

**FINAL
TECHNICAL MEMORANDUM
2017 LONG TERM MONITORING OF
LANDFILL AREAS OF CONCERN
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
Ms. Heather Bishop, New York State Department of Environmental Conservation

DATE: June 14, 2018

INTRODUCTION AND OBJECTIVES

Bhate Environmental Associates, Inc. (Bhate) was retained by the Air Force Civil Engineer Center (AFCEC), under Contract Number FA8903-16-F-0012, to conduct environmental remediation activities to achieve performance objective goals at multiple sites at the former Griffiss Air Force Base (AFB) and the former Plattsburgh AFB. Under this contract, Bhate has prepared this Technical Memorandum (Tech Memo) for the landfill areas of concern (AOCs) at Griffiss AFB, which include:

- LF001 – Landfill 1 AOC
- LF002 – Landfill 2/3 AOC
- LF003 – Landfill 7 AOC
- LF007 – Landfill 5 AOC
- LF009 – Landfill 6 AOC

The long term monitoring (LTM) program was developed for each Landfill AOC using the New York Codes of Rules and Regulations (NYCRR) Part 360 Regulations (NYSDEC, December 2016). The purpose of this 2018 Tech Memo is to document LTM completed at these landfills in April and November 2017. The Spring 2016 LTM is documented in the Final 2016 Semiannual Long Term Monitoring Report for Landfill Areas of Concern (FPM Remediations, Inc. [FPM], July 2016), which included the Spring landfill cap inspections and maintenance along with LF001 groundwater and surface water sampling. The Fall 2016 LTM is documented in the Technical Memorandum Long Term Monitoring of Landfill Areas of Concern (Bhate, May 2017). All activities performed at the Landfill AOCs in 2017 are based on the elements provided in each Landfill AOC individual work plan as referenced in the following sections. Locations of the Former Griffiss AFB and the five landfill AOCs are presented on **Attachment A-Figure 1**.

All of the former Griffiss AFB landfills implemented a presumptive remedy alternative. The presumptive remedy implemented at these landfills includes the use of engineering controls, institutional controls, and monitoring. The remedial action objectives (RAOs) presented within the Record of Decisions (RODs) for the landfills are the same and have been met through implementation of the presumptive remedy. Specifically, the RAOs are:

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass;
- Reduce infiltration of rainwater and snowmelt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination;
- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site; and
- Implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit use of the area and groundwater.

Per Title 6 of the Codes, Rules, and Regulations of New York (CRR-NY) Part 360, the gas monitoring points at LF001, LF002, and LF009 must be maintained and sampled during the post-closure period for a minimum of 30 years. Since each of these landfills have been monitored for over 5 years, modifications to sampling and analysis requirements may be requested. Under 6 CRR-NY 360, the concentration of methane and other explosive gases generated by the facility must not exceed 25 percent (%) of the lower explosive limit (LEL) for gases in structures on or off-site, excluding gas control or recovery system components; and the LEL for the gases at or beyond the property boundary. Therefore, further optimization is based upon no detection of either methane or LEL in the landfill gas vent or gas monitoring probe for at least four consecutive years.

LF001 – Landfill 1 AOC

LF001 (Landfill 1 AOC) is located in the northern portion of the former Griffiss AFB and is approximately 22 acres in size. **Attachment A-Figure 2** presents the LF001 (Landfill 1 AOC) site map. The wastes disposed within LF001 consisted of general refuse, hard-fill, and boiler ash, buried using trench and cover methods. An estimated 90,000 to 100,000 cubic yards (CY) of wastes were disposed of at the site from 1960 to 1973. Groundwater flow rate at LF001 is approximately 2,000 feet per year, and groundwater flows to the southwest (FPM, December 2015). The ROD for LF001 was signed by the United States Environmental Protection Agency (USEPA) on June 5, 2000, which required landfill capping. In accordance with the ROD, the landfill was re-graded and capped in 2003. The cap components include a gas venting layer, a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer.

Landfill Gas Monitoring

Landfill gas monitoring is performed at LF001 (Landfill 1 AOC) to identify the presence and concentration of methane at or near the landfill. On November 7, 2017, Bhate completed landfill gas monitoring at LF001 (Landfill 1 AOC). A total of 9 gas monitoring probes and 23 landfill gas vents were monitored in November 2017 (**Attachment B-Table 1**). One of the LF001 landfill gas vents (Vent-23) planned for sampling was determined to be previously abandoned in October

2005, during the construction of the passive gas collection trench. During the gas sampling event at LF001 (Landfill 1 AOC) methane was detected in 4 of the 9 probes and at none of the 22 vents. The highest methane concentration was detected at LF1GMP-6 at 40.0 %. This probe is located just north of the landfill boundary on the northeastern corner of the landfill. Both probes LF1GMP-2 and LF1GMP-3 had methane measured at approximately 25.2 % and 19.6 %, respectively. These two probes are located just outside of the landfill boundary to the west of the LF001. Methane was also detected at 0.7 % at LF1GMP-4 on the north side of the landfill near LF001 Vent-27 where methane was not detected. However, methane concentrations at point of compliance (POC) gas monitoring probes (LF1GMP-1, LF1GMP-13, and LF1GMP-16) were not detected during the November 2017 sampling event. The lack of methane detected at the POC gas monitoring probes demonstrates continued protection of potential receptors. In addition, the passive gas trench, installed near the northwestern perimeter of LF001 (Landfill 1 AOC), appears to remain an effective barrier for migration of methane into neighboring properties.

Landfill Inspections

Since April 2005, landfill inspections and cover maintenance have been performed at LF001 (Landfill 1 AOC). Inspections and maintenance were optimized following the Spring 2010 sampling event and are now conducted on a semiannual basis with annual landfill cover mowing (Fall). Land Use Control/Institutional Controls (LUC/ICs) were implemented in accordance with the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF001 on April 28, 2017 (Spring inspection), and November 7, 2017 (Fall inspection). The November 2017 inspection was performed in conjunction with the landfill gas monitoring. The landfill inspection reports for April and November 2017 are presented in **Attachment C**. The location of photos taken during the two LF001 inspections are presented on **Figure 2 within Attachment A**. Four minor issues were identified during the inspection performed on April 28, 2017, and three minor issues were identified on November 7, 2017. Two landfill depressions with standing water (noted as potential leachate breakouts on the landfill inspection form) were observed downslope of LF001 Vent-1 and east of LF001 Vent-31 (**see Attachment C**). Additionally, standing water was observed in the northwest corner of the landfill, at the base of a shallow slope in the vicinity of LF001 Vent-24 in April 2017. Standing water was again observed in November 2017 in the northwest corner of the landfill and also near LF001 Vent-6 in the southern portion of the landfill. In the days preceding the April 2017 inspection event, from April 19th through April 28th, 2017, Griffiss AFB received approximately 1.7 inches of rain, per National Weather Service - Griffiss Air Force Base/Rome (KRME) (<http://w1.weather.gov/data/obhistory/KRME.html>). Therefore, the areas of standing water were a result of the heavy rainfall amounts preceding the inspection event. Additionally, there were two road signs with apparent damage from the pistol range, and a downed tree on the perimeter fence near LF001 Vent-31 that were observed in April and November 2017.

Conclusions and Recommendations

The inspections did not identify any major deficiencies that would jeopardize the integrity of the cover, and there is optimal vegetation cover present on the cap. Based on the *Final Optimization*

Plan for Landfill Areas of Concern Long-Term Management Program (Bhate, November 2016), it is recommended that the frequency of landfill cap inspections continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to correlate with annual mowing and landfill gas monitoring. To address the minor items identified in 2017, the following activities are recommended to be performed in 2018 as follows:

- Replacement of the two damaged road signs near the pistol range is recommended.
- Removal of the downed tree on the perimeter fence is recommended.
- Backfilling of the landfill depressions observed downslope of LF001 Vent-1 and east of LF001 Vent-31 in April 2017 with soil is recommended to prevent further ponding of water on the landfill cap.

Based on historical landfill gas monitoring coupled with the 2017 gas monitoring results, the passive gas trench along the northwest side of the landfill is operating properly. No changes are recommended at LF001 for the 2018 landfill gas sampling locations. **Attachment A-Figure 3** shows the LF001 (Landfill 1 AOC) proposed 2018 landfill gas sampling locations.

LF002 – Landfill 2/3 AOC

LF002 (Landfill 2/3 AOC) is approximately 13 acres in size and is located in the northeastern portion of the base. **Attachment A-Figure 4** presents the LF002 (Landfill 2/3 AOC) site map. The wastes at LF002 consisted of hard-fill in the southern portion of Landfill 2, on-board aircraft wastes in the northern portion of Landfill 2 and approximately 1 ton of wetted and double-bagged asbestos waste in Landfill 3, located in the eastern portion of Landfill 2. The ROD for LF002 was signed by the USEPA on June 5, 2000. In accordance with the ROD, the landfill was regraded and capped during the summer of 2003. The cap components include a gas venting layer, a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer. LTM was initiated at LF002 in December 2003.

Landfill Gas Monitoring

Landfill gas monitoring has been performed at LF002 (Landfill 2/3) to identify the presence and concentration of methane at or near the landfill. On November 7, 2017, Bhate completed landfill gas monitoring at LF002 (Landfill 2/3 AOC). A total of five gas monitoring probes and 10 landfill gas vents were monitored in November 2017 (**Attachment B-Table 2**). Results from the gas sampling events at LF002 (Landfill 2/3) continue to show site-wide stabilization of methane concentrations. Methane was detected in none of the five probes and at only four of the 10 vents. The highest methane reading was present at LF002 VENT-06 with a concentration of 17.6 %. VENT-06 is located within the eastern side of the landfill and has historically contained the highest methane readings. Nearby LF002 VENT-12 and probe GMP-06 did not show methane detections. All other methane detections in November 2017 were below 2.7 % at LF002.

Landfill Inspections

Since April 2005, landfill inspections and cover maintenance have been performed at LF002 (Landfill 2/3 AOC). Inspections and maintenance were conducted on a quarterly basis and optimized following the Spring 2010 sampling event to a semiannual basis. Landfill cover mowing is conducted on an annual basis (Fall). LUC/ICs have been implemented by the ROD and are

verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF002 on April 28, 2017 (Spring inspection), and November 7, 2017 (Fall inspection). The 2017 Fall inspections were performed in conjunction with the annual landfill gas monitoring. The landfill inspection reports for April and November 2017 are presented in **Attachment C**. The location of photos taken during the LF002 inspections are presented on **Figure 4 within Attachment A**. A couple minor issues were observed during the 2017 inspections. In April 2017 there were some saturated areas noted in the northern edge of the landfill. Similarly, there were some saturated areas noted on the northern edge of the landfill in November 2017, as well as a saturated area in the southwest corner of the landfill by the entrance road. An animal burrow was observed at the base of LF002 VENT-01 in November 2017. No other animal burrows or cap damage were observed during either Spring or Fall inspection events. Additionally, the lock present on the Perimeter Road gate continues to be difficult to open despite the application of lubricant.

Conclusions and Recommendations

The inspections did not identify any major deficiencies that would jeopardize the integrity of the cover and there is optimal vegetation cover present on the cap. No significant weather events occurred in 2017 that warranted additional inspections. However, the following minor issues should be addressed in 2018:

- The animal burrow observed at LF002 VENT-01 is recommended for filling in the Spring of 2018.
- It is recommended that the landfill will be monitored to evaluate potential damage to the cap (e.g. erosion) from the standing water observed in November 2017.
- It is recommended to replace the damaged lock on the Perimeter Road gate so access is not an issue.

Based on the *Final Optimization Plan for Landfill Areas of Concern Long-Term Management Program* (Bhate, November 2016), it is recommended that the frequency continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to correlate with annual mowing and landfill gas monitoring. Results from the gas sampling events at LF002 (Landfill 2/3 AOC) continue to show site-wide stabilization of methane concentrations. Based upon historical data (FPM, December 2015) coupled with the Fall 2017 readings, Bhate recommends the following vents and gas monitoring probes be eliminated from the Fall 2018 gas monitoring.

- **Gas monitoring probe:** GMP-03
- **Vents:** VENT-02 and VENT-08

These sample locations were selected because methane has not been detected in any of these monitoring points for at least five consecutive years. Sample locations GMP-03, VENT-02, and VENT-08 will be evaluated for abandonment during the next five year review (schedule for 2020). **Attachment A-Figure 5** shows the LF002 (Landfill 2/3 AOC) proposed Fall 2018 landfill gas sampling locations.

LF003 – Landfill 7 AOC and LF007 – Landfill 5 AOC

LF003 (Landfill 7 AOC) is approximately 11 acres in size, was active from 1950 through 1954, and is located northeast of Runway 15/33 (**Attachment A-Figure 6**). The wastes disposed of at this landfill consisted of domestic refuse, solid waste, liquid wastes, petroleum products, and miscellaneous Base operations waste (such as airplane parts). Waste was placed into four trenches in the landfill area and subsequently burned. The ROD for LF003 (Landfill 7 AOC) was signed by the USEPA on June 6, 2000. In accordance with the ROD, the landfill was re-graded and capped in 2002. The landfill was capped with an 18-inch low permeability soil layer, covered by a 6-inch layer of topsoil, and seeded with grass (FPM, December 2015).

LF007 (Landfill 5 AOC) is approximately 4 acres in size and is located in the south-central portion of the base (**Attachment A-Figure 7**). The waste at LF007 consisted of domestic wastes, reportedly having been burned and then buried. Approximately 18,000 CY of wastes were disposed of at the site from 1950 through 1960. The ROD for LF007 was signed by the USEPA on June 5, 2000. In accordance with the ROD, the landfill was re-graded and capped in 2002. The cap components include a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer. LTM was initiated in February 2003.

Landfill Gas Monitoring

Landfill gas monitoring is not required at LF003 (Landfill 7 AOC) or LF007 (Landfill 6 AOC).

