May 13, 2022

David S. Farnsworth, DAF
Program Manager/BRAC Environmental Coordinator
Air Force Civil Engineer Center (AFCEC/CIBE-Plattsburgh)
8 Colorado Street, Suite 121
Plattsburgh, NY 12903

Re: Final Letter Work Plan Site SS067 Free Product Assessment and Data Gap Investigation
Former Griffiss Air Force Base, Rome, New York
Contract No. FA8903-20-D-0001

Dear Mr. Farnsworth:

Bhate Environmental Associates, Inc. (Bhate) is pleased to submit this Letter Work Plan to conduct Free Product Assessment and Data Gap Investigation activities at SS067, located at the former Griffiss Air Force Base in Rome, New York. Overall, the following activities outlined within this Work Plan are intended to delineate the source and migration pathways of observed free product accumulations and to update the current SS067 conceptual site model (CSM) and to assess cleanup timeframes for the site.

If you should have any questions regarding the information contained in this Work Plan, please do not hesitate to contact me at (720) 463-3903.

Sincerely,

Frank Gardner, PG
Program Manager

FINAL
LETTER WORK PLAN
SITE SS067 FREE PRODUCT ASSESSMENT AND DATA GAP INVESTIGATION
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR: Mr. David Farnsworth/Former Griffiss Air Force Base, Base Realignment and Closure (BRAC) Environmental Coordinator (BEC) and Contracting Officer's Representative (COR)

PREPARED BY: Bhate Environmental Associates, Inc.

COPIES: Mr. Robert Morse, United States Environmental Protection Agency
Mr. Mark Tibbe, New York State Department of Environmental Conservation, Division of Environmental Remediation, Region 6
Heather Bishop, New York State Department of Environmental Conservation

DATE: May 2022

Environmental Chemical Corporation (ECC) and team member Bhate Environmental Associates, Inc. (Bhate) were retained by the Air Force Civil Engineer Center (AFCEC), under Contract Number FA8903-20-D-0001, to conduct environmental remediation activities at the former Griffiss Air Force Base (AFB). Under this contract, Bhate has prepared this Letter Work Plan (Work Plan) for a Free Product Assessment and Data Gap Investigation (DGI) at Site SS067 (New York State Department of Environmental Conservation [NYSDEC] Petroleum Spill Site [PSS] #9810713) at the former Griffiss AFB (**Attachment A - Figure 1**).

The primary goal of the DGI outlined in this Work Plan is to delineate the source(s), extent, and migration pathways of the free product continually observed at Site SS067 (NYSDEC Spill #9810713) and to assess cleanup timeframes for the site.

Site Background

Site SS067 (Building 789) is located in the southeastern portion of the former Griffiss AFB (**Attachment A - Figure 1**). In August 1958, the 4039th Strategic Wing was assigned as a tenant. Base facilities had to be modified or constructed to accommodate the Strategic Wing mission. This included the construction of new runways, taxiways, runway aprons, dormitories, storage facilities, hangars, and various other support buildings. The construction at Griffiss AFB in support of the Strategic Wing mission was completed by August 1959 (Woodward-Clyde, February 1998).

Prior to construction of the Strategic Wing facilities at the southeastern end of the flightline, Six Mile Creek had flowed through the site in an open channel in the area of the Apron 2/Building 789 area, but during construction, it was diverted into an underground culvert and the old

channel was filled in (Air Force Real Property Agency [AFRPA], April 2009) (**Attachment A - Figure 2** and **Attachment A - Figure 3**). Building 789 was one of the support buildings constructed to support the Strategic Wing mission. In January 1961, the base received the first air-to-surface nuclear attack "Hound Dog Missiles," which were carried by B-52H and B-52G bombers. The Hound Dog Missile Complex at Griffiss AFB was situated at the southeastern end of the flightline and included Building 789, the Missile Assembly Shop; Buildings 790 and 791, the Missile Run-Up Shops; and Building 5910, the Power Check Pad. These missiles were removed from service at the Base in 1973 (Woodward-Clyde, February 1998).

An 8,000-gallon underground storage tank (UST) (789-1) was located on the northeast side of Building 789 from 1961 until its removal in 1991, and was used to store fuel oil for boiler heating. Coinciding with the removal of UST 789-1 was the installation of UST 789-2, approximately 25 feet to the east of UST 789-1. UST 789-2 had a capacity of 5,000 gallons and was also used to store No. 1 fuel oil for boiler heating until its removal in November 1998. Continuous soil screening was conducted during the excavation of UST 789-2. Observed contamination at depth was determined to be associated with the fuel pipeline system, and NYSDEC Spill No. 9810713 was assigned to the site in November 1998 (AECOM Technical Services, Inc. [AECOM], November 2011).

The former Type II Jet Fuel pipeline designated POL 781-2 was located between Building 789 and Apron 2 (**Attachment A - Figure 2**). JP-4 fuel was distributed from Pumphouse No. 1 via the POL 781-2 pipeline to four lateral control pits (LCPs) located near the northeast edge of Apron 2. The LCPs were connected to refueling hydrant outlets by a pipeline beneath the Apron 2 pavement, see **Attachment A - Figure 4** (Peer Consultants P.C., September 1997). POL 781-2 pipelines were reportedly flushed, capped with hydraulic cement, and abandoned in place in 1996 (AECOM, November 2011).

