-	5	-	7	5	-	-	-	0.05	-	-	-	-	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DOH Drinking Water Standards Part 5-1			-	250	2.2	10	-	250	-	-	5	5	80	5	5	50	50	2	50	50	50	50	15	-	-	-	1	50	50	50	50	50	50	50	50	50	50	50
BOM20-54	25-30	10/27/2020	<0.05	45	<0.1	20	0.85	21	1.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	0.5	<0.07	<1	6.5	NS	<0.05	0.2	<0.2	<0.4	<0.2	<0.3	<0.3	<0.3	<0.2	<0.2	0.2	<0.2	<0.3	
	35-40	10/26/2020	<0.05	15	<0.1	2.5	<0.1	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.5	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	45-50	10/26/2020	<0.05	23	<0.1	3.4	<0.1	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.9	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	55-60	10/26/2020	<0.05	20	<0.1	4.6	<0.1	9.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.7	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	65-70	10/22/2020	<0.05	7.7	<0.1	1.7	<0.1	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
BOM20-55	15-20	10/15/2020	<0.05	18	<0.1	0.67	<0.1	5.6	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	25-30	10/15/2020	<0.05	67	<0.1	5.4	<0.1	10	<0.5	<0.5	<0.5	<0.5	2.7	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.8	NS	1.2	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	35-40	10/14/2020	<0.05	100	<0.1	6.8	<0.1	11	<0.5	<0.5	<0.5	<0.5	4.4	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	3.1	NS	1.6	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	45-50	10/14/2020	<0.05	135	<0.1	4.3	<0.1	15	<0.5	<0.5	<0.5	<0.5	5.9	<0.5	<0.5	0.3	<0.5	<0.2	<0.5	<0.2	<0.07	<1	3	NS	2	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	55-60	10/14/2020	<0.05	62	<0.1	4.7	<0.1	22	0.53	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.7	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
BOM20-57	20-25	10/20/2020	<0.05	16	<0.1	1.4	<0.1	5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	30-35	10/19/2020	<0.05	45	<0.1	2.7	<0.1	16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.8	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	40-45	10/19/2020	<0.05	46	<0.1	1.3	<0.1	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	0.2	<0.3		
	50-55	10/19/2020	<0.05	70	<0.1	1.1	<0.1	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.3	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	60-65	10/15/2020	0.07	68	<0.1	0.26	<0.1	22	0.55	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	Trace	<0.2	<0.07	<1	5.7	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
BOM20-58	15-20	10/21/2020	<0.05	19	<0.1	4.5	<0.1	12	<0.5	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.3	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	25-30	10/21/2020	<0.05	41	<0.1	5.6	<0.1	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	0.25	<0.6	<0.2	<0.07	<1	2.1	NS	0.09	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3			
	35-40	10/21/2020	<0.05	55	<0.1	6.1	<0.1	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	45-50	10/21/2020	0.05	80	<0.1	2.5	<0.1	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.6	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	55-60	10/20/2020	0.09	111	<0.1	0.2	<0.1	27	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	Trace	<0.07	<1	3.5	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
BOM20-59	40-45	12/8/2020	<0.05	19	<0.1	2	<0.1	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.7	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	50-55	12/8/2020	<0.05	13	<0.1	1.6	<0.1	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	60-65	12/7/2020	<0.05	15	<0.1	1.3	<0.1	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.6	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	70-75	12/7/2020	<0.05	12	<0.1	0.74	<0.1	11	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.6	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	80-85	12/7/2020	<0.05	13	<0.1	0.59	<0.1	5.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
BOM20-60	35-40	12/8/2020	<0.05	16	<0.1	1.4	<0.1	13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	45-50	12/8/2020	<0.05	17	<0.1	1	<0.1	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.8	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	55-60	12/7/2020	<0.05	11	<0.1	0.89	<0.1	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	65-70	12/7/2020	<0.05	10	<0.1	0.4	<0.1	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	0.4		
	75-80	12/7/2020	<0.05	6.9	<0.1	<0.1	<0.1	5.3	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3	
BOM20-61	30-35	12/9/2020	<0.05	17	<0.1	1.1	<0.1	12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	2.4	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.3		
	40-45	12/9/2020	<0.05	51	<0.1	2.1	<																															

Notes:
NA = Analyte not reported
NS = No Sample Collected
"<" = less than, indicating no detection
* Public Water Supply Action Level for Lead and Copper
** Applies to the sum of PCBs

 Indicates concentration exceeds a standard and/or guidance value

Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information			Inorganics							VOCs					SVOCs					RADs		MBAS	Chlorate	1,4 Dioxane	Herbicide Metabolites														
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	Bromide mg/l	Chloride mg/l	Fluoride mg/l	Nitrate mg/l N	Ortho-Phosphate mg/l P	Sulfate mg/l SO4	Ammonia (not distilled) mg/l N	Carbon disulfide ug/l	Chlorobenzene ug/l	Chlorodifluoromethane ug/l	Chloroform ug/l	Toluene ug/l	Total Xylene ug/l	Bisphenol A ug/l	Carbamazepine ug/l	Chlordane ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Simazine ug/l	Gross Alpha pCi/l	Gross Beta pCi/l	MBAS mg/l	Chlorate mg/l	1,4-Dioxane ug/l	Acetaminophen ug/l	Alachlor OA ug/l	Caffeine ug/l	Metolachlor OA (CGA-51202) ug/l	Metolachlor Metabolite (CGA-67125) ug/l	Deisopropylatrazine (G-28279) ug/l	Ibuprofen ug/l	Imidacloprid ug/l	Phenytin (Dilantin) ug/l	Trichlorfon ug/l			
DEC TOGS 1.1.1 Guidance Values			2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
DEC Part 703 Class GA Groundwater Standards			-	250	1.5	10	-	250	2	-	5	-	7	5	-	-	-	0.05	-	-	-	-	-	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DOH Drinking Water Standards Part 5-1			-	250	2.2	10	-	250	-	-	5	5	80	5	5	50	50	2	50	50	50	50	15	-	-	-	1	50	50	50	50	50	50	50	50	50	50	50	
BOM20-63	35-40	1/7/2021	<0.05	7.6	<0.1	<0.1	<0.1	4.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	45-50	1/6/2021	<0.05	11	<0.1	<0.1	<0.1	6.7	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<1	<1	<0.2	<1	<0.4	<0.14	<1	1.2	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3		
	55-60	1/6/2021	<0.05	12	<0.1	<0.1	<0.1	6.6	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3		
	65-70	1/6/2021	<0.05	11	<0.1	<0.1	<0.1	4.7	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3		
	75-80	1/6/2021	<0.05	8.6	<0.1	<0.1	<0.1	6.6	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
BOM20-64	45-50	1/7/2021	<0.05	7.4	<0.1	<0.1	<0.1	3.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.4	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	55-60	1/7/2021	<0.05	13	<0.1	<0.1	<0.1	5.8	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	65-70	1/5/2021	<0.05	14	<0.1	<0.1	<0.1	5.6	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	75-80	1/5/2021	<0.05	9.5	<0.1	<0.1	<0.1	5.4	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
BOM20-65	45-50	1/7/2021	<0.05	6.4	<0.1	<0.1	<0.1	5.6	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.6	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	55-60	1/7/2021	<0.05	7.2	<0.1	<0.1	<0.1	5.2	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	1.6	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	65-70	1/7/2021	<0.05	9.6	<0.1	<0.1	<0.1	5.2	<0.5	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	75-80	1/7/2021	<0.05	7.1	<0.1	<0.1	<0.1	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
BOM20-66	40-45	1/6/2021	<0.05	6.8	<0.1	<0.1	<0.1	5.7	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	45-50	1/6/2021	<0.05	7.4	<0.1	<0.1	<0.1	5.5	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	55-60	1/6/2021	<0.05	8.7	<0.1	<0.1	<0.1	5.4	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	65-70	1/4/2021	<0.05	10	<0.1	<0.1	<0.1	5.9	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	<1	<1	<0.2	<1	<0.4	<0.14	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3		
	75-80	1/4/2021	<0.05	8.6	<0.1	<0.1	<0.1	6.2	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	<1	<1	<0.2	<1	<0.4	<0.14	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3		
BOM20-67	25-30	12/29/2020	<0.05	10	<0.1	<0.1	<0.1	6.3	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.2	<0.5	<0.2	<0.6	<0.2	<0.07	<1	1.3	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	30-35	12/29/2020	<0.05	11	<0.1	<0.1	<0.1	7.1	<0.5	<0.5	<0.5	1.8	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	<1	<1	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	40-45	12/29/2020	&																																				

Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information			Inorganics							VOCs						SVOCs						RADS		MBAS	Chlorate	1,4 Dioxane	Herbicide Metabolites											
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	Bromide mg/l	Chloride mg/l	Fluoride mg/l	Nitrate mg/l N	Ortho-Phosphate mg/l P	Sulfate mg/l SO4	Ammonia (not distilled) mg/l N	Carbon disulfide ug/l	Chlorobenzene ug/l	Chlorodifluoromethane ug/l	Chloroform ug/l	Toluene ug/l	Total Xylene ug/l	Bisphenol A ug/l	Carbamazepine ug/l	Chlordane ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Simazine ug/l	Gross Alpha pCi/l	Gross Beta pCi/l	MBAS mg/l	Chlorate mg/l	1,4-Dioxane ug/l	Acetaminophen ug/l	Alachlor OA ug/l	Caffeine ug/l	Metolachlor OA (CGA-51202) ug/l	Metolachlor Metabolite (CGA-67125) ug/l	Deisopropylatrazine (G-28279) ug/l	Ibuprofen ug/l	Imidacloprid ug/l	Phenytion (Dilantin) ug/l	Trichlorfon ug/l		
DEC TOGS 1.1.1 Guidance Values			2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DEC Part 703 Class GA Groundwater Standards			-	250	1.5	10	-	250	2	-	5	-	7	5	-	-	-	0.05	-	-	-	-	1,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DOH Drinking Water Standards Part 5-1			-	250	2.2	10	-	250	-	-	5	5	80	5	5	50	50	2	50	50	50	50	15	-	-	-	1	50	50	50	50	50	50	50	50	50	50	50
BOM20-72	25-30	6/29/2021	0.06	93	0.1	15	<0.1	22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	35-40	6/28/2021	0.06	107	<0.1	7	<0.1	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	45-50	6/28/2021	0.08	148	<0.1	7.8	<0.1	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	55-60	6/28/2021	<0.05	9.8	<0.1	0.63	<0.1	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	65-70	6/28/2021	<0.05	10	<0.1	0.98	<0.1	21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.2	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
BOM21-76	30-35	6/30/2021	<0.05	16	0.11	<0.1	<0.1	13	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	40-45	6/30/2021	0.08	196	<0.1	1.8	<0.1	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	50-55	6/29/2021	0.08	205	<0.1	2.2	<0.1	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	60-65	6/29/2021	0.08	212	<0.1	1.7	<0.1	14	0.52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	0.2	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	70-75	6/29/2021	0.11	239	<0.1	0.26	<0.1	23	0.72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	0.5	NS	NS	NS	<0.05	<0.2	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
BOM21-77	20-25	7/8/2021	<0.05	87	0.11	3.1	<0.1	20	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.2	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	30-35	7/8/2021	<0.05	44	<0.1	4	<0.1	27	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.2	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	40-45	7/7/2021	<0.05	46	<0.1	1.8	<0.1	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	50-55	7/7/2021	0.05	73	<0.1	1.8	<0.1	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	60-65	7/7/2021	<0.05	71	<0.1	1	<0.1	36	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
BOM21-78	70-75	7/7/2021	0.07	97	<0.1	0.47	<0.1	39	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	20-25	7/6/2021	<0.05	29	<0.1	1.8	<0.1	13	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.4	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	30-35	7/6/2021	<0.05	38	<0.1	1.2	<0.1	20	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	0.12	<0.4	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3
	40-45	7/6/2021	<0.05	34	<0.1	0.9	<0.1	15	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.2	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	50-55	7/6/2021	<0.05	41	<0.1	2.2	<0.1	19	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.2	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.1	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	0.2	<0.3		
	60-65	7/1/2021	0.06	109	<0.1	0.78	<0.1	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.5	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
	70-75	7/1/2021	0.08	118	0.1	0.14	<0.1	28	0.55	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.5	<0.2	<0.07	NS	NS	NS	<0.05	<0.2	<0.2	<0.4	<0.2	<0.3	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	
80-85	7/1/2021	0.13	176																																			

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2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information			Perfluoroalkyl Substances																				PCBs							
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	PFBA ng/l	PFPeA ng/l	PFHxA ng/l	PFHpA ng/l	PFOA ng/l	PFNA ng/l	PFDA ng/l	PFUnA ng/l	PFDoA ng/l	PFTrIA ng/l	PFTeA ng/l	PFBS ng/l	PFHxS ng/l	PFHpS ng/l	PFOS ng/l	PFDS ng/l	FOSA ng/l	NMeFOSSA ng/l	NEtFOSAA ng/l	6:2FTS ng/l	8:2FTS ng/l	PCB Aroclor 1016 ug/l	PCB Aroclor 1221 ug/l	PCB Aroclor 1232 ug/l	PCB Aroclor 1242 ug/l	PCB Aroclor 1248 ug/l	PCB Aroclor 1254 ug/l	PCB Aroclor 1260 ug/l
DEC TOGS 1.1.1.1 Guidance Values			-	-	-	-	6.7	-	-	-	-	-	-	-	-	-	2.7	-	-	-	-	-	-	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**
DOH Drinking Water Standards Part 5-1			50,000	50,000	50,000	50,000	10	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	50,000	50,000	50,000	50,000	50,000	50,000	0.5	0.5	0.5	0.5	0.5	0.5	0.5
BOM20-44	35-40	2/24/2021	<4.5	3.1	3	3.9	11	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	16	<1.8	2.3	<4.5	<4.5	<4.5	<1.8	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
	45-50	2/24/2021	<4.4	3.7	3.8	5.3	10	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	15	<1.8	18	<1.8	3.5	<4.4	<4.4	<4.4	<1.8	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
	55-60	2/24/2021	<4.9	4	4	4.9	8.6	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	16	<1.9	16	<1.9	<1.9	<4.9	<4.9	<4.9	<1.9	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
	65-70	2/23/2021	5.4	4.9	4.8	2.3	7.1	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	7.9	11	<1.7	9.4	<1.7	<1.7	<4.4	<4.4	<4.4	<1.9	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
	75-80	2/23/2021	<4.4	3.3	2.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.5	<1.8	1.9	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94	<0.94
BOM20-45	30-35	12/2/2020	<4.4	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<4.4	<4.4	<4.4	<1.7	NS	NS	NS	NS	NS	NS	NS
	40-45	12/2/2020	<4.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS
	50-55	12/1/2020	9.7	64	18	3.7	5.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	3.8	10	<1.7	16	2.1	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS
	60-65	11/30/2020	12	60	17	4.1	6	<1.7	2	<1.7	<1.7	<1.7	<1.7	4	10	<1.7	23	<1.7	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS
	70-75	11/30/2020	11	65	21	3.3	5.9	<1.7	2.4	<1.7	<1.7	<1.7	<1.7	3	8.9	<1.7	23	<1.7	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS
BOM20-46	35-40	1/12/2021	<4.4	2.4	2.1	<1.7	2.5	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	3.1	<1.7	4.7	<1.7	<1.7	<4.4	<4.4	<4.4	<1.7	NS	NS	NS	NS	NS	NS	NS	NS
	45-50	1/12/2021	10	53	22	4	6.9	<1.7	3.5	<1.7	<1.7	<1.7	<1.7	3.4	9.8	<1.7	27	<1.7	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS
	55-60	12/3/2020	8.5	58	16	3.4	5.3	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.6	6.8	<1.8	19	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS
	65-70	12/3/2020	<4.3	10	3.8	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	1.8	<1.7	2.1	<1.7	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS	
	75-80	12/3/2020	<4.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS
BOM20-47	35-40	1/13/2021	<4.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	28	<1.8	<1.8	2	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS
	45-50	1/13/2021	<4.4	<1.8	<1.8	1.9	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS
	55-60	1/13/2021	<4.4	6.1	4.6	3.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS
	65-70	1/13/2021	<4.6	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS
	75-80	1/12/2021	<4.3	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS
BOM20-49	35-40	1/20/2021	<4.4	3.1	2.8	1.8	5.1	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	3.6	<1.7	4.1	<1.7	<1.7	<4.4	<4.4	<4.4	<1.7	NS	NS	NS	NS	NS	NS	NS	NS
	45-50	1/20/2021	<4.2	2	2.6	1.9	11	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	7.4	<1.7	17	<1.7	<1.7	<4.2	<4.2	<4.2	<1.7	NS	NS	NS	NS	NS	NS	NS	NS
	55-60	1/19/2021	<4.5	4.3	6.2	3.8	22	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	17	<1.8	39	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS
	65-70	1/19/2021	<4.4	3.7	4.9	5	26	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	1.9	15	<1.7	45	<1.7	<1.7	<4.4	<4.4	<4.4	<1.7	NS	NS	NS	NS	NS	NS	NS
	75-80	1/19/2021	<4.3	3.1	3.2	3.6	17	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	8.2	<1.7	17	<1.7	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS
BOM20-50	30-35	1/21/2021	<4.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	5	<1.8	<1.8	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS
	35-40	1/21/2021	<4.3	<1.7	<1.7	<1.7	2	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	20	<1.7	<1.7	<1.7	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS
	45-50	1/20/2021	<																											

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PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information			Perfluoroalkyl Substances																				PCBs								
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	PFBA ng/l	PFPeA ng/l	PFHxA ng/l	PFHpA ng/l	PFOA ng/l	PFNA ng/l	PFDA ng/l	PFUnA ng/l	PFDoA ng/l	PFTriA ng/l	PFTeA ng/l	PFBS ng/l	PFHxS ng/l	PFHpS ng/l	PFOS ng/l	PFDS ng/l	FOSA ng/l	NMeFOSSA ng/l	NEtFOSSA ng/l	6:2FTS ng/l	8:2FTS ng/l	PCB Aroclor 1016 ug/l	PCB Aroclor 1221 ug/l	PCB Aroclor 1232 ug/l	PCB Aroclor 1242 ug/l	PCB Aroclor 1248 ug/l	PCB Aroclor 1254 ug/l	PCB Aroclor 1260 ug/l	
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	6.7	-	-	-	-	-	-	-	-	-	2.7	-	-	-	-	-	-	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	
DOH Drinking Water Standards Part 5-1			50,000	50,000	50,000	50,000	10	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	50,000	50,000	50,000	50,000	50,000	50,000	0.5	0.5	0.5	0.5	0.5	0.5	0.5
BOM20-54	25-30	10/27/2020	<4.4	13	12	<1.8	2.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	7.7	<1.8	<1.8	2	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
	35-40	10/26/2020	<4.4	<1.8	1.8	<1.8	3.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	5.4	7.8	<1.8	6.9	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
	45-50	10/26/2020	<4.3	<1.7	<1.7	<1.7	3.4	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	2.8	20	<1.7	14	<1.7	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS	
	55-60	10/26/2020	<4.4	<1.8	<1.8	<1.8	6.9	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.3	13	<1.8	5.5	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
	65-70	10/22/2020	<4.5	<1.8	4.1	3.6	11	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.9	<1.8	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
BOM20-55	15-20	10/15/2020	5.7	9.5	9.4	7.4	17	3.6	<1.8	<1.8	<1.8	<1.8	<1.8	3.9	<1.8	30	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	25-30	10/15/2020	<4.4	2.4	3.3	2.2	6.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	8.8	3.3	<1.8	7.1	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	35-40	10/14/2020	<4.4	4	6.2	3.6	9.1	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	16	4.1	<1.8	8.3	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	45-50	10/14/2020	<4.5	2.6	4.3	2.2	6.9	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	9.4	5	<1.8	7.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	55-60	10/14/2020	<4.3	3.8	5.2	2.9	11	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	3.3	7.5	<1.7	8	<1.7	<1.7	<4.5	<4.5	<4.5	<1.7	NS	NS	NS	NS	NS	NS	NS	
BOM20-57	20-25	10/20/2020	<4.5	2.4	2.6	2.5	5.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.2	<1.8	2.6	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	30-35	10/19/2020	<4.4	2.3	3	1.8	5.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.8	<1.8	5.6	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
	40-45	10/19/2020	<4.4	<1.7	<1.7	<1.7	3.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	3.2	<1.7	3.2	<1.7	<1.7	<1.7	<4.4	<4.4	<4.4	<1.7	NS	NS	NS	NS	NS	NS	NS	
	50-55	10/19/2020	<4.4	<1.8	<1.8	<1.8	7.7	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	5.1	<1.8	6.5	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
	60-65	10/15/2020	<4.4	3.8	5.1	4.1	21	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	13	<1.8	26	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
BOM20-58	15-20	10/21/2020	<1.8	<1.8	<1.8	<1.8	4.6	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3	<1.8	6.3	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
	25-30	10/21/2020	<4.2	<1.7	1.8	<1.7	4.3	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	2.1	3.2	<1.7	2.4	<1.7	<1.7	<4.2	<4.2	<4.2	<1.7	NS	NS	NS	NS	NS	NS	NS	
	35-40	10/21/2020	<4.2	3.9	4.6	1.8	5.6	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	4.3	<1.7	13	<1.7	<1.7	<4.2	<4.2	<4.2	<1.7	NS	NS	NS	NS	NS	NS	NS	
	45-50	10/21/2020	<4.3	3.8	4.2	2.9	10	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	9.8	<1.7	32	<1.7	<1.7	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS	
	55-60	10/20/2020	<4.4	5	6.6	3.7	16	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	1.8	24	<1.8	85	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
BOM20-59	40-45	12/8/2020	<4.1	2.6	3.2	2.1	3.8	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	2.8	20	<1.6	18	<1.6	<1.6	<4.1	<4.1	<4.1	<1.6	NS	NS	NS	NS	NS	NS	NS	
	50-55	12/8/2020	<4.5	3.9	4.7	3.8	4.6	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.3	18	<1.8	21	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	60-65	12/7/2020	5.7	4.2	4.7	5.6	16	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.2	18	<1.8	8.7	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
	70-75	12/7/2020	<4.6	2.3	2.8	2.8	7.3	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.2	15	<1.8	3.4	<1.8	<1.8	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	
	80-85	12/7/2020	<4.6	<1.8	<1.8	<1.8	1.9	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.3	8.8	<1.8	<1.8	<1.8	<1.8	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	
BOM20-60	35-40	12/8/2020	<4.6	2.4	5.9	2	4.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.4	11	<1.8	22	<1.8	<1.8	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	
	45-50	12/8/2020	<4.4	2.8	5.3	8.7	5.9	2	<1.8	<1.8	<1.8	<1.8	<1.8	2.9	29	<1.8	120	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
	55-60	12/7/2020	5.2	4.6	8	6.2	9.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.7	39	<1.8	26	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
	65-70	12/7/2020	<4.5	2	<1.8	<1.8	3.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	14	<1.8	2.4	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	75-80	12/7/2020	<4.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	1.8	<1.8	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
BOM20-61	30-35	12/9/2020	<4.5	<1.8	<1.8	2	4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.4	13	<1.8	14	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	40-45	12/9/2020	<4.5	4.3	5.1	3	5.7	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	4.1	5.3	<1.8	5.5	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	50-55	12/9/2020	<4.5	4.3	3.7	2.6	7.2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	7.1	<1.8	4.1	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	60-65	12/9/2020	15	52	43	22	10	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	14	<1.8	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	70-75	12/9/2020	<4.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	
BOM20-62	35-40	1/5/2021	<4.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	45-50	1/5/2021	<4.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	55-60	1/4/2021	<4.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	65-70	1/4/2021	<4.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	75-80	1/4/2021	<4.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	