Landfill Inspections

Since September 2003, landfill inspections and cover maintenance have been performed at LF003 (Landfill 7 AOC) and LF007 (Landfill 5 AOC). Inspections and maintenance were conducted on a quarterly basis and optimized following the Spring 2010 sampling event to a semiannual basis. Landfill cover mowing is conducted on an annual basis (Fall). LUC/ICs have been implemented by the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF003 and LF007 on April 28, 2017 (Spring inspection), and November 7, 2017 (Fall inspection). The landfill inspection reports (including photos) for April and November 2017 are presented in **Attachment C**. Only minor issues were noted during the 2017 inspection events at LF003 and LF007.

At LF003 a saturated area along the northern edge of the western block of the landfill was noted in April 2017. In November 2017 the northern corner and along the eastern edge of the western block was once again noted as saturated. A small animal burrow in the Western landfill block (**Figure 6**) was also identified in November 2017. During the Spring and Fall inspections it was noted that a submersible pump is stuck in monitoring well LF7MW-30 in the east landfill block at LF003. The submersible pump sticks up out of the stainless steel protective casing preventing closure of the lockable cap on the monitoring well. During both the Spring and Fall inspections a missing sign was noted along the southern boundary of the western block, along with a damaged sign along the western edge of the western block.

At LF007 iron staining was observed in the creek on the western edge of the landfill in April 2017, but was not observed in November 2017. Further assessment is needed to determine if this is naturally occurring after heavy rainfall events or if it is associated with the landfill. **Attachment C** contains photos documenting the location of the iron staining in the creek. In November 2017 a sign on the eastern edge of LF007 was tipped over but otherwise the sign was in good condition. No other issues were identified at LF007 during the 2017 landfill inspections.

Conclusions and Recommendations

The inspections did not identify any major deficiencies that would jeopardize the integrity of the cover at either landfill and there is optimal vegetation cover present on the caps at both LF003 and LF007. However, several minor items are recommended to be addressed in 2018 as follows:

- The missing sign and damaged sign at LF003 are recommended for replacement.
- The tipped over sign along the eastern edge of LF007 is recommended to be straightened.
- The small animal burrow observed in the western block of LF003 is recommended for filling.
- The submersible pump stuck in monitoring well LF7MW-30 is recommended for removal so the steel lockable cap can be properly secured.
- Assessment of the iron staining that is periodically present in the creek west of LF007 is recommended. The assessment includes collecting a sample of the surface water, if present, for offsite laboratory analysis of inorganics and determining if the creek is hydraulically connected to groundwater.

Additionally, the landfills will be monitored to evaluate potential damage to the cap (e.g. erosion) from the standing water observed in November 2017 at LF003.

No significant weather events occurred in 2017 that warranted additional inspections. Based on the *Final Optimization Plan for Landfill Areas of Concern Long-Term Management Program* (Bhate, November 2016), it is recommended that the frequency continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to correlate with annual mowing at both LF003 and LF007.

LF009-Landfill 6 AOC

LF009 (Landfill 6 AOC) is approximately 15.7 acres in size and is located near the southern boundary of the base. **Attachment A-Figure 8** presents the LF009 (Landfill 6 AOC) site map. The wastes disposed at the landfill include general refuse and hard-fill that was buried and some of which was burned at the site. An estimated 38,000 to 62,000 CY of wastes were disposed at the site from 1955 to 1959. During the 1980s, although the landfill was no longer active, an unknown quantity of fuel-contaminated soil from the tank excavations at Tank Farms 1 and 3 was disposed of in the southern portion of LF009 (Landfill 6 AOC). In 1986, a clay cap was constructed over the fuel-contaminated soils area. The ROD for LF009 was signed by the USEPA on June 7, 2001, which required a landfill cap. The cap was completed in 2004 and includes a gas venting layer, a low-permeability layer, drainage layer, barrier protection layer, and a topsoil layer.

Site SD052-02 borders LF009 (Landfill 6 AOC) to the north, as shown on **Attachment A-Figure 8**, and is associated with a plume that is located downgradient of former maintenance facilities in

Buildings 774 and 776, and former fuel pump house Building 775. Site SD052-04 is the LF009 (Landfill 6 AOC) trichloroethylene (TCE) Site plume, located immediately downgradient to the south of LF009 (Landfill 6 AOC). The most contaminated portion of the plume is located southwest of the landfill beneath the floodplain of Three Mile Creek. Monitoring of chlorinated volatile organic compounds in groundwater at LF009 (Landfill 6 AOC) is completed as part of remedial efforts at Site SD052-04.

Landfill Gas Monitoring

Landfill gas monitoring has been performed at the site to identify the presence and concentration of methane at or near the landfill. On November 7, 2017, a total of 4 landfill gas vents were monitored (**Attachment B-Table 3**). Methane was not detected at any of the landfill gas vents at LF009 (Landfill 6 AOC) in November 2017.

Landfill Inspections

Landfill inspections and cover maintenance have been performed at the site since 2006. Inspections and maintenance were conducted on a quarterly basis and optimized following the Spring 2010 sampling event to a semiannual basis. Landfill cover mowing is conducted on an annual basis (Fall). LUC/ICs have been implemented by the ROD and are verified annually as part of the landfill cover inspection program. During the reporting period, landfill inspections were performed at LF009 on April 28, 2017 (Spring inspection), and November 7, 2017 (Fall inspection). The 2017 Fall inspection was performed in conjunction with the landfill gas monitoring. The landfill inspection reports (including photos) for April and November 2017 are presented in **Attachment C**. In April 2017 a depression filled with standing water was observed downslope of LF009 VENT-05. This standing water was not observed again in November 2017, and was probably related to heavy rainfall preceding the April 2017 inspection event, per the National Weather Service - Griffiss Air Force Base/Rome (KRME) (<http://w1.weather.gov/data/obhistory/KRME.html>). In November 2017 three separate animal burrows were identified during the LF009 landfill inspection (at the base of VENT-09, at the base of VENT-10, and between vents VENT-11 and VENT-14 [**Figure 8**]). Intermittent standing water was observed along the northwest side along the walking path and along the southeast edge near GMP-08. Two LF009 vents were noted to be tipped over in November 2017. VENT-03 was tipped slightly forward and VENT-10 was tipped slightly backward. Additionally, signs are missing in the southwest corner of LF009 downslope of VENT-03 and a second sign is missing west of GMP-06.

Conclusions and Recommendations

The inspections did not identify any major deficiencies that would jeopardize the integrity of the cover, and there is optimal vegetation cover on the cap. However, the following minor items are recommended to be addressed in 2018:

- Two signs that were reported to be missing at LF009 are recommended for replacement.
- The surface stickups at VENT-03 and VENT-10 are recommended to be straightened.
- It is recommended that the depression observed downslope of LF009 VENT-05 should be backfilled with soil to prevent future standing water and potential cap damage during heavy rainfall events.

No significant weather events occurred in 2017 that warranted additional inspections. Based on the *Final Optimization Plan for Landfill Areas of Concern Long-Term Management Program* (Bhate, November 2016), it is recommended that the frequency continue semiannually with a limited landfill inspection in the Spring and the more comprehensive inspection in the Fall to correlate with annual mowing and landfill gas monitoring. Landfill gas monitoring from 2011 to 2016 shows that methane levels are stable or absent at all of the gas monitoring probes. Based upon historical data (FPM, December 2015) coupled with the Fall 2017 readings, Bhate recommends that landfill gas monitoring for the Fall of 2018 continue to only include the following four LF009 vents: VENT-02, VENT-03, VENT-04, and VENT-06. This is the same recommendation presented in the 2017 Technical Memorandum LTM of Landfill AOCs, Former, Griffiss AFB (Bhate, May 2017). **Attachment A-Figure 9** shows the LF009 (Landfill 6 AOC) proposed Fall 2018 landfill gas sampling locations.

References

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AFRPA. March 2000. *Final Record of Decision for the Landfill 2/3 Area of Concern at the Former Griffiss Air Force Base, Rome, New York.* (AR 1415)

AFRPA. March 2000. *Final Record of Decision for the Landfill 7 Area of Concern at the Former Griffiss Air Force Base, Rome, New York.* (AR 1418)

AFRPA. March 2000. *Final Record of Decision for the Landfill 5 Area of Concern at the Former Griffiss Air Force Base, Rome, New York.* (AR 1417)

AFRPA. February 2001. *Final Record of Decision for the Landfill 6 Area of Concern at the Former Griffiss Air Force Base, Rome, New York.* (AR 1451)

Bhate Environmental Associates, Inc. November 2016. *Final Optimization Plan for Landfill Areas of Concern Long-Term Management Program Former Griffiss AFB, Rome New York.* (AR 541369)

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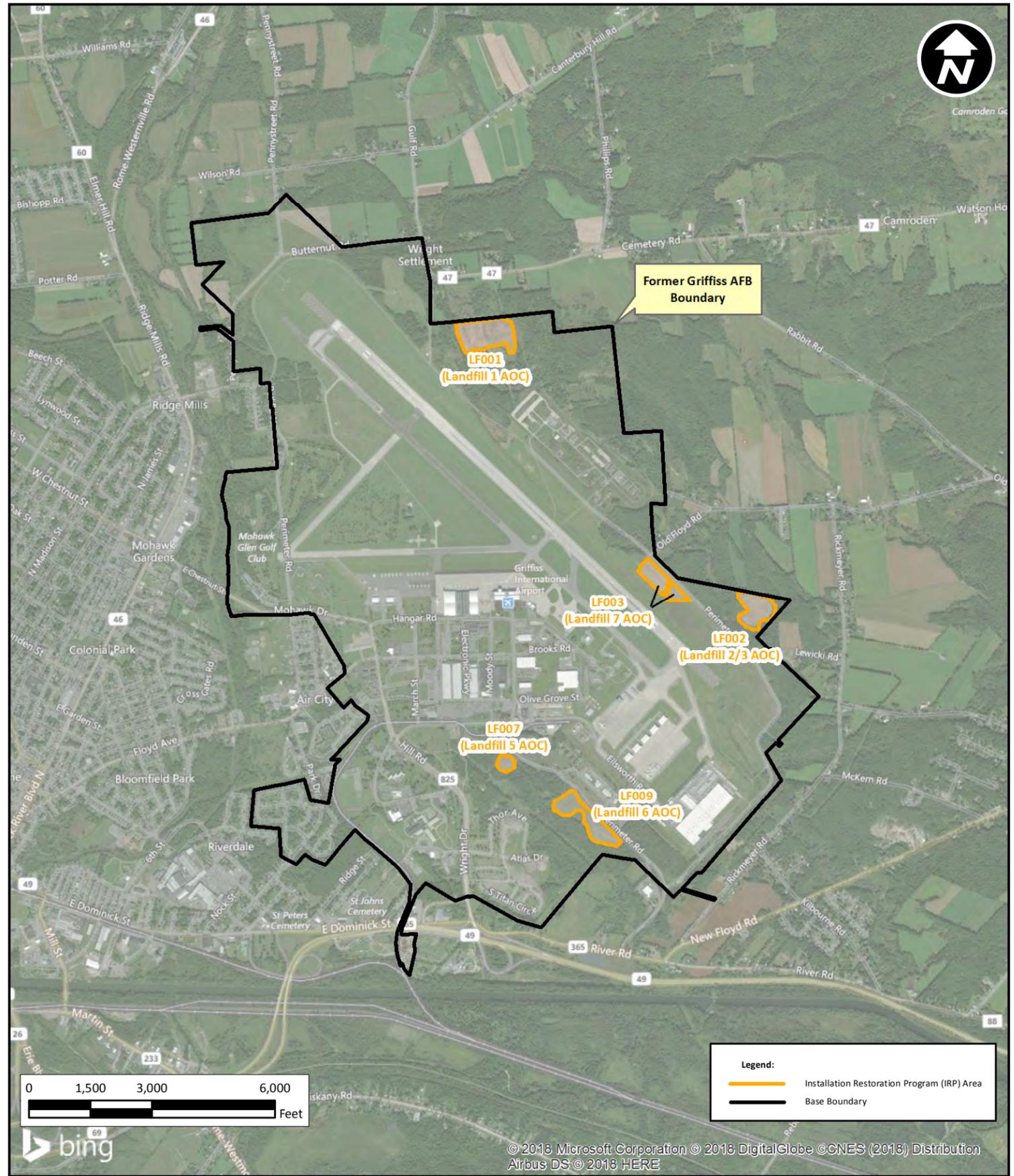
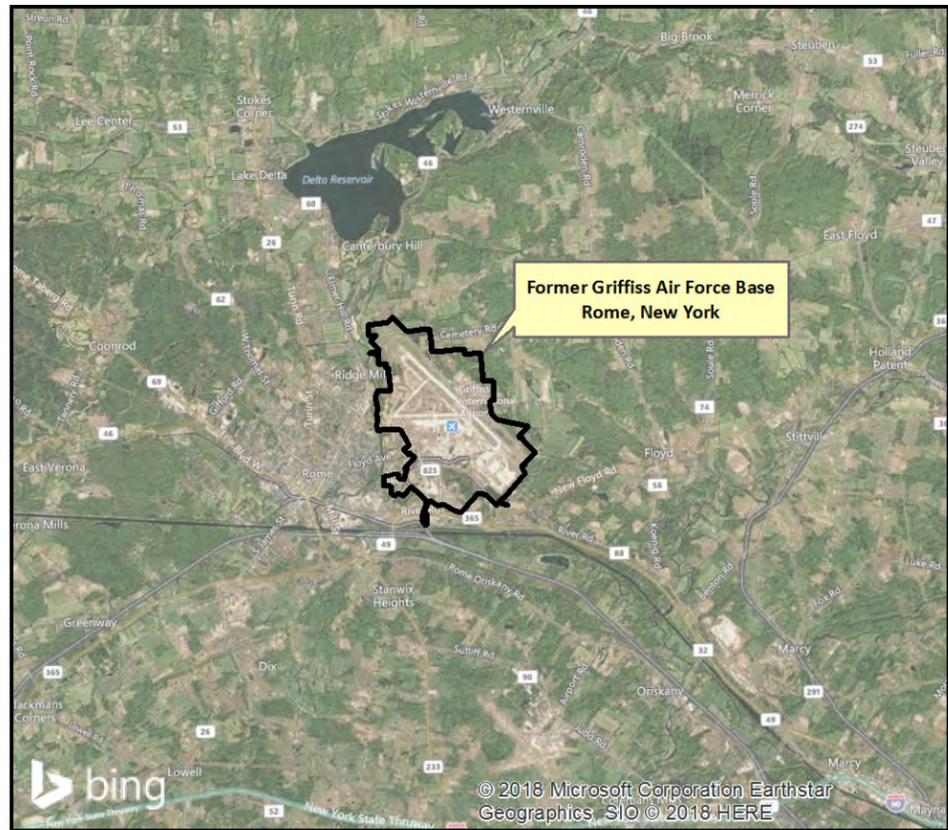
Bhate Environmental Associates, Inc. May 2017. *Technical Memorandum, Long Term Monitoring of Landfill Areas of Concern, Former Griffiss AFB, Rome New York.*