Investigation and remedial activities performed under the previous Performance Based Remediation (PBR) contract are documented in the following reports:

- *Final 2017 Annual Monitoring Report for Petroleum Spill Sites, Former Griffiss Air Force Base, Rome, New York* (Bhate, August 2018).
- *Final 2018 Supplemental Investigation and Groundwater Monitoring at Sites SS054 and SS067, Former Griffiss Air Force Base, Rome, New York* (Bhate, October 2019).
- *Final 2019 Annual Monitoring Report for Petroleum Spill Sites, Former Griffiss Air Force Base, Rome, New York* (Bhate, September 2020).
- *Final 2020 Annual Monitoring Report for Petroleum Spill Sites, Former Griffiss Air Force Base, Rome, New York* (Bhate, February 2022).

The significant remedial and investigation activities at SS067, summarized below, are taken from the *Final 2020 Annual Monitoring Report for Petroleum Spill Sites, Former Griffiss Air Force Base, Rome, New York* (Bhate, February 2022) (**Attachment A - Figure 2**).

- In 2001, 52,000 cubic yards of contaminated soils (with approximately 13,000 gallons of entrained free product), 25,462 gallons of free product, and 525,000 gallons of contaminated water were removed from the site. Fuel seeps were observed at multiple locations entering the excavation pit. Oil Spill Eater enzymes and Oxygen Release

Compound® were applied to the excavation prior to it being backfilled (AECOM, November 2011). Building 789 was also demolished during this time (CAPE Environmental [CAPE], May 2002).

- From 2003 to 2010, vacuum enhanced recovery was performed (FPM Remediations, Inc. [FPM], December 2008, November 2009, March 2010, August 2010, and July 2011).
- From 2006 to 2010, a vacuum enhanced skimming (VES) system was operational at eight recovery wells and one monitoring well, recovering approximately 6,317 gallons of free product. By the fall of 2010, light non-aqueous phase liquid (LNAPL) recovery rates had declined to approximately 1.5 gallons per day (FPM, July 2011).
- From 2006 to 2019, a horizontal biosparging system was operated to prevent the downgradient migration of the free product and dissolved phase petroleum plumes.
- From 2011 to 2018, the free product recovery system was in operation. Free product recovery rates were limited to less than 1 gallon per day even following a 2017 skimmer refurbishment. Significant free product thicknesses continued to be observed in several site wells (Bhate, August 2018).
- In 2018, a DGI was completed which involved: 28 soil borings, photoionization detector (PID) screening, sheen testing, free product mobility analysis, setting and sampling of 12 temporary grab wells, installation of three fully-screened permanent monitoring wells, and "fingerprint" analysis of two free product samples (Bhate, October 2019). No source(s) of free product were identified.
- In March 2019, to evaluate the distribution of the remaining free product present in the subsurface, seven wells were rehabilitated using a surfactant (Ivey-sol® 103), surging, and purging (Bhate, September 2020).
- In October 2019, the remaining skimmers were removed and monthly free product thickness gauging and free product bailing commenced.
- In September 2020 an inverted funnel device was installed at 789RW-219 to evaluate the possibility that free product was migrating along preferential pathways below the water table. Data indicated that free product was entering the well from a preferential pathway located below the water table (Bhate, February 2022).

Following the 2018 DGI and the subsequent shutdown of the air sparge and free product recovery systems, continued accumulation of free product during the monthly gauging and bailing events was observed. It was determined that further investigation was needed to identify the origin(s) of the free product and the associated migration pathways.

Conceptual Site Model Summary

The site lies in the Mohawk Valley Lowland, just north of the Allegheny Plateau. The Mohawk River and the New York State Barge Canal lie south of the property. The landforms in the area are a product of glacial deposition and erosion, and the erosion and the depositional processes of the Mohawk River that produced features such as valleys, floodplains, and terraces.

The geology at the site prior to construction of the aprons and associated facilities consisted of unconsolidated sediments overlying shale, limestone, and sandstone. The dominant formation is the Utica Shale. The bedrock dips gently south-southwest to the Mohawk River. The unconsolidated sediments consist of clay, silt, sand, and gravel deposits laid down by glacial,

glacialfluvial, glacialacustrine, and alluvial processes. During the construction of the aprons, approximately 15-30 feet of fill was added to the entire area (**Attachment A - Figure 5**). This construction fill is characterized by dense, fine- to medium-grained sands with minor silt and clay layering. The remedial excavation extended to 25 feet below ground surface (bgs) and was largely or entirely within the construction fill.

The surface water in the vicinity of SS067 is routed through a series of storm sewers that discharge into Six Mile Creek, which is a tributary of the Mohawk River. Prior to construction of Apron 2 and the alert apron, Six Mile Creek had flowed through the area in an open stream channel, but during construction of the Strategic Wing facilities it was diverted into an underground culvert and the old channel was filled in. The existing stormwater system was also installed at that time (**Attachment A - Figure 3**).