Notes:

- NA = Analyte not reported
- NS = No Sample Collected
- "<" = less than, indicating no detection
- * Public Water Supply Action Level for Lead and Copper
- ** Applies to the sum of PCBs

 Indicates concentration exceeds a standard and/or guidance value

Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

[illegible]

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Table 1
Suffolk County Department of Health Services
2020-2021 Off-Site Groundwater Data, BOMARC Site Vicinity, Westhampton, N.Y.
PFAS, PCB and Summary of PEHL Detected Analytes

Sample Information			Perfluoroalkyl Substances																				PCBs								
Well ID	Screen Interval (ft) (depth below grade)	Sample Date	PFBA ng/l	PFPeA ng/l	PFHxA ng/l	PFHpA ng/l	PFOA ng/l	PFNA ng/l	PFDA ng/l	PFUnA ng/l	PFDoA ng/l	PFTriA ng/l	PFTeA ng/l	PFBS ng/l	PFHxS ng/l	PFHpS ng/l	PFOS ng/l	PFDS ng/l	FOSA ng/l	NMeFOSSA ng/l	NEtFOSAA ng/l	6:2FTS ng/l	8:2FTS ng/l	PCB Aroclor 1016 ug/l	PCB Aroclor 1221 ug/l	PCB Aroclor 1232 ug/l	PCB Aroclor 1242 ug/l	PCB Aroclor 1248 ug/l	PCB Aroclor 1254 ug/l	PCB Aroclor 1260 ug/l	
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	6.7	-	-	-	-	-	-	-	-	-	2.7	-	-	-	-	-	-	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	0.09**	
DOH Drinking Water Standards Part 5-1			50,000	50,000	50,000	50,000	10	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	50,000	50,000	50,000	50,000	50,000	50,000	0.5	0.5	0.5	0.5	0.5	0.5	0.5
BOM20-72	25-30	6/29/2021	<4.7	2.8	4.3	2.2	4.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	2	4.3	<1.9	3.8	<1.9	<1.9	<4.7	<4.7	<4.7	<1.9	NS	NS	NS	NS	NS	NS	NS	
	35-40	6/28/2021	<4.6	7.5	7.9	2.8	5.4	<1.9	2.1	<1.9	<1.9	<1.9	<1.9	2.9	<1.9	4.5	<1.9	<1.9	<4.6	<4.6	<4.6	<1.9	NS	NS	NS	NS	NS	NS	NS		
	45-50	6/28/2021	<4.5	6.8	7.5	1.9	3.7	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.8	<1.8	4	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS		
	55-60	6/28/2021	<4.6	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS		
	65-70	6/28/2021	<4.6	<1.8	2.3	<1.8	4.4	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	4.5	<1.8	4.3	<1.8	<1.8	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	
BOM21-76	30-35	6/30/2021	<4.6	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	
	40-45	6/30/2021	5.4	8	12	6.9	9.1	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.6	23	<1.8	9.3	<1.8	3	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	
	50-55	6/29/2021	<4.6	2	3.6	3.2	5.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.4	12	<1.8	3	<1.8	3.8	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	
	60-65	6/29/2021	<4.6	2.9	3.7	3.5	6.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.2	12	<1.8	2.8	<1.8	3.4	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	
	70-75	6/29/2021	6.2	3.5	4.5	4.4	6.2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.5	13	<1.8	2.8	<1.8	2	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	
BOM21-77	20-25	7/8/2021	<4.3	4	5.8	2.7	7.3	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	12	<1.7	36	<1.7	<1.7	<4.3	<4.3	<4.3	<1.7	NS	NS	NS	NS	NS	NS	NS	NS	
	30-35	7/8/2021	<4.4	<1.7	<1.7	<1.7	3.2	<1.7	<1.7	2.7	<1.7	<1.7	<1.7	2.1	<1.7	34	<1.7	<1.7	<4.4	<4.4	<4.4	<1.7	NS	NS	NS	NS	NS	NS	NS	NS	
	40-45	7/7/2021	<4.4	<1.8	<1.8	<1.8	6	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.3	<1.8	5.3	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
	50-55	7/7/2021	<4.5	1.9	2.5	<1.8	4.7	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.6	<1.8	2.6	<1.8	<1.8	<4.5	<4.5	<4.5	<4.5	NS	NS	NS	NS	NS	NS	NS	NS	
	60-65	7/7/2021	<4.5	5.9	6.8	7.9	23	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	14	<1.8	14	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
	70-75	7/7/2021	<4.5	9.2	10	8.4	23	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	14	<1.8	16	<1.8	4.3	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
BOM21-78	20-25	7/6/2021	<4.4	<1.8	<1.8	<1.8	5.2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	6.6	<1.8	14	<1.8	3	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
	30-35	7/6/2021	<4.5	5.8	5.9	4.5	10	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.5	3.3	<1.8	1.9	<1.8	4	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	40-45	7/6/2021	<4.4	<1.8	1.8	<1.8	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
	50-55	7/6/2021	<4.5	<1.8	<1.8	<1.8	3.1	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	1.8	2.7	<1.8	3.4	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	60-65	7/1/2021	<4.4	4.5	5.6	3	6	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	1.9	10	<1.8	20	<1.8	3.9	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	
	70-75	7/1/2021	<4.5	4.6	7	5.1	25	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.3	32	2.7	93	<1.8	3.7	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	
	80-85	7/1/2021	<4.6	4.2	5.2	3.1	11	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	11	<1.8	9.5	<1.8	4.5	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
	90-95	6/30/2021	<4.6	2.7	3.8	2.2	8.3	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	6	<1.8	4.2	<1.8	2.6	<4.6	<4.6	<4.6	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
GMW-1-WH Nursing	18-33	1/12/2021	<4.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	15	<1.8	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
GMW-2-WH Nursing	18-33	1/12/2021	<4.4	6.9	12	<1.8	2.8	<1.8	3.2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	7.8	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
GMW-3-WH Nursing	18-33	1/12/2021	<4.4	6.9	14	<1.8	4.4	1.9	2.2	<1.8	<1.8	<1.8	<1.8	1.8	<1.8	11	5.9	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
MW-1-WH Senior	30-45	1/13/2021	<4.5	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	6.1	<1.8	<1.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
MW-2-WH Senior	30-45	1/13/2021	<4.4	6.2	2.5	<1.8	1.9	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	63	<1.8	<1.8	2.9	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	NS
MWG-1-WH Pines	22-37	1/13/2021	<4.4	6.9	5.7	5.1	12	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	7.6	<1.8	2.5	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	NS	
MWG-2-WH Pines	20-35	1/14/2021	5	26	84	6.5	64	2.9	17	<1.8	<1.8	<1.8	<1.8	5.7	<1.8	<1.8	13	<1.8	<1.8	<4.4	<4.4	<4.4	<1.8	NS	NS	NS	NS	NS	NS	NS	NS
MWG-3-WH Pines	21-36	1/14/2021	<4.5	6.1	7.1	4.2	16	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	2.8	33	<1.8	4.8	<1.8	<1.8	<4.5	<4.5	<4.5	<1.8	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
NA = Analyte not reported
NS = No Sample Collected
"<" = less than, indicating no detection
* Public Water Supply Action Level for Lead and Copper
** Applies to the sum of PCBs

Indicates concentration exceeds a standard and/or guidance v

Appendix B

List of All Analytes Tested by the SCDHS Public and Environmental Health Laboratory

**SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY
SAMPLE ANALYTE LIST**

Notes: mg/L = milligrams per liter; ug/L = micrograms per liter; ng/L= nanograms per liter. MRL = Minimum Reporting Level. MCL = NYSDOH Maximum Contaminant Level or Drinking Water Standard. The MCL for nickel is a proposed limit. Any MCLs not shown below have not been established.

Results for Sample Group: **ALDICARB PESTICIDES** analyzed by Suffolk County Department of Health Services

	<u>MRL</u>	<u>MCL</u>			<u>MRL</u>	<u>MCL</u>	
1-Naphthol	.5000	50.0000	ug/L	3-Hydroxycarbofuran	.5000	50.0000	ug/L
Aldicarb	.5000	3.0000	ug/L	Aldicarb-Sulfone	.5000	2.0000	ug/L
Aldicarb-Sulfoxide	.5000	4.0000	ug/L	Carbaryl	.5000	50.0000	ug/L
Carbofuran	.5000	40.0000	ug/L	Methiocarb	.5000	50.0000	ug/L
Methiocarb sulfone	.5000	50.0000	ug/L	Methomyl	.5000	50.0000	ug/L
Oxamyl	.5000	50.0000	ug/L	Propoxur (Baygon)	.5000	50.0000	ug/L

Results for Sample Group: **CHLORINATED PESTICIDES** analyzed by Suffolk County Department of Health Services

	<u>MRL</u>	<u>MCL</u>			<u>MRL</u>	<u>MCL</u>	
1,2-dibromo-3-chloropropane	.0200	.2000	ug/L	1,2-dibromoethane	.0100	.0500	ug/L
4,4-DDD	.2000	5.0000	ug/L	4,4-DDE	.2000	50.0000	ug/L
4,4-DDT	.2000	5.0000	ug/L	Alachlor	.2000	2.0000	ug/L
Aldrin	.2000	5.0000	ug/L	alpha-BHC	.2000	5.0000	ug/L
beta-BHC	.2000	5.0000	ug/L	Chlordane	.2000	2.0000	ug/L
Dacthal	.2000	50.0000	ug/L	delta-BHC	.2000	5.0000	ug/L
Dieldrin	.2000	50.0000	ug/L	Endosulfan I	.2000	5.0000	ug/L
Endosulfan II	.2000	5.0000	ug/L	Endosulfan Sulfate	.2000	50.0000	ug/L
Endrin	.0100	2.0000	ug/L	gamma-BHC (Lindane)	.0200	.2000	ug/L
Heptachlor	.0400	.4000	ug/L	Heptachlor epoxide	.0200	.2000	ug/L
Methoxychlor	.1000	40.0000	ug/L				

Results for Sample Group: **DACTHAL PESTICIDES** analyzed by Suffolk County Department of Health Services

	<u>MRL</u>	<u>MCL</u>			<u>MRL</u>	<u>MCL</u>	
Monomethyltetrachloroterephthalate	5.0000	50.0000	ug/L	Tetrachloroterephthalic acid	5.0000	50.0000	ug/L

Results for Sample Group: **DIOXANE** analyzed by Suffolk County Department of Health Services

	<u>MRL</u>	<u>MCL</u>			<u>MRL</u>	<u>MCL</u>	
1,4-Dioxane	.1000	50.0000	ug/L				

**SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY
SAMPLE ANALYTE LIST**

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Results for Sample Group: **HERBICIDE METABOLITES** analyzed by Suffolk County Department of Health Services

	<u>MRL</u>	<u>MCL</u>			<u>MRL</u>	<u>MCL</u>	
17 alpha Ethynylestradiol	.5000	50.0000	ug/L	17 beta Estradiol	.5000	50.0000	ug/L
2,6-Dichlorobenzamide	.5000	50.0000	ug/L	2-HydroxyAtrazine (G-34048)	.3000	50.0000	ug/L
4-Androstene-3,17-dione	.5000	50.0000	ug/L	4-Hydroxyphenytoin	.5000	50.0000	ug/L
Acetaminophen	.2000	50.0000	ug/L	Alachlor ESA (Sulfonic Acid)	.2000	50.0000	ug/L
Alachlor OA (Oxanilic Acid)	.4000	50.0000	ug/L	Bisphenol A	.2000	50.0000	ug/L
Bisphenol B	.2000	50.0000	ug/L	Caffeine	.2000	50.0000	ug/L
Deisopropylatrazine (G-28279)	.2000	50.0000	ug/L	Desethylatrazine (G-30033)	.4000	50.0000	ug/L
Dichlorvos	.6000	50.0000	ug/L	Didealkylatrazine (G-28273)	.8000	50.0000	ug/L
Diethylstilbestrol	.5000	50.0000	ug/L	Diethyltoluamide (DEET)	.2000	50.0000	ug/L
Dinoseb	.3000	7.0000	ug/L	Diuron	.2000	50.0000	ug/L
Equilin	.7000	50.0000	ug/L	Estriol	.7000	50.0000	ug/L
Estrone	.2000	50.0000	ug/L	Gemfibrozil	.4000	50.0000	ug/L
Ibuprofen	.2000	50.0000	ug/L	Imidacloprid	.2000	50.0000	ug/L
Imidacloprid Urea	.2000	50.0000	ug/L	Malaoxon	.2000	50.0000	ug/L
Metalaxyl	.2000	50.0000	ug/L	Metolachlor	.2000	50.0000	ug/L
Metolachlor ESA (CGA-354743)	.3000	50.0000	ug/L	Metolachlor metabolite (CGA-37735)	.2000	50.0000	ug/L
Metolachlor metabolite (CGA-40172)	.3000	50.0000	ug/L	Metolachlor metabolite (CGA-41638)	.3000	50.0000	ug/L
Metolachlor metabolite (CGA-67125)	.3000	50.0000	ug/L	Metolachlor OA (CGA-51202)	.3000	50.0000	ug/L
Phenytoin (Dilantin)	.2000	50.0000	ug/L	Picaridin	.5000	50.0000	ug/L
Propachlor ESA	.2000	50.0000	ug/L	Propachlor OA	.3000	5.0000	ug/L
Propamocarb hydrochloride	.3000	50.0000	ug/L	Siduron	.3000	50.0000	ug/L
Tebuthiuron	.3000	50.0000	ug/L	Testosterone	.3000	50.0000	ug/L
Trichlorfon	.3000	50.0000	ug/L				

Results for Sample Group: **METALS** analyzed by Suffolk County Department of Health Services

	<u>MRL</u>	<u>MCL</u>			<u>MRL</u>	<u>MCL</u>	
Aluminum (Al)	5.0000		ug/L	Antimony (Sb)	.2000	6.0000	ug/L
Arsenic (As)	1.0000	10.0000	ug/L	Barium (Ba)	1.0000	2000.0000	ug/L
Beryllium (Be)	.2000	4.0000	ug/L	Cadmium (Cd)	1.0000	5.0000	ug/L
Calcium	.1000		mg/L	Chromium (Cr)	1.0000	100.0000	ug/L
Cobalt (Co)	1.0000		ug/L	Copper (Cu)	5.0000	1300.0000	ug/L
Germanium	.5000		ug/L	Iron (Fe)	.1000	.3000	mg/L
				Lead (Pb)	1.0000	15.0000	ug/L
Lithium	1.0000		ug/L	Magnesium	.1000		mg/L
Manganese (Mn)	0.001	0.30	mg/L	Mercury (Hg)	.3000	2.0000	ug/L
Molybdenum (Mo)	1.0000		ug/L	Nickel (Ni)	.2000	100.0000	ug/L
Potassium	.5000		mg/L	Selenium (Se)	1.0000	50.0000	ug/L
Silver (Ag)	2.5000	100.0000	ug/L	Sodium (Na)	1.0000		mg/L
Strontium	1.0000		ug/L	Tellurium	.5000		ug/L
Thallium (Tl)	.2000	2.0000	ug/L	Thorium (Th)	2.0000		ug/L
Tin	.5000		ug/L	Titanium (Ti)	1.0000		ug/L
Uranium	.5000	30.0000	ug/L	Vanadium (V)	1.0000		ug/L
Zinc (Zn)	5.0000	5000.0000	ug/L				

Results for Sample Group: **RADIOLOGICAL** analyzed by Suffolk County Department of Health Services*

	<u>MRL</u>	<u>MCL</u>			<u>MRL</u>	<u>MCL</u>	
Gross Alpha	1.0000	15.0000	pCi/L	Gross beta	1.0000	50.0000	pCi/L
Tritium	200.0000	20000.0000	pCi/L				

*Note: Radiological parameters were not analyzed in the following four profile wells: BOM20-72, BOM20-76, BOM20-77 and BOM20-78.

**SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY
SAMPLE ANALYTE LIST**

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Results for Sample Group: **SEMI-VOLATILE ORGANICS METHOD 525** analyzed by Suffolk County Department of Health Services

	<u>MRL</u>	<u>MCL</u>			<u>MRL</u>	<u>MCL</u>	
1-Methylnaphthalene	.2000	50.0000	ug/L	2-Methylnaphthalene	.2000	50.0000	ug/L
Acenaphthene	.2000	50.0000	ug/L	Acenaphthylene	.2000	50.0000	ug/L
Acetochlor	.2000	50.0000	ug/L	Alachlor	.2000	2.0000	ug/L
Allethrin	.2000	50.0000	ug/L	Anthracene	.5000	50.0000	ug/L
Atrazine	.1000	3.0000	ug/L	Azoxystrobin	.2000	50.0000	ug/L
Benfluralin	.5000	50.0000	ug/L	Benzo(A)Anthracene	.5000	50.0000	ug/L
Benzo(a)Pyrene	.0200	.2000	ug/L	Benzo(B)Fluoranthene	.2000	50.0000	ug/L
Benzo(GHI)Perylene	.2000	50.0000	ug/L	Benzo(K)Fluoranthene	.2000	50.0000	ug/L
Benzophenone	.2000	50.0000	ug/L	Benzyl butyl phthalate	.2000	50.0000	ug/L
Bis(2-ethylhexyl)adipate	.5000	50.0000	ug/L	Bis(2-ethylhexyl)phthalate	3.0000	6.0000	ug/L
Bisphenol A	.5000	50.0000	ug/L	Bloc	.2000	50.0000	ug/L
Bromacil	.5000	50.0000	ug/L	Butachlor	.2000	50.0000	ug/L
Carbamazepine	.5000	50.0000	ug/L	Carbazole	.2000	50.0000	ug/L
Carisoprodol	.5000	50.0000	ug/L	Chlordane	.2000	2.0000	ug/L
Chlorofenvinphos	.2000	50.0000	ug/L	Chloroxyleneol	.2000	50.0000	ug/L
Chlorpyrifos	.2000	50.0000	ug/L	Chrysene	.2000	50.0000	ug/L
Cyfluthrin	.2000	50.0000	ug/L	Cypermethrin	.5000	50.0000	ug/L
Dacthal	.2000	50.0000	ug/L	Deltamethrin	.5000	50.0000	ug/L
Dibenzo(A,H)Anthracene	.2000	50.0000	ug/L	Dibutyl Phthalate	1.0000	50.0000	ug/L
Dichlobenil	.2000	50.0000	ug/L	Dichlorvos	.5000	50.0000	ug/L
Dieldrin	.2000	50.0000	ug/L	Diethyl phthalate	1.0000	50.0000	ug/L
Diethyltoluamide (DEET)	.2000	50.0000	ug/L	Dimethyl phthalate	.2000	50.0000	ug/L
Diocetyl Phthalate	.2000	50.0000	ug/L	Disulfoton sulfone	.2000	50.0000	ug/L
Endosulfan Sulfate	.2000	50.0000	ug/L	EPTC	.2000	50.0000	ug/L
Ethofumesate	.2000	50.0000	ug/L	Ethyl Parathion	.2000	50.0000	ug/L
Etofenprox	.2000	50.0000	ug/L	Etofenprox alpha-CO	.2000	50.0000	ug/L
Fluoranthene	.2000	50.0000	ug/L	Fluorene	.2000	50.0000	ug/L
Hexachlorobenzene	.1000	1.0000	ug/L	Hexachlorocyclopentadiene	.1000	5.0000	ug/L
Hexachloroethane	1.0000	5.0000	ug/L	Hexazinone	1.0000	50.0000	ug/L
Indeno(1,2,3-cd) Pyrene	.2000	50.0000	ug/L	Iodofenphos	.2000	50.0000	ug/L
Iprodione	.5000	50.0000	ug/L	Isofenphos	.5000	50.0000	ug/L
Kelthane	.5000	50.0000	ug/L	Malathion	.5000	50.0000	ug/L
Metalaxyl	.2000	50.0000	ug/L	Methoprene	.2000	50.0000	ug/L
Methoxychlor	.1000	50.0000	ug/L	Methyl Parathion	.2000	50.0000	ug/L
Metolachlor	.2000	50.0000	ug/L	Metribuzin	.2000	50.0000	ug/L
Naled (Dibrom)	.2000	50.0000	ug/L	Napropamide	.2000	50.0000	ug/L
Pendimethalin	.2000	5.0000	ug/L	Pentachlorobenzene	.2000	50.0000	ug/L
Pentachloronitrobenzene	.2000	50.0000	ug/L	Permethrin	.2000	50.0000	ug/L
Phenanthrene	.2000	50.0000	ug/L	Piperonyl butoxide	.5000	50.0000	ug/L
Prallethrin	.2000	50.0000	ug/L	Prometon	.5000	50.0000	ug/L
Prometryne	.2000	50.0000	ug/L	Propachlor	.2000	50.0000	ug/L
Propiconazole (Tilt)	.2000	50.0000	ug/L	Pyrene	.5000	50.0000	ug/L
Resmethrin	.2000	50.0000	ug/L	Ronstar	.2000	50.0000	ug/L
Simazine	.0700	4.0000	ug/L	Sumithrin	.2000	50.0000	ug/L
Tebuthiuron	.5000	50.0000	ug/L	Terbacil	.5000	50.0000	ug/L
Total Triazines + Metabolites (Calc)	.0000	4.0000	ug/L	Triadimefon	.5000	50.0000	ug/L
Triclosan	.5000	50.0000	ug/L	Trifluralin	.5000	50.0000	ug/L
Vinclozolin	.5000	50.0000	ug/L				

Results for Sample Group: **STANDARD INORGANICS** analyzed by Suffolk County Department of Health Services

	<u>MRL</u>	<u>MCL</u>			<u>MRL</u>	<u>MCL</u>	
Ammonia (NH3-N)	.5000		mg/L	Bromide	.5000		mg/L
Chlorate	.0500		mg/L	Chloride (Cl)	3.0000	250.0000	mg/L
Fluoride	.2000	2.2000	mg/L	Nitrite (NO2-N)	.1000	1.0000	mg/L
Nitrate	.5000	10.0000	mg/L	Sulfate (SO4)	5.0000	250.0000	mg/L
Orthophosphate	.5000		mg/L	MBAS**	.1000		

**Note: MBAS (methylene blue activated substance) analysis was performed only on the groundwater samples collected from the eight monitoring wells located at the sewage treatment plants.

**SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY
SAMPLE ANALYTE LIST**

Notes: mg/L = milligrams per liter; ug/L = micrograms per liter; ng/L= nanograms per liter. MRL = Minimum Reporting Level. MCL = NYSDOH Maximum Contaminant Level or Drinking Water Standard. The MCL for nickel is a proposed limit. Any MCLs not shown below have not been established.

Results for Sample Group: **VOLATILE ORGANICS** analyzed by Suffolk County Department of Health Services

	<u>MRL</u>	<u>MCL</u>			<u>MRL</u>	<u>MCL</u>	
1,1 Dichloroethane	.5000	5.0000	ug/L	1,1 Dichloroethene	.5000	5.0000	ug/L
1,1 Dichloropropene	.5000	5.0000	ug/L	1,1,1 Trichloroethane	.5000	5.0000	ug/L
1,1,1,2 Tetrachloroethane	.5000	5.0000	ug/L	1,1,2 Trichloroethane	.5000	5.0000	ug/L
1,1,2,2-Tetrachloroethane	.5000	5.0000	ug/L	1,2 Dichlorobenzene (o)	.5000	5.0000	ug/L
1,2 Dichloroethane	.5000	5.0000	ug/L	1,2 Dichloropropane	.5000	5.0000	ug/L
1,2,3 Trichlorobenzene	.5000	5.0000	ug/L	1,2,3 Trichloropropane	.5000	5.0000	ug/L
1,2,4 Trichlorobenzene	.5000	5.0000	ug/L	1,2,4 Trimethylbenzene	.5000	5.0000	ug/L
1,2,4,5 Tetramethylbenzene	.5000	5.0000	ug/L	1,3 Dichloropropane	.5000	5.0000	ug/L
1,3,5 Trimethylbenzene	.5000	5.0000	ug/L	1,3-Dichlorobenzene (m)	.5000	5.0000	ug/L
1,4-Dichlorobenzene (p)	.5000	5.0000	ug/L	1,4-Dichlorobutane	.5000	5.0000	ug/L
1-Bromo-2-Chloroethane	.5000	5.0000	ug/L	2,2 Dichloropropane	.5000	5.0000	ug/L
2,3 Dichloropropene	.5000	5.0000	ug/L	2-Bromo-1-Chloropropane	.5000	5.0000	ug/L
2-Butanone (MEK)	20.0000	50.0000	ug/L	2-Chlorotoluene	.5000	5.0000	ug/L
4-Chlorotoluene	.5000	5.0000	ug/L	Acrylonitrile	.5000	5.0000	ug/L
Allyl chloride	.5000	5.0000	ug/L	Benzene	.5000	5.0000	ug/L
Bromobenzene	.5000	5.0000	ug/L	Bromochloromethane	.5000	5.0000	ug/L
Bromodichloromethane	.5000	80.0000	ug/L	Bromoform	.5000	80.0000	ug/L
Bromomethane	.5000	5.0000	ug/L	Carbon Disulfide	.5000		ug/L
Carbon Tetrachloride	.5000	5.0000	ug/L	Chlorobenzene	.5000	5.0000	ug/L
Chlorodibromomethane	.5000	80.0000	ug/L	Chlorodifluoromethane	.5000	5.0000	ug/L
Chloroethane	.5000	5.0000	ug/L	Chloroform	.5000	80.0000	ug/L
Chloromethane	.5000	5.0000	ug/L	cis-1,2-Dichloroethene	.5000	5.0000	ug/L
cis-1,3-Dichloropropene	.5000	5.0000	ug/L	d-Limonene	.5000	50.0000	ug/L
Dibromomethane	.5000	5.0000	ug/L	Dichlorodifluoromethane	.5000	5.0000	ug/L
Diethyl Ether	.5000	50.0000	ug/L	Dimethyldisulfide	.5000	50.0000	ug/L
Ethenylbenzene (Styrene)	.5000	5.0000	ug/L	Ethyl Methacrylate	.5000	50.0000	ug/L
Ethylbenzene	.5000	5.0000	ug/L	Freon 113	.5000	5.0000	ug/L
Hexachlorobutadiene	.5000	5.0000	ug/L	Isobutane	2.0000	50.0000	ug/L
Isopropylbenzene	.5000	5.0000	ug/L	m & p-Xylene	.5000	5.0000	ug/L
Methacrylonitrile	.5000	5.0000	ug/L	Methyl Isothiocyanate	2.0000	50.0000	ug/L
Methyl Methacrylate	.5000	50.0000	ug/L	Methyl Sulfide	.5000	50.0000	ug/L
Methyl-Tert-Butyl-Ether (MTBE)	.5000	10.0000	ug/L	Methylene Chloride	.5000	5.0000	ug/L
n-Butane	2.0000	50.0000	ug/L	n-Butylbenzene	.5000	5.0000	ug/L
n-Propylbenzene	.5000	5.0000	ug/L	Naphthalene	.5000	50.0000	ug/L
o-Xylene	.5000	5.0000	ug/L	p-Diethylbenzene	.5000	5.0000	ug/L
p-Isopropyltoluene	.5000	5.0000	ug/L	Propanal	15.0000	50.0000	ug/L
sec-Butylbenzene	.5000	5.0000	ug/L	tert-Butylbenzene	.5000	5.0000	ug/L
Tetrachloroethene	.5000	5.0000	ug/L	Tetrahydrofuran	20.0000	50.0000	ug/L
Toluene	.5000	5.0000	ug/L	Total Xylenes	.5000	5.0000	ug/L
trans 1,2 Dichloroethene	.5000	5.0000	ug/L	trans-1,3-Dichloropropene	.5000	5.0000	ug/L
Trichloroethene	.5000	5.0000	ug/L	Trichlorofluoromethane	.5000	5.0000	ug/L
Vinyl Chloride	.5000	2.0000	ug/L				

Appendix C

Profile Well Construction and Sampling Methodologies

Groundwater Profile Well Construction

From 2020 to 2021, the SCDHS installed and sampled 36 profile wells. All wells were installed using a Geoprobe percussion drill rig, using virgin schedule 40 flush fit PVC pipe in five-foot lengths with a flush fit schedule 40 five-foot 0.010 slot screen and finished with a well point. The one-inch diameter temporary profile wells were installed to varying depths (dependent upon the well site's depth to water) that would yield approximately five groundwater samples profiled at ten-foot intervals. The deepest well installed was BOM21-78 where the initial screen zone was set at ninety to ninety-five feet below grade (fbg), yielding eight profile levels. All wells were capped with a J-plug and a rain tight manhole cover was placed over the casings to further protect the wells.

Groundwater Sampling Technique and Sample Analyses

Each of the temporary profile wells were initially developed and sampled at the deepest level and then pulled up ten feet, developed and sampled again. This process was repeated until the top of the water table was reached. This procedure resulted in the collection of four to eight samples in each of the thirty-six profile wells. This method produces an analytical profile of the groundwater from the top of the water table down to the depth at which the wells were drilled.

High density polyethylene (HDPE) tubing was used with a Waterra Hydrolift portable actuator (inertial pump) with a stainless-steel foot valve attached to extract groundwater from the wells. The wells were purged a minimum of three well casing volumes at each profile interval. Samples were not collected until field parameters were stabilized and the turbidity was ≤ 50 NTU. Field parameters recorded included temperature, dissolved oxygen, conductivity, oxidation-reduction potential (ORP), and pH. Samples were collected by SCDHS Office of Water Resources public health sanitarians and the Suffolk County Public Health and Environmental Laboratory (PEHL) performed analysis for the following analysis groups on all the groundwater samples¹⁰: metals; inorganics parameters; volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); radiological parameters (gross alpha, gross beta, tritium)¹¹; chlorate; 1,4-dioxane;

¹⁰ Methylene blue activated substance (MBAS) analysis for the presence of detergents were performed only on the groundwater samples collected from the eight monitoring wells located at the sewage treatment plants.

¹¹ Radiological parameters were not analyzed in the following four profile wells: BOM20-72, BOM20-76, BOM20-77 and BOM20-78.

herbicide metabolites; aldicarb pesticides; chlorinated pesticides; ammonia; and dacthal. A New York State Department of Environmental Conservation (NYSDEC) contract laboratory (Pace Analytical Laboratories) was used for PFAS analysis in 30 profile wells which were located for evaluation of PFAS sources other than the BOMARC site. A SCDHS contact laboratory (Pace Analytical Laboratories) was used to analyze PFAS and PCBs in six off-site wells located on Old Country Road, directly downgradient of the BOMARC Facility (Figure 4). A summary of the analytical results for the detected parameters is provided in Appendix A, Table 1, a complete list of analytes tested by the SCDHS PEHL is provided in Appendix B.

Nutrients

Groundwater samples were analyzed by the PEHL in accordance with “Standard Operating Procedure for Sampling for Inorganic Compounds in Aqueous Samples” (US EPA, 2002). The samples were stored on ice at 4° C and transported to the PEHL for analysis utilizing US EPA method 350.1 for Ammonia; US EPA method 300.1 for Nitrates; US EPA method 353.2/354.1 for Nitrites; and US EPA method 300.0 for Chlorides.

Volatile Organic Compounds

Groundwater samples were analyzed for Volatile Organic Compounds by the PEHL in accordance with “Standard Operating Procedure for Head Space Screening for Volatile Organic Compounds in Aqueous Samples” (US EPA, 2002). The samples were stored on ice at 4° C and transported to the PEHL for analysis using US EPA method 524.2 (US EPA, 1995).

Groundwater Sample Analytical Methods

Analysis	Method	Analysis	Method
Inorganics	EPA 300.0	Semi-volatile organics	EPA 525.2
Metals	EPA 200.8	Carbamates	SM 21 6610B
Volatile Organics	EPA 524.2	Herbicide metabolites	SCDHS LC/MS
Chlorinated pesticides	EPA 505	Dacthal metabolites	SCDHS HPLC/LC-UV
Microextractables	EPA 504.1	1,4-Dioxane	EPA 522
PFAS	EPA Mod. 537	PCBs	EPA 608.3

Semi -Volatile Organic Compounds

Groundwater samples were analyzed for Semi-Volatile Organic Compounds by the SCPEHL following the “Standard Operating Procedure for Sampling for Semi Volatile Organic Compounds in Aqueous Samples” (US EPA, 2002). The samples were stored on ice at 4° C and transported to the PEHL for analysis using US EPA method 525.2 (US EPA, 1995)

Metals

Groundwater samples were analyzed by the PEHL following the “Standard Operating Procedure for Dissolved Metals for in Aqueous Samples” (US EPA, 2002). The samples were stored on ice at 4° C and transported to the PEHL for analysis using US EPA method 200.8 (US EPA, 1995).

Pesticides

Groundwater samples were analyzed for pesticides by the PEHL following the “Standard Operating Procedure for Sampling for Pesticide Compounds in Aqueous Samples” (US EPA, 2002). The samples were stored on ice at 4° C and transported to the PEHL for validation analysis by US EPA methods 505, 531.1, SM21 6610B, LC-MS and SCM method developed at PEHL.

Radiology

Groundwater samples were analyzed for radiation by the PEHL. The samples were stored on ice at 4° C and transported to the PEHL for validation analysis by US EPA methods 906.0, 900.0 and SM207110C.

1,4-Dioxane

Groundwater samples were analyzed for 1,4-dioxane and were stored on ice at 4° C and transported to PEHL for validation by US EPA method 522.

PFAS

Groundwater samples were stored at 4° C and were analyzed for analytes by Pace Analytical Laboratories using method EPA Mod. 537.

PCBS

Groundwater samples were stored at 4° C and were analyzed for analytes by Pace Analytical Laboratories using method EPA 608.3.

Appendix D

**Groundwater Data Table of Detected Analytes from the Suffolk County
Department of Health Services' Report, Groundwater and Soil Investigation at
the BOMARC Facility, Westhampton N.Y. In Accordance with Suffolk County
Resolution No. 1065-2018, September 2020**

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			Field Parameters					Metals																					Inorganics				VOCs	Radiologicals								
Well ID	Sample Date	Well Screen Interval	Dept to Water	Turbidity	Field ORP	Field Conductivity	Field Temp	Field D.O.	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Sodium mg/l	Strontium ug/l	Tin ug/l	Titanium ug/l	Uranium ug/l	Vanadium ug/l	Zinc ug/l	Bromide mg/l	Chloride mg/l	Nitrate mg/l N	Sulfate mg/l SO4	Chloroform ug/l	Gross Beta pCi/l	Adjusted Gross Beta pCi/l	Tritium pCi/l		
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	3	-	-	3	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	2,000	2	-	-	-	7	-	-	-	
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	20	-	-	-	-	-	-	-	-	250	10	250	7	1,000*	-	-	
Drinking Water Standard Subpart 5-1 (MCL)			-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	-	0.3	-	-	-	300	-	100	-	-	-	-	-	30	-	5,000	-	250	10	250	80	-	50**	20,000		
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BOM-1	5/29/2019	35 - 40	30.05	32.93	326	36.61	11.3	10.73	1436	0.48	2.2	40	0.5	0.59	34	1.4	33	4	1.4	1.2	0.57	175	6.3	17	<0.5	4.2	8.8	1.3	43	<0.5	2.7	8.1	<0.5	<30	<1	<30	1.1	1.2	1.2	<200		
	5/29/2019	45 - 50	30.05	14.34	223	40.96	10.9	10.56	287	<0.2	<1	8.6	<0.2	1.1	12	<1	9.6	1.4	2.3	<1	0.87	29	2.5	6.5	0.63	4.7	17	<0.5	13	<0.5	<1	<5	<0.05	7.4	0.15	4.7	1.3	<1	<1	<200		
	5/21/2019	55 - 60	30.05	8.82	197	56.06	11.2	10.68	207	<0.2	<1	12	<0.2	1.7	7.2	<1	<5	0.65	<1	<1	1.4	15	1.2	3.4	0.66	5.9	20	<0.5	8.8	<0.5	<1	<5	<0.05	12	0.33	5.2	2.1	<1	<1	<200		
	5/22/2019	65 - 70	30.05	22.26	168	37.72	11.5	10.61	429	<0.2	<1	12	<0.2	1.2	16	<1	7.2	1.8	<1	<1	1	58	2.4	7.3	0.61	3.8	12	0.58	20	<0.5	1.7	<5	<0.05	6.1	<0.1	5.3	0.9	<1	<1	<200		
	5/22/2019	75 - 80	30.05	37.21	143	42.42	10.9	9.94	736	0.23	1.2	14	<0.2	1.3	22	1.6	20	2.8	<1	<1	1.5	134	4.2	9.8	0.7	3.7	15	0.72	26	<0.5	1.4	<5	<0.05	7	<0.1	5.8	0.6	<1	<1	<200		
PFAS/Perchorate Duplicate Sample																																										
BOM-2	5/21/2019	40 - 45	37.05	26.16	255	41.84	11.9	11.21	781	<0.2	<1	22	0.23	0.98	19	<1	<5	2	1.6	<1	0.82	62	2.8	4.8	0.6	5.2	18	0.62	32	<0.5	1.5	<5	<0.05	8.4	<0.1	4.4	<0.5	1.1	0.61	<200		
	5/20/2019	50 - 55	37.05	33.35	184	40.63	15.6	10.24	903	<0.2	<1	15	<0.2	1	33	<1	5.2	3	3.8	<1	0.9	46	5	6	0.69	4.9	22	1	32	<0.5	1.3	<5	<0.5	<30	<1	<30	1.1	1.5	0.93	<200		
	5/20/2019	60 - 65	37.05	24.82	209	45.09	15.9	10.18	990	<0.2	<1	15	<0.2	1.4	29	<1	5.5	3.1	5.3	<1	1.2	39	4.3	5	0.76	4.9	20	1.2	41	<0.5	2.3	<5	<0.5	<30	<1	<30	1.1	<1	<1	<200		
	5/20/2019	70 - 75	37.05	15.76	175	40.27	14.2	9.59	461	<0.2	<1	11	<0.2	1.2	13	<1	<5	1.6	1.4	<1	1.1	39	2	3.1	0.58	4.2	12	0.72	21	<0.5	1.4	<5	<0.5	<30	<1	<30	0.8	<1	<1	<200		
PFAS/Perchorate Duplicate Sample																																										
BOM-3	5/20/2019	80 - 85	37.05	7.51	213	39.25	14.0	9.30	172	<0.2	<1	9.8	<0.2	1.1	4.7	<1	<5	0.41	<1	<1	1.2	21	<1	2.2	<0.5	3.6	13	0.61	10	<0.5	<1	<5	<0.05	6.2	<0.1	5.5	0.8	<1	<2	<200		
	7/2/2019	45 - 50	40.55	26.44	202	45.57	14.0	9.95	764	<0.2	<1	12	<0.2	1.2	23	<1	<5	2.3	1.2	1	1	41	3.5	5.1	0.75	5.5	24	1.4	34	<0.5	1.8	6.2	<0.05	8.1	<0.1	5.5	0.8	1.8	1.19	<200		
	7/2/2019	55 - 60	40.55	8.17	207	40.39	13.0	10.08	201	<0.2	<1	7.7	<0.2	1	9	<1	<5	0.9	<1	<1	0.8	12	1.4	2	0.66	5	20	<0.5	8.8	<0.5	<1	<5	<0.05	7.3	0.26	5	1.6	1.4	0.86	<200		
	7/1/2019	65 - 70	40.55	39.86	228	51.05	14.5	10.02	1018	<0.2	1.2	22	<0.2	2.1	27	2.1	10	3.4	3.8	1	1.4	73	4	6.4	0.77	5.3	20	1.1	45	<0.5	2.9	22	<0.5	<30	<1	<30	<0.5	<1	<1	<200		
BOM-3	7/1/2019	75 - 80	40.55	22.92	191	42.60	13.1	10.28	489	<0.2	<1	11	<0.2	1.2	16	<1	<5	1.9	1	<1	1.4	31	2.3	3	0.73	3.9	15	<0.5	25	<0.5	1.5	5.2	<0.5	<30	<1	<30	0.6	<1	<1	<200		
	PFAS/Perchorate Duplicate Sample																																									
	7/1/2019	85 - 90	40.55	20.21	211	35.61	12.0	9.89	275	<0.2	<1	9	<0.2	1.3	5.2	1.4	<5	0.86	4.4	<1	1.3	29	<1	1.4	<0.5	3.5	13	<0.5	16	<0.5	1	33	<0.05	4.8	0.16	6	0.8	<1	<1	<200		
	6/3/2019	35 - 40	36.11	48.83	255	56.79	15.6	9.68	1206	<0.2	<1	24	<0.2	5.4	42	1	11	4	2.2	<1	0.61	61	6.4	9.2	2.4	3.4	34	2.3	52	<0.5	2.7	<5	<0.05	<3	1.1	6.7	<0.5	2.3	0.33	<200		
BOM-4	6/3/2019	45 - 50	36.11	25	265	39.19	13.4	10.38	669	<0.2	<1	19	<0.2	1.1	22	<1	<5	2.2	<1	<1	0.71	56	3.5	4.8	0.54	4.6	20	0.89	28	<0.5	1.3	<5	<0.05	7.2	<0.1	4.8	<0.5	1.9	1.46	<200		
	6/3/2019	55 - 60	36.11	40.82	249	44.54	12.4	10.17	835	<0.2	<1	13	<0.2	1.3	31	<1	6.1	3.4	1.2	<1	1.1	36	5	4.3	0.75	5.3	17	0.84	37	<0.5	2.2	<5	<0.05	8.4	0.23	4.8	1.1	1	0.39	<200		
	PFAS/Perchorate Duplicate Sample																																									
	5/29/2019	65 - 70	36.11	40.49	246	50.15	13.1	10.43	736	<0.2	<1	15	<0.2	1.4	30	<1	6.2	2.9	<1	<1	1.3	35	4.5	4.5	0.76	5.6	16	0.72	27	<0.5	1.5	<5	<0.5	<30	<1	<30	1.5	<1	<1	<200		
BOM-4	5/29/2019	75 - 80	36.11	25.82	239	41.94	11.8	10.86	385	<0.2	<1	11	<0.2	1.2	14	<1	<5	1.6	21	<1	1.3	31	2	2																		