FPM. December 2015. *Final 2015 Annual Long Term Monitoring Report/Optimized Exit Strategy Report Landfill Areas of Concern (LF001 (Landfill 1 AOC), LF002 (Landfill 2/3 AOC), LF003 (Landfill 7 AOC), LF007 (Landfill 5 AOC), and LF009 (Landfill 6 AOC)) Former Griffiss Air Force Base Rome, New York.* (AR 459955)

FPM. July 2016. *Final 2016 Semiannual Long-Term Monitoring Report Landfill Areas of Concerns (LF001 (Landfill 1 AOC), LF002 (Landfill 2/3 AOC), LF003 (Landfill 7 AOC), LF007 (Landfill 5 AOC), and LF009 (Landfill 6 AOC). Former Griffiss Air Force Base Rome, New York.*

NYSDEC. December 2016. *Title 6 of the Codes, Rules and Regulations of New York (CRR-NY) Subpart 360-2 Landfills.*

ATTACHMENT A – SITE FIGURES



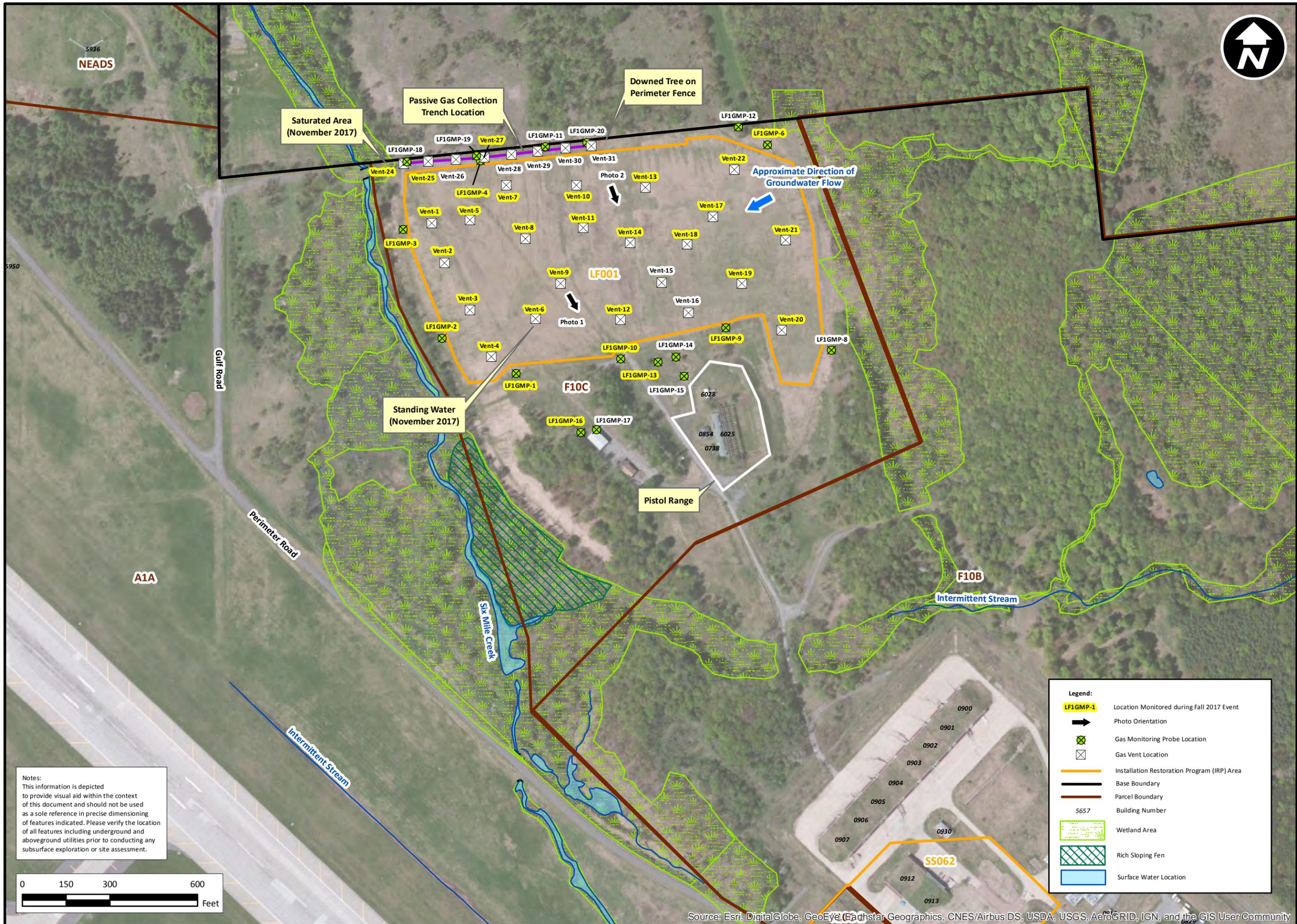
Former Griffiss Air Force Base
Landfill AOC Sites Location Map

Figure 1

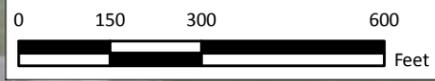
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Former Griffiss Air Force Base, Rome, New York

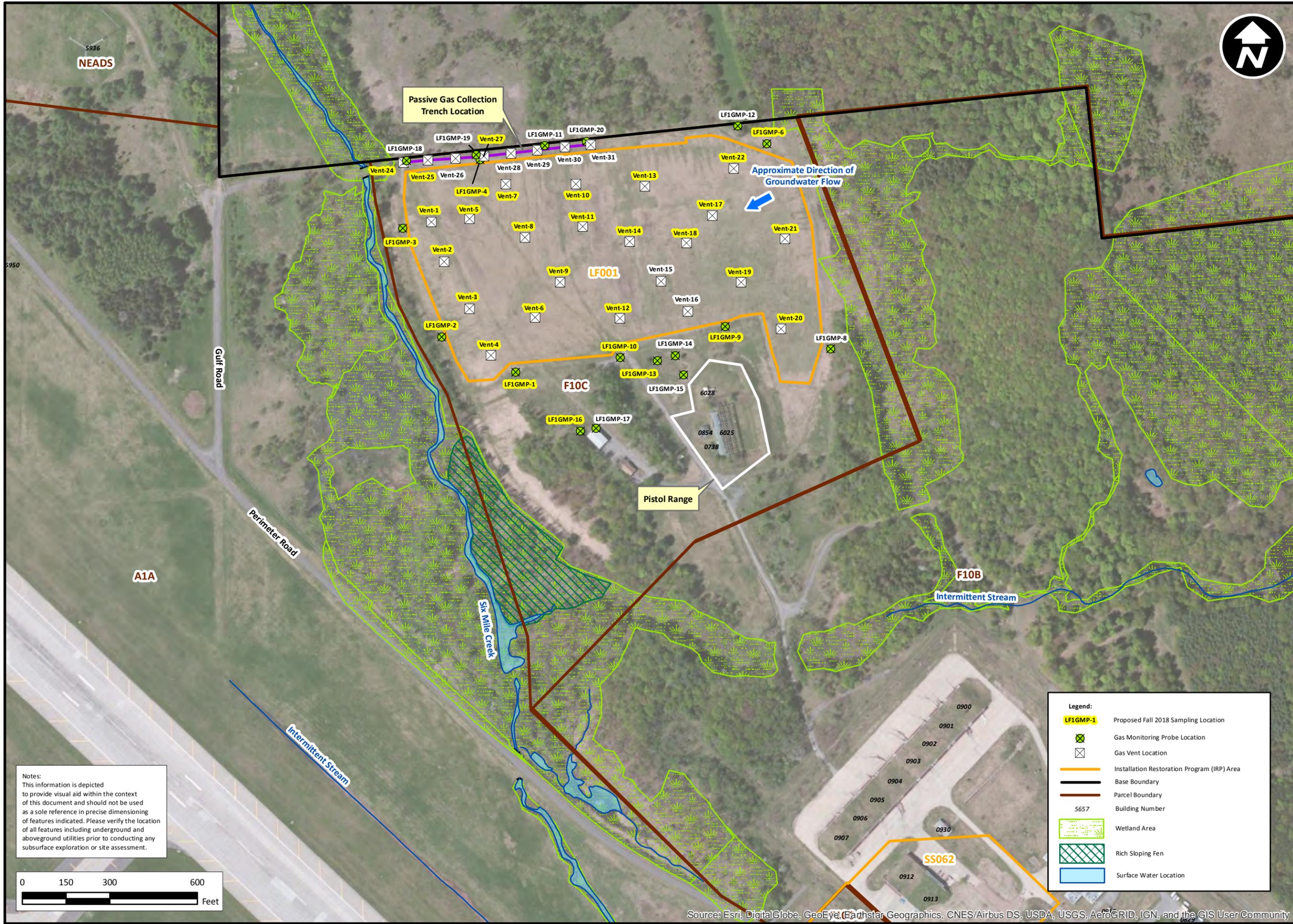
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SCALE:	As Shown
DATE:	1/14/2018
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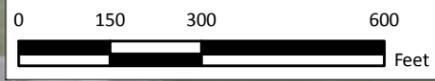


Notes:
This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface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





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Legend:	
■ LF1GMP-1	Proposed Fall 2018 Sampling Location
⊗	Gas Monitoring Probe Location
⊗	Gas Vent Location
—	Installation Restoration Program (IRP) Area
—	Base Boundary
—	Parcel Boundary
5657	Building Number
■	Wetland Area
■	Rich Sloping Fen
■	Surface Water Location

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

LF001 (Landfill 1 AOC) Fall 2018
 Proposed Landfill Gas Monitoring Locations
Figure 3

Technical Memorandum Long-Term Monitoring of Landfill Areas of Concern Former Griffiss Air Force Base, Rome, New York		
PROJECT NO:	SCALE:	DATE:
AFCGS3-0012	As Shown	1/14/2018
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Technical Memorandum Long-Term Monitoring of Landfill Areas of Concern Former Griffiss Air Force Base, Rome, New York

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DATE:

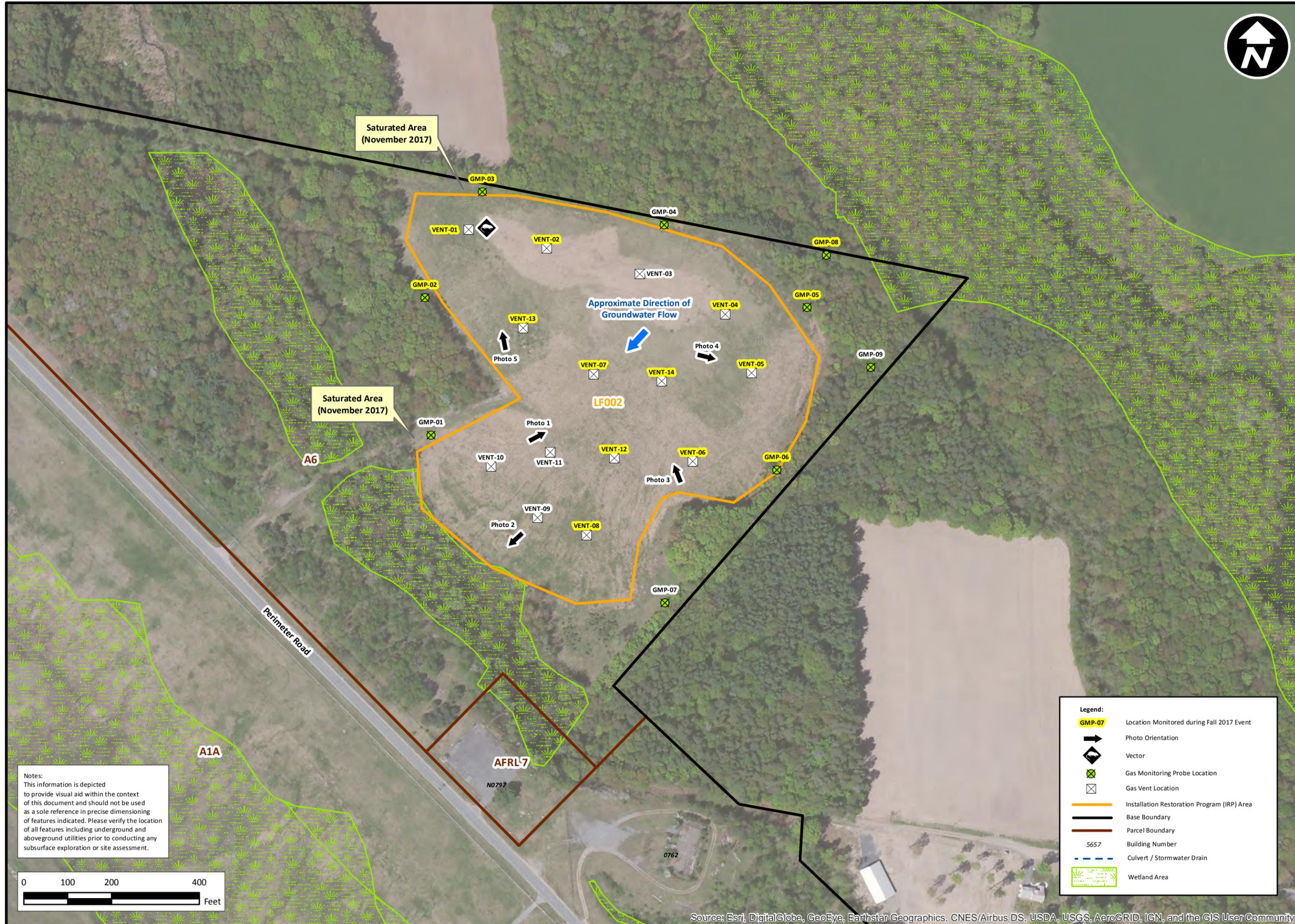
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SCALE:

As Shown

PROJECT NO.:

AFCGSA3-0012

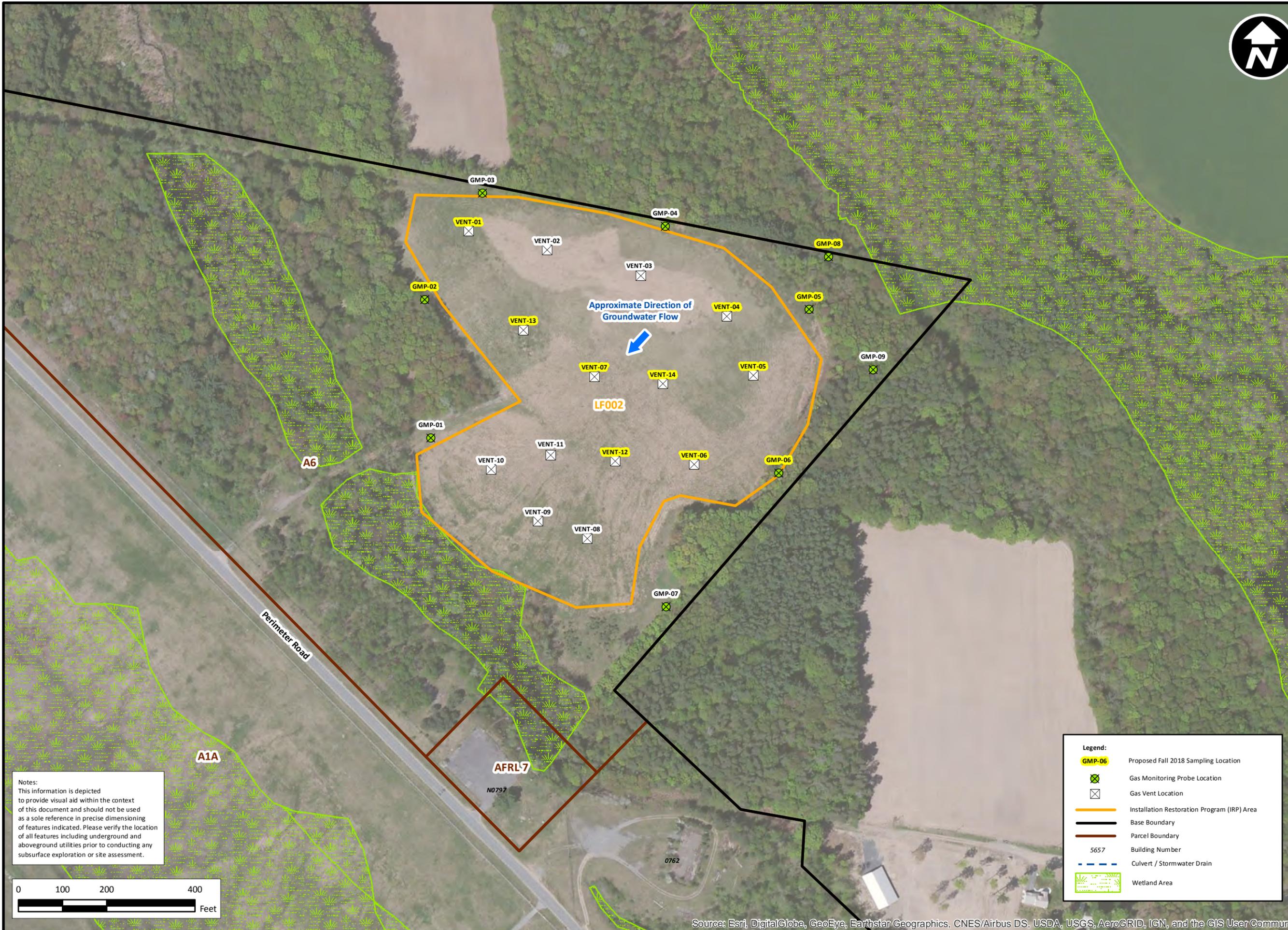


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Legend:

- GMP-07 Location Monitored during Fall 2017 Event
- Photo Orientation
- Vector
- Gas Monitoring Probe Location
- Gas Vent Location
- Installation Restoration Program (IRP) Area
- Base Boundary
- Parcel Boundary
- Building Number
- Culvert / Stormwater Drain
- Wetland Area



Notes:
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Legend:	
GMP-06	Proposed Fall 2018 Sampling Location
X	Gas Monitoring Probe Location
X	Gas Vent Location
	Installation Restoration Program (IRP) Area
	Base Boundary
	Parcel Boundary
5657	Building Number
	Culvert / Stormwater Drain
 	Wetland Area

LF002 (Landfill 2/3 AOC) Fall 2018
Proposed Landfill Gas Monitoring Locations

Technical Memorandum Long-Term Monitoring
of Landfill Areas of Concern
Former Griffiss Air Force Base, Rome, New York

PROJECT NO:	AFCGSA3-0012
SCALE:	As Shown
DATE:	1/14/2018
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Figure 5



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



Saturated Area
(November 2017)

Saturated Area
(November 2017)

Approximate Direction of
Groundwater Flow

Photo 1

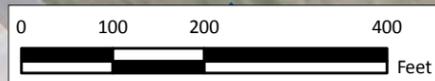
Photo 2

Photo 3

Photo 4

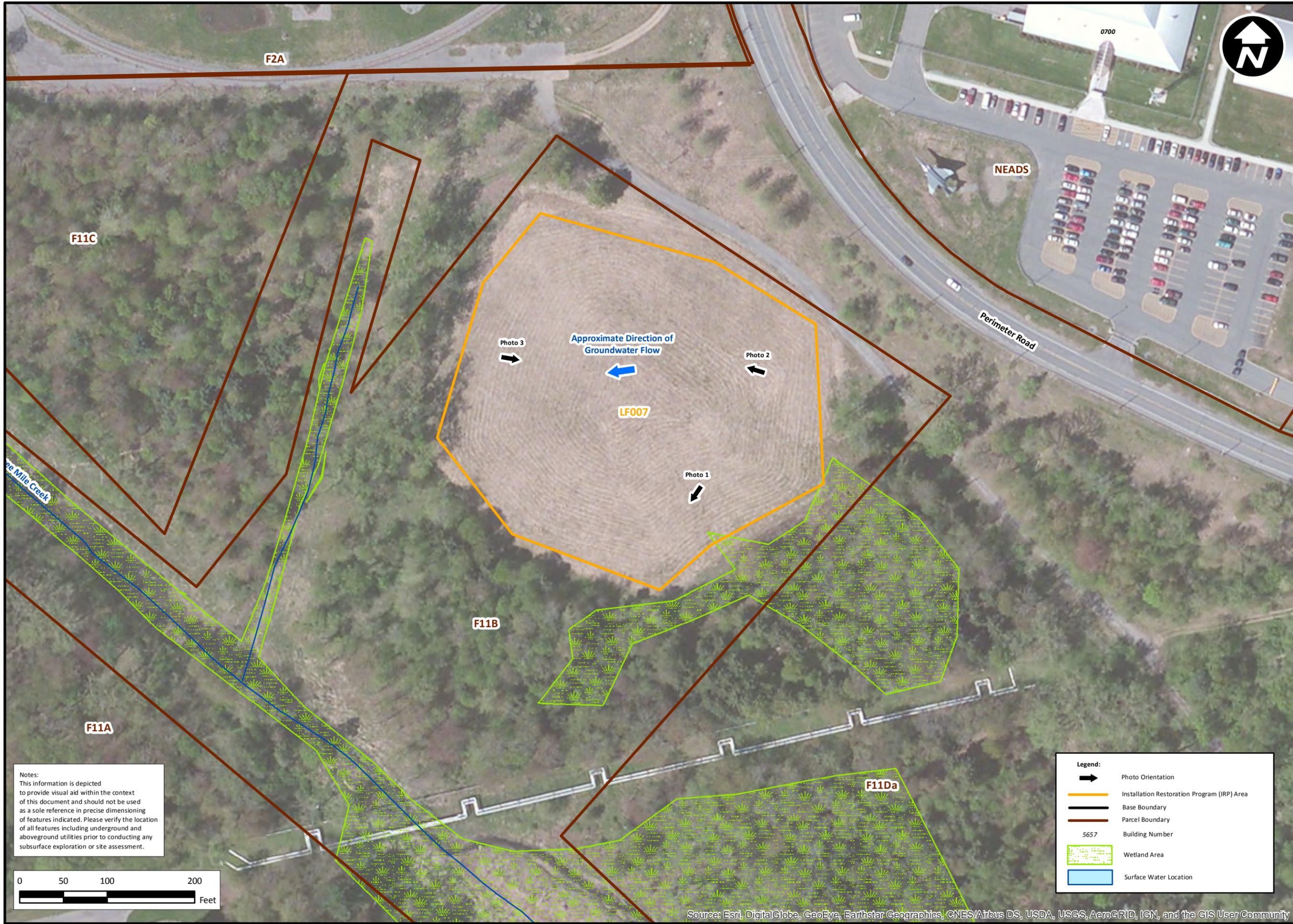
Photo 5

Notes:
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.

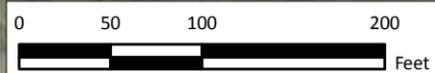


Legend:

- Monitoring Well Location
- Photo Orientation
- Vector
- Installation Restoration Program (IRP) Area
- Base Boundary
- Parcel Boundary
- Building Number
- Culvert / Stormwater Drain
- Wetland Area
- Surface Water Location



Notes:
 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.