Two separate aquifers exist at the site. The bedrock forms a confined aquifer and the overlying unconsolidated sediments and fill form an unconfined aquifer. The two aquifers are separated by the Rome Till which acts as a vertical and horizontal aquitard between the two. The SS067 area is characterized by unconsolidated sediments and fill. Free product at the site is found in the unconsolidated soils and fill of the shallow aquifer. Groundwater is present at approximately 15-28 feet bgs across much of the site with average depths around 22 feet bgs. A zone of depression in the water table is present in the area of 789RW-219, 789RW-202, 789MW-96, and 789MW-252 (**Attachment A - Figure 3**). The zone of groundwater depression is located above the buried Six Mile Creek stream bed. In addition, a stormwater drain connected to a 24-inch reinforced concrete pipe was re-installed in the area during backfilling of the excavation (**Attachment A - Figure 3**).

Soils encountered at or near the water table during a 2018 investigation did not indicate the presence of free product within the pore space near the water table. However, the continued and persistent accumulation of free product in monitoring and recovery wells located in and around the groundwater zone of depression indicates that a free product source is present. The source area(s) and migration pathways responsible for the ongoing accumulation of free product are unknown.

Investigative Approach

A sitewide baseline groundwater elevation measurement and free product gauging event including up to 35 existing wells will be conducted.

Columbia Technologies has been retained by Bhate to employ Optical Imaging Profile (OIP) technology to complete a high resolution site characterization (HRSC) study. Ten direct push technology (DPT) soil borings will be advanced to a depth of up to 35 feet bgs (**Attachment B - Table 1**). The approximate location of the seven initial boring locations are presented on **Attachment A - Figure 3**. The location of the secondary borings will be determined based on data collected from the initial borings.

The data from the HRSC borings will be used to establish locations and target depths for 10 exploratory continuous core soil borings (**Attachment B - Table 1**). These borings will be advanced to a maximum depth of 50 feet bgs using hollow stem auger (HSA) drilling technology. Cores from these exploratory soil borings will be used to assess the soil profile for the presence

of free product. Two soil samples will be collected from each of the 10 exploratory soil borings based on photoionization detector (PID) screening and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), and per- and polyfluoroalkyl (PFAS) compounds.

To assess possible impacts of free product originating from the abandoned fuel lines to the south of the former excavation, three groundwater monitoring wells will be installed between Apron 2 and the site boundary to approximately 35 to 50 feet bgs using HSA (**Attachment A - Figure 3** and **Attachment B - Table 1**). To assess possible impacts of free product originating from the abandoned fuel lines to the north of the former excavation, two groundwater monitoring wells will be installed in the area just north of the Installation Restoration Program (IRP) site boundary to approximately 35 to 50 feet bgs using HSA (**Attachment A - Figure 3** and **Attachment B - Table 1**). The wells will be constructed of 2-inch diameter schedule 40 polyvinyl chloride (PVC) and the screened intervals will extend from the total depth of the well to approximately 5 feet above the water table. Continuous soil coring will be conducted during the installation of the monitoring wells to assess the soil profile for the presence of free product. Two representative soil samples will be collected from each boring based on PID screening and analyzed for VOCs, SVOCs, TPH, and PFAS. After completion and development of each well, one groundwater sample will be collected and analyzed for VOCs, SVOCs, TPH, and PFAS.

To assess the extent of any downgradient contamination originating from the source area, five exploratory soil borings will be advanced and then completed as temporary monitoring wells in the area of impacted monitoring well 789MW-102 to approximately 25 to 35 feet bgs using HSA (**Attachment A - Figure 3** and **Attachment B - Table 1**). The wells will be constructed of 1-inch diameter schedule 40 PVC and the screened intervals will extend from the total depth of the well to approximately 5 feet above the water table. Continuous soil coring will be conducted during the installation of the each of the five exploratory borings to assess the soil profile for the presence of product. The temporary wells will be sampled and analyzed for VOCs, SVOCs, TPH, and PFAS.

Following the HRSC field efforts and the installation of the new monitoring and temporary wells, a second sitewide groundwater elevation measurement and free product gauging event including the same wells will be conducted.

At the completion of the field work and data analysis, a Technical Memorandum will be prepared documenting the data assessment, and an updated Conceptual Site Model (CSM). The updated CSM will be the basis for developing a path forward, which will include optimization recommendations for the free product recovery and biosparge systems.

References

AECOM. November 2011. *Final Optimization Plan Petroleum Spill Sites Remediation, Former Griffiss Air Force Base Site, Rome, New York.*

AFRPA. April 2009. *Final Record of Decision for the On-base Groundwater AOC (SD-52) at the Former Griffiss Air Force Base, Rome, New York.*

Bhate. August 2018. *Final 2017 Annual Monitoring Report for Petroleum Spill Sites, Former Griffiss Air Force Base, Rome, New York*.