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			Field Parameters						Metals																				Inorganics				VOCs	Radiologicals							
Well ID	Sample Date	Well Screen Interval	Dept to Water	Turbidity	Field ORP	Field Conductivity	Field Temp	Field D.O.	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Sodium mg/l	Strontium ug/l	Tin ug/l	Titanium ug/l	Uranium ug/l	Vanadium ug/l	Zinc ug/l	Bromide mg/l	Chloride mg/l	Nitrate mg/l N	Sulfate mg/l SO4	Chloroform ug/l	Gross Beta pCi/l	Adjusted Gross Beta pCi/l	Tritium pCi/l	
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	3	-	-	3	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	2,000	2	-	-	-	7	-	-	-
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	20	-	-	-	-	-	-	-	-	250	10	250	7	1,000*	-	-
Drinking Water Standard Subpart 5-1 (MCL)			-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	-	0.3	-	-	-	300	-	100	-	-	-	-	-	30	-	5,000	-	250	10	250	80	-	50**	20,000	
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BOM-11	5/13/2019	35 - 40	35.11	38.38	156	454.5	11.9	9.75	1326	<0.2	<1	18	<0.2	13	28	1.5	6.3	3.4	1.7	1.1	4.3	99	5.4	9.7	0.7	72	27	3.4	58	<0.5	3	<5	<0.5	105	<1	<30	<0.5	<1	<1	<200	
	5/13/2019	45 - 50	35.11	41.12	161	244.6	11.8	9.68	1057	<0.2	<1	22	<0.2	11	31	1	5.8	3.6	1.1	<1	0.93	74	5.3	5.7	1.8	35	80	1.4	44	<0.5	2.4	<5	<0.5	55	1.4	<30	<0.5	1.3	<1	<200	
	5/6/2019	55 - 60	35.11	11.24	197	119.3	12.3	10.48	748	<0.2	<1	16	<0.2	3.4	32	<1	5.3	3.4	<1	<1	0.4	48	5.5	6.4	1	19	32	1.3	34	<0.5	2.4	<5	<1.25	<75	<2.5	<75	1	<1	<1	<200	
	5/7/2019	65 - 70	35.11	30.38	247	58.84	12.0	10.62	490	<0.2	<1	14	<0.2	3.8	22	<1	<5	2.4	<1	<1	0.44	26	3.4	3.2	0.69	6.2	37	0.71	23	<0.5	1	<5	<0.05	13	<0.1	4.4	0.9	1	0.43	<200	
	5/7/2019	75 - 80	35.11	10.06	255	37.01	11.7	10.4	170	<0.2	<1	9.8	<0.2	2	7.7	<1	<5	0.82	<1	<1	0.54	11	1.2	1.5	0.62	3.5	28	0.51	8.4	<0.5	<1	<5	<0.05	5.3	<0.1	5.7	0.6	<1	<1	<200	
BOM-12	5/14/2019	35 - 40	34.71	26.04	167	372.6	11.6	10.39	702	<0.2	<1	16	<0.2	9.9	16	<1	<5	1.8	<1	<1	4.1	30	3.1	3.8	0.59	56	31	0.59	40	<0.5	1.5	<5	<0.5	86	<1	<30	<0.5	1.2	0.72	<200	
	5/14/2019	45 - 50	34.71	35.54	218	163.5	11.4	10.05	831	<0.2	<1	47	<0.2	13	23	<1	5.1	3.1	<1	<1	2.1	94	3.8	4.6	1.8	12	108	0.58	38	<0.5	1.7	<5	<0.5	<30	1.2	36	<0.5	3.5	2.02	561	
	5/14/2019	55 - 60	34.71	27.8	210	149.2	11.1	10.46	556	<0.2	<1	28	<0.2	5	26	<1	<5	2.8	<1	<1	1.7	31	3.8	3.8	1.2	20	71	<0.5	30	<0.5	1.3	<5	<0.5	43	1	<30	<0.5	3.4	2.42	1451	
	5/13/2019	65 - 70	34.71	30.79	237	73.07	11.0	10.61	563	<0.2	<1	16	<0.2	1.9	24	<1	<5	2.7	<1	<1	1.6	34	3.5	4.1	0.86	8.9	22	0.63	32	<0.5	1.7	<5	<0.5	<30	<1	<30	0.6	<1	<1	306	
	5/13/2019	75 - 80	34.71	14.29	263	53.19	10.9	10.91	321	<0.2	<1	9.6	<0.2	1.4	9.5	<1	<5	1.2	<1	<1	1.6	21	1.3	3	0.62	5.5	15	<0.5	21	<0.5	1.2	<5	<0.05	9.7	<0.1	6.5	1.2	<1	<1	<200	
BOM-13	6/3/2019	35 - 40	34.87	6.31	121	195.2	14.0	10.64	70	<0.2	<1	7.2	<0.2	14	4.3	<1	<5	0.3	<1	<1	4.5	4.1	1	1.4	0.63	15	45	<0.5	<5	<0.5	<1	<5	<0.05	21	2.9	8.8	<0.5	<1	<1	<200	
	5/22/2019	45 - 50	34.87	13.9	76	442.0	12.8	10.42	233	<0.2	<1	27	<0.2	12	11	<1	<5	0.94	<1	<1	2.6	15	2.4	2.4	1.1	65	119	<0.5	8.2	<0.5	<1	<5	0.05	100	2.5	9.6	<0.5	1	0.1	<200	
	5/22/2019	55 - 60	34.87	13.6	77	508.0	12.5	10.36	289	<0.2	<1	55	<0.2	11	9	<1	<5	1	<1	<1	1.8	17	2.2	1.9	3.4	82	485	<0.5	13	<0.5	<1	<5	0.06	119	1.7	12	<0.5	2.3	<1	<200	
	5/22/2019	65 - 70	34.87	4.29	180	366.8	12.1	10.52	68	<0.2	<1	92	<0.2	5.9	3.3	<1	<5	0.29	<1	<1	2.8	5.8	<1	0.73	3.7	52	340	<0.5	<5	<0.5	<1	<5	0.05	97	0.65	10	0.8	3.7	0.67	<200	
	5/22/2019	75 - 80	34.87	11.7	168	109.5	12.1	11.02	77	<0.2	<1	18	<0.2	1.8	3.9	<1	<5	0.36	<1	<1	2.3	5.2	<1	0.81	0.8	14	26	<0.5	<5	<0.5	<1	<5	<0.05	25	0.12	7.7	0.8	1	0.34	<200	
BOM-14	5/8/2019	35 - 40	31.54	15.2	137	112.8	13.9	10.82	209	<0.2	<1	21	<0.2	3.5	8.7	<1	<5	0.69	<1	<1	1.4	22	1.7	2.4	0.51	16	16	<0.5	7.5	<0.5	<1	47	0.05	20	0.16	7.6	<0.5	<1	<1	<200	
	5/8/2019	45 - 50	31.54	20.2	143	393.5	12.7	10.44	531	<0.2	<1	162	<0.2	6.1	23	<1	<5	2.2	<1	<1	1.6	91	3.8	6.7	12	58	42	<0.5	27	<0.5	1	<5	0.07	90	0.6	32	0.5	9.2	<1	<200	
	5/8/2019	55 - 60	31.54	6.27	196	95.27	13.2	10.49	139	<0.2	<1	43	<0.2	2.4	4	<1	<5	0.53	<1	<1	1.2	15	<1	1.3	6.4	8.3	54	<0.5	8.1	<0.5	<1	<5	<0.05	11	0.61	17	0.5	6.1	0.85	<200	
	5/7/2019	65 - 70	31.74	3.92	170	72.92	12.9	10.63	34	<0.2	<1	22	<0.2	2.6	1.7	<1	<5	0.18	<1	<1	1.7	4	<1	0.6	2.4	5.9	37	<0.5	<5	<0.5	<1	<5	<0.05	9.8	0.43	11	0.7	2.4	0.43	<200	
	5/7/2019	75 - 80	31.74	23.4	141	53.64	12.3	11.09	392	<0.2	<1	12	<0.2	1.8	11	<1	<5	1.5	1.3	<1	2.4	26	1.6	1.8	0.98	3.4	20	<0.5	24	<0.5	1.7	<5	<0.05	6.1	<0.1						

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			Field Parameters						Metals																				Inorganics				VOCs	Radiologicals								
Well ID	Sample Date	Well Screen Interval	Dept to Water	Turbidity	Field ORP	Field Conductivity	Field Temp	Field D.O.	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Sodium mg/l	Strontium ug/l	Tin ug/l	Titanium ug/l	Uranium ug/l	Vanadium ug/l	Zinc ug/l	Bromide mg/l	Chloride mg/l	Nitrate mg/l N	Sulfate mg/l SO4	Chloroform ug/l	Gross Beta pCi/l	Adjusted Gross Beta pCi/l	Tritium pCi/l		
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	3	-	-	3	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	2,000	2	-	-	-	7	-	-	-	
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	20	-	-	-	-	-	-	-	-	250	10	250	7	1,000*	-	-	
Drinking Water Standard Subpart 5-1 (MCL)			-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	-	0.3	-	-	-	300	-	100	-	-	-	-	30	-	5,000	-	250	10	250	80	-	50**	20,000			
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
BOM-21	4/30/2019	35 - 40	33.55	31.64	39	184.9	13.0	9.10	741	<0.2	<1	17	<0.2	24	26	1.1	<5	3.1	<1	<1	2.7	59	6.1	7.3	2.4	13	86	<0.5	31	<0.5	1.7	<5	<1.25	<75	<2.5	<75	2.1	2.4	0.43	<200		
	4/30/2019	45 - 50	PFAS/Perchlorate Duplicate Sample																																	17	3.5	21	<0.5	3.6	1.06	<200
	4/29/2019	55 - 60	33.55	14.29	188	188.8	13.4	7.39	662	<0.2	<1	34	<0.2	18	20	<1	<5	2.1	1.2	<1	2.4	34	3	3.8	2.3	16	71	0.81	37	<0.5	2.4	<5	<0.05	22	3.1	22	<0.5	2.2	0.31	<200		
	4/29/2019	65 - 70	33.55	8.37	213	200.2	13.2	7.35	167	<0.2	<1	37	<0.2	16	5.9	<1	<5	0.53	<1	<1	3.2	14	1.2	2.4	1.5	17	88	0.64	9.5	<0.5	<1	<5	<0.05	21	3.8	28	<0.5	3.7	2.47	<200		
	4/25/2019	75 - 80	33.55	27.07	149	171.3	13.8	7.74	508	<0.2	<1	40	<0.2	15	13	1	<5	1.8	1.3	<1	1.8	41	2	4.8	1.5	13	52	0.83	32	<0.5	2.6	<5	<2.5	<150	<5	<150	<0.5	2.5	1.27	<200		
BOM-22	4/25/2019	35 - 40	32.40	25.83	76	136.7	14.0	8.78	1029	<0.2	<1	17	<0.2	12	35	1.5	8.2	4.3	1.2	<1	2.3	60	7.3	9.4	1.1	13	58	0.76	38	<0.5	2.3	<5	<1.25	<75	<2.5	<75	<0.5	1.9	1	<200		
	4/24/2019	45 - 50	32.40	38.77	67	181.0	15.5	8.57	1890	<0.2	<1	35	<0.2	23	26	1.4	6.9	3.7	1.4	1.2	2.8	54	4	6.5	2.2	8.9	68	1.4	67	<0.5	3.5	<5	<2.5	470	27	278	0.9	2.5	0.7	<200		
	4/24/2019	55 - 60	32.40	8.03	99	256.8	14.0	8.37	250	<0.2	<1	34	<0.2	35	7.2	<1	<5	0.7	<1	<1	3.3	13	1.3	2.2	3	9.6	116	0.91	13	<0.5	<1	<5	<0.05	16	3.3	16	<0.5	3.3	0.84	<200		
	4/24/2019	65 - 70	32.40	19.89	87	300.1	14.1	7.18	507	<0.2	<1	38	<0.2	43	7.9	<1	<5	1.2	<1	<1	4.4	53	1.5	2.5	3.3	13	136	0.85	28	<0.5	1.6	<5	<0.5	<30	3.2	<30	<0.5	3.6	0.89	<200		
	4/24/2019	75 - 80	PFAS/Perchlorate Duplicate Sample																																	23	2.4	23	<0.5	5.3	2.84	<200
4/23/2019	85 - 90	32.40	37.6	129	158.0	15.3	5.79	595	<0.2	<1	25	<0.2	17	18	<1	<5	2.9	<1	<1	2.6	82	3.6	4.8	1.1	7.8	75	0.72	31	<0.5	1.7	<5	<0.05	16	1.1	22	<0.5	3	2.1	<200			
BOM-23	7/11/2019	40 - 45	34.31	20	251	394.5	13.7	9.29	1116	<0.2	<1	20	<0.2	8.6	4.6	1.1	<5	1.1	1	1.3	2.6	59	<1	2.7	0.92	63	63	<0.5	40	<0.5	3	<5	<0.5	92	1.2	<30	<0.5	1.4	0.65	<200		
	7/11/2019	50 - 55	34.31	15.6	246	185.3	14.1	9.63	1499	<0.2	<1	13	<0.2	7	5.3	1.4	<5	1.5	1.4	1.6	1	76	<1	3.7	1.5	28	29	<0.5	53	<0.5	4.1	<5	<0.5	<30	<1	<30	<0.5	1.4	0.17	<200		
	7/10/2019	60 - 65	34.31	7.19	274	276.0	14.1	8.12	439	<0.2	<1	18	<0.2	19	2.4	<1	<5	0.45	<1	<1	1.8	23	<1	1.1	3.7	28	57	<0.5	17	<0.5	1.2	<5	<0.05	48	1.2	15	<0.5	4.3	1.27	<200		
	7/10/2019	70 - 75	34.31	8.7	281	221.6	13.7	9.23	686	<0.2	<1	24	<0.2	16	2.6	<1	<5	0.72	<1	1.1	2.5	35	<1	1.1	2.5	21	32	<0.5	27	<0.5	2.1	17	<0.05	35	0.92	17	<0.5	3.3	1.25	<200		
	7/10/2019	80 - 85	34.31	11.3	251	177.9	13.9	8.73	683	<0.2	<1	21	<0.2	17	3.3	<1	<5	0.72	<1	1	1.9	37	<1	1.3	2.9	15	33	<0.5	26	<0.5	2.3	<5	<0.05	12	1.8	14	<0.5	3.8	1.42	<200		
	7/8/2019	90 - 95	34.31	8.8	255	193.7	13.4	9.26	760	<0.2	<1	47	<0.2	25	3.6	<1	<5	0.74	<1	1.3	2.2	41	<1	1.2	2.8	13	59	<0.5	29	<0.5	2.5	<5	<0.5	<30	1.4	<30	<0.5	4	1.7	<200		
	7/8/2019	100 - 105	34.31	5.8	295	139.2	13.8	9.81	438	<0.2	<1	19	<0.2	18	2.9	<1	<5	0.47	2.8	1.1	1.6	29	<1	0.92	1.3	5.9	77	<0.5	16	<0.5	1.5	7.5	<0.05	7	0.6	18	<0.5	1.5	0.43	<200		
	7/8/2019	110 - 115	34.31	5.26	266	116.8	13.7	9.72	577	<0.2	<1	15	<0.2	7	3.7	<1	<5	0.58	<1	1	5	31	<1	1.2	0.62	5.8	37	<0.5	22	<0.5	1.9	<5	<0.05	7.8	0.77	20	<0.5	1.2	0.69	<200		
	7/2/2019	120 - 125	34.31	3.09	294	46.71	13.6	10.42	124	<0.2	<1	5.1	<0.2	1.9	1.3	<1	<5	0.13	<1	1.1	1.6	4.3	<1	0.3	<0.5	3.7	19	<0.5	<5	<0.5	<1	<5	<0.05	4.5	0.11	9	0.7	1.1	1.1	<200		
	7/2/2019	130 - 135	34.31	4.61	300	44.95	14.1	10.47	171	<0.2	<1	4.5	<0.2	1.7	<1	<1	<5	0.22	<1	<1	1.2	4.3	<1	0.36	<0.5	4.4	15	<0.5	7.3	<0.5	1.1	<5	<0.05	5.4	<0.1	6.5	1	1.3	1.3	<200		
	7/2/2019	140 - 145	34.31	8.44	96	52.36	15.4	10.22	482	<0.2	<1	5.7	<0.2	2.2	1.4	<1	<5	0.66	1.4	1.1	1.2	10	<1	0.73	<0.5	4.8	14	<0.5	18	<0.5	3.3	<5	<0.05	7.3	<0.1	6	1.1	1.2	1.2	<200		
	PFAS/Perchlorate Duplicate Sample																																	12	1.8	7.2	0.7	<1	<1	<200		
	BOM-24	6/25/2019	40																																							

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			Field Parameters						Metals																					Inorganics				VOCs	Radiologicals						
Well ID	Sample Date	Well Screen Interval	Dept to Water	Turbidity	Field ORP	Field Conductivity	Field Temp	Field D.O.	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Sodium mg/l	Strontium ug/l	Tin ug/l	Titanium ug/l	Uranium ug/l	Vanadium ug/l	Zinc ug/l	Bromide mg/l	Chloride mg/l	Nitrate mg/l N	Sulfate mg/l SO4	Chloroform ug/l	Gross Beta pCi/l	Adjusted Gross Beta pCi/l	Tritium pCi/l	
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	3	-	-	3	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	2,000	2	-	-	-	7	-	-	-
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	20	-	-	-	-	-	-	-	-	250	10	250	7	1,000*	-	-
Drinking Water Standard Subpart 5-1 (MCL)			-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	-	0.3	-	-	-	300	-	100	-	-	-	-	-	-	30	-	5,000	-	250	10	250	80	-	50**	20,000
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BOM-28	4/24/2019	35 - 40	27.25	32.2	-20	318.0	15.3	6.95	924	<0.2	<1	32	<0.2	45	27	1.1	6.7	3.6	<1	<1	6.5	40	7.3	8.7	4.5	11	206	0.79	40	<0.5	1.8	<5	<0.5	<30	2.2	33	<0.5	4.1	0.41	<200	
	4/24/2019	45 - 50	PFAS/Perchlorate Duplicate Sample																																						
	4/24/2019	55 - 60	27.25	12.7	72	154.9	15.1	8.58	303	<0.2	<1	23	<0.2	14	8.2	<1	<5	0.77	<1	<1	4.2	8.3	1.9	4.3	1.2	8.9	39	<0.5	11	<0.5	<1	<5	<0.05	12	1.4	11	<0.5	1.4	0.42	<200	
	4/23/2019	65 - 70	27.25	18.6	111	44.35	14.4	10.11	190	<0.2	<1	11	<0.2	1.6	5.7	<1	<5	0.41	<1	<1	1.1	13	1.1	2.8	0.58	6.4	16	0.7	<5	<0.5	<1	<5	<0.05	<3	<0.1	<3	<0.5	1.5	1.02	<200	
	4/23/2019	75 - 80	27.25	22	113	42.68	13.4	10.67	391	<0.2	<1	11	<0.2	1.5	7.3	<1	<5	1	<1	<1	1.2	18	1.4	1.7	0.61	3.8	15	<0.5	21	<0.5	1.7	<5	<0.05	5.9	<0.1	6	0.7	<1	<1	<200	
	4/23/2019	85 - 90	27.25	19.5	93	41.44	12.7	10.7	349	<0.2	<1	8.6	<0.2	1.4	12	<1	<5	1.3	<1	<1	1.4	19	2.5	2.2	0.61	3.7	14	0.63	10	<0.5	<1	6.1	<0.05	5	<0.1	6.6	0.5	<1	<1	<200	
BOM-29	10/3/2019	45 - 50	39.21	8.06	154	98.38	11.50	10.96	200	<0.2	<1	21	<0.2	6.4	8	<1	<5	0.95	<1	<1	1.1	51	1	3.8	1.2	8.4	49	<0.5	8	<0.5	<1	8	<0.05	14	0.6	12	<0.5	1.5	1.5	<200	
	10/3/2019	55 - 60	39.21	6.42	154	71.41	12.60	10.54	223	<0.2	<1	14	<0.2	2.8	5	<1	<5	0.57	<1	<1	0.7	62	1	3.6	0.6	8.3	34	<0.5	6	<0.5	<1	11	<0.05	15	0.3	4	<0.5	1.6	1.6	<200	
	10/2/2019	65 - 70	39.21	7.45	151	43.59	14.80	10.50	167	<0.2	<1	10	<0.2	1.4	7	<1	<5	0.75	<1	<1	1.1	38	1.0	3.3	0.6	4.2	16	<0.5	8	<0.5	<1	6	<0.05	7	<0.1	5	0.9	<1	<1	<200	
	10/2/2019	75 - 80	39.21	3.54	145	81.15	15.60	10.34	43	<0.2	<1	7	<0.2	1.2	2	<1	<5	0.20	<1	<1	1.2	29	<1	1.1	0.5	5.6	13	<0.5	<5	<0.5	<1	<5	<0.05	8	<0.1	7	1.2	<1	<1	<200	
10/2/2019	85 - 90	39.21	3.57	173	50.46	15.40	10.49	107	<0.2	<1	8	<0.2	1.3	3	<1	<5	0.37	<1	<1	1.5	42	<1	1.1	<0.5	5.0	15	<0.5	6	<0.5	<1	<5	<0.05	8	<0.1	7	0.8	<1	1.7	<200		
BOM-30	10/1/2019	35 - 40	38.56	7.76	121	72.00	14.30	10.67	141	<0.2	<1	14	<0.2	2.0	4	<1	<5	0.51	<1	<1	1.6	108	<1	4.1	<0.5	8.1	21	<0.5	8	<0.5	<1	211	<0.05	11	0.2	10	0.8	1.4	1.4	<200	
	10/1/2019	45 - 50	38.56	5.55	148	126.60	13.40	10.23	221	<0.2	<1	42	<0.2	7.5	8	<1	<5	1.18	<1	<1	1.4	115	2	4.8	1.4	8.4	62	<0.5	7	<0.5	<1	34	<0.05	15	0.7	24	<0.5	2.8	2.8	<200	
	10/1/2019	55 - 60	38.56	5.73	168	51.51	14.10	10.32	139	<0.2	<1	9	<0.2	1.5	8	<1	<5	0.83	<1	<1	0.9	54	1	3.5	0.5	5.7	23	<0.5	7	<0.5	<1	<5	<0.05	9	0.3	5	<0.5	1.3	1.3	<200	
	9/30/2019	65 - 70	38.56	2.66	166	45.58	13.90	10.60	167	<0.2	<1	10	<0.2	1.4	7	<1	<5	0.75	<1	<1	1.1	38	1	3.3	0.6	4.2	16	<0.5	8	<0.5	<1	6	<0.05	8	<0.1	6	0.9	<1	<1	<200	
	9/30/2019	75 - 80	38.56	5.53	158	57.62	13.20	10.90	69	<0.2	<1	8	<0.2	1.4	2	<1	<5	0.56	<1	<1	1.5	23	<1	1.0	0.6	6.1	17	<0.5	<5	<0.5	<1	<5	<0.05	10	0.1	7	1.3	<1	<1	<200	
	9/30/2019	85 - 90	38.56	11.60	149	48.15	12.10	11.96	107	<0.2	8	<0.2	<0.2	1.3	3	<1	<5	0.37	<1	<1	1.5	42	<1	1.1	<0.5	5.0	15	<0.5	6	<0.5	<1	<5	<0.05	7	0.1	7	0.7	<1	<1	<200	
BOM-31	10/2/2019	35 - 40	35.92	24.09	87	178.20	15.20	8.65	891	<0.2	1	17	<0.2	11.6	39	2	47	3.90	3	<1	3.5	111	8	17	1.0	15.8	34	<0.5	40	<0.5	2	93	2.5	<150	<5	<150	<0.5	1.7	1.7	<200	
	10/1/2019	45 - 50	35.92	30.84	150	129.60	14.10	9.38	1049	<0.2	<1	43	<0.2	6.1	44	2	12	4.86	<1	1	0.7	113	7	16	1.6	15.9	62	0.8	40	<0.5	2	37	<0.05	26	0.9	9	<0.5	2	2	<200	
	10/1/2019	55 - 60	35.92	12.72	159	44.76	12.90	9.56	228	<0.2	<1	13	<0.2	1.7	16	2	<5	2.23	<1	<1	0.6	108	<2.5	8.1	0.5	4.9	26	<0.5	11	<0.5	<1	60	<0.05	7	<0.1		<0.5	<1	1.4	<200	
	10/1/2019	65 - 70	35.92	20.21	134	51.15	13.10	8.72	297	<0.2	<1	14	<0.2	1.7	16	3	5	2.48	<1	<1	1.2	353	5	11	0.6	4.6	17	<0.5	15	<0.5	<1	86	<0.05	9	<0.1	5	1.0	<1	<1	<200	
	9/30/2019	75 - 80	35.92	25.92	171	47.07	14.10	10.12	455	<0.2	<1	11	<0.2	1.3	19	2	6	2.56	1	<1	1.5	118	3	7.9	0.6	4.2	15	<0.5	27	<0.5	2	88	<0.05	7	<0.1	6	0.8	<1	<1	<200	
	9/30/2019	85 - 90	35.92	14.24	183	42.88	12.20	10.79	363	<0.2	<1	10	<0.2	1.4	6	<1	<5	0.98	<1	<1	1.2	143	2	4.5	0.5	4.3	14	<0.5	21	<0.5	2	12	<0.05	5	<0.1	7	<0.5	<1	<1	<200	
BOM-32	10/7/2019	35 - 40	35.70	34.30	158	228.70	16.20	10.18	969	0.4	2	15	<0.2	5.6	45	<1	21	3.59	1	<1	2.3	65	7	16	<5	35	23	0.7	34	<0.5	2	305	<1.25	<75.0	<2.50	<75.0	1.3	1.7	1.7	<200	
	10/7/2019	45 - 50	35.70	40.48	215	113.90	14.80	10.15	1215	0.4	2	61	<0.2	8.8	48	2	25	4.33	1	<1	1.6	129	8	21	1.8	7.8	62	0.9	42	<0.5	2	704	<1.25	<75.0	<2.50	<75.0	<0.5	2.6	2.6	<200	
	10/7/2019	55 - 60	35.70	10.16	189	61.72	12.50	10.22	342	<0.2	<1	15	<0.2	2.3	9	<1	<5	1.23	<1	<1	0.9	93	2																		