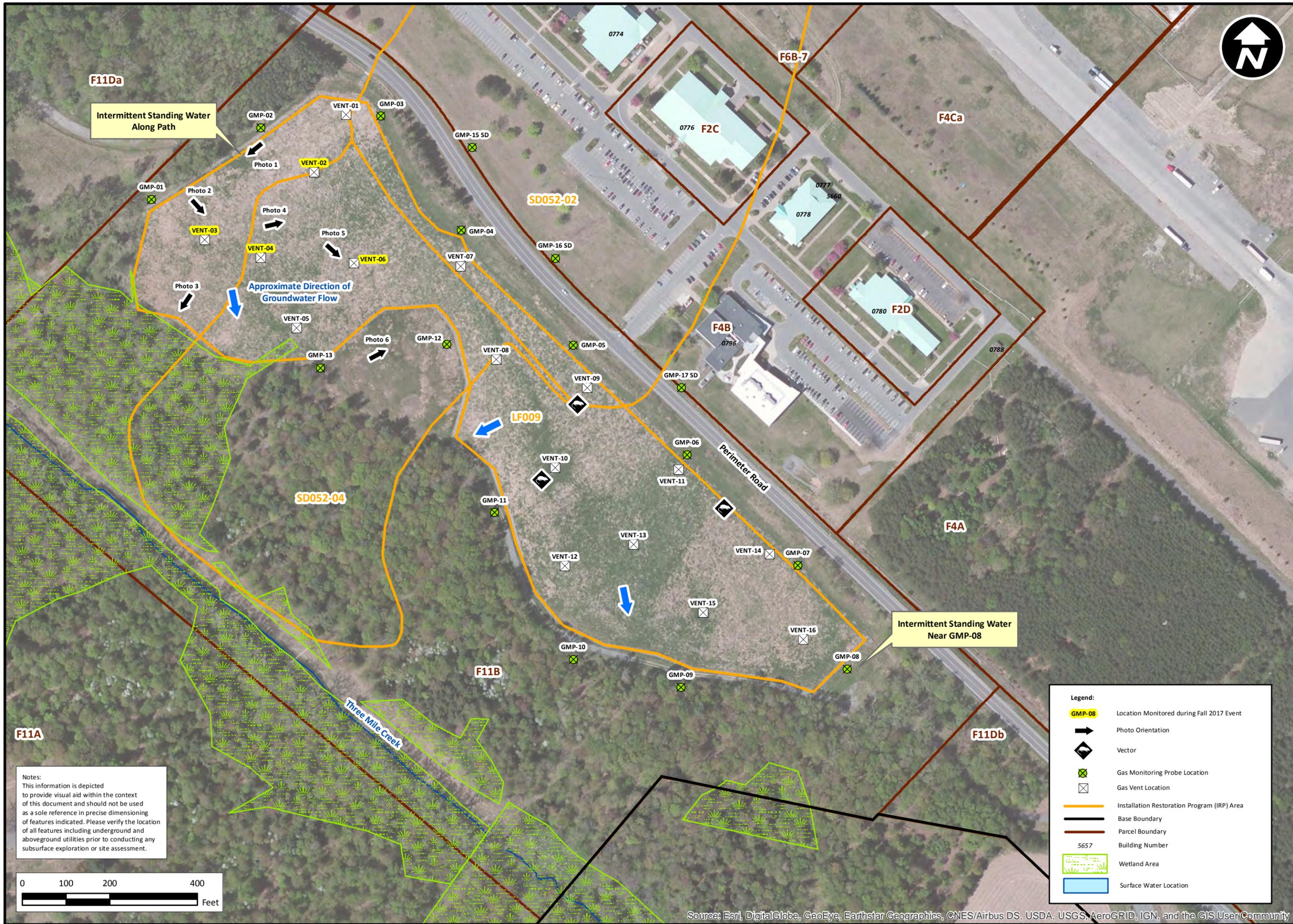


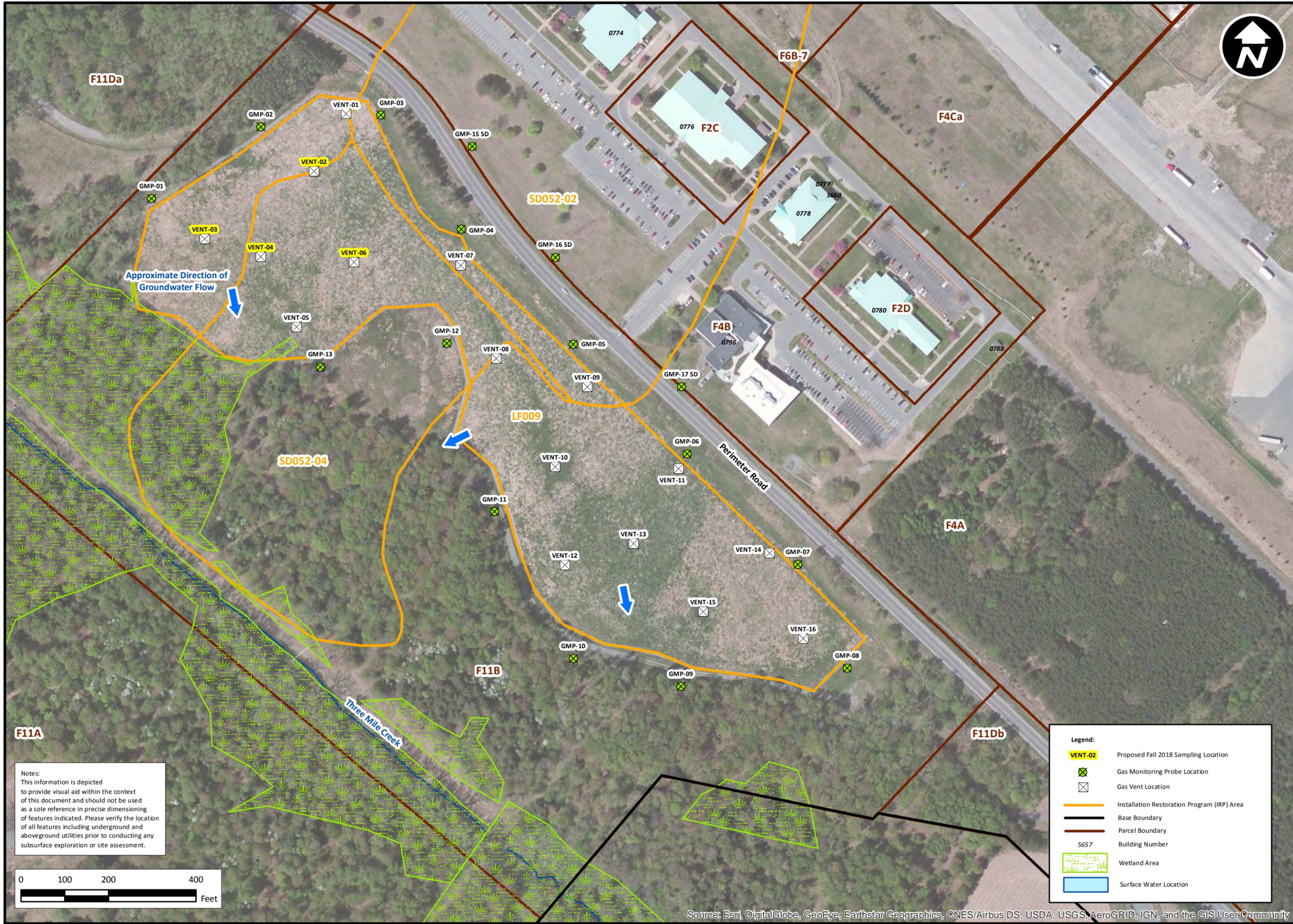
Legend:	
	Photo Orientation
	Installation Restoration Program (IRP) Area
	Base Boundary
	Parcel Boundary
	Building Number
	Wetland Area
	Surface Water Location

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

Technical Memorandum Long-Term Monitoring of Landfill Areas of Concern Former Griffiss Air Force Base, Rome, New York		
PROJECT NO:	SCALE:	DATE:
AFCGSA3-0012	As Shown	1/14/2018
DRAWN BY:		MRM

Figure 7





PROJECT NO:	AFCGSA3-0012
SCALE:	As Shown
DATE:	1/14/2018
DRAWN BY:	MRM

Figure 9

Legend:

- VENT-02 Proposed Fall 2018 Sampling Location
- GMP-01 Gas Monitoring Probe Location
- X Gas Vent Location
- Installation Restoration Program (IRP) Area
- Base Boundary
- Parcel Boundary
- 5657 Building Number
- Wetland Area
- Surface Water Location

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

ATTACHMENT B – DATA TABLES

Table 1
LF001 (Landfill AOC 1) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	1-Feb-10				5-May-10				31-Aug-10				26-Oct-10				12-May-11				
	Barometric Pressure (in.) =			29.45-29.50	Barometric Pressure (in.) =			29.04-29.23	Barometric Pressure (in.) =			29.40-29.29	Barometric Pressure (in.) =			29.13-29.20	Barometric Pressure (in.) =			29.41-29.21	
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	
LF1GMP-01	>100	45.5	2.1	20.6	>100	32.4	2.5	18.8	>100	52.5	0.9	24.6	>100	48.4	2.4	24.7	>100	36.9	0.8	22.2	
LF1GMP-02	0	0.0	14.4	2.1	>100	8.1	0.0	12.8	>100	28.6	0.1	18.1	26	1.3	7.9	3.6	>100	11.7	2.6	12.9	
LF1GMP-03	>100	5.7	8.1	8.1	>100	18.2	0.0	22.1	>100	43.7	0.1	34.6	>100	46.1	0.8	34.0	>100	25.9	0.0	25.4	
LF1GMP-04	10	0.5	14.3	4.5	>100	17.6	0.0	24.2	>100	53.8	0.1	40.9	>100	24.8	8.6	20.4	>100	32.7	0.0	27.4	
LF1GMP-06	>100	70.8	0.0	4.3	>100	44.8	0.0	6.3	>100	79.5	0.3	8.9	>100	24.2	12.9	3.5	>100	70.1	0.0	3.5	
LF1GMP-08	0	0.0	20.5	1.1	0	0.0	16.3	2.5	0	0.0	7.4	8.4	0	0.0	18.8	0.8	0	0.0	14.4	3.4	
LF1GMP-09	47	2.4	7.7	4.0	>100	11.2	0.0	12.5	>100	45.7	0.3	22.9	60	3.0	17.5	1.8	>100	20.5	1.1	7.6	
LF1GMP-10	>100	9.0	6.8	10.7	>100	10.2	0.5	15.1	>100	18.1	0.3	21.6	0	0.0	18.8	0.5	>100	11.2	0.6	15.9	
LF1GMP-11	0	0.0	23.8	0.1	0	0.0	16.1	2.3	0	0.0	15.2	3.3	0	0.0	20.1	0.4	0	0.0	17.1	1.1	
LF1GMP-12	0	0.0	21.4	1.5	0	0.0	18.5	1.5	0	0.0	17.9	2.3	0	0.0	19.9	0.7	0	0.0	19.1	0.5	
LF1GMP-13	0	0.0	18.1	1.3	0	0.0	15.1	2.2	0	0.0	7.4	7.1	0	0.0	19.1	0.4	0	0.0	13.5	1.7	
LF1GMP-14	0	0.0	21.6	0.6	0	0.0	19.0	0.5	0	0.0	15.6	2.0	0	0.0	18.9	0.4	0	0.0	18.4	0.4	
LF1GMP-15	0	0.0	22.3	0.1	0	0.0	19.2	0.5	0	0.0	18.6	1.3	0	0.0	18.6	0.8	0	0.0	18.8	1.3	
LF1GMP-16	0	0.0	19.9	1.5	0	0.0	19.1	1.6	0	0.0	17.7	2.5	0	0.0	18.7	1.7	0	0.0	18.7	1.4	
LF1GMP-17	0	0.0	19.6	1.5	0	0.0	19.4	1.5	0	0.0	17.5	2.5	1	0.1	19.7	0.8	0	0.0	18.4	1.4	
LF1GMP-18	0	0.0	22.0	0.1	0	0.0	19.6	0.2	0	0.0	17.5	2.4	0	0.0	19.6	1.0	0	0.0	19.7	0.0	
LF1GMP-19	0	0.0	22.0	0.3	0	0.0	18.6	0.7	53	2.6	7.1	5.2	0	0.0	20.2	0.3	0	0.0	17.0	0.4	
LF1GMP-20	2	0.1	22.7	0.1	0	0.0	19.6	0.0	0	0.0	20.1	0.0	0	0.0	20.3	0.3	0	0.0	19.9	0.0	
LF1GV-01	0	0.0	22.1	0.2	>100	8.0	13.6	8.1	>100	26.3	8.8	23.2	9	0.5	15.4	6.4	>100	7.2	15.9	5.9	
LF1GV-02	2	0.1	21.3	0.5	>100	7.6	12.5	9.8	>100	11.8	14.7	9.6	32	1.6	15.3	6.7	>100	14.0	10.5	12.7	
LF1GV-03	3	0.1	21.0	0.7	>100	5.4	14.0	6.8	>100	27.5	8.0	21.0	>100	8.5	12.9	9.1	>100	32.7	0.0	28.6	
LF1GV-04	0	0.0	22.0	0.3	>100	15.2	0.3	20.9	>100	24.2	5.5	22.2	>100	10.3	9.7	13.3	>100	20.8	4.4	20.4	
LF1GV-05	>100	6.1	19.5	8.8	>100	5.7	14.8	6.7	>100	23.7	10.0	19.3	17	0.9	14.8	7.6	>100	14.5	13.5	12.3	
LF1GV-06	>100	7.4	2.9	17.1	>100	8.2	6.8	12.2	>100	32.8	4.3	25.3	56	2.8	10.8	13.2	>100	20.3	7.9	17.8	
LF1GV-07	>100	6.6	14.6	7.3	3	0.1	20.9	0.1	>100	16.1	13.6	14.2	15	0.9	15.7	6.4	>100	12.6	15.0	8.4	
LF1GV-08	>100	6.5	17.0	4.8	13	0.6	20.6	0.5	>100	9.5	16.7	6.2	14	0.7	15.7	5.1	>100	6.6	17.8	4.3	
LF1GV-09	47	2.3	19.2	2.1	16	0.8	20.6	0.7	>100	9.8	16.4	6.8	8	0.4	15.4	5.7	>100	10.7	16.6	4.6	
LF1GV-10	>100	5.0	8.4	11.8	2	0.1	20.7	0.2	>100	15.4	13.4	13.0	76	3.8	11.8	13.4	>100	11.3	14.0	9.6	
LF1GV-11	79	3.9	18.4	3.1	3	0.1	20.8	0.2	>100	5.2	18.0	3.9	11	0.6	15.9	5.6	>100	8.4	17.2	4.5	
LF1GV-12	60	3.0	16.9	4.2	3	0.2	20.6	0.3	>100	14.5	13.1	12.4	28	1.4	14.4	8.0	81	4.0	18.3	4.1	
LF1GV-13	>100	20.4	0.4	22.5	2	0.1	20.3	0.9	>100	13.5	12.8	11.4	90	4.3	9.8	14.6	>100	13.0	11.3	10.7	
LF1GV-14	>100	5.0	17.5	3.9	46	2.3	19.7	1.3	>100	5.0	18.2	3.5	11	0.6	15.2	5.9	>100	6.7	16.9	4.3	
LF1GV-15	24	1.2	17.9	2.8	5	0.2	20.6	0.4	>100	6.5	16.6	6.9	0	0.0	16.8	3.4	77	4.0	17.5	3.6	
LF1GV-16	6	0.3	18.3	1.9	0	0.0	20.9	0.0	>100	8.8	14.0	7.5	34	1.7	11.2	9.6	62	3.5	15.1	4.7	
LF1GV-17	31	1.5	21.1	1.3	37	1.7	19.9	1.4	>100	5.8	17.5	5.1	17	0.9	15.4	6.2	>100	6.0	17.7	4.0	
LF1GV-18	22	1.1	20.6	1.4	21	1.0	20.0	0.9	>100	9.3	15.9	6.9	13	0.7	15.7	4.8	74	3.7	18.4	2.9	
LF1GV-19	52	2.5	17.5	3.3	8	0.3	20.5	0.5	>100	15.4	12.5	10.3	63	3.1	10.8	10.0	>100	9.9	14.2	7.2	
LF1GV-20	58	2.9	18.7	1.9	28	1.4	20.1	0.6	>100	10.1	13.5	6.5	62	3.1	9.9	9.5	>100	11.2	11.8	7.0	
LF1GV-21	>100	5.9	18.9	2.4	76	3.8	19.6	1.1	>100	17.5	14.0	6.7	47	2.4	13.0	6.6	>100	19.5	12.5	7.1	
LF1GV-22	>100	7.3	16.0	5.5	12	0.6	20.6	0.5	>100	8.6	15.9	6.8	34	1.9	13.7	8.2	>100	7.6	15.7	5.2	
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned																
LF1GV-24	0	0.0	22.3	0.1	0	0.0	14.9	1.9	>100	18.9	0.4	21.3	0	0.0	19.6	0.5	0	0.0	2.6	10.9	
LF1GV-25	0	0.0	22.2	0.1	0	0.0	16.1	2.8	>100	26.9	0.2	26.5	39	1.9	17.0	3.2	5	0.8	13.1	4.4	
LF1GV-26	0	0.0	22.1	0.2	0	0.0	19.8	0.1	>100	10.8	12.0	10.4	68	3.4	17.8	3.2	0	0.0	20.5	0.0	
LF1GV-27	0	0.0	21.8	0.1	0	0.0	19.6	0.2	33	1.7	18.7	2.9	>100	10.7	13.6	8.0	53	2.2	15.8	4.4	
LF1GV-28	0	0.0	22.0	0.1	0	0.0	17.7	1.4	5	0.2	19.7	0.3	11	0.6	20.2	0.4	0	0.0	20.4	0.0	
LF1GV-29	0	0.0	19.6	1.6	0	0.0	19.9	0.1	26	1.3	17.8	2.4	>100	8.8	11.4	8.2	0	0.0	20.4	0.0	
LF1GV-30	0	0.0	21.9	0.1	0	0.0	19.6	0.3	>100	8.6	10.4	11.7	0	0.0	20.2	0.4	0	0.0	20.6	0.0	
LF1GV-31	0	0.0	21.8	0.1	0	0.0	14.2	4.1	>100	5.6	9.5	9.0	0	0.0	19.5	0.7	0	0.0	19.3	1.2	