Bhate. October 2019. *Final 2018 Supplemental Investigation and Groundwater Monitoring at Sites SS054 and SS067, Former Griffiss Air Force Base, Rome, New York*.

Bhate. September 2020. *Final 2019 Annual Monitoring Report for Petroleum Spill Sites, Former Griffiss Air Force Base, Rome, New York*.

Bhate. February 2022. *Final 2020 Annual Monitoring Report for Petroleum Spill Sites, Former Griffiss Air Force Base, Rome, New York*.

CAPE. May 2002. *Final Closure Report – Volume I Building 789 Soil Remediation, Former Griffiss Air Force Base, Rome, New York.*

FPM. December 2008. *Draft Long-Term Monitoring Report for Petroleum Spill Sites, Revision 1.0.*

FPM. November 2009. *Draft Long-Term Monitoring Report for Petroleum Spill Sites, Revision 0.0.*

FPM. March 2010. *Draft Long-Term Monitoring Report for Petroleum Spill Sites, Revision 0.0.*

FPM. August 2010. *Remediation Report (Spring 2010) Petroleum Spill Sites, Apron 1 (NYSDEC Spill #9413416 and #9707954), Apron 2 (NYSDEC Spill #9713631), Bulk Fuel Storage Area (NYSDEC Spill #9507364, #9810949 and #0009824), and Building 789 (NYSDEC Spill #9810713), Former Griffiss Air Force Base, Rome New York. Rev 1.0.*

FPM. July 2011. *Remediation Report (Fall 2010) Petroleum Spill Sites, Apron 1 (NYSDEC Spill #9413416 and #9707954), Apron 2 (NYSDEC Spill #9713631), Bulk Fuel Storage Area (NYSDEC Spill #9507364, #9810949 and #0009824), and Building 789 (NYSDEC Spill #9810713), Former Griffiss Air Force Base, Rome New York. Rev 1.0.*

Peer Consultants P.C. September 1997. *Draft Decision Document/Closure Report for Environmental Compliance and Closure Related Tasks at the Former Griffiss Air Force Base, Volume II, Jet Fuel Hydrant System Assessment and Closure.*

Woodward-Clyde. February 1998. *Preliminary Draft Historic Building Inventory and Evaluation, Griffiss Air Force Base, Rome, New York.*

ATTACHMENT A – FIGURES

Former Griffiss Air Force Base
Site Location Map

Attachment A - Figure 1

Letter Work Plan for Site SS067
Free Product Assessment and Data Gap Investigation
Former Griffiss Air Force Base, Rome, New York

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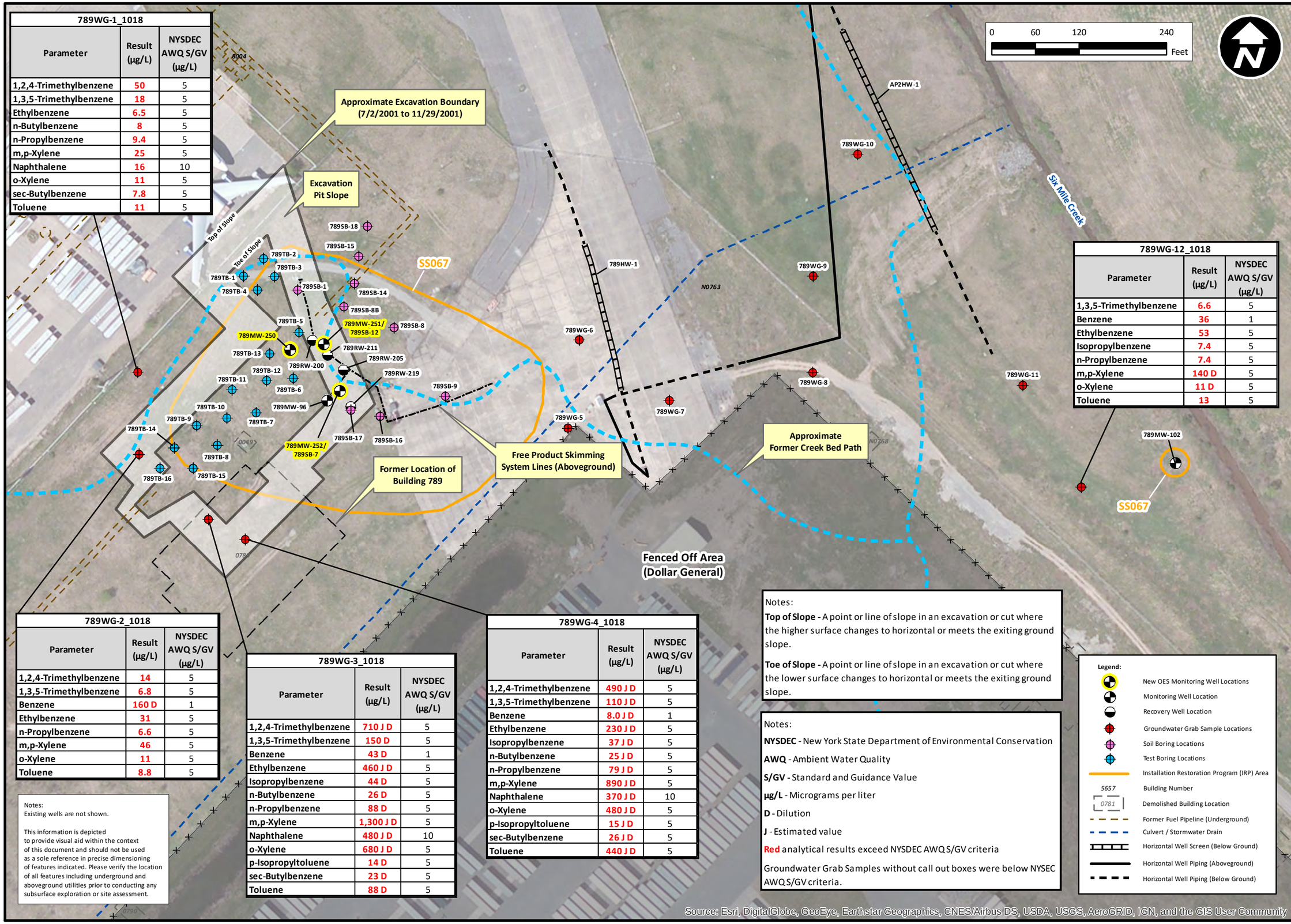
DATE: 3/31/2022