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			SVOCs			Herbicide Metabolites				Chlorate	1,4-Dioxane	Perchlorate	PFAS																							
Well ID	Sample Date	Well Screen Interval	Bisphenol A ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Metolachlor Metabolite CGA-67125 ug/l	2-HydroxyAtrazine ug/l	Phenytoln (Dilantin) ug/l	Trichlorfon ug/l	Chlorate mg/l	1,4-Dioxane ug/l	Perchlorate ug/L	6:2FTS ng/l	8:2FTS ng/l	NEtFOSSA ng/l	NMeFOSSA ng/l	PFBS ng/l	PFBA ng/l	PFDS ng/l	PFDA ng/l	PFDoA ng/l	PFHpS ng/l	PFHpA ng/l	PFHxS ng/l	PFHxA ng/l	PFNA ng/l	FOSA ng/l	PFOS ng/l	PFOA ng/l	PFPeA ng/l	PFTeA ng/l	PFTrIA ng/l	PFUnA ng/l			
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Drinking Water Standard Subpart 5-1 (MCL)			50	50	50	50	50	50	50	-	1	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	10	50,000	50,000	50,000	50,000		
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BOM-1	5/29/2019	35 - 40	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.1	<2.6	<2.6	0.33 J	<5.1	<1.7	<1.7	<1.7	<1.7	<1.7	<0.85	1.1 J	<1.7	<1.7	<2.6	9.8	<0.85	<5.1	<0.85	<0.85	<1.7		
	5/29/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	<0.87	<5.2	<1.7	<1.7	<1.7	<1.7	<1.7	<0.87	<1.7	<1.7	<2.6	<1.7	<0.87	<5.2	<0.87	<0.87	<1.7			
	5/21/2019	55 - 60	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	<0.87	<5.2	<1.7	<1.7	<1.7	<1.7	<1.7	<0.87	<1.7	<1.7	<2.6	<1.7	0.26 J	<5.2	<0.87	<0.87	<1.7			
	5/22/2019	65 - 70	<0.2	<0.6	<0.4	0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<5.3	<2.7	<2.7	<0.89	<5.3	<1.8	<1.8	<1.8	<1.8	<1.8	<0.89	<1.8	<1.8	<2.7	<1.8	<0.89	<5.3	<0.89	<0.89	<1.8			
	5/22/2019	75 - 80	<0.2	<0.6	<0.4	0.4	<0.3		<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	<0.86	<5.2	<1.7	<1.7	<1.7	<1.7	<1.7	<0.86	<1.7	<1.7	<1.7	0.73 J	<1.7	<0.86	<5.2	<0.86	<0.86	<1.7		
BOM-2	5/21/2019	40 - 45	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<5.3	<2.7	<2.7	<0.89	2.6 J	<1.8	<1.8	<1.8	<1.8	1.6	0.43 J	2	<1.8	<2.7	<1.8	1.8	<5.3	<0.89	<0.89	<1.8			
	5/20/2019	50 - 55	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.8	<5.3	<2.6	<2.6	<0.88	<5.3	<1.8	<1.8	<1.8	<1.8	<1.8	<0.88	<1.8	<1.8	<2.6	<1.8	<0.88	<5.3	<0.88	<0.88	<1.8			
	5/20/2019	60 - 65	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.1	<2.5	<2.5	<0.85	<5.1	<1.7	<1.7	<1.7	<1.7	<1.7	<0.85	<1.7	<1.7	<2.5	<1.7	<0.85	<5.1	<0.85	<0.85	<1.7			
	5/20/2019	70 - 75	<0.2	<0.6	<0.4	0.4	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.1	<2.5	<2.5	<0.84	<5.1	<1.7	<1.7	<1.7	<1.7	<1.7	<0.84	<1.7	<1.7	<2.5	<1.7	<0.84	<5.1	<0.84	<0.84	<1.7			
	5/20/2019	80 - 85	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	<0.86	<5.2	<1.7	<1.7	<1.7	<1.7	<1.7	<0.86	<1.7	<1.7	<2.6	<1.7	<0.86	<5.2	<0.86	<0.86	<1.7			
BOM-3	7/2/2019	45 - 50	0.4	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	1.1	<19	<19	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9			
	7/2/2019	55 - 60	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9			
	7/1/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	0.5	<0.3	<0.5	<0.1	<1	<18	<18	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8			
	7/1/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<18	<18	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8			
	7/1/2019	85 - 90	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<18	<18	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8			
BOM-4	6/3/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.1	<2.6	<2.6	0.57 J	2.4 J	<1.7	<1.7	<1.7	<1.7	<1.7	0.78 J	0.55 J	0.92 J	<1.7	<2.6	1.4 J	2.5	<5.1	<0.86	<0.86	<1.7		
	6/3/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.6	<4.9	<2.5	<2.5	<0.82	<4.9	<1.6	<1.6	<1.6	<1.6	<1.6	<0.82	2.5	<1.6	<1.6	<2.5	0.43 J	0.3 J	<4.9	<0.82	<0.82	<1.6		
	6/3/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.6	<4.9	<2.5	<2.5	<0.82	<4.9	<1.6	<1.6	<1.6	<1.6	<1.6	<0.82	<1.6	<1.6	<2.5	<1.6	<0.82	<4.9	<0.82	<0.82	<1.6			
	5/29/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.1	<2.6	<2.6	<0.86	<5.1	<1.7	<1.7	<1.7	<1.7	<1.7	<0.86	<1.7	<1.7	<2.6	<1.7	<0.86	<5.1	<0.86	<0.86	<1.7			
	5/29/2019	75 - 80	<0.2	<0.6	<0.2	0.4	<0.3	<0.2	<0.3	<0.5	0.18	<1	<1.7	<5.0	<2.5	<2.5	<0.83	<5.0	<1.7	<1.7	<1.7	<1.7	<1.7	<0.83	<1.7	<1.7	<2.5	1.5 J	<0.83	<5.0	<0.83	<0.83	<1.7			
BOM-5	6/4/2019	40 - 45	<1	<1	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.1	<2.6	<2.6	1.5	3.7 J	<1.7	<1																

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			SVOCs			Herbicide Metabolites				Chlorate	1,4-Dioxane	Perchlorate	PFAS																							
Well ID	Sample Date	Well Screen Interval	Bisphenol A ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Metolachlor Metabolite CGA-67125 ug/l	2-HydroxyAtrazine ug/l	Phenytion (Dilantin) ug/l	Trichlorfon ug/l	Chlorate mg/l	1,4-Dioxane ug/l	Perchlorate ug/L	6:2FTS ng/l	8:2FTS ng/l	NEFOSSA ng/l	NMeFOSSA ng/l	PFBS ng/l	PFBA ng/l	PFDS ng/l	PFDA ng/l	PFDoA ng/l	PFHpS ng/l	PFHpA ng/l	PFHxS ng/l	PFHxA ng/l	PFNA ng/l	FOSA ng/l	PFOS ng/l	PFOA ng/l	PFPeA ng/l	PFTeA ng/l	PFTrIA ng/l	PFUnA ng/l			
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Drinking Water Standard Subpart 5-1 (MCL)			50	50	50	50	50	50	50	-	1	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	10	50,000	50,000	50,000	50,000	50,000		
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BOM-11	5/13/2019	35 - 40	<0.2	<0.6	<0.4	0.7	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.8	<5.4	<2.7	<2.7	1.1	4.3 J	<1.8	<1.8	<1.8	0.40 J	3.9	2	5.6	<1.8	<2.7	2	11	5.1 J	<0.90	<0.90	<1.8			
	5/13/2019	45 - 50	<0.2	<0.6	<0.4	0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.8	<5.3	<2.6	<2.6	1.3	2 J	<1.8	<1.8	<1.8	<1.8	1.3	1.6 J	2.5	0.60 J	<2.6	1.7 J	2.3	2.9 J	<0.88	<0.88	<1.8			
	5/6/2019	55 - 60	<0.2	<0.6	<0.4	0.3	<0.3	<0.2	<0.3	<1.25	<0.1	<1	<20	<20	<20	<20	0.26 J	0.80 J	<2.0	0.38 J	<2.0	0.33 J	0.72 J	0.60 J	0.37 J	<2.0	<2	<2	0.72 J	<2.0	<2.0	<2.0				
	5/7/2019	65 - 70	<0.2	<0.6	<0.4	0.4	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	<1.9	0.53 J	<1.9	<1.9	<1.9	<1.9	0.28 J	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9				
	5/7/2019	75 - 80	<0.2	<0.6	<0.4	0.6	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<20	<20	<20	<20	<2.0	0.42 J	<2.0	<2.0	<2.0	<2.0	0.28 J	<2.0	<2.0	<2.0	<2	<2	<2.0	<2.0	<2.0	<2.0				
BOM-12	5/14/2019	35 - 40	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.2	<2.6	<2.6	0.80 J	<5.2	<1.7	<1.7	<1.7	<1.7	0.42 J	0.81 J	<1.7	<1.7	<2.6	0.82 J	1	<5.2	<0.87	<0.87	<1.7			
	5/14/2019	45 - 50	<0.2	<0.6	Trace	0.5	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.1	<2.6	<2.6	0.63 J	2.2 J	<1.7	<1.7	<1.7	<1.7	0.73 J	0.51 J	0.82 J	<1.7	<2.6	1.1 J	1.9	<5.1	<0.85	<0.85	<1.7			
	5/14/2019	55 - 60	<0.2	<0.6	0.4	0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.8	<5.5	<2.7	<2.7	<0.91	2.8 J	<1.8	<1.8	<1.8	<1.8	<0.91	0.50 J	<1.8	<1.8	<2.7	<1.8	0.84 J	<5.5	<0.91	<0.91	<1.8			
	5/13/2019	65 - 70	<0.2	<0.6	0.4	0.6	<0.3	<0.2	<0.3	<0.5	<0.1	<1	2.5	<5.1	<2.5	<2.5	<0.85	<5.1	<1.7	<1.7	<1.7	<1.7	<0.85	<1.7	<1.7	<1.7	<2.5	1 J	<0.85	<5.1	<0.85	<0.85	<1.7			
	5/13/2019	75 - 80	<0.2	<0.6	Trace	0.8	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	<0.87	<5.2	<1.7	<1.7	<1.7	<1.7	<0.87	<1.7	<1.7	<1.7	<2.6	<1.7	<0.87	<5.2	<0.87	<0.87	<1.7			
BOM-13	6/3/2019	35 - 40	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1	18.6	<1.8	<5.3	<2.6	<2.6	2.2	9.2	<1.8	<1.8	<1.8	<1.8	2.6	0.96 J	5.7	0.59 J	<2.6	2.3	4.2	4 J	<0.88	<0.88	<1.8			
	5/22/2019	45 - 50	<0.2	<0.6	<0.2	0.4	<0.3	<0.2	<0.3	<0.05	<0.1	2.3	1.7 J	<5.4	<2.7	<2.7	1.8	6.3	<1.8	<1.8	<1.8	0.56 J	3.7	11	11	0.47 J	<2.7	75	7	11	<0.89	<0.89	<1.8			
	5/22/2019	55 - 60	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1	8.3	<1.8	<5.4	<2.7	<2.7	1.6	5.5	<1.8	<1.8	<1.8	<1.8	4.1	7.7	8.3	0.49 J	<2.7	38	6.2	7.4	<0.91	<0.91	<1.8			
	5/22/2019	65 - 70	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1	10.3	<1.7	<5.1	<2.6	<2.6	0.62 J	2.2 J	<1.7	<1.7	<1.7	<1.7	1	5.4	3	<1.7	<2.6	11	1.8	2.3 J	<0.86	<0.86	<1.7			
	5/22/2019	75 - 80	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1	2.2	1.2 J	<5.4	<2.7	<2.7	<0.90	<5.4	<1.8	<1.8	<1.8	<1.8	<0.90	1.2 J	<1.8	<1.8	<2.7	4.7	<0.90	<5.4	<0.90	<0.90	<1.8			
BOM-14	5/8/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<1.7	<1.7	<1.7	1.2 J	2.3	<1.8	<1.8	<1.8	<1.8	2.2	7.9	2	<1.8	<1.8	2.6	8	1.1 J	<1.8	<1.8	<1.8			
	5/8/2019	45 - 50	<0.2	<0.6	<0.4	0.4	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<1.8	<1.8	<1.8	1.1 J	1.8	<1.8	<1.8	<1.8	<1.8	3.8	2	2.9	<1.8	<1.8	<1.8	3.1	2.9	<1.8	<1.8	<1.8			
	5/8/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<1.8	<1.8	<1.8	1.3 J	1.4 J	<1.8	<1.8	<1.8	<1.8	2.4	0.89 J	2.4	<1.8	<1.8	<1.8	1.8	2.5	<1.8	<1.8	<1.8			
	5/7/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<1.8	<1.8	<1.8	2.7	2	<1.8	<1.8	<1.8	<1.8	1.7 J	1.3 J	2.4	<1.8	<1.8	<1.8	2.9	2.6	<1.8	<1.8	<1.8			
	5/7/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	0.28 J	<1.8	<1.8	<1.8	<1.8	<1.8	0.26 J	<1.8	<1.8	<1.8			
BOM-15	5/13/2019	25 - 30	<0.2	<0.6	<0.4	<0.3	0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.8	<5.3	<2.7	<2.7	1.4	2.0 J	<1.8	<1.8	<1.8	<1.8	2.4	1.9	3.4	<1.8	<2.7	<1.8	0.8 J	2.5 J	<0.89	<0.89	<1.8			
	5/13/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.2																						

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			SVOCs			Herbicide Metabolites				Chlorate	1,4-Dioxane	Perch- lorate	PFAS																					
Well ID	Sample Date	Well Screen Interval	Bisphenol A ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Metolachlor Metabolite CGA-67125 ug/l	2-HydroxyAtrazine ug/l	Phenytoln (Dilantin) ug/l	Trichlorfon ug/l	Chlorate mg/l	1,4-Dioxane ug/l	Perchlorate ug/L	6:2FTS ng/l	8:2FTS ng/l	NEtFOsAA ng/l	NMeFOsAA ng/l	PFBS ng/l	PFBA ng/l	PFDS ng/l	PFDA ng/l	PFDoA ng/l	PFHpS ng/l	PFHpA ng/l	PFHxS ng/l	PFHxA ng/l	PFNA ng/l	FOSA ng/l	PFOS ng/l	PFOA ng/l	PFPeA ng/l	PFTeA ng/l	PFTrIA ng/l	PFUnA ng/l	
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Drinking Water Standard Subpart 5-1 (MCL)			50	50	50	50	50	50	50	-	1	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	10	50,000	50,000	50,000	50,000	50,000	
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BOM-21	4/30/2019	35 - 40	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<1.25	<0.1	<1	<19	<19	<19	<19	1.05 J	4.4	<1.9	<1.9	<1.9	0.59 J	12	12	4.8	0.36 J	<1.9	4.2	21	3.9	0.28 J	<1.9	<1.9	
	4/30/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	0.2	<1	<19	<19	<19	<19	1.4 J	4.6	<1.9	<1.9	<1.9	0.52 J	11	11	5	0.49 J	<1.9	3.9	20	3.8	<1.9	<1.9	<1.9	
	4/29/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<18	<18	<18	<18	15	5.5	<1.8	<1.8	<1.8	6.4	5.1	110	8.6	1.2 J	<1.8	180	12	5.9	<1.8	<1.8	<1.8	
	4/29/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	26	5	<1.9	<1.9	<1.9	8.2	7.6	160	14	1.3 J	<1.9	190	16	10	<1.9	<1.9	<1.9	
	4/25/2019	75 - 80	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<2.5	<0.1	<1	<19	<19	<19	<19	23	5	<1.9	<1.9	<1.9	3	4.4	85	7.6	0.97 J	<1.9	64	11	5.5	<1.9	<1.9	<1.9	
BOM-22	4/25/2019	35 - 40	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<1.25	<0.1	<1	25	<20	<20	<20	0.73 J	19	<2.0	<2.0	<2.0	0.72 J	17	2.8	32	0.93 J	<2.0	13	6.3	44	<2.0	<2.0	<2.0	
	4/24/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<2.5	<0.1	<1	<19	<19	<19	<19	2.2	1.7 J	<1.9	<1.9	<1.9	0.24 J	1.4 J	11	2.6	0.43 J	<1.9	5	2.5	1.3 J	<1.9	<1.9	<1.9	
	4/24/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	5.8	4	<1.9	0.30 J	<1.9	0.44 J	3.5	29	<1.9	1.3 J	<1.9	12	13	2.3	<1.9	<1.9	<1.9	
	4/24/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<19	<19	<19	<19	6	3.5	<1.9	<1.9	<1.9	1.2 J	5.3	70	6.5	1.1 J	<1.9	42	9.3	2.6	<1.9	<1.9	<1.9	
			<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<19	<19	<19	<19	5.9	3.6	<2.0	<2.0	<2.0	1.4 J	5.2	70	6.4	1.0 J	<2.0	39	9.6	2.7	<2.0	<2.0	<2.0	
4/24/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	6.8	4.1	<1.9	1.1 J	0.83 J	1.6 J	4.6	110	6	1.2 J	<1.9	38	9.9	4.2	0.40 J	<1.9	<1.9	<1.9	
4/23/2019	85 - 90	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	3.9	3.6	<1.9	<1.9	<1.9	0.92 J	6.6	34	<1.9	0.93 J	<1.9	50	7.9	<1.9	<1.9	<1.9	<1.9	<1.9	
BOM-23	7/11/2019	40 - 45	<0.2	0.6	<0.2	<0.3	<0.3	1	<0.3	<0.5	<0.1	<1	<19	<19	<19	<19	<1.9	5	<1.9	<1.9	<1.9	<1.9	6.1	9.3	8.4	<1.9	<1.9	13	7.2	7.7	<1.9	<1.9	<1.9	
	7/11/2019	50 - 55	<0.2	<0.6	<0.2	<0.3	<0.3	0.6	<0.3	<0.5	<0.1	8.2	<19	<19	<19	<19	<1.9	2.4	<1.9	<1.9	<1.9	<1.9	3.7	6.4	<1.9	<1.9	<1.9	7.2	10	<1.9	<1.9	<1.9	<1.9	
	7/10/2019	60 - 65	<0.2	Trace	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1	<1	<20	<20	<20	<20	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5.7	<2.0	<2.0	<2.0	2.1	<2.0	<2.0	<2.0	<2.0	
	7/10/2019	70 - 75	0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	5.6	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	
	7/10/2019	80 - 85	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	3.1	1.9	<1.9	<1.9	<1.9	<1.9	2	9	<1.9	<1.9	<1.9	2.5	5.4	<1.9	<1.9	<1.9	<1.9	
	7/8/2019	90 - 95	0.4	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.5	<0.1	<1	<19	<19	<19	<19	3.2	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	8	<1.9	<1.9	<1.9	2.2	6.2	<1.9	<1.9	<1.9	<1.9
	7/8/2019	100 - 105	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<18	<18	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	5.6	<1.8	<1.8	<1.8	<1.8	3.4	<1.8	<1.8	<1.8	<1.8
	7/8/2019	110 - 115	<0.2	<0.6	<0.2	<0.3	<0.3	1	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	7.4	<1.9	<1.9	<1.9	2.4	4.3	<1.9	<1.9	<1.9	<1.9
	7/2/2019	120 - 125	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<18	<18	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
	7/2/2019	130 - 135	<0.2	<0.6	<0.2	<0.3	<0.3	0.3																										