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
-- = Not Monitored

Table 1
LF001 (Landfill AOC 1) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	18-Oct-11				7-May-12				4-Oct-12				29-Apr-13				21-Oct-13				
	Barometric Pressure (in.) =			29.11-29.14	Barometric Pressure (in.) =			29.02-29.34	Barometric Pressure (in.) =			29.49-29.56	Barometric Pressure (in.) =			29.59-29.63	Barometric Pressure (in.) =			29.35-29.41	
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	
LF1GMP-01	0	0.0	21.2	0.0	>100	20.4	0.9	22.5	>100	30.5	3.9	19.4	0	0.0	20.8	0.1	>100	23.5	4.9	16.7	
LF1GMP-02	0	0.0	21.2	0.0	>100	21.7	0.0	13.9	>100	16.3	2.3	9.7	0	0.0	20.9	0.1	61	3.0	16.9	3.0	
LF1GMP-03	>100	44.3	0.6	35.2	>100	24.3	0.0	28.1	>100	38.2	1.3	30.8	0	0.0	20.9	0.0	>100	21.9	8.2	15.8	
LF1GMP-04	>100	44.6	0.4	39.5	>100	31.4	0.0	28.4	56	2.8	19.3	3.1	0	0.0	20.8	0.2	>100	21.8	0.2	25.6	
LF1GMP-06	0	0.0	20.8	0.2	>100	52.9	0.0	5.0	>100	77.3	0.2	8.7	>100	25.0	9.2	3.1	>100	7.8	11.4	2.4	
LF1GMP-08	0	0.0	20.0	1.0	0	0.0	13.4	3.4	0	0.0	20.6	0.4	0	0.0	18.8	1.6	28	1.3	0.9	13.2	
LF1GMP-09	59	2.8	17.4	1.8	>100	19.2	0.0	11.5	>100	43.5	1.5	24.4	3	0.1	20.7	0.2	>100	44.2	0.4	18.5	
LF1GMP-10	>100	16.2	2.1	18.1	>100	13.0	0.2	15.1	53	2.5	17.1	4.1	25	1.2	18.8	0.5	>100	13.9	2.1	11.7	
LF1GMP-11	0	0.0	20.3	0.8	0	0.0	17.4	2.7	0	0.0	20.9	0.2	0	0.0	18.6	1.9	0	0.0	18.5	1.8	
LF1GMP-12	0	0.0	20.2	1.6	0	0.0	20.5	1.6	0	0.0	20.7	0.6	0	0.0	19.7	1.2	0	0.0	19.7	1.2	
LF1GMP-13	0	0.0	12.4	4.4	0	0.0	18.3	1.7	0	0.0	20.5	0.3	0	0.0	19.9	0.8	0	0.0	20.0	1.3	
LF1GMP-14	0	0.0	19.6	0.6	0	0.0	21.5	0.3	0	0.0	20.7	0.7	0	0.0	20.9	0.0	0	0.0	13.1	4.5	
LF1GMP-15	0	0.0	20.6	0.6	0	0.0	21.2	0.6	0	0.0	20.0	0.9	0	0.0	17.5	1.6	0	0.0	18.8	1.1	
LF1GMP-16	0	0.0	21.1	0.0	0	0.0	22.0	0.0	0	0.0	20.7	0.2	0	0.0	19.8	1.3	0	0.0	19.2	1.2	
LF1GMP-17	0	0.0	21.1	0.0	0	0.0	18.3	1.7	0	0.0	20.7	0.1	0	0.0	19.7	1.3	0	0.0	20.8	0.7	
LF1GMP-18	0	0.0	21.0	0.5	0	0.0	20.5	1.7	0	0.0	15.0	3.4	0	0.0	20.8	0.1	0	0.0	19.6	1.9	
LF1GMP-19	0	0.0	21.2	0.1	0	0.0	20.4	0.5	0	0.0	17.9	1.9	0	0.0	20.9	0.0	0	0.0	20.8	0.4	
LF1GMP-20	0	0.0	21.4	0.0	0	0.0	21.9	0.0	0	0.0	21.2	0.0	0	0.0	20.8	0.0	0	0.0	20.7	0.0	
LF1GV-01	0	0.0	21.5	0.1	>100	6.0	18.9	5.0	>100	18.9	4.4	21.7	0	0.0	20.9	0.0	79	3.9	16.2	6.3	
LF1GV-02	0	0.0	20.2	1.6	>100	7.4	17.9	6.4	>100	25.4	2.6	26.3	0	0.0	20.8	0.0	>100	6.4	12.1	10.5	
LF1GV-03	0	0.0	21.0	0.4	74	3.8	19.8	3.0	>100	24.9	6.2	23.8	0	0.0	20.7	0.0	59	3.0	15.4	5.8	
LF1GV-04	0	0.0	21.2	0.3	0	0.0	22.0	0.1	>100	17.0	12.9	14.7	0	0.0	20.7	0.0	>100	6.7	8.8	12.5	
LF1GV-05	0	0.0	21.2	0.6	>100	24.9	8.5	21.6	>100	26.7	6.6	25.2	0	0.0	21.1	0.0	>100	6.2	15.2	7.6	
LF1GV-06	0	0.0	21.4	0.2	>100	25.5	2.3	26.0	>100	20.7	3.1	23.9	0	0.0	21.1	0.0	>100	6.8	8.2	12.8	
LF1GV-07	0	0.0	21.9	0.0	>100	9.5	17.4	7.3	>100	20.4	10.7	18.5	0	0.0	21.1	0.0	68	3.9	17.9	4.2	
LF1GV-08	0	0.0	21.8	0.0	>100	22.4	11.8	12.4	>100	13.2	14.4	8.4	5	0.2	21.1	0.1	>100	7.3	16.0	6.9	
LF1GV-09	0	0.0	21.8	0.0	>100	28.4	9.1	18.0	>100	12.3	13.4	10.2	2	0.1	21.1	0.1	79	4.0	15.8	3.7	
LF1GV-10	0	0.0	21.6	0.1	>100	17.8	11.9	16.9	>100	33.3	2.5	31.5	0	0.0	20.9	0.0	>100	9.0	9.7	12.4	
LF1GV-11	0	0.0	22.0	0.0	>100	7.3	18.3	5.4	>100	18.5	9.2	16.2	0	0.0	20.9	0.0	>100	6.0	16.6	4.0	
LF1GV-12	0	0.0	22.0	0.0	>100	32.6	8.5	23.7	>100	15.0	9.7	15.8	0	0.0	21.1	0.0	>100	5.2	9.5	11.1	
LF1GV-13	19	0.9	17.0	4.1	>100	18.6	11.4	14.7	>100	21.0	8.2	18.5	1	0.1	21.0	0.0	>100	5.3	16.8	4.6	
LF1GV-14	6	0.3	21.1	0.7	>100	9.8	16.4	6.8	62	3.0	18.8	3.0	0	0.0	21.0	0.0	47	2.4	19.0	2.1	
LF1GV-15	0	0.0	21.8	0.1	>100	8.3	17.3	4.7	25	1.2	19.5	1.5	0	0.0	21.0	0.0	20	1.0	20.4	1.0	
LF1GV-16	0	0.0	21.9	0.0	>100	8.5	15.7	5.7	0	0.0	21.1	0.0	0	0.0	21.2	0.0	65	3.3	9.1	8.6	
LF1GV-17	10	0.5	20.2	1.4	>100	23.2	10.9	14.9	0	0.0	21.2	0.0	0	0.0	21.1	0.0	80	4.2	17.9	3.7	
LF1GV-18	0	0.0	21.6	0.1	>100	6.4	18.5	4.1	0	0.0	21.0	0.1	0	0.0	21.3	0.0	93	4.7	15.5	5.3	
LF1GV-19	0	0.0	20.0	1.8	>100	7.7	17.8	4.4	0	0.0	21.2	0.0	0	0.0	21.2	0.0	>100	10.5	5.3	14.9	
LF1GV-20	0	0.0	21.4	0.1	>100	6.0	18.3	2.8	0	0.0	21.2	0.0	0	0.0	21.2	0.0	>100	5.3	16.6	3.7	
LF1GV-21	0	0.0	21.3	0.1	>100	10.3	18.5	2.7	0	0.1	21.1	0.0	2	0.1	21.1	0.0	>100	9.7	15.3	4.9	
LF1GV-22	0	0.0	21.3	0.3	>100	17.2	11.6	13.2	0	0.0	21.2	0.0	0	0.0	21.1	0.0	>100	6.2	15.1	6.9	
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned																
LF1GV-24	0	0.0	21.1	0.0	>100	5.8	6.1	7.6	>100	14.7	1.6	22.7	0	0.0	19.3	0.9	0	0.0	17.2	2.0	
LF1GV-25	0	0.0	21.5	0.0	2	0.1	22.0	0.1	6	0.3	20.9	0.3	0	0.0	20.9	0.1	3	0.2	20.9	0.4	
LF1GV-26	0	0.0	21.6	0.0	0	0.0	21.9	0.0	0	0.0	21.1	0.0	0	0.0	21.1	0.0	9	0.5	20.4	0.4	
LF1GV-27	0	0.0	21.3	0.3	>100	12.2	12.3	8.8	0	0.0	21.1	0.0	0	0.0	20.4	0.4	0	0.0	20.5	1.1	
LF1GV-28	0	0.0	21.6	0.0	0	0.0	21.9	0.0	0	0.0	21.1	0.0	0	0.0	21.2	0.0	0	0.0	21.4	0.1	
LF1GV-29	0	0.0	21.6	0.0	0	0.0	22.0	0.0	0	0.0	21.1	0.0	0	0.0	21.1	0.0	0	0.0	17.9	1.8	
LF1GV-30	0	0.0	21.5	0.5	2	0.2	21.9	0.0	0	0.0	21.2	0.0	0	0.0	21.1	0.0	0	0.0	21.3	0.1	
LF1GV-31	0	0.0	20.1	1.3	0	0.0	20.5	0.2	4	0.2	20.5	0.6	0	0.0	19.9	0.6	0	0.0	20.5	0.5	

Notes:
> = Greater than
% = percent
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LEL = Lower Explosive Limit
-- = Not Monitored