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789WG-1_1018		
Parameter	Result (µg/L)	NYSDEC AWQ S/GV (µg/L)
1,2,4-Trimethylbenzene	50	5
1,3,5-Trimethylbenzene	18	5
Ethylbenzene	6.5	5
n-Butylbenzene	8	5
n-Propylbenzene	9.4	5
m,p-Xylene	25	5
Naphthalene	16	10
o-Xylene	11	5
sec-Butylbenzene	7.8	5
Toluene	11	5

789WG-12_1018		
Parameter	Result (µg/L)	NYSDEC AWQ S/GV (µg/L)
1,3,5-Trimethylbenzene	6.6	5
Benzene	36	1
Ethylbenzene	53	5
Isopropylbenzene	7.4	5
n-Propylbenzene	7.4	5
m,p-Xylene	140 D	5
o-Xylene	11 D	5
Toluene	13	5

789WG-2_1018		
Parameter	Result (µg/L)	NYSDEC AWQ S/GV (µg/L)
1,2,4-Trimethylbenzene	14	5
1,3,5-Trimethylbenzene	6.8	5
Benzene	160 D	1
Ethylbenzene	31	5
n-Propylbenzene	6.6	5
m,p-Xylene	46	5
o-Xylene	11	5
Toluene	8.8	5

789WG-3_1018		
Parameter	Result (µg/L)	NYSDEC AWQ S/GV (µg/L)
1,2,4-Trimethylbenzene	710 J D	5
1,3,5-Trimethylbenzene	150 D	5
Benzene	43 D	1
Ethylbenzene	460 J D	5
Isopropylbenzene	44 D	5
n-Butylbenzene	26 D	5
n-Propylbenzene	88 D	5
m,p-Xylene	1,300 J D	5
Naphthalene	480 J D	10
o-Xylene	680 J D	5
p-Isopropyltoluene	14 D	5
sec-Butylbenzene	23 D	5
Toluene	88 D	5

789WG-4_1018		
Parameter	Result (µg/L)	NYSDEC AWQ S/GV (µg/L)
1,2,4-Trimethylbenzene	490 J D	5
1,3,5-Trimethylbenzene	110 J D	5
Benzene	8.0 J D	1
Ethylbenzene	230 J D	5
Isopropylbenzene	37 J D	5
n-Butylbenzene	25 J D	5
n-Propylbenzene	79 J D	5
m,p-Xylene	890 J D	5
Naphthalene	370 J D	10
o-Xylene	480 J D	5
p-Isopropyltoluene	15 J D	5
sec-Butylbenzene	26 J D	5
Toluene	440 J D	5

Notes:
Existing wells are not shown.

This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.

Notes:
Top of Slope - A point or line of slope in an excavation or cut where the higher surface changes to horizontal or meets the exiting ground slope.

Toe of Slope - A point or line of slope in an excavation or cut where the lower surface changes to horizontal or meets the exiting ground slope.

Notes:
NYSDEC - New York State Department of Environmental Conservation

AWQ - Ambient Water Quality

S/GV - Standard and Guidance Value

µg/L - Micrograms per liter

D - Dilution

J - Estimated value

Red analytical results exceed NYSDEC AWQ S/GV criteria

Groundwater Grab Samples without call out boxes were below NYSEC AWQ S/GV criteria.