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			SVOCs			Herbicide Metabolites				Chlorate	1,4-Dioxane	Perch- lorate	PFAS																						
Well ID	Sample Date	Well Screen Interval	Bisphenol A ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Metolachlor Metabolite CGA-67125 ug/l	2-HydroxyAtrazine ug/l	Phenytoln (Dilantin) ug/l	Trichlorfon ug/l	Chlorate mg/l	1,4-Dioxane ug/l	Perchlorate ug/L	6:2FTS ng/l	8:2FTS ng/l	NEtFSAA ng/l	NMeFOSSA ng/l	PFBS ng/l	PFBA ng/l	PFDS ng/l	PFDA ng/l	PFDoA ng/l	PFHpS ng/l	PFHpA ng/l	PFHxS ng/l	PFHxA ng/l	PFNA ng/l	FOSA ng/l	PFOS ng/l	PFOA ng/l	PFPeA ng/l	PFTeA ng/l	PFTrIA ng/l	PFUnA ng/l		
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Drinking Water Standard Subpart 5-1 (MCL)			50	50	50	50	50	50	50	-	1	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	10	50,000	50,000	50,000	50,000		
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BOM-28	4/24/2019	35 - 40	<0.2	<0.5	<0.4	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<19	<19	<19	<19	8.2	3.6	<1.9	<1.9	<1.9	0.26 J	<1.9	8	3.5	0.56 J	<1.9	3.7	9.7	3	<1.9	<1.9	<1.9		
	4/24/2019	45 - 50	<0.2	<0.5	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	9	3.9	<1.9	<1.9	<1.9	<1.9	3	8.6	3.6	0.61 J	<1.9	3.4	10	3.2	<1.9	<1.9	<1.9		
	4/24/2019	55 - 60	<0.2	<0.5	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	20	3.3	<1.9	<1.9	<1.9	<1.9	2.4	7.1	1.7 J	0.76 J	<1.9	1.7 J	5	1.7 J	<1.9	<1.9	<1.9		
	4/23/2019	65 - 70	<0.2	<0.5	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	2.1 J	0.63 J	<1.9	<1.9	<1.9	<1.9	<1.9	1.1 J	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	0.3 J	<1.9	<1.9	
	4/23/2019	75 - 80	<0.2	<0.5	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	2.9 J	<19	<19	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	0.31 J	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	0.30 J	<1.9	<1.9	
	4/23/2019	85 - 90	<0.2	<0.5	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1	<19	<19	<19	<19	<1.9	0.48 J	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	0.29 J	<1.9	<1.9	<1.9	0.81 J	<1.9	<1.9	0.32 J	<1.9	<1.9
BOM-29	10/3/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1	No Samples																							
	10/3/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	10/2/2019	65 - 70	0.2	<0.6	<0.2	0.3	<0.3	0.4	<0.3	<0.05	<0.1																								
	10/2/2019	75 - 80	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	10/2/2019	85 - 90	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
BOM-30	10/1/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	0.3	<0.3	<0.05	<0.1	No Samples																							
	10/1/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/1/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	0.3	<0.3	<0.05	<0.1																								
	9/30/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	9/30/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	9/30/2019	85 - 90	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
BOM-31	10/2/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	0.4	<0.3	<2.50	<0.1	No Samples																							
	10/1/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/1/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/1/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	9/30/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.2																								
	9/30/2019	85 - 90	<0.1	<0.1	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.5																								
BOM-32	10/7/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	No Samples																							
	10/7/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/7/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/3/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/2/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	10/2/2019	85 - 90	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
BOM-33	9/30/2019	50 - 55	<0.2	<0.6	<0.2	<0.3	<0.3	0.5	<0.3	<0.05	<0.2	No Samples																							
BOM-34	10/8/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	No Samples																							

Note: NR - Analyte result not reported
In August 2020 the individual NYSDOH drinking water standard of 10 ng/l for PFOS and PFOA became effective.

Exceeds a Standard, Guidance Value and/or Action Level.

APPENDIX C

QUALITY ASSURANCE PROJECT PLAN



FORMER BOMARC SITE
100 OLD COUNTRY ROAD
WESTHAMPTON, NEW YORK
NYSDEC SITE: 152262

QUALITY ASSURANCE PROJECT PLAN

SUBMITTED TO:

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233

PREPARED FOR:

Suffolk County Department of Health Services
Office of Pollution Control
15 Horseblock Place
Farmingville, New York 11738

PREPARED BY:



P.W. Grosser Consulting Engineer & Hydrogeologist, D.P.C.
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Bohemia, New York 11716
Phone: 631-589-6353
Fax: 631-589-8705

Thomas Melia, PG, Vice President

thomasm@pwgrosser.com

PWGC Project Number: SHD2504

MAY 2026

**QUALITY ASSURANCE PROJECT PLAN
FORMER BOMARC SITE (152262)**

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ACRONYMS

ASP	Analytical Services Protocol
AST	Aboveground Storage Tank
AWQS	Ambient Water Quality Standard
DUSR	Data Usability Summary Report
ELAP	Environmental Laboratory Approval Program
EPA	Environmental Protection Agency
FTL	Field Team Lead
HDPE	High-Density Polyethylene
MOSF	Major Oil Storage Facility
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCB	Polychlorinated Biphenyl
PFAS	Per- and Polyfluoroalkyl Substances
PID	Photoionization Detector
ppb	Parts Per Billion
PPE	Personal Protective Equipment
ppm	Parts Per Million
ppt	Parts Per Trillion
PWGC	P.W. Grosser Consulting Engineer & Hydrogeologist D.P.C.
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RI	Remedial Investigation
RRSCO	Restricted Residential Soil Cleanup Objective
SDG	Sample Delivery Group
SIM	Selective Ion Monitoring
SOP	Standard Operating Procedure
SRI	Supplemental Remedial Investigation
SVOC	Semi-volatile Organic Compound
TAL	Target Analyte List
TBD	To Be Determined
TCL	Target Compound List
UUSCO	Unrestricted Use Soil Cleanup Objective
VOC	Volatile Organic Compound



1.0 INTRODUCTION

This Quality Assurance Project Plan (QAPP) presents the objectives, functional activities, methods, and QA/QC requirements associated with sample collection and laboratory analysis for the Per- and Polyfluoroalkyl Substances (PFAS) Source Area Investigation at the Former BOMARC site. The QAPP follows requirements detailed in DER-10, Section 2 and Appendix A of Sampling, Analysis, and Assessment of Per-And Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (April 2023).

1.1 Site Description

The Site is located at 100 Old Country Road, in the hamlet of Westhampton, New York. The Site is in the Town of Southampton, Suffolk County. The property is identified in the Suffolk County Tax Map as: 0900-331.00-01.00-Lot Nos. 001.100, and 002.000 through 015.000.

The Site measures approximately 186 acres in size and is located to the north of Old Country Road and west of Old Westhampton Road. The property includes 56 structures which originally housed BOMARC missiles, along with other structures utilized by Suffolk County. Large parking lots are also present at the site along with a police firing range. The Site is bounded to the north by undeveloped pine barrens, to the east by commercial/industrial land uses, to the south by Old Country Road, and to the west by a multi-family residential development.

1.2 Site History

The former BOMARC Missile Base was operated by the US Air Force as one of 10 BOMARC facilities protecting the east coast from a potential Soviet air attack from 1959 until it was decommissioned in 1964. Fifty-six nuclear-tipped missiles were located at this facility which utilized tritium and required frequent maintenance (every 90 days). After decommissioning, the property was turned over to Suffolk County as surplus property in the 1960s.

1.3 Previous Investigations

SCDHS implemented environmental investigations at the site in 2019, documented in a 2020 BOMARC Groundwater and Soil Investigation Report, and from 2020 to 2021 documented in a 2025 BOMARC Off-Site and Vicinity Groundwater Investigation.

Relevant findings of the investigations are summarized as follows.

- In 2019, a total of 186 groundwater samples were collected from 32 profile wells and two monitoring wells located on the Former BOMARC site.
- From 2020 to 2021, a total of 184 groundwater samples were collected from 36 profile wells and eight existing sewage treatment plan (STP) monitoring wells located both up and down gradient of the Former BOMARC site.



- Groundwater flow beneath the site and surrounding area is generally south-southwest with some local variation in the vicinity of a Suffolk County Water Authority (SCWA) well field adjacent to the south of the site.
- Based on data from the two investigations, SCDHS identified multiple plumes of PFAS impacted groundwater on and in the vicinity of the site. The most significant of these plumes include one that appears to be related to a potential onsite source or sources, and one that appears to be related to a potential offsite source at or in the vicinity of the adjoining property to the west (former drag racing track, current multi-family residential development).
- Based on PFAS concentrations in groundwater, several potential onsite sources of PFAS impact were identified including a former fireworks burn pit area, a current fireworks detonation area, a police firing range, and a damaged vehicle impound lot.



2.0 PROJECT ORGANIZATION

Remedial and investigative efforts at the site will be implemented by PWGC on behalf of the Suffolk County Department of Health Services (SCDHS). The following identifies the responsibilities of various organizations supporting the project:

- The NYSDEC Project Manager will be responsible for reviewing and approving work plans, coordinating approval of requested modifications, and providing guidance on regulatory requirements.
- The PWGC Project Director will provide technical expertise for review of project plans, reports and ongoing field activities.
- The PWGC Quality Assurance Manager will confirm the quality of work associated with the project is in accordance with all project plans.
- PWGC Project Manager will be responsible for the day-to-day project management, task leadership, and project engineering support and for the planning and implementation of field activities. The Project Manager is responsible for ensuring that the requirements of approved work plans are implemented.
- PWGC Field Team Leader will be responsible for sample collection, oversight of subcontractor personnel, and coordination of daily field activities.
- A NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory (to be determined) will be contracted to perform required analyses and reporting, including Analytical Services Protocol (ASP) Category B Deliverables, which will allow for data validation.
- An independent third-party data validator (to be determined) will be contracted to perform data validation and prepare a Data Usability Summary Report (DUSR) in accordance with §3.6.
- Subcontractors (TBD) will perform field activities at the direction of the Field Team Leader in accordance with approved work plans.



3.0 LABORATORY ANALYSIS

Requirements for sample analysis are described below. All samples will be submitted to a NYSDOH ELAP certified laboratory for analysis. Analytical methods, preservation, container requirements, and holding times are summarized below:

ANALYTICAL METHODS (SOIL)

Analyte/ Analyte Group	Matrix	Method/ SOP	Container(s) (number, size & type per sample)	Preservation	Preparation Holding Time	Analytical Holding Time	Estimated Number of Samples to be Collected
PFAS	Soil	EPA 1633A	1 x 8 oz, glass	None	90 days to extraction	90 days from extraction to analysis	40 plus QA/QC samples

Reporting limits for PFAS compounds will be less than or equal to 0.5 µg/kg (ppb) for solid samples.

3.1 Soil Samples

Soil samples will be collected as described in approved work plans for the site. Analysis will conform to NYSDEC Analytical Services Protocol (ASP) Category B data deliverables in accordance with NYSDEC DER-10, Appendix 2B, 1.0 (b), including calibration standards, surrogate recoveries, and chromatograms.

3.2 Field/Laboratory Data Control Requirements

Quality Control (QC) procedures will be followed in the field and at the laboratory to ensure reliable data is obtained. When performing field sampling, care shall be taken to prevent the cross-contamination of sampling equipment, sample bottles, and other equipment that could compromise sample integrity. QC samples will include the following:

- Blind Duplicates – one per 20 environmental samples for each matrix sampled.
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) - one per 20 environmental samples for each matrix sampled.
- Equipment Blank – one for each sample methodology.
- Field Blank – one per day when PFAS samples are collected.
- Trip Blank – one per cooler containing VOC samples.

QA/QC Sample analysis will conform to NYSDEC ASP Category B data deliverables in accordance with NYSDEC DER-10, Appendix 2B, 1.0 (b), including calibration standards, surrogate recoveries, and chromatograms.

3.3 Special Sampling Considerations for PFAS Sampling

There are several potential sources of PFAS that could contribute to the cross-contamination of environmental samples to be analyzed for PFAS. Weatherproof clothing, pens, logbooks, cosmetics, personal hygiene products, insect repellents, and sampling equipment could contain PFAS that could lead to false positive sampling results.

To ensure that the analytical results obtained during the RI are representative of the actual site conditions several measures should be taken:

- Collection of appropriate field QA/QC samples (blanks, duplicates, equipment rinseate samples, etc.) as detailed in §3.2.
- Analysis by the analytical laboratory using established laboratory QA/QC procedures and methods as detailed in §3.2.
- During decontamination, non-dedicated equipment to be used for PFAS sampling will be rinsed with PFAS free water supplied by the laboratory. Equipment will be allowed to fully air dry before use.
- New high-density polyethylene (HDPE) tubing shall be used at each sample location.
- Groundwater samples will be collected in laboratory supplied HDPE containers.
- New nitrile gloves shall be worn between each sample interval.
- Only clean cotton or synthetic clothes shall be worn – preferably washed more than six times, and without the use of fabric softeners. No waterproof or insecticide treated clothing, boots or rain jackets made or treated with Teflon products shall be used at the collection site. This includes all Gore-Tex® and Tyvek® products.
- Do not apply moisturizers or hand creams to hands or face on the day of sampling. No sunblock or insect repellants. Do not bring packaged food to the work site or use aluminum foil.
- Field notes shall be taken using a computer tablet or by using ink pens on non-waterproof plain paper attached to a metal clipboard. Do not use Sharpies or markers. Transcribe field notes to Chain-of-Custody forms and official field books when back in the office after the collection process.
- For groundwater samples use only laboratory supplied 250 ml polypropylene sample bottles. Sample bottles should be pre-preserved by the laboratory, if dictated by the analysis method.
- Print labels before going into the field and apply to the sample containers.
- Use only laboratory supplied PFAS-free water for trip, field and equipment blanks.
- Place each sample container in a separate polypropylene zip-lock bag.
- For the shipping coolers, use only regular crushed ice packaged in polypropylene zip-lock plastic bags.
- Use only laboratory supplied shipping coolers that were used to ship sample containers for this project. Tape the cooler shut before shipping samples to the laboratory.



3.4 Sample Identification

Each sample will be identified with information detailing individual sample characteristics. Required information consists of sample designation, depth, date, time, and matrix. Examples of sample IDs are shown below.

- SB001 (0-2') – soil sample, boring 001 from 0 to 2 feet

Sample frequency, locations, depths, and nomenclature may change subject to field decisions and professional judgment.

3.5 Chain-of-Custody, Sample Packaging and Shipment

Each day that samples are collected, a chain-of-custody/request for analysis form will be completed and submitted to the laboratory with samples to be analyzed. A copy of the chain-of-custody will be retained by the Project Manager. The chain-of-custody will include the project name, sampler's signature, sample IDs, date and time of sample collection, and analysis requested.

Samples will be packaged and shipped in a manner that maintains sample preservation requirements during transport (i.e., ice to keep samples cool until receipt at the laboratory), ensures that sample holding times can be achieved by the laboratory, and prevents samples from being tampered with.

If a commercial carrier ships samples, a bill of lading (waybill) will be used as documentation of sample custody. Receipts for bills of lading and other documentation of shipment shall be maintained as part of the permanent custody documentation. Commercial carriers are not required to sign the chain-of-custody as long as it is enclosed in the shipping container and evidence tape (custody seal) remains in place on the shipping container.

3.6 Data Usability and Validation

The main purpose of the data is for use in defining the extent of contamination at the site, to aid in evaluation of potential human health and ecological exposure assessments, and to support remedial action decisions. Based upon this, data usability and validation will be performed as described below. Complete data packages will be archived in the project files, and if deemed necessary additional validation can be performed using procedures in the following sections.

3.6.1 Data Usability and Validation Requirements

Data usability and validation are performed on analytical data sets, primarily to confirm that sampling and chain-of-custody documentation are complete, sample IDs can be tied to specific sampling locations, samples were analyzed within the required holding times, and analyses are reported in conformance with NYSDEC ASP, Category B data deliverable requirements as applicable to the method utilized.



3.6.2 Data Usability and Validation Methods

A designee of the PWGC Project Manager will complete a data usability evaluation for the data collected during the RI and a data usability summary report (DUSR) will be prepared. The DUSR will be prepared in accordance with NYSDEC DER-10, Appendix 2B.

Independent third-party data validation will be performed on 5% of the sample data, or on one sample from each sample delivery group (SDG), whichever is greater. Data validation will be performed by a qualified subcontractor independent of the project.



4.0 FIELD EQUIPMENT CALIBRATION

Equipment will be inspected and approved by the Field Team Leader before being used. Equipment will be calibrated to factory specifications, if required. Monitoring equipment will be calibrated following manufacturers' recommended schedules. Daily field response checks and calibrations will be performed as necessary (e.g., PID calibrations) following the manufacturer's standard operating procedures. Equipment calibrations will be documented in a designated field logbook.



5.0 EQUIPMENT DECONTAMINATION

In order to minimize the potential for cross-contamination, non-dedicated field equipment shall be properly decontaminated prior to and between uses. Decontamination shall not be necessary for equipment that is not used for sampling purposes.

5.1 General Procedures

Equipment will be decontaminated in a designated area. Sampling equipment and probes will be decontaminated in an area covered with plastic sheeting near the sampling location. Waste material generated during decontamination activities will be containerized, stored and disposed of in accordance with the procedures detailed in §5.5. Decontamination of sampling equipment shall be kept to a minimum, and wherever possible, dedicated sampling equipment shall be used. Personnel directly involved in equipment decontamination shall wear appropriate personal protective equipment (PPE).

5.2 Heavy Equipment

Heavy equipment such as excavators/backhoes and drilling equipment shall be decontaminated prior to first use and between all subsequent sample locations. This shall include all excavator buckets, hand tools, casing, augers, drill rods, temporary well material and other related tools and equipment that may come in contact with impacted media. Water used during drilling and/or steam cleaning operations shall be from a potable source.

5.3 Sampling Equipment

Sampling equipment (e.g., trowels, knives, split-spoons, bowls, hand augers, etc.) will be decontaminated prior to each use as follows:

- Laboratory-grade glassware detergent and tap water scrub to remove visual contamination.
- Generous tap water rinse.
- Distilled water rinse.

5.4 Meters and Probes

All meters and probes that are used in the field (other than those used solely for air monitoring purposes, e.g., PID meters) will be decontaminated between uses as follows:

- Laboratory-grade detergent and tap water solution wash.
- Tap water rinse.
- Distilled water rinse (triple rinse).

5.5 Waste Management

Waste materials generated from the field operations may consist of soil cuttings, purge water, decon water, and miscellaneous solid materials such as personal protective equipment (PPE) and supplies. Wastes generated during field operations will be disposed of in accordance with applicable regulations.



Soil cuttings generated from soil boring and well installation activities will be stored in 55-gallon drums, or other acceptable container. Drums will be labeled to indicate the source of the material and will be stored in a designated area on-site. Soil cores and cuttings will be field screened using a PID, while performing drilling operations. Drummed material will be disposed of at an off-site disposal facility. Following receipt of the analytical results, recommendations for disposition of the drummed material will be provided to NYSDEC.



6.0 FIELD DOCUMENTATION

Documentation will take place on either appropriate forms or in a dedicated site logbook. Permanent black or blue ink will be used to record information in the logbook. Errors in field documentation will be lined through, initialed, dated, and corrected. Forms will be kept by the PWGC Field Team Leader during the field activities. Field activities will be documented in the field logbook. The logbook will contain waterproof pages that are consecutively numbered and be permanently bound with a hard cover. Upon completion of daily activities, unused portions of pages will be lined-through and initialed.

The primary purpose of the field logbook is to document the daily field activities and to provide descriptions of each activity. All entries in the field logbook will be recorded and dated by person making the entry.



APPENDIX D

HEALTH AND SAFETY PLAN



FORMER BOMARC SITE
100 OLD COUNTRY ROAD
WESTHAMPTON, NEW YORK
NYSDEC SITE: 152262

HEALTH AND SAFETY PLAN

SUBMITTED TO:

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233

PREPARED FOR:

Suffolk County Department of Health Services
Office of Pollution Control
15 Horseblock Place
Farmingville, New York 11738

PREPARED BY:



P.W. Grosser Consulting Engineer & Hydrogeologist, D.P.C.
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Bohemia, New York 11716
Phone: 631-589-6353
Fax: 631-589-8705

Thomas Melia, PG, Vice President

thomasm@pwgrosser.com

PWGC Project Number: SHD2504

FEBRUARY 2026

HEALTH AND SAFETY PLAN FORMER BOMARC SITE (152262)

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APPENDICES

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APPENDIX E	Hospital Route Map
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STATEMENT OF COMMITMENT

Site employees may be exposed to chemical contaminants of concern identified within soil, water or air during project activities to be performed at the subject site. P.W. Grosser Consulting Engineer & Hydrogeologist, PC (PWGC's) policy is to minimize the possibility of work-related exposure through awareness and qualified supervision, health and safety training, use of appropriate personal protective equipment, and the following activity specific safety protocols contained in this Health and Safety Plan (HASP). PWGC has established a guidance program to implement this policy in a manner that protects personnel to the maximum reasonable extent.

This HASP describes emergency response procedures for actual and potential chemical hazards. Persons are to acknowledge that they understand the potential hazards and the contents of this Health and Safety policy by signing off on receipt of their individual copy of the document. Contractors and suppliers are retained as independent contractors and are responsible for ensuring the health and safety of their own employees as it relates to general construction practices.



ACRONYMS

APR	Air Purifying Respirator
AST	Aboveground Storage Tank
AWQS	Ambient Water Quality Standard
CFR	Code of Federal Regulations
DER	Division of Environmental Remediation
HASP	Health & Safety Plan
IDLH	Immediately Dangerous to Life or Health
MOSF	Major Oil Storage Facility
NIOSH	National Institute for Occupational Safety and Health
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OSHA	Occupational Safety & Health Administration
OVA	Organic Vapor Analyzer
PFAS	Per- and Polyfluoroalkyl Substances
PPE	Personal Protective Equipment
ppm	Parts Per Million
PWGC	P.W. Grosser Consulting Engineer & Hydrogeologist D.P.C.
RI	Remedial Investigation
RRSCO	Restricted Residential Soil Cleanup Objective
SCBA	Self Contained Breathing Apparatus
SSO	Site Safety Officer
SVOC	Semi-volatile Organic Compound
UST	Underground Storage Tank
UUSCO	Unrestricted Use Soil Cleanup Objective
VOC	Volatile Organic Compound



1.0 INTRODUCTION

This document describes the health and safety guidelines developed by PWGC for the Former BOMARC site in Westhampton, New York to protect project personnel, visitors, and the public from exposure to hazardous materials or wastes. In accordance with the Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) Part 1910.120 Hazardous Waste Operations and Emergency Response Final rule, this HASP, including the attachments, addresses safety and health hazards relating to work activities at the site and is based on the best information available. The HASP may be revised by PWGC upon receipt of new information regarding the Site conditions. Changes will be documented by written amendments.