Table 1
LF001 (Landfill AOC 1) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	7-May-14				18-Nov-14				18-May-15				14-Sep-15				6-Dec-16				
	Barometric Pressure (in.) =			29.51-29.62	Barometric Pressure (in.) =			29.49-29.51	Barometric Pressure (in.) =			29.28-29.62	Barometric Pressure (in.) =			29.36-29.54	Barometric Pressure (in.) =			29.54-29.53	
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	
LF1GMP-01	0	0.0	20.8	0.0	>100	23.0	4.1	17.2	0	0.0	20.8	0.0	> 100	25.4	0.1	24.1	0	0	21.1	0.1	
LF1GMP-02	0	0.0	20.8	0.0	0	0.0	14.8	2.4	0	0.0	20.2	0.0	> 100	31.6	0.0	15.2	43	2.1	1	10.1	
LF1GMP-03	55	2.7	8.6	6.0	>100	25.6	0.0	16.1	31	18	18.5	3.7	> 100	40.8	0.0	36.6	> 100	9.4	6.3	15.3	
LF1GMP-04	0	0.0	20.8	0.0	>100	36.1	1.4	14.8	0	0.0	21.1	0.0	> 100	47.3	0.0	41.5	0	0	21.1	0.4	
LF1GMP-06	3	0.1	20.5	0.1	0	0.0	19.7	0.6	> 100	32.2	8.1	3.6	> 100	77.0	0.1	7.3	> 100	9.1	14.6	3.2	
LF1GMP-08	0	0.0	20.5	0.1	0	0.0	20.1	0.1	0	0.0	21.3	0.0	0	0.0	15.3	4.4	--	--	--	--	
LF1GMP-09	43	2.1	17.8	0.7	>100	8.1	12.3	5.8	0	0.0	21.0	0.0	> 100	34.9	0.1	20.6	> 100	22.7	7.7	7.5	
LF1GMP-10	29	1.4	16.8	0.3	>100	10.3	0.9	14.4	0	0.0	20.8	0.0	> 100	14.1	2.0	18.5	21	1	19.3	0.4	
LF1GMP-11	0	0.0	20.3	0.4	0	0.0	20.9	0.6	0	0.0	21.2	0.0	1	0.0	14.2	6.4	--	--	--	--	
LF1GMP-12	0	0.0	19.6	1.5	0	0.0	20.9	0.2	0	0.0	20.4	0.8	2	0.1	20.0	0.7	--	--	--	--	
LF1GMP-13	0	0.0	19.5	0.7	0	0.0	20.7	1.3	0	0.0	19.8	1.0	1	0.0	19.6	1.0	0	0	18.7	1.5	
LF1GMP-14	0	0.0	16.7	1.8	0	0.0	18.8	0.7	0	0.0	20.9	0.0	0	0.0	17.4	2.9	--	--	--	--	
LF1GMP-15	0	0.0	19.7	0.6	0	0.0	19.1	0.0	0	0.0	20.8	0.1	0	0.0	19.6	1.2	--	--	--	--	
LF1GMP-16	0	0.0	20.1	1.0	0	0.0	19.4	0.1	0	0.0	20.3	1.0	0	0.0	20.3	0.2	0	0	19.8	1.7	
LF1GMP-17	0	0.0	20.8	0.2	0	0.0	18.7	0.5	0	0.0	20.0	1.5	1	0.0	20.4	0.1	--	--	--	--	
LF1GMP-18	0	0.0	20.9	0.0	0	0.0	18.0	1.1	0	0.0	20.9	0.0	1	0.0	13.1	0.8	--	--	--	--	
LF1GMP-19	0	0.0	20.7	0.0	0	0.0	20.1	0.0	0	0.0	21.2	0.0	3	0.1	18.7	1.5	--	--	--	--	
LF1GMP-20	0	0.0	20.7	0.0	0	0.0	19.9	1.2	0	0.0	21.3	0.0	1	0.0	20.4	0.1	--	--	--	--	
LF1GV-01	3	0.1	20.0	0.3	>100	8.2	13.4	7.2	> 100	31.7	1.5	31.7	0	0.0	20.6	0.1	0	0	21.3	0.1	
LF1GV-02	7	0.3	19.0	1.3	>100	6.2	16.8	5.0	> 100	5.7	16.6	6.7	0	0.0	20.7	0.0	0	0	21.2	0.4	
LF1GV-03	7	0.4	17.9	2.5	14	0.7	20.1	0.6	> 100	7.5	15.7	5.9	0	0.0	20.7	0.0	0	0	21.3	0.1	
LF1GV-04	14	0.7	15.2	6.4	0	0.0	20.3	0.0	0	0.0	21.2	0.0	0	0.0	20.7	0.0	0	0	21.4	0	
LF1GV-05	5	0.2	19.7	0.4	0	0.0	19.9	0.1	5	0.3	21.1	0.1	0	0.0	21	0.0	0	0	20.5	1	
LF1GV-06	9	0.4	10.3	7.2	0	0.0	21.2	0.0	> 100	18.9	7.3	20.3	1	0.0	20.5	0.0	0	0	20.9	0.2	
LF1GV-07	>100	5.2	11.7	9.2	0	0.0	21.1	0.0	64	3.5	19.5	3.7	0	0.0	21.0	0.0	0	0	20.6	0.7	
LF1GV-08	46	2.3	17.6	2.9	22	1.5	14.8	5.3	> 100	14.8	15.5	10.3	0	0.0	21.3	0.0	0	0	20.7	0.5	
LF1GV-09	63	3.1	15.7	4.0	0	0.0	19.9	0.0	> 100	13.9	11.7	10.5	0	0.0	21.2	0.0	0	0	21.1	0.1	
LF1GV-10	3	0.1	16.1	2.8	0	0.0	19.7	0.1	> 100	5.3	17.8	5.7	1	0.1	21.1	0.0	0	0	0.8	20	
LF1GV-11	29	1.4	17.9	1.4	0	0.0	19.8	0.1	> 100	4.3	18.9	4.9	0	0.0	21.1	0.0	5	0.2	2.6	18.4	
LF1GV-12	7	0.3	16.9	2.4	0	0.0	20.1	0.0	> 100	6.5	17.6	6.8	0	0.0	20.5	0.0	0	0	20.9	0.1	
LF1GV-13	82	4.1	13.6	5.7	51	2.6	2.4	13.8	> 100	12.2	13.8	12.3	1	0.0	21.0	0.0	0	0	20.7	1	
LF1GV-14	87	4.4	13.9	5.2	0	0.0	20.1	0.0	> 100	11.4	14.7	8.4	0	0.0	20.7	0.0	8	0.4	14.6	7.4	
LF1GV-15	5	0.2	18.1	1.3	0	0.0	18.8	0.5	63	3.1	19.3	4.2	1	0.0	20.7	0.0	--	--	--	--	
LF1GV-16	0	0.0	16.8	1.9	0	0.0	19.1	0.0	17	0.9	20.1	2.6	0	0.0	20.7	0.0	--	--	--	--	
LF1GV-17	75	4.0	17.1	2.7	0	0.0	20.3	0.0	> 100	13.70	15.3	8.6	1	0.0	20.5	0.0	13	0.6	17.6	1.9	
LF1GV-18	>100	8.0	5.7	11.7	0	0.0	18.9	0.7	> 100	15.4	16.4	7.2	1	0.0	20.6	0.0	0	0	21	0.1	
LF1GV-19	45	2.3	8.3	9.7	0	0.0	19.5	0.0	> 100	8.6	17.9	5.9	0	0.0	20.6	0.0	1	0	17	4.7	
LF1GV-20	30	1.5	17.5	1.3	0	0.0	19.4	0.0	> 100	17.9	9.5	9.3	0	0.0	20.6	0.0	9	0.4	18.9	1.7	
LF1GV-21	>100	6.0	14.8	3.6	0	0.0	19.5	0.0	> 100	11.1	18.5	4.3	0	0.0	20.7	0.0	3	0.1	20.2	0.7	
LF1GV-22	>100	7.9	9.3	9.1	0	0.0	20.2	0.0	> 100	10.6	16.5	6.6	1	0.0	20.5	0.0	0	0	19.2	2	
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned	Abandoned																
LF1GV-24	0	0.0	19.1	1.2	0	0.0	20.1	0.0	> 100	5.5	1.1	11.7	14	0.3	19.4	2.3	0	0	21.2	0	
LF1GV-25	0	0.0	20.8	0.0	0	0.0	20.0	0.9	> 100	10.5	5.2	8.9	0	0.1	20.2	0.0	0	0	20.8	0.6	
LF1GV-26	0	0.0	20.8	0.0	0	0.0	20.0	0.0	0	0.0	21.7	0.1	0	0.0	20.1	0.0	--	--	--	--	
LF1GV-27	0	0.0	20.9	0.0	0	0.0	18.7	0.8	> 100	9.5	9.3	12.4	5	0.7	21.3	0.0	0	0	19.8	0.9	
LF1GV-28	0	0.0	20.9	0.0	0	0.0	18.8	1.5	0	0.0	21.7	0.0	0	0.0	21.3	0.0	0	0	20.3	0.4	
LF1GV-29	0	0.0	20.8	0.2	0	0.0	21.0	0.0	2	0.1	21.5	0.0	0	0.0	21.2	0.0	--	--	--	--	
LF1GV-30	0	0.0	20.3	0.5	0	0.0	19.5	1.0	0	0.0	21.1	2.5	0	0.0	21.3	0.0	--	--	--	--	
LF1GV-31	0	0.0	20.6	0.4	0	0.0	20.0	0.0	0	0.0	17.3	3.0	0	0.0	20.1	0.9	--	--	--	--	

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit
-- = Not Monitored

Table 1
LF001 (Landfill AOC 1) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	7-Nov-17			
	Barometric Pressure (in.) =			29.51 - 29.51
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF1GMP-01	0.0	0.0	21.4	0.1
LF1GMP-02	> 100	25.2	0.7	15.3
LF1GMP-03	> 100	19.6	9.0	17.8
LF1GMP-04	14.0	0.7	16.5	1.9
LF1GMP-06	> 100	40.0	2.6	5.0
LF1GMP-08	--	--	--	--
LF1GMP-09	0.0	0.0	21.2	0.0
LF1GMP-10	0.0	0.0	21.2	0.0
LF1GMP-11	--	--	--	--
LF1GMP-12	--	--	--	--
LF1GMP-13	0.0	0.0	19.4	1.6
LF1GMP-14	--	--	--	--
LF1GMP-15	--	--	--	--
LF1GMP-16	0.0	0.0	21.5	0.0
LF1GMP-17	--	--	--	--
LF1GMP-18	--	--	--	--
LF1GMP-19	--	--	--	--
LF1GMP-20	--	--	--	--
LF1GV-01	0.0	0.0	21.4	0.1
LF1GV-02	0.0	0.0	21.3	0.2
LF1GV-03	0.0	0.0	21.3	0.1
LF1GV-04	0.0	0.0	21.2	0.0
LF1GV-05	0.0	0.0	21.5	0.0
LF1GV-06	0.0	0.0	21.4	0.0
LF1GV-07	0.0	0.0	21.5	0.1
LF1GV-08	0.0	0.0	21.5	0.0
LF1GV-09	0.0	0.0	21.3	0.1
LF1GV-10	0.0	0.0	21.4	0.1
LF1GV-11	0.0	0.0	21.5	0.1
LF1GV-12	0.0	0.0	21.2	0.0
LF1GV-13	0.0	0.0	21.4	0.1
LF1GV-14	0.0	0.0	21.4	0.2
LF1GV-15	--	--	--	--
LF1GV-16	--	--	--	--
LF1GV-17	0.0	0.0	21.3	0.3
LF1GV-18	0.0	0.0	21.4	0.1
LF1GV-19	0.0	0.0	21.3	0.2
LF1GV-20	0.0	0.0	21.3	0.2
LF1GV-21	1.0	0.0	21.3	0.1
LF1GV-22	0.0	0.0	21.4	0.1
LF1GV-23	Abandoned	Abandoned	Abandoned	Abandoned
LF1GV-24	0.0	0.0	21.5	0.0
LF1GV-25	0.0	0.0	20.6	1.0
LF1GV-26	--	--	--	--
LF1GV-27	0.0	0.0	21.5	0.0
LF1GV-28	--	--	--	--
LF1GV-29	--	--	--	--
LF1GV-30	--	--	--	--
LF1GV-31	--	--	--	--

Notes:
> = Greater than
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LEL = Lower Explosive
Limit
-- = Not Monitored

Table 2
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	3-Feb-10				6-May-10				26-Oct-10				11-May-11			
	Barometric Pressure (in.) = 29.34				Barometric Pressure (in.) = 29.05-29.06				Barometric Pressure (in.) = 29.24				Barometric Pressure (in.) = 29.21			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF2GMP-01	0	0.0	21.1	0.1	0	0.0	16.9	2.2	0	0.0	18.5	1.6	0	0.0	20.2	0.5
LF2GMP-02	0	0.0	21.5	0.0	>100	5.4	1.0	16.3	0	0.0	15.8	4.8	4	0.2	18.4	1.4
LF2GMP-03	3	0.1	21.1	0.4	0	0.0	21.0	0.0	0	0.0	17.4	2.5	0	0.0	19.5	1.3
LF2GMP-04	14	0.7	19.1	1.9	0	0.0	21.0	0.0	0	0.0	18.1	1.8	0	0.0	20.6	0.0
LF2GMP-05	0	0.0	22.0	0.1	0	0.0	21.0	0.0	0	0.0	18.4	1.5	0	0.0	11.7	2.1
LF2GMP-06	0	0.0	10.3	6.9	0	0.0	21.3	0.0	3	0.2	17.4	2.2	0	0.0	8.8	5.3
LF2GMP-07	0	0.0	21.3	1.2	0	0.0	20.9	0.5	5	0.3	18.1	2.3	0	0.0	18.7	1.5
LF2GMP-08	0	0.0	21.8	0.4	0	0.0	20.5	0.6	0	0.0	18.4	1.8	0	0.0	19.9	0.8
LF2GMP-09	0	0.0	21.9	0.3	0	0.0	21.0	0.3	0	0.0	18.9	1.3	0	0.0	20.3	0.3
LF2VENT-01	34	1.7	19.9	0.9	43	2.1	18.4	1.1	0	0.0	19.5	0.6	51	2.5	17.0	1.1
LF2VENT-02	0	0.0	21.9	0.2	0	0.0	21.0	0.0	0	0.0	19.4	0.6	2	0.1	20.0	0.0
LF2VENT-03	55	2.8	19.9	1.0	7	0.3	20.4	0.3	0	0.0	19.4	0.7	16	0.7	19.1	0.4
LF2VENT-04	11	0.5	19.4	1.7	41	2.0	14.2	5.2	1	0.0	19.1	0.9	86	5.2	16.6	1.2
LF2VENT-05	11	0.6	21.6	0.5	77	3.8	16.7	3.8	0	0.0	19.1	0.9	45	2.6	18.2	1.4
LF2VENT-06	>100	6.8	14.7	6.8	>100	7.1	12.0	7.9	0	0.0	18.8	1.3	>100	9.5	9.5	8.5
LF2VENT-07	0	0.0	22.0	0.1	2	0.1	17.2	1.1	0	0.0	19.5	0.6	5	0.3	17.7	0.5
LF2VENT-08	0	0.0	22.1	0.1	0	0.0	19.0	1.0	6	0.3	19.1	1.1	3	0.1	16.0	1.6
LF2VENT-09	0	0.0	22.1	0.1	0	0.0	18.4	1.8	7	0.4	19.4	0.8	3	0.1	12.7	2.1
LF2VENT-10	0	0.0	22.0	0.1	0	0.0	20.8	0.1	0	0.0	19.5	0.7	0	0.0	18.2	0.3
LF2VENT-11	2	0.1	21.5	0.3	6	0.3	17.5	1.4	0	0.0	19.5	0.7	12	0.6	14.7	1.5
LF2VENT-12	4	0.2	21.3	0.4	15	0.7	18.4	1.4	0	0.0	19.5	0.7	76	4.0	14.9	1.0
LF2VENT-13	9	0.4	21.0	0.4	36	1.8	18.4	0.9	0	0.0	19.4	0.6	37	1.8	17.3	0.7
LF2VENT-14	92	4.6	16.4	1.7	34	1.7	14.5	2.5	0	0.0	19.5	0.6	76	4.0	14.9	1.0

Notes:
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% = percent
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LEL = Lower Explosive Limit