Legend:
- New OES Monitoring Well Locations
- Monitoring Well Location
- Recovery Well Location
- Groundwater Grab Sample Locations
- Soil Boring Locations
- Test Boring Locations
- Installation Restoration Program (IRP) Area
- 5657 Building Number
- 0781 Demolished Building Location
- Former Fuel Pipeline (Underground)
- Culvert / Stormwater Drain
- Horizontal Well Screen (Below Ground)
- Horizontal Well Piping (Aboveground)
- Horizontal Well Piping (Below Ground)

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

SS067 (Building 789 Type II Fuel System)
2018 Investigation

Attachment A - Figure 2

Letter Work Plan for Site SS067
Free Product Assessment and Data Gap Investigation
Former Griffiss Air Force Base, Rome, New York

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SS067 (Building 789 Type II Fuel System)
Site Map

Attachment A - Figure 3

Letter Work Plan for Site SS067
Free Product Assessment and Data Gap Investigation
Former Griffiss Air Force Base, Rome, New York

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Line of Cross Section A-A'
(See Attachment A - Figure 5)

Approximate
Former Creek Bed Path

Approximate Excavation Boundary
(7/2/2001 to 11/29/2001)

Approximate
Storm Drain
Location

Six Mile Creek

SS067

789MW-95 (463.63)
789MW-64
789RW-203
789MW-256
789MW-257
789RW-218
789MW-214
789MW-63R
789RW-209
789RW-217
789MW-251 (456.07)
789HW-1
789MW-215
789RW-200
789MW-216 (459.10)
789RW-207
789MW-250 (457.00)
789MW-83 (456.79)
789MW-97 (458.98)
789RW-206
789RW-213
789MW-98 (459.06)
789RW-201
789RW-210
789RW-208
789MW-255
789RW-211
789RW-205
789MW-222 (459.53)
789RW-204
789MW-254
789RW-220
789RW-221
789MW-253
789RW-202
789RW-212
789RW-219
789MW-46R (457.74)
789MW-100
789MW-99 (457.52)
789MW-96
789MW-252 (455.35)
789MW-223
789MW-134
789MW-135 (454.01)
AP2HW-1
789WG-19
789WG-15
789WG-16
789WG-17
789WG-18
789MW-101
789MW-102 (441.86)
789MW-103

462.00 460.00 458.00 456.00 454.00 452.00 450.00 448.00 446.00 444.00 442.00

8004 0789 0790 0791 0793 0767 0811 N0763 N0768

Distribution Center

Notes:
Only well locations with indicated groundwater elevations were measured.

This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.

0 75 150 300 Feet

Legend:
- High Resolution Site Characterization Boring Location
- Proposed Permanent Monitoring Well Location
- Proposed Temporary Monitroing Well Location
- Monitoring Well Location
- Recovery Well Location
- (441.86) Potentiometric Surface Elevation in Feet Above Mean Sea Level (December 2020)
- Potentiometric Surface Contour
- Direction of Groundwater Flow
- Installation Restoration Program (IRP) Area
- 5657 Building Number
- 0781 Demolished Building Location
- Horizontal Well Screen (Below Ground)
- Horizontal Well Piping (Aboveground)
- Horizontal Well Piping (Below Ground)

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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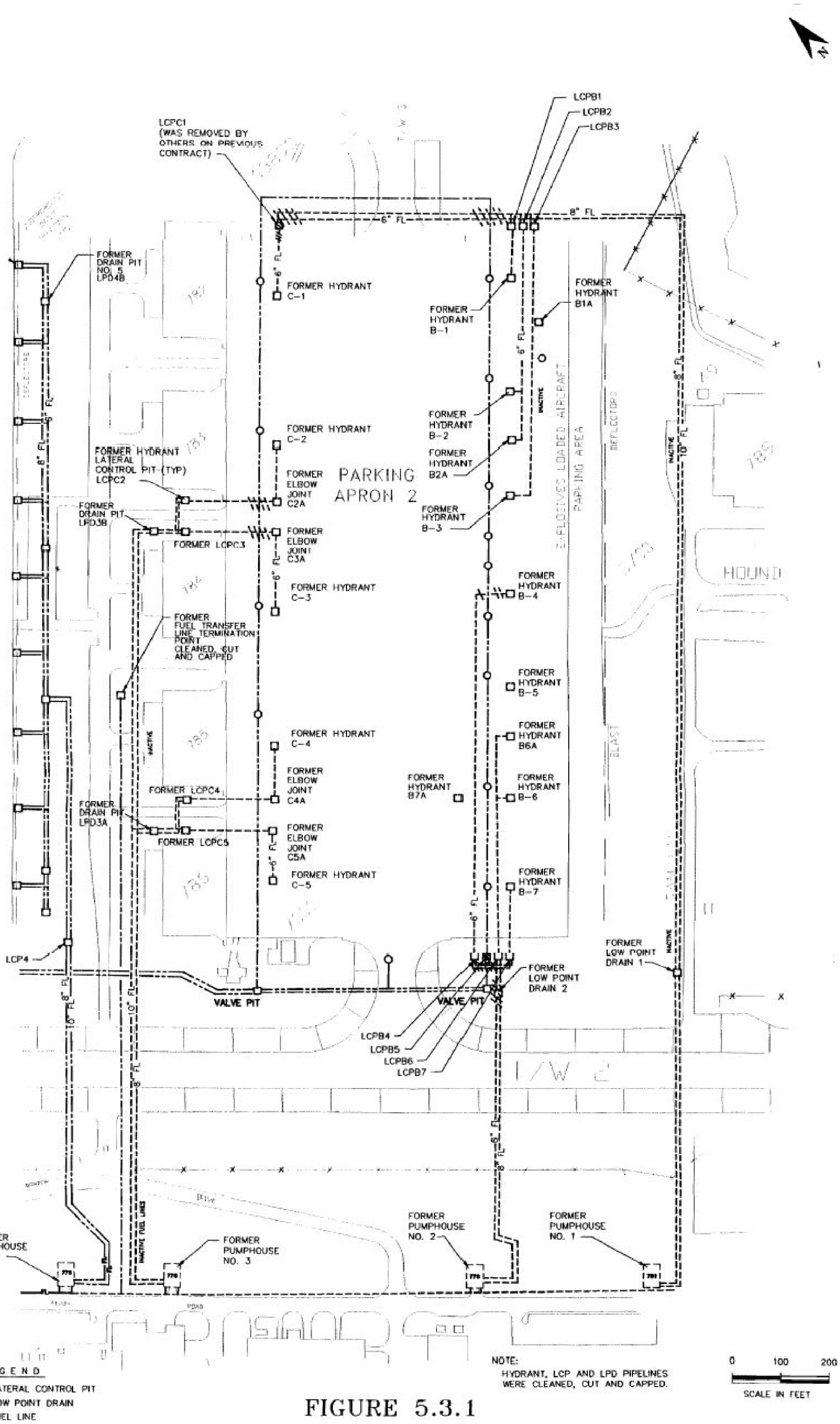