1.1 Site Safety Plan Acceptance, Acknowledgment, and Amendments

The Site Safety Officer (SSO) is responsible for informing personnel entering the work area of the contents of this plan and ensuring that each person signs the safety plan acknowledging the Site hazards and procedures required to minimize exposure to adverse effects of these hazards. A copy of the Acknowledgement Form is included in **Appendix A**.

Site conditions may warrant an amendment to the HASP. Amendments to the HASP are acknowledged by completing forms included in **Appendix B**.

1.2 Daily Safety Meetings

Each day before work begins the SSO will hold safety (tailgate or tool box) meetings to ensure that on-site personnel understand the Site conditions and operating procedures and to address safety questions and concerns. Meeting minutes and attendance will be recorded. Project staff will discuss and remedy health and safety issues at these meetings.

1.3 Key Personnel - Roles and Responsibilities

The following key personnel are planned for this project:

- Project Director – Thomas Melia, PG
- Project Manager – Kylie Benz, IG
- Site Safety Officer (SSO) – Nicholas Gandolfo or designee (TBD)

The project manager is responsible for overall project administration and, with guidance from the SSO, for supervising the implementation of this HASP. The safety officer will conduct daily (tail gate or toolbox) safety meetings at the Site and oversee daily safety issues. Each subcontractor and supplier (defined as an OSHA employer) is also responsible for the health and safety of its employees. If there is any dispute about health and safety or project activities, on-site personnel will attempt to resolve the issue. If the issue cannot be resolved at the Site, then the project manager will be consulted.



In addition to these reporting requirements, the project manager is responsible for ensuring that PWGC personnel assigned to the Site have the appropriate training.

The SSO is responsible for the following:

1. Educating personnel about information in this HASP and other safety requirements to be observed during Site operations, including, but not limited to, designation of work zones and levels of protection and emergency procedures dealing with fire and first aid.
2. Coordinating Site safety decisions with the project manager.
3. Monitoring the condition and status of known on-site hazards specified in this HASP.
4. Maintaining the work zone entry/exit log and Site entry/exit log.
5. Maintaining records of safety problems, corrective measures and documentation of chemical exposures or physical injuries (the SSO will document these conditions in a bound notebook and maintain a copy of the notebook on-site).
6. Reporting injuries/incidences that occur at the Site, regardless of if it includes a PWGC employee or other person on the Site, to the project manager as soon as possible following the incident.

The person who observes safety concerns and potential hazards that have not been addressed in the daily safety meetings should immediately report their observations/concerns to the SSO or appropriate key personnel.



2.0 SITE DESCRIPTION AND HISTORY

2.1 Site Description

The Site is located at 100 Old Country Road, in the hamlet of Westhampton, New York. The Site is in the Town of Southampton, Suffolk County. The property is identified in the Suffolk County Tax Map as: 0900-331.00-01.00-Lot Nos. 001.100, and 002.000 through 015.000.

The Site measures approximately 186 acres in size and is located to the north of Old Country Road and west of Old Westhampton Road. The property includes 56 structures which originally housed BOMARC missiles, along with other structures utilized by Suffolk County. Large parking lots are also present at the site along with a police firing range. The Site is bounded to the north by undeveloped pine barrens, to the east by commercial/industrial land uses, to the south by Old Country Road, and to the west by a multi-family residential development.

2.2 Site History

The former BOMARC Missile Base was operated by the US Air Force as one of 10 BOMARC facilities protecting the east coast from a potential Soviet air attack from 1959 until it was decommissioned in 1964. Fifty-six nuclear-tipped missiles were located at this facility which utilized tritium and required frequent maintenance (every 90 days). After decommissioning, the property was turned over to Suffolk County as surplus property in the 1960s.

2.3 Previous Investigations

SCDHS implemented environmental investigations at the site in 2019, documented in a 2020 BOMARC Groundwater and Soil Investigation Report, and from 2020 to 2021 documented in a 2025 BOMARC Off-Site and Vicinity Groundwater Investigation.

Relevant findings of the investigations are summarized as follows.

- In 2019, a total of 186 groundwater samples were collected from 32 profile wells and two monitoring wells located on the Former BOMARC site.
- From 2020 to 2021, a total of 184 groundwater samples were collected from 36 profile wells and eight existing sewage treatment plan (STP) monitoring wells located both up and down gradient of the Former BOMARC site.
- Groundwater flow beneath the site and surrounding area is generally south-southwest with some local variation in the vicinity of a Suffolk County Water Authority (SCWA) well field adjacent to the south of the site.
- Based on data from the two investigations, SCDHS identified multiple plumes of PFAS impacted groundwater on and in the vicinity of the site. The most significant of these plumes include one that appears to be related to a potential onsite source or sources, and one that appears to be related to a potential



offsite source at or in the vicinity of the adjoining property to the west (former drag racing track, current multi-family residential development).

- Based on PFAS concentrations in groundwater, several potential onsite sources of PFAS impact were identified including a former fireworks burn pit area, a current fireworks detonation area, a police firing range, and a damaged vehicle impound lot.



3.0 POTENTIAL HAZARDS AT THE SITE

This section presents an assessment of the chemical, biological, and physical hazards that may be encountered.

3.1 Chemical Hazards

Environmental investigations at the site have identified:

- PFAS compounds in groundwater exceeding their respective NYSDEC AWQS or guidance values.

Safety Data Sheets (SDSs) for contaminants of concern are included in **Appendix C**.

3.2 Biological Hazards

Work will be performed in a suburban setting. During the course of the project, there is potential for workers to come into contact with biological hazards such as animals or insects.

3.2.1 *Animals*

The site is located within the Pine Barrens. It is possible that dogs, cats, deer, birds, rodents, or other animals may be present. Workers shall use discretion and avoid contact with animals.

3.2.2 *Insects*

Insects, such as mosquitoes, ticks, bees, and wasps may be present during certain times of the year. Workers will be encouraged to wear appropriate repellents, provided they do not contain PFAS compounds, and PPE, if deemed necessary, when working in areas where insects are expected to be present.

3.3 Physical Hazards

During the project, there is potential for workers to come into contact with physical hazards such as heat stress, cold stress, noise, fire, airplanes, and explosions.

3.3.1 *Temperature Extremes*

Heat Stress

Heat stress is a significant potential hazard, which is greatly exacerbated with the use of PPE in hot environments. The potential hazards of working in hot environments include dehydration, cramps, heat rash, heat exhaustion, and heat stroke.

Cold Stress

At certain times of the year, workers may be exposed to the hazards of working in cold environments. Potential hazards in cold environments include frostbite, trench foot or immersion foot, hypothermia as well as slippery surfaces, brittle equipment, and poor judgment.

PWGC's Heat/Cold Stress Protocols are specified in **Appendix D**.



3.3.2 Steam, Heat, and Splashing

Exposure to steam, heat, and splashing hazards can occur during steam cleaning activities. Splashing can also occur during well development and sampling activities. Exposure to steam, heat, and splashing can result in scalding or burns, eye injury, and puncture wounds.

3.3.3 Noise

Noise is a potential hazard associated with the operation of heavy equipment, drill rigs, pumps, and engines. Workers will wear hearing protection while in the work zone when these types of machinery are operating.

3.3.4 Fire and Explosion

When conducting heavy equipment and/or drilling activities, the opportunity of encountering fire and explosion hazards may exist from encountering underground utilities, from the use of diesel engine equipment, propane, liquefied petroleum gas, and other potential ignition sources. During dry periods there is an increased chance of forest and brush fires starting at the Site. No smoking will be permitted at the site and all operations involving potential ignition sources will be monitored continuously (fire watch).

3.3.5 Manual Lifting/Material Handling

Manual lifting of heavy objects may be required. Failure to follow proper lifting technique can result in back injuries and strains. Back injuries are a serious concern as they are the most common workplace injury, often resulting in lost or restricted work time, and long treatment and recovery periods.

3.3.6 Slips, Trips, and Falls

Working in and around the Site will pose slip, trip, and fall hazards due to slippery surfaces that may be oil covered, or from rough terrain, surfaces that are steep inclines, surfaced debris, or surfaces which are wet from rain or ice. Falls may result in twisted ankles, broken bones, head trauma, or back injuries.

3.3.7 Heavy Equipment Operation

Working with or near heavy equipment poses many potential hazards, including electrocution, fire/explosion, being struck by or against, or pinched/caught/crushed by, and can result in serious physical harm.

3.3.8 Electrocution

Encountering underground utilities may pose electrical hazards to workers. Additionally, overhead electrical lines can be a concern during heavy equipment and/or drilling operations. Potential adverse effects of electrical hazards include burns and electrocution, which could result in death.



4.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) shall be selected in accordance with OSHA 29 CFR 1910.120(c), (g), and 1910.132. Protective equipment shall be National Institute for Occupational Safety and Health (NIOSH) approved and respiratory protection shall conform to OSHA 29 CFR Part 1910.133 and 1910.134 specifications; head protection shall conform to 1910.135; eye and face protection shall conform to 1910.133; and foot protection shall conform to 1910.136. The only true difference among the levels of protection from D thru B is the addition of the type of respiratory protection. It is anticipated that work will be performed in Level D PPE.

4.1 Level D

Level D PPE shall be donned when the atmosphere contains no known hazards and work functions preclude splashes, immersion, or the potential for inhalation of, or contact with, hazardous concentrations of harmful chemicals. Level D PPE consists of:

- Standard work uniform, coveralls, or tyvek, as needed.
- Steel toe (or equivalent) work boots.
- Hard hat.
- Gloves, as needed.
- Safety glasses.
- Hearing protection.
- Equipment replacements are available as needed.

4.2 Level C

Level C PPE shall be donned when the concentrations of measured total organic vapors in the breathing zone exceed background concentrations, using a portable organic vapor analyzer (OVA), or equivalent, but are less than 5 parts per million (ppm). The specifications on the air purifying respirator (APR) filters used must be appropriate for contaminants identified or expected to be encountered. Level C PPE shall be donned when the identified contaminants have adequate warning properties and criteria for using APR have been met. Level C PPE consists of:

- Chemical resistant or coated tyvek coveralls.
- Steel-toe (or equivalent) work boots.
- Chemical resistant over boots or disposable boot covers.
- Disposable inner gloves (surgical gloves).
- Disposable outer gloves.
- Full face APR fitted with organic vapor/dust and mist filters or filters appropriate for the identified or expected contaminants.
- Hard hat.
- Splash shield, as needed.



- Ankles/wrists taped with duct tape.

The Site safety officer will verify if Level C is appropriate by checking organic vapor concentrations using compound and/or class-specific detector tubes.

4.3 Level B

Level B PPE shall be donned when the contaminants have not been identified and/or the concentrations of unknown measured total organic vapors in the breathing zone exceed 5 ppm, using a portable OVA, or equivalent. Level B PPE shall be donned if the Immediately Dangerous to Life or Health (IDLH) of a known contaminant is exceeded. If a contaminant is identified or is expected to be encountered for which NIOSH and/or OSHA recommend the use of a positive pressure self-contained breathing apparatus (SCBA) when that contaminant is present, Level B PPE shall be donned even though the total organic vapors in the breathing zone may not exceed 5 ppm. Level B shall be donned for confined space entry, and when the atmosphere is oxygen deficient (oxygen less than 19.5%) or potentially oxygen deficient. If Level B PPE is required for a task, at least three people shall be donned in Level B at any one time during that task. PPE shall only be donned at the direction of the Site safety officer. Level B PPE consists of:

- Supplied air SCBA or air line system with five minute egress system.
- Chemical resistant coveralls.
- Steel-toe (or equivalent) work boots;
- Chemical resistant over boots or disposable boot covers.
- Disposable inner gloves.
- Disposable outer gloves.
- Hard hat.
- Ankles/wrists taped.

The exact PPE ensemble is decided on a site-by-site basis by the SSO with the intent to provide the most protective and efficient worker PPE.



5.0 CONTINGENCY PLAN/EMERGENCY RESPONSE PLAN

Site personnel must be prepared in the event of an emergency. Emergencies can take many forms including illnesses, injuries, chemical exposure, fires, explosions, spills, leaks, releases of harmful contaminants, or sudden changes in the weather.

Emergency telephone numbers and a map to the hospital (**Appendix E**) will be posted in a designated location at the site. Site personnel should be familiar with the emergency procedures, and the locations of the Site, first aid, and communication equipment.

5.1 Emergency Equipment at the Site

Emergency equipment at the site will include the list below. Additional equipment may be added at the discretion of the SSO or project manager.

- Private telephones: Site personnel.
- Two-way radios: Site personnel where necessary.
- Emergency Alarms: Site vehicle horns. Air horns will be supplied to personnel at the discretion of the SSO.
- First aid kits: Site, in vehicles or office.
- Fire extinguisher: Site, in office or on equipment.

5.2 Emergency Telephone Numbers

Agency	Phone Number
Police/Fire/Ambulance	911
Peconic Bay Medical Center (Local Hospital)	631-548-6000
NYSDEC DER Project Manager	518-402-9758
NYSDEC Spills Hotline	800-457-7362
National Response Center	800-424-8802
Poison Control	800-222-1222
PWGC Headquarters	631-589-6353

5.3 Personnel Responsibilities During an Emergency

The project manager is primarily responsible for responding to and correcting any emergency situations. However, in the absence of the project manager, the Site safety officer shall act as the project manager's on-site designee and perform the following tasks:

- Take appropriate measures to protect personnel.
- Ensure that appropriate federal, state, and local agencies are informed and emergency response plans are coordinated. In the event of fire or explosion, the local fire department should be summoned immediately. If toxic materials are released to the air, the local authorities should be informed in order to assess the need for evacuation.
- Ensure appropriate decontamination, treatment, or testing for exposed or injured personnel.



- Determine the cause of incidents and make recommendations to prevent recurrence.
- Ensure that all required reports have been prepared.

5.4 Medical Emergencies

A person who becomes ill or injured, first aid will be administered while waiting for an ambulance or paramedics. A Field Accident Report (**Appendix F**) must be filled out for any injury.

A person transporting an injured/exposed person to a clinic or hospital for treatment will take the directions to the hospital and information on the chemical(s) to which they may have been exposed.

5.5 Fire or Explosion

In the event of a fire or explosion, the local fire department will be summoned immediately. The Site safety officer or his designated alternate will advise the fire commander of the location, nature and identification of the hazardous materials at the Site. If it is safe to do so, Site personnel may:

- Use fire fighting equipment available at the Site.
- Remove or isolate flammable or other hazardous materials that may contribute to the fire.

5.6 Evacuation Routes

Evacuation routes established by work area locations for each Site will be reviewed prior to commencing Site operations. As the work areas change, the evacuation routes will be altered accordingly, and the new route will be reviewed.

Under extreme emergency conditions, evacuation is to be immediate without regard for equipment. The evacuation signal will be a continuous blast of a vehicle horn, if possible, and/or by verbal/radio communication. When evacuating the Site personnel will follow these instructions:

- Keep upwind of smoke, vapors, or spill location.
- Exit through the decontamination corridor if possible.
- If evacuation through the decontamination corridor is not possible, personnel should remove contaminated clothing once they are in a safe location and leave it near the exclusion zone or in a safe place.
- The Site safety officer will conduct a head count to ensure that all personnel have been evacuated safely. The head count will be correlated to the Site and/or exclusion zone entry/exit log.
- If emergency Site evacuation is necessary, all personnel are to escape the emergency situation and decontaminate to the maximum extent practical.



APPENDIX A

HASP ACCEPTANCE & ACKNOWLEDGMENT FORM



APPENDIX B HASP AMENDMENT FORM



HEALTH AND SAFETY PLAN AMENDMENT FORM

Site Name:

Amendment Number:

Reason for Amendment

Alternative Procedures:

Required Changes in PPE:

Additional Information:

Project Director Name/Signature:

Date:

Project Manager Name/Signature:

Date:

Site Safety Officer Name/Signature:

Date:



APPENDIX C

SAFETY DATA SHEETS



APPENDIX D

HEAT AND COLD PROTOCOLS



HEAT STRESS (HYPERTHERMIA)

Heat stress is the body's inability to regulate the core temperature. A worker's susceptibility to heat stress can vary according to his/her physical fitness, degree of acclimation to heat, humidity, age and diet.

1. Prior to site activity, the field team leader may make arrangements for heat stress monitoring (i.e., monitoring heart rate, body temperature, and body water loss) during actual site work if conditions warrant. In addition, the FTL is to ensure that each team member has been acclimatized to the prevailing environmental conditions, that personnel are aware of the signs and symptoms of heat sickness, that they have been adequately trained in first aid procedures, and that there are enough personnel on-site to rotate work assignments and schedule work during hours of reduced temperatures. Personnel should not consume alcoholic or caffeinated beverages but rather drink moderate levels of an electrolyte solution and eat well prior to commencing site work.
2. Although there is no specific test given during a baseline physical that would identify a person's intolerance to heat, some indicators are tobacco or medication use, dietary habits, body weight, and chronic conditions such as high blood pressure or diabetes.
3. *Heat cramps*, caused by profuse perspiration with inadequate fluid intake and salt replacement, most often afflict people in good physical condition who work in high temperature and humidity. Heat cramps usually come on suddenly during vigorous activity. Untreated, heat cramps may progress rapidly to heat exhaustion or heat stroke. First aid treatment: remove victim to a cool place and replace lost fluids with water.
4. Thirst is not an adequate indicator of heat exposure. Drinking fluid by itself does not indicate sufficient water replacement during heat exposure. A general rule, the amount of water administered should replace the amount of water lost, and it should be administered at regular intervals throughout the day. For every half pound of water lost, 8 ounces of water should be ingested. Water should be replaced by drinking 2 – 4 ounce servings during every rest period. A recommended alternative to water is an electrolyte drink split 50/50 with water.
5. Heat exhaustion results from salt and water loss along with peripheral pooling of blood. Like heat cramps, heat exhaustion tends to occur in persons in good physical health who are working in high temperatures and humidity. Heat exhaustion may come on suddenly as dizziness and collapse. Untreated, heat exhaustion may progress to heat stroke.
6. Treatment for heat exhaustion: Move the victim to a cool environment (e.g. air-conditioned room/car), lay victim down and fan him/her. If the air-conditioning is not available, remove the victim to a shaded area, remove shirt, and fan. If symptoms do not subside within an hour, notify 911 to transport to hospital.
7. Heat stroke results from the body's inability to dissipate excess heat. A true medical emergency that requires immediate care, it usually occurs when one ignores the signs of heat exhaustion and continues



strenuous activities. Working when the relative humidity exceeds 60% is a particular problem. Workers in the early phase of heat stress may not be coherent or they will be confused, delirious or comatose. Changes in behavior, irritability and combativeness are useful early signs of heat stroke.

8. Treatment of heat stroke: Move the victim to a cool, air-conditioned environment. Place victim in a semi-reclined position with head elevated and strip to underclothing. Cool victim as rapidly as possible, applying ice packs to the arms and legs and massaging the neck and torso. Spray victim with tepid water and constantly fan to promote evaporation. Notify 911 to transport to hospital as soon as possible.

SYMPTOMS OF HEAT STRESS

Heat cramps are caused by heavy sweating with inadequate fluid intake. Symptoms include;

- Muscle cramps
- Cramps in the hands, legs, feet and abdomen

Heat exhaustion occurs when body organs attempt to keep the body cool. Symptoms include;

- Pale, cool moist skin
- Core temperature elevated 1-2o
- Thirst
- Anxiety
- Rapid heart rate
- Heavy sweating
- Dizziness
- Nausea

Heat stroke is the most serious form of heat stress. Immediate action must be taken to cool the body before serious injury and death occur. Symptoms are;

- Red, hot, dry skin
- Lack of perspiration
- Seizures
- Dizziness and confusion
- Strong, rapid pulse
- Core temperature of 104o or above
- Coma



HEAT STRESS INDICATORS

Heat stress indicator:	When to measure:	If Exceeds:	Action:
Heart rate (pulse)	Beginning of rest period	110 beats per minute	Shorten next work period by 33%
Oral temperature	Beginning of rest period	99°F (after thermometer is under tongue for 3 minutes) 100.6°F (after thermometer is under tongue for 3 minutes)	Shorten next work period by 33% Prohibit work in impermeable clothing
Body Weight	1. Before workday begins 2. After workday ends		Increase fluid intake

COLD STRESS (HYPOTHERMIA)

In hypothermia the core body temperature drops below 95°F. Hypothermia can be attributed to a decrease in heat production, increased heat loss or both.

Prevention

Institute the following steps to prevent overexposure of workers to cold:

1. Maintain body core temperature at 98.6°F or above by encouraging workers to drink warm liquids during breaks (preferably not coffee) and wear several layers of clothing that can keep the body warm even when the clothing is wet.
2. Avoid frostbite by adequately covering hands, feet and other extremities. Clothing such as insulated gloves or mittens, earmuffs and hat liners should be worn. To prevent contact frostbite (from touching metal and cold surfaces below 20°F), workers should wear gloves. Tool handles should be covered with insulating material.
3. Adjust work schedules to provide adequate rest periods. When feasible, rotate personnel and perform work during the warmer hours of the day.



4. Provide heated shelter. Workers should remove their outer layer(s) of clothing while in the shelter to allow sweat to evaporate.
5. In the event that wind barriers are constructed around an intrusive operation (such as drilling), the enclosure must be properly vented to prevent the buildup of toxic or explosive gases or vapors. Care must be taken to keep a heat source away from flammable substances.
6. Using a wind chill chart such as the one included below, obtain the equivalent chill temperature (ECT) based on actual wind speed and temperature. Refer to the ECT when setting up work warm-up schedules, planning appropriate clothing, etc. Workers should use warming shelters at regular intervals at or below an ECT of 20°F. For exposed skin, continuous exposure should not be permitted at or below an ECT of -25°F.