FIGURE 5.3.1

Source: Peer Consultants, P.C., February 1997

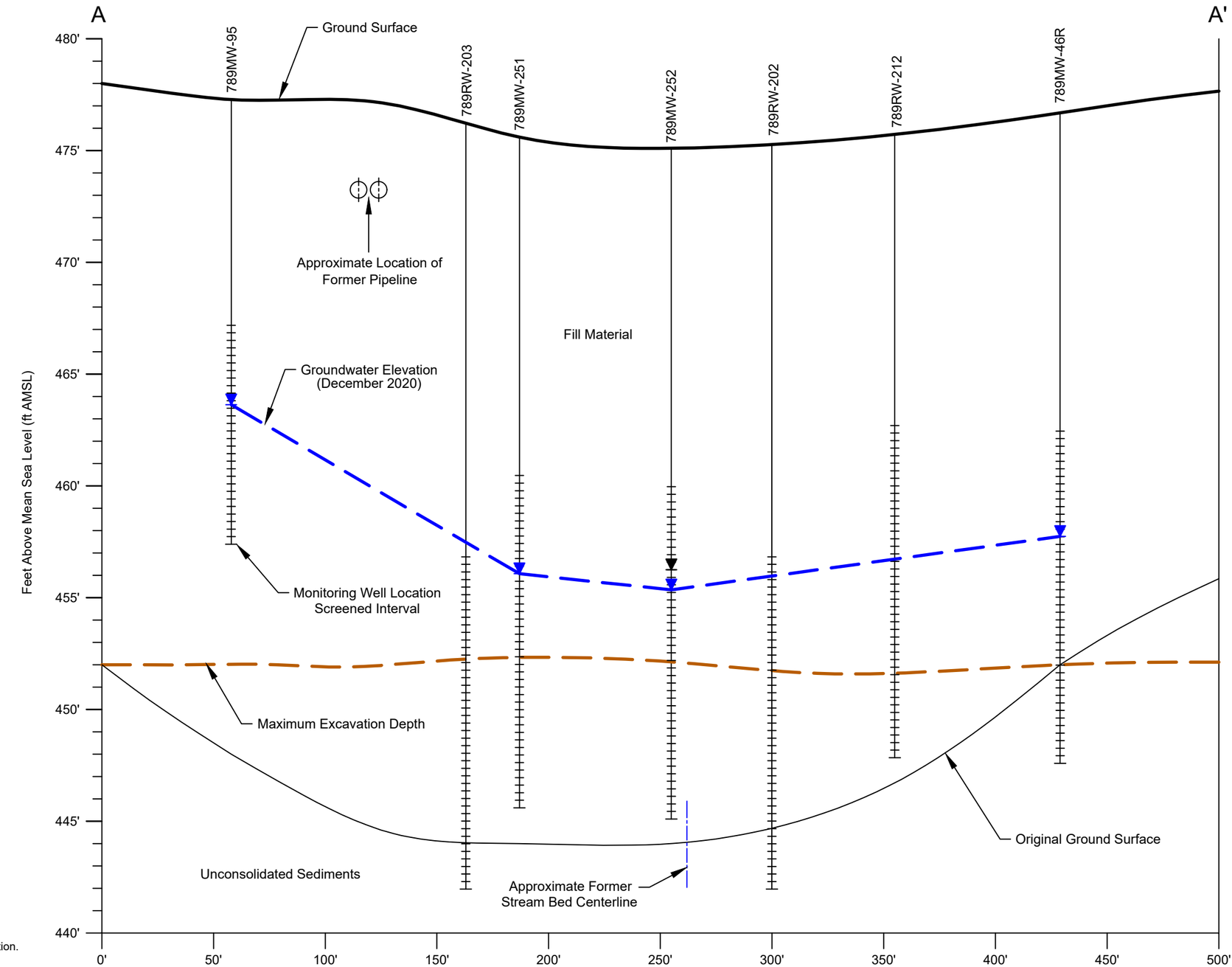
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Letter Work Plan for Site SS067
Free Product Assessment and Data Gap Investigation
Former Griffiss Air Force Base, Rome, New York

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Apron 2 Fig Jet Fuel Hydr Closure Sept 1997

Attachment A - Figure 4



Cross Section A - A'

Notes:
Cross section does not intersect the excavation.

Screened intervals for 789RW-202 and 789RW-203 are inferred, no data available.

This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.

Legend

- Potentiometric Surface Elevation (ft AMSL) (December 2020)
- Free Product Elevation (ft AMSL)

Cross Section A - A'

Attachment A - Figure 5

Letter Work Plan for Site SS067
Free Product Assessment and Data Gap Investigation
Former Griffiss Air Force Base, Rome, New York

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DATE: 3/31/2022

SCALE: As Shown

PROJECT NO: MSC2021.0012.0003.0004

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ATTACHMENT B – TABLE

Attachment B - Table 1
Proposed Well Locations
Letter Work Plan for Site SS067
Free Product Assessment and Data Gap Investigation
Former Griffiss Air Force Base, Rome, New York

Well Location	East	North	Analytes	Rationale
789MW-253	1138181.47	1174066.55	Soil - VOCs, SVOCs, TPH, PFAS (2 samples) Water - VOCs, SVOCs, TPH, PFAS (1 sample)	Evaluate impact from abandoned in place fuel lines (south)
789MW-254	1138154.56	1173991.03	Soil - VOCs, SVOCs, TPH, PFAS (2 samples) Water - VOCs, SVOCs, TPH, PFAS (1 sample)	Evaluate impact from abandoned in place fuel lines (south)
789MW-255	1138025.22	1173989.30	Soil - VOCs, SVOCs, TPH, PFAS (2 samples) Water - VOCs, SVOCs, TPH, PFAS (1 sample)	Evaluate impact from abandoned in place fuel lines (south)
789MW-256	1137985.29	1174125.58	Soil - VOCs, SVOCs, TPH, PFAS (2 samples) Water - VOCs, SVOCs, TPH, PFAS (1 sample)	Evaluate impact from abandoned in place fuel lines (north)
789MW-257	1138203.17	1174218.46	Soil - VOCs, SVOCs, TPH, PFAS (2 samples) Water - VOCs, SVOCs, TPH, PFAS (1 sample)	Evaluate impact from abandoned in place fuel lines (north)
789WG-15	1138304.73	1174177.66	Soil - VOCs, SVOCs, TPH, PFAS (2 samples) Water - VOCs, SVOCs, TPH, PFAS (1 sample)	Evaluate impacts downgradient near 789MW-102
789WG-16	1138262.20	1174001.45	Soil - VOCs, SVOCs, TPH, PFAS (2 samples) Water - VOCs, SVOCs, TPH, PFAS (1 sample)	Evaluate impacts downgradient near 789MW-102
789WG-17	1137931.47	1173941.55	Soil - VOCs, SVOCs, TPH, PFAS (2 samples) Water - VOCs, SVOCs, TPH, PFAS (1 sample)	Evaluate impacts downgradient near 789MW-102
789WG-18	1137890.67	1173989.30	Soil - VOCs, SVOCs, TPH, PFAS (2 samples) Water - VOCs, SVOCs, TPH, PFAS (1 sample)	Evaluate impacts downgradient near 789MW-102
789WG-19	1137875.91	1174043.12	Soil - VOCs, SVOCs, TPH, PFAS (2 samples) Water - VOCs, SVOCs, TPH, PFAS (1 sample)	Evaluate impacts downgradient near 789MW-102
789HRSC-01	1138210.98	1174269.68	HRSC field equipment	HRSC control point
789HRSC-02	1138248.31	1174325.23		HRSC first phase
789HRSC-03	1138903.69	1174014.30		
789HRSC-04	1139012.72	1173893.46		
789HRSC-05	1139209.94	1173879.57		
789HRSC-06	1139243.28	1174050.41		
789HRSC-07	1138984.25	1174109.43		
789HRSC-08	TBD	TBD		HRSC second phase
789HRSC-09	TBD	TBD		
789HRSC-10	TBD	TBD		

HRSC - hish resolution site characterization
PFAS - perfluoroalkyl and polyfluoroalkyl substances
SVOC - semi-volatile organic compound
TBD - to be determined
TPH - total petroleum hydrocarbons
VOC - volatile organic compound