FROSTBITE

Personnel should be aware of symptoms of frostbite/hypothermia. If the following symptoms are noticed in any worker, he/she should immediately go to a warm shelter.

Condition	Skin Surface	Tissue Under Skin	Skin Color
Frostnip	Soft	Soft	Initially red, then white
Frostbite	Hard	Soft	White and waxy
Freezing	Hard	Hard	Blotchy, white to yellow-grey to grey

1. Frostnip is the incipient stage of frostbite, brought about by direct contact with a cold object or exposure of a body part to cool/cold air. Wind chill or cold water also can be major factors. This condition is not serious. Tissue damage is minor and the response to care is good. The tip of the nose, tips of ears, upper cheeks and fingers (all areas generally exposed) are most susceptible to frostnip.
2. Treatment of frostnip: Care for frostnip by warming affected areas. Usually the worker can apply warmth from his/her bare hands, blow warm air on the site, or, if the fingers are involved, hold them in the armpits. During recovery, the worker may complain of tingling or burning sensation, which is normal. If the condition does not respond to this simple care, begin treatment for frostbite.
3. Frostbite: The skin and subcutaneous layers become involved. If frostnip goes untreated, it becomes superficial frostbite. This condition is serious. Tissue damage may be serious. The worker must be transported to a medical facility for evaluation. The tip of the nose, tips of ears, upper cheeks and fingers (all areas generally exposed) are most susceptible to frostbite. The affected area will feel frozen, but only on the surface. The tissue below the surface must still be soft and have normal response to touch. DO NOT



squeeze or poke the tissue. The condition of the deeper tissues can be determined by gently palpating the affected area. The skin will turn mottled or blotchy. It may also be white and then turn grayish-yellow.

4. Treatment of frostbite: When practical, transport victim as soon as possible. Get the worker inside and keep him/her warm. Do not allow any smoking or alcohol consumption. Thaw frozen parts by immersion, re-warming in a 100°F to 106°F water bath. Water temperature will drop rapidly, requiring additional warm water throughout the process. Cover the thawed part with a dry sterile dressing. Do not puncture or drain any blisters. NOTE: Never listen to myths and folk tales about the care of frostbite. Never rub a frostbitten or frozen area. Never rub snow on a frostbitten or frozen area. Rubbing the area may cause serious damage to already injured tissues. Do not attempt to thaw a frozen area if there is any chance it will be re-frozen.
5. General cooling/Hypothermia: General cooling of the body is known as systemic hypothermia. This condition is not a common problem unless workers are exposed to cold for prolonged periods of time without any shelter.

Body Temp (°F)	Body Temp (°C)	Symptoms
99-96	37-35.5	Intense uncontrollable shivering
95-91	35.5-32.7	Violent shivering persists. If victim is conscious, has difficulty speaking.
90-86	32.6-30	Shivering decreases and is replaced by strong muscular rigidity. Muscle coordination is affected. Erratic or jerkey movements are produced. Thinking is less clear. General comprehension is dulled. There may be total amnesia. The worker is generally still able to maintain the appearance of psychological contact with his surroundings.
85-81	29.9-27.2	Victim becomes irrational, loses contact with his environment, and drifts into a stupor. Muscular rigidity continues. Pulse and respirations are slow and the worker may develop cardiac arrhythmias.
80-78	27.1-25.5	Victim becomes unconscious. He does not respond to the spoken word. Most reflexes cease to function. Heartbeat becomes erratic
Below 78	Below 25.5	Cardiac and respiratory centers of the brain fail. Ventricular fibrillation occurs; probably edema and hemorrhage in the lungs; death.



6. Treatment of hypothermia: Keep worker dry. Remove any wet clothing and replace with dry clothes, or wrap person in dry blankets. Keep person at rest. Do not allow him/her to move around. Transport the victim to a medical facility as soon as possible.

**COOLING POWER OF WIND ON EXPOSED FLESH EXPRESSED
AS AN EQUIVALENT TEMPERATURE (UNDER CALM CONDITIONS)**

Estimated wind Speed (in mph)	Actual Temperature Reading (°F)P											
	50	40	30	20	10	0	10	20	30	40	50	60
	Equivalent Chill Temperature (°F)											
Calm	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	15	4	-9	-24	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-32	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-121
25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-20	-35	-51	-67	-82	-98	-113	-129	-145
40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	-132	-146
(Wind speeds greater than 40 mph have little additional effect.)	LITTLE DANGER in < hr with dry skin. Maximum danger of false sense of security.				INCREASING DANGER Danger from freezing of exposed flesh within one minute				GREAT DANGER Flesh may freeze within 30 seconds.			
	Trench foot and immersion foot may occur at any point on this chart											

Developed by U.S. Army Research Institute of Environmental Medicine, Natick, MA.

(1) Reproduced from American Conference of Governmental Industrial Hygienists, Threshold Limit Values and Biological Exposure Indices for 1985-1986, p.01.



APPENDIX E

HOSPITAL ROUTE MAP

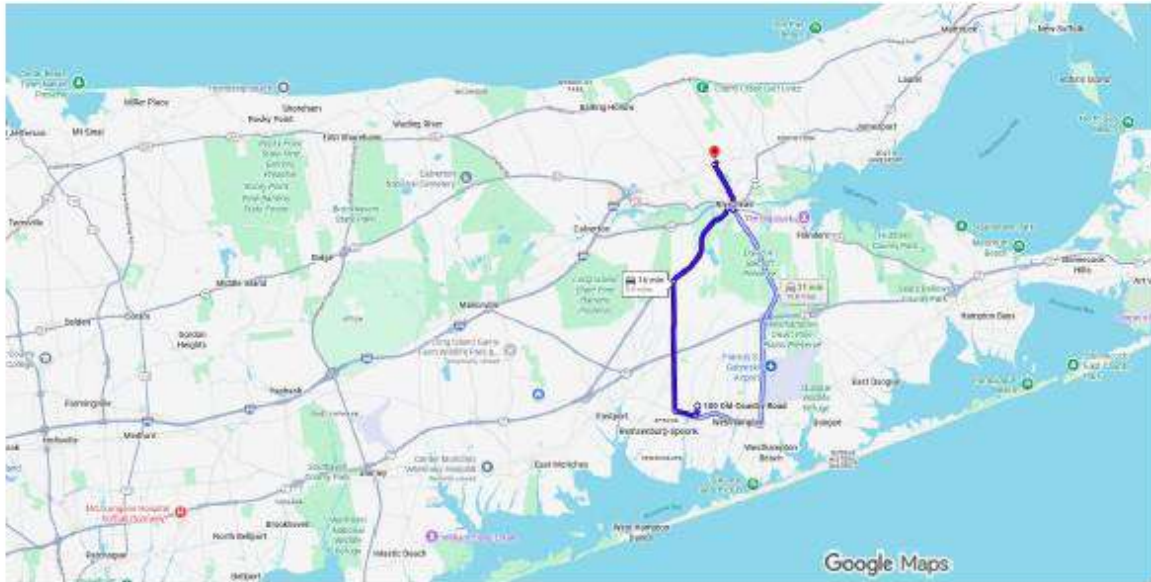


5/15/25, 11:51 AM

100 Old Country Rd, Westhampton, NY 11977 to Peconic Bay Medical Center - Google Maps

Google Maps

100 Old Country Rd, Westhampton, NY 11977 to Peconic Bay Medical Ctr, 1 Heroes Wy, Riverhead, NY 11901 Drive 9.4 miles, 16 min



Imagery ©2025, Map data ©2025 Google

2 mi

100 Old Country Rd
Westhampton, NY 11977

1. Head toward Old Country Rd
1 min (0.3 mi)
- Take Speonk Riverhead Rd, County Rd 51 N and Roanoke Ave to Old Country Rd in Riverhead
15 min (9.1 mi)
2. Turn right onto Old Country Rd
0.6 mi
3. Turn right onto Speonk Riverhead Rd
3.9 mi
4. Turn right onto County Rd 51 N/Moriches Riverhead Rd
Continue to follow County Rd 51 N
2.9 mi
5. Turn right onto NY-24 S/Nugent Dr
0.2 mi
6. At the traffic circle, take the 4th exit onto Peconic Ave
0.2 mi
7. Turn right onto E Main St
115 ft
8. Turn left onto Roanoke Ave
1.3 mi
9. At the traffic circle, take the 1st exit onto Old Country Rd
Destination will be on the left
466 ft

Peconic Bay Medical Ctr
1 Heroes Wy, Riverhead, NY 11901

APPENDIX F FIELD ACCIDENT REPORT



INCIDENT / NEAR MISS REPORT AND INVESTIGATION - PAGE 1 OF 2	
TYPE OF INCIDENT - CHECK ALL THAT APPLY	
☐ INJURY/ILLNESS ☐ VEHICLE DAMAGE ☐ PROPERTY DAMAGE ☐ FIRE ☐ SPILL/RELEASE ☐ PERMIT EXCEEDENCE ☐ NEAR MISS ☐ OTHER	
GENERAL INFORMATION	
PROJECT NAME: DATE OF REPORT:	REPORT NO.:
DATE OF INCIDENT:	TIME: DAY OF WEEK:
LOCATION OF INCIDENT:	
WEATHER CONDITIONS: ADEQUATE LIGHTING AT SCENE? ☐ YES ☐ NO ☐ N/A	
DESCRIBE WHAT HAPPENED (STEP BY STEP - USE ADDITIONAL PAGES IF NECESSARY)	
AFFECTED EMPLOYEE INFORMATION	
NAME: EMPLOYEE: ☐ YES ☐ NO	
HOME ADDRESS:	
SOCIAL SECURITY NO.: HOME PHONE NO.:	
JOB CLASSIFICATION:	YEARS IN JOB CLASSIFICATION:
HOURS WORKED ON SHIFT PRIOR TO INCIDENT:	AGE:
DID INCIDENT RELATE TO ROUTINE TASK FOR JOB CLASSIFICATION? ☐ YES ☐ NO	
INJURY/ILLNESS INFORMATION	
NATURE OF INJURY OR ILLNESS:	
OBJECT/EQUIPMENT/SUBSTANCE CAUSING HARM:	
FIRST AID PROVIDED? ☐ YES ☐ NO	
IF YES, WHERE WAS IT GIVEN: ☐ ON-SITE ☐ OFF-SITE	
IF YES, WHO PROVIDED FIRST AID:	
WILL THE INJURY/ILLNESS RESULT IN: ☐ RESTRICTED DUTY ☐ LOST TIME ☐ UNKNOWN	



INCIDENT / NEAR MISS REPORT AND INVESTIGATION - PAGE 2 OF 2 REPORT NO.	
MEDICAL TREATMENT INFORMATION	
WAS MEDICAL TREATMENT PROVIDED? ☐ YES ☐ NO	
IF YES, WAS MEDICAL TREATMENT PROVIDED: ☐ ON-SITE ☐ DR.'S OFFICE ☐ HOSPITAL	
NAME OF PERSON(S) PROVIDING TREATMENT:	
ADDRESS WHERE TREATMENT WAS PROVIDED:	
TYPE OF TREATMENT:	
VEHICLE AND PROPERTY DAMAGE INFORMATION	
VEHICLE/PROPERTY DAMAGED:	
DESCRIPTION OF DAMAGE:	
SPILL AND AIR EMISSIONS INFORMATION:	
SUBSTANCE SPILLED OR RELEASED: FROM WHERE: TO WHERE:	
ESTIMATED QUANTITY/DURATION:	
CERCLA HAZARDOUS SUBSTANCE? ☐ YES ☐ NO	
REPORTABLE TO AGENCY? ☐ YES ☐ NO SPECIFY:	
WRITTEN REPORT: ☐ YES ☐ NO TIME FRAME:	
RESPONSE ACTION TAKEN:	
PERMIT EXCEEDENCE	
TYPE OF PERMIT: PERMIT #:	
DATE OF EXCEEDENCE: DATE FIRST KNOWLEDGE OF EXCEEDENCE:	
PERMITTED LEVEL OR CRITERIA:	
EXCEEDENCE LEVEL OR CRITERIA:	
REPORTABLE TO AGENCY? ☐ YES ☐ NO SPECIFY:	
WRITTEN REPORT: ☐ YES ☐ NO TIME FRAME:	
RESPONSE ACTION TAKEN:	
NOTIFICATIONS	
NAMES OF PERSONNEL NOTIFIED: DATE/TIME:	
CLIENT NOTIFIED: DATE/TIME:	
AGENCY NOTIFIED: DATE/TIME:	
CONTACT NAME:	
PERSONS PREPARING REPORT	
EMPLOYEE'S NAME:(PRINT) SIGN:	
SUPERVISOR'S NAME:(PRINT)	SIGN:

INVESTIGATIVE REPORT			
DATE OF INCIDENT: DATE OF REPORT: REPORT NUMBER:			
INCIDENT COST: ESTIMATED: \$ _____ ACTUAL: \$ _____			
OSHA RECORDABLE(S): ☐ YES ☐ NO # RESTRICTED DAYS ____ # DAYS AWAY FROM WORK ____			
CAUSE ANALYSIS			
IMMEDIATE CAUSES - WHAT ACTIONS AND CONDITIONS CONTRIBUTED TO THIS EVENT?			
BASIC CAUSES - WHAT SPECIFIC PERSONAL OR JOB FACTORS CONTRIBUTED TO THIS EVENT?			
ACTION PLAN			
REMEDIAL ACTIONS - WHAT HAS AND OR SHOULD BE DONE TO CONTROL EACH OF THE CAUSES LISTED?			
ACTION	PERSON RESPONSIBLE	TARGET DATE	COMPLETION DATE
PERSONS PERFORMING INVESTIGATION			
INVESTIGATOR'S NAME: (PRINT) SIGN: DATE:			
INVESTIGATOR'S NAME: (PRINT) SIGN: DATE:			
INVESTIGATOR'S NAME: (PRINT) SIGN: DATE:			
MANAGEMENT REVIEW			
PROJECT MANAGER: (PRINT) SIGN: DATE:			
COMMENTS:			
H&S MANAGER: (PRINT) SIGN: DATE:			
COMMENTS:			

EXAMPLES OF IMMEDIATE CAUSES

Substandard Actions

1. Operating equipment without authority
2. Failure to warn
3. Failure to secure
4. Operating at improper speed
5. Making safety devices inoperable
6. Removing safety devices
7. Using defective equipment
8. Failure to use PPE properly
9. Improper loading
10. Improper placement
11. Improper lifting
12. Improper position for task
13. Servicing equipment in operation
14. Under influence of alcohol/drugs
15. Horseplay

Substandard Conditions

1. Guards or barriers
2. Protective equipment
3. Tools, equipment, or materials
4. Congestion
5. Warning system
6. Fire and explosion hazards
7. Poor housekeeping
8. Noise exposure
9. Exposure to hazardous materials
10. Extreme temperature exposure
11. Illumination
12. Ventilation
13. Visibility

EXAMPLES OF BASIC CAUSES

Personal Factors

1. Capability
2. Knowledge
3. Skill
4. Stress
5. Motivation
6. Work Standards
7. Wear and tear
8. Abuse or misuse

Job Factors

1. Supervision
2. Engineering
3. Purchasing
4. Maintenance
5. Tools/equipment

MANAGEMENT PROGRAMS FOR CONTROL OF INCIDENTS

- | | |
|----------------------------------|-----------------------------|
| 1. Leadership and administration | 10. Health control |
| 2. Management training | 11. Program audits |
| 3. Planned inspections | 12. Engineering controls |
| 4. Task analysis and procedures | 13. Personal communications |
| 5. Task observation | 14. Group meetings |
| 6. Emergency preparedness | 15. General promotion |
| 7. Organizational rules | 16. Hiring and placement |
| 8. Accident/incident analysis | 17. Purchasing controls |
| 9. Personal protective equipment | |





P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, D.P.C.

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BOHEMIA • MANHATTAN • SARATOGA SPRINGS • MONTICELLO • SYRACUSE

APPENDIX E

COMMUNITY AIR MONITORING PLAN



FORMER BOMARC SITE
100 OLD COUNTRY ROAD
WESTHAMPTON, NEW YORK
NYSDEC SITE: 152262

COMMUNITY AIR MONITORING PLAN

SUBMITTED TO:

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Division of Environmental Remediation
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**COMMUNITY AIR MONITORING PLAN
FORMER BOMARC SITE (152262)**

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ACRONYMS

CAMP	Community Air Monitoring Plan
FTL	Field Team Lead
HSM	Health and Safety Manager
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PID	Photoionization Detector
ppm	Parts Per Million
PWGC	P.W. Grosser Consulting Engineer & Hydrogeologist D.P.C.
SSO	Site Safety Officer
SVOC	Semi-volatile Organic Compound
VOC	Volatile Organic Compound



1.0 INTRODUCTION

This Community Air Monitoring Plan (CAMP) provides measures for protection for the downwind community (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved) from potential airborne contaminant releases resulting from all phases of the Brownfield Cleanup Program (BCP) including but not limited to demolition and associated activities, investigation, and remedial action at the project site.

The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that the investigation and/or remedial work did not spread contamination off-site through the air. The CAMP will be implemented as follows:

- Continuous VOC and particulate monitoring will be required for all ground intrusive activities and during the demolition of uncontaminated, contaminated, or potentially contaminated structures (including petroleum storage and transfer infrastructure such as tanks, piping, fueling racks, etc.). Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.
- Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. Periodic monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

The primary concerns for this site are VOCs, SVOCs, metals, pesticides and dust particulates.

1.1 Regulatory Requirements

This CAMP was established in accordance with the following requirements:

- New York State Department of Health's (NYSDOH) Generic Community Air Monitoring Plan: This guidance specifies that a community air-monitoring program shall be implemented to protect the surrounding community and to confirm that the work does not spread contamination off-site through the air.



2.0 AIR MONITORING

The following sections contain information describing the types, frequency and location of real-time monitoring.

2.1 Real-Time Monitoring

This section addresses the real-time monitoring that will be conducted within the work area, and along the site perimeter, during intrusive activities such as drilling, excavation, product recovery, manipulation of soil piles, extraction of sheet piling, etc.

Air monitoring data will be documented in a site logbook by the designated site safety officer. PWGC's site safety officer or delegate must ensure that air monitoring instruments are calibrated and maintained in accordance with manufacturer's specifications. All instruments will be zeroed daily and checked for accuracy. A daily log will be kept. If additional monitoring is required, the protocols will be developed and appended to this plan.

2.1.1 Air Monitoring Equipment

Air will be monitored for VOCs with a MiniRAE 2000 PID (or equivalent). This instrument is appropriate to measure the types of contaminants known or suspected to be present, and is capable of calculating 15-minute running average concentrations, which will be compared to the levels specified in Section 2.1.2

Fugitive respirable dust will be monitored using a MiniRAM Model PDM-3 aerosol monitor (or equivalent). This instrument is capable of measuring particulate matter less than 10 micrometers in size (PM-10), is capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level, and is equipped with an audible alarm to indicate exceedance of the action level specified in Section 2.1.3.

2.1.2 VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. VOC monitoring Action Levels are as described below:

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued.
- If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps,



work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings will be recorded and be available for NYSDEC and/or NYSDOH personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

2.1.3 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. In addition, fugitive dust migration should be visually assessed during all work activities. Particulate monitoring Action Levels are as described below:

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m³) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m³ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m³ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m³ of the upwind level and in preventing visible dust migration.

All 15-minute readings will be recorded and be available for NYSDEC and/or NYSDOH personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.



3.0 SPECIAL REQUIREMENTS

3.1 Requirements for Work within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.
- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m³, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m³ or less at the monitoring point.
- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

3.2 Requirements for Indoor Work with Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under “Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures” except that in this instance “nearby/occupied structures” would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.



4.0 VAPOR SUPPRESSION TECHNIQUES

Vapor suppression techniques must be employed when action levels warrant the use of these techniques.

The techniques to be implemented for control of VOCs from stockpiled soil or from the open excavation will include one or more of the following:

- Cover with plastic.
- Cover with “clean” soil.
- Application of odor suppressing foam or mists.
- Application of hydro-mulch material*.
- Limit working hours to favorable wind and temperature conditions.

*This material is a seedless version of the hydro-seed product commonly used by commercial landscaping contractors to provide stabilization and rapid grow-in of grasses or wild flowers along highways, embankments and other large areas. Hydro-mulch can be sprayed over open excavation areas, temporary stockpile areas and loaded trucks, as necessary. This is a highly effective method for controlling odors, because the release of odors is sealed immediately at the source.



5.0 DUST SUPPRESSION TECHNIQUES

Reasonable dust-suppression techniques must be employed during all work that may generate dust, such as excavation, grading, and placement of clean fill. The following techniques have been shown to be effective for controlling the generation and migration of dust during remedial activities:

- Dust suppression will be achieved using a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Covering/capping exposed soil area with mulch, rubber mats, etc.
- Hauling materials in properly covered containers.
- Restricting vehicle speeds to 10 mph.
- Gravel will be used on unpaved portions of the site to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

Using atomizing sprays will prevent overly wet conditions, conserve water, and offer an effective means of suppressing fugitive dust. It is imperative that utilizing water for suppressing dust will not create surface runoff.



6.0 DATA QUALITY ASSURANCE

6.1 Calibration

Instrument calibration shall be documented in the designated field logbook. All instruments shall be calibrated before each shift. Calibration checks may be used during the day to confirm instrument accuracy. Duplicate readings may be taken to confirm individual instrument response.

6.2 Operations

All instruments shall be operated in accordance with the manufacturer's specifications. Manufacturers' literature, including an operations manual for each piece of monitoring equipment will be maintained on-site by the FTL/HSO for reference.

6.3 Data Review

The Field Team Leader FTL/HSO will interpret all monitoring data based on the action levels specified in Sections 2.1.2 and 2.1.3 and his/her professional judgment. The FTL/HSO shall review the data with the HSM to evaluate the potential for worker exposure, upgrades/downgrades in level of protection, comparison to direct reading instrumentation and changes in the integrated monitoring strategy.

Monitoring and sampling data, along with all sample documentation will be periodically reviewed by the HSM.



7.0 RECORDS AND REPORTING

All readings must be recorded and will be provided to NYSDEC and NYSDOH within one business day of the end of the work day in which they were recorded.

Should any action levels be exceeded, the NYSDEC Project Manager will be notified of the exceedance and corrective actions used to mitigate the exceedance by phone or email as soon as practical. The notification shall include a description of control measures implemented to prevent further exceedances, if applicable.