Table 2
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	19-Oct-11				9-May-12				4-Oct-12				1-May-13			
	Barometric Pressure (in.) = 29.11-29.14				Barometric Pressure (in.) = 28.89-28.95				Barometric Pressure (in.) = 29.43-29.57				Barometric Pressure (in.) = 29.71-29.81			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF2GMP-01	0	0.0	16.3	2.8	0	0.0	21.7	0.0	0	0.0	17.3	2.4	0	0.0	18.5	1.6
LF2GMP-02	>100	7.6	4.6	16.6	0	0.0	22.0	0.0	>100	8.4	0.0	21.7	0	0.0	21.0	0.0
LF2GMP-03	0	0.0	19.0	2.3	0	0.0	22.0	0.0	0	0.0	20.8	0.0	0	0.0	20.8	0.0
LF2GMP-04	0	0.0	21.2	0.2	31	1.6	20.8	0.4	0	0.0	20.8	0.0	0	0.0	20.8	0.0
LF2GMP-05	>100	7.6	0.5	12.3	9	0.4	21.4	0.2	63	3.0	3.3	13.9	0	0.0	20.9	0.0
LF2GMP-06	0	0.0	6.2	10.2	>100	12.9	10.8	9.4	0	0.0	20.6	0.5	0	0.0	20.7	0.1
LF2GMP-07	0	0.0	19.2	2.9	0	0.0	21.5	0.1	0	0.0	19.0	2.3	0	0.0	20.7	0.3
LF2GMP-08	0	0.0	21.1	0.9	32	1.9	18.1	1.2	0	0.0	20.6	0.5	0	0.0	20.2	0.6
LF2GMP-09	0	0.0	21.8	0.0	0	0.0	22.3	0.1	0	0.0	20.6	0.3	0	0.0	20.7	0.3
LF2VENT-01	33	1.6	18.8	1.4	0	0.0	22.1	0.0	0	0.0	20.9	0.0	4	0.2	20.7	0.1
LF2VENT-02	0	0.0	21.9	0.0	0	0.0	22.3	0.1	0	0.0	21.0	0.0	0	0.0	20.9	0.0
LF2VENT-03	0	0.0	21.8	0.0	0	0.0	22.6	0.1	0	0.0	21.0	0.0	0	0.0	20.9	0.0
LF2VENT-04	60	2.8	17.6	1.9	2	0.1	22.1	0.1	4	0.2	18.7	1.1	2	0.1	20.8	0.0
LF2VENT-05	20	1.0	18.8	1.6	0	0.0	22.3	0.1	12	0.6	20.3	0.7	3	0.1	20.8	0.0
LF2VENT-06	>100	13.2	12.2	9.3	0	0.0	17.1	3.0	92	4.6	10.3	10.3	10	0.4	19.4	0.4
LF2VENT-07	0	0.0	22.0	0.0	75	3.6	3.8	14.2	0	0.0	21.0	0.0	2	0.1	20.8	0.0
LF2VENT-08	0	0.0	16.3	2.3	0	0.0	21.7	0.1	0	0.0	21.0	0.0	2	0.1	20.4	0.1
LF2VENT-09	10	0.5	11.1	4.1	4	0.2	21.5	0.4	0	0.0	21.0	0.0	0	0.0	19.3	0.4
LF2VENT-10	0	0.0	20.3	0.4	0	0.0	22.2	0.1	0	0.0	21.0	0.0	0	0.0	20.6	0.0
LF2VENT-11	0	0.0	20.0	0.6	0	0.0	22.7	0.0	0	0.0	21.0	0.0	0	0.0	20.7	0.0
LF2VENT-12	0	0.0	21.7	0.1	0	0.0	21.0	1.9	2	0.1	20.0	0.2	0	0.0	20.7	0.0
LF2VENT-13	13	0.6	19.1	0.9	0	0.0	21.2	1.0	0	0.0	21.0	0.0	0	0.0	20.9	0.0
LF2VENT-14	2	0.1	21.4	0.1	0	0.0	22.1	0.4	0	0.0	20.9	0.0	0	0.0	20.8	0.0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 2
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	15-Oct-13				8-May-14				18-Nov-14				27-May-15			
	Barometric Pressure (in.) = 29.48-29.65				Barometric Pressure (in.) = 29.48-29.51				Barometric Pressure (in.) = 29.57				Barometric Pressure (in.) = 29.42-29.49			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF2GMP-01	0	0.0	20.3	0.4	0	0.0	20.4	0.3	0	0.0	20.1	1.2	0	0.0	18.6	2.0
LF2GMP-02	>100	10.2	0.2	19.4	17	0.9	1.5	12.6	0	0.0	20.2	0.1	0	0.0	21.4	0.0
LF2GMP-03	0	0.0	20.4	0.9	0	0.0	19.4	0.0	0	0.0	18.9	0.6	0	0.0	21.6	0.0
LF2GMP-04	0	0.0	20.9	0.3	0	0.0	19.2	0.0	0	0.0	19.5	0.0	0	0.0	21.7	0.0
LF2GMP-05	>100	7.6	0.0	10.3	0	0.0	14.9	1.2	12	0.7	16.1	0.9	0	0.0	21.8	0.0
LF2GMP-06	0	0.0	8.0	0.9	0	0.0	19.0	0.0	20	1.0	15.0	1.2	10	0.8	18.7	0.9
LF2GMP-07	0	0.0	18.9	2.5	0	0.0	19.1	1.2	0	0.0	19.7	0.3	0	0.0	20.1	0.1
LF2GMP-08	0	0.0	20.7	0.7	0	0.0	20.1	0.5	0	0.0	19.9	0.0	0	0.0	21.2	0.0
LF2GMP-09	0	0.0	21.0	0.4	0	0.0	20.7	0.3	0	0.0	19.9	0.0	0	0.0	20.4	0.0
LF2VENT-01	2	0.2	20.8	0.4	7	0.4	19.2	0.1	0	0.0	20.1	0.1	0	0.0	21.5	0.0
LF2VENT-02	1	0.1	21.5	0.0	0	0.0	19.5	0.0	0	0.0	20.2	0.0	0	0.0	21.5	0.0
LF2VENT-03	0	0.0	21.3	0.0	0	0.0	20.5	0.1	0	0.0	20.1	0.2	0	0.0	21.4	0.0
LF2VENT-04	35	1.8	19.8	0.8	0	0.0	20.8	0.1	0	0.0	19.9	0.6	0	0.0	21.2	0.0
LF2VENT-05	15	0.8	20.3	0.7	0	0.0	19.3	0.0	0	0.0	19.6	0.0	0	0.0	21.6	0.0
LF2VENT-06	>100	15.2	10.9	10.3	0	0.0	11.3	5.9	0	0.1	20.1	0.3	4	0.3	16	3.2
LF2VENT-07	0	0.0	21.5	0.0	0	0.0	20.5	0.0	6	0.3	18.1	0.6	0	0.0	20.7	0.2
LF2VENT-08	0	0.0	21.1	0.1	0	0.0	20.9	0.0	0	0.0	18.9	0.0	0	0.0	21.6	0.0
LF2VENT-09	0	0.0	18.8	1.4	0	0.0	12.7	1.9	0	0.0	19.5	0.0	0	0.0	21.5	0.0
LF2VENT-10	0	0.0	21.2	0.2	0	0.0	20.5	0.1	0	0.0	19.5	0.0	0	0.0	21.5	0.0
LF2VENT-11	0	0.0	19.6	0.7	0	0.0	20.2	0.0	0	0.0	20.1	0.0	0	0.0	21.5	0.0
LF2VENT-12	5	0.3	18.8	1.4	0	0.0	20.6	0.0	0	0.0	19.7	0.1	0	0.0	21.5	0.0
LF2VENT-13	5	0.3	20.4	0.3	2	0.1	19.4	0.0	18	0.8	14.2	2.4	3	0.2	21.1	0.0
LF2VENT-14	86	4.3	15.7	1.8	0	0.0	20.5	0.0	12	0.5	15.1	1.7	0	0.0	11.2	4.4

Notes:
> = Greater than
% = percent
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LEL = Lower Explosive Limit

Table 2
LF002 (Landfill 2/3 AOC) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	9-Sep-15				6-Dec-16				7-Nov-17			
	Barometric Pressure (in.) = 29.33-29.42				Barometric Pressure (in.) = 29.48-29.46				Barometric Pressure (in.) = 29.51 - 29.51			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF2GMP-01	0	0.0	20.4	0.1	0	0	20.1	0.1	--	--	--	--
LF2GMP-02	> 100	8.4	0.1	20.0	15	0.7	8.1	11.7	0.0	0.0	19.0	3.1
LF2GMP-03	0	0.0	20.6	0.0	0	0	19.3	0.9	0.0	0.0	21.4	0.0
LF2GMP-04	0	0.0	20.6	0.0	0	0	20.6	0.3	--	--	--	--
LF2GMP-05	> 100	11.4	0.3	10	0	0	13.9	5.5	0.0	0.0	10.3	4.5
LF2GMP-06	0	0.0	18.8	1.4	0	0	7.5	8.6	0.0	0.0	9.5	4.7
LF2GMP-07	0	0.0	20.4	0.0	0	0	19.5	1.2	--	--	--	--
LF2GMP-08	0	0.1	20.4	0.3	3	0.1	18.2	1.9	0.0	0.0	21.2	0.0
LF2GMP-09	0	0.0	20.7	0.0	0	0	20.7	0.3	--	--	--	--
LF2VENT-01	0	0.0	20.8	0.0	7	0.3	19.7	0.4	2.0	0.1	19.6	0.6
LF2VENT-02	0	0.0	20.8	0.0	0	0	20.8	0	0.0	0.0	21.2	0.1
LF2VENT-03	0	0.0	20.8	0.0	0	0	21	0	--	--	--	--
LF2VENT-04	0	0.0	20.8	0.0	28	1.4	19.2	0.6	40.0	1.1	20.3	0.7
LF2VENT-05	0	0.0	20.7	0.0	5	0.2	20	0.4	60.0	2.7	16.4	2.5
LF2VENT-06	0	0.0	20.8	0.0	90	4.5	17.2	3.1	> 100	17.6	7.8	12.0
LF2VENT-07	0	0.0	20.8	0.0	0	0	20.3	0.9	0.0	0.0	21.3	0.1
LF2VENT-08	0	0.0	20.8	0.0	0	0	20.5	0	0.0	0.0	20.6	0.3
LF2VENT-09	0	0.0	20.8	0.0	0	0	14	2	--	--	--	--
LF2VENT-10	0	0.0	20.8	0.0	0	0	20.4	0.1	--	--	--	--
LF2VENT-11	0	0.0	20.8	0.0	0	0	19.7	0.2	--	--	--	--
LF2VENT-12	0	0.0	20.8	0.0	0	0	19.9	0.2	0.0	0.0	20.2	0.8
LF2VENT-13	0	0.0	20.8	0.0	5	0.3	18.9	0.5	0.0	0.0	20.0	0.4
LF2VENT-14	0	0.0	20.8	0.0	0	0	20.9	0	0.0	0.0	21.3	0.0

Notes:
> = Greater than
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	2-Feb-10				7-May-10				26-Oct-10				16-May-11			
	Barometric Pressure (in.) =			NS	Barometric Pressure (in.) =			29.18-29.38	Barometric Pressure (in.) =			29.19-29.20	Barometric Pressure (in.) =			29.14-29.19
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	NS	NS	NS	NS	0	0.0	20.6	0.1	0	0.0	19.4	0.5	0	0.0	19.4	0.3
LF6GMP-02	NS	NS	NS	NS	0	0.0	20.9	0.1	0	0.0	11.8	6.6	0	0.0	20.9	0.1
LF6GMP-03	NS	NS	NS	NS	0	0.0	20.9	0.0	0	0.0	15.6	2.7	0	0.0	20.6	0.1
LF6GMP-04	NS	NS	NS	NS	0	0.0	20.9	0.0	0	0.0	19.4	1.0	0	0.0	20.8	0.0
LF6GMP-05	NS	NS	NS	NS	0	0.0	20.9	0.0	0	0.0	20.6	0.2	0	0.0	20.8	0.0
LF6GMP-06	NS	NS	NS	NS	0	0.0	19.7	0.9	0	0.0	20.4	0.4	0	0.0	20.8	0.1
LF6GMP-07	NS	NS	NS	NS	0	0.0	17.6	3.4	0	0.0	16.3	4.6	0	0.0	20.8	0.0
LF6GMP-08	NS	NS	NS	NS	0	0.0	10.2	9.2	0	0.0	5.4	13.8	0	0.0	12.7	5.5
LF6GMP-09	NS	NS	NS	NS	0	0.0	17.4	3.1	0	0.0	14.2	5.9	0	0.0	14.6	5.2
LF6GMP-10	NS	NS	NS	NS	0	0.0	19.8	1.0	0	0.0	19.7	1.0	0	0.0	20.8	0.0
LF6GMP-11	NS	NS	NS	NS	0	0.0	19.9	1.1	0	0.0	18.0	2.7	0	0.0	18.9	2.1
LF6GMP-12	NS	NS	NS	NS	0	0.0	20.3	0.6	0	0.0	18.8	1.9	0	0.0	18.2	2.1
LF6GMP-13	NS	NS	NS	NS	0	0.0	20.2	0.7	0	0.0	18.9	1.5	0	0.0	18.5	2.5
LF6GMP-14	NI	NI	NI	NI												
LF6GMP-15S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-15D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6VENT-01	NS	NS	NS	NS	0	0.0	19.7	0.7	0	0.0	20.7	0.1	0	0.0	20.3	0.6
LF6VENT-02	NS	NS	NS	NS	0	0.0	20.4	0.1	0	0.0	20.6	0.0	0	0.0	20.7	0.0
LF6VENT-03	NS	NS	NS	NS	0	0.0	20.2	0.5	0	0.0	20.6	0.1	0	0.0	20.7	0.2
LF6VENT-04	NS	NS	NS	NS	0	0.0	18.5	1.6	0	0.0	20.7	0.0	0	0.0	20.8	0.1
LF6VENT-05	NS	NS	NS	NS	0	0.0	20.1	0.8	0	0.0	20.2	0.2	0	0.0	20.9	0.0
LF6VENT-06	NS	NS	NS	NS	0	0.0	20.2	0.4	0	0.0	20.7	0.0	0	0.0	20.8	0.0
LF6VENT-07	NS	NS	NS	NS	0	0.0	19.4	0.8	0	0.0	20.2	0.0	0	0.0	20.4	0.0
LF6VENT-08	NS	NS	NS	NS	0	0.0	19.8	0.6	0	0.0	20.3	0.0	0	0.0	20.4	0.0
LF6VENT-09	NS	NS	NS	NS	0	0.0	19.5	0.7	0	0.0	20.4	0.0	0	0.0	19.9	0.6
LF6VENT-10	NS	NS	NS	NS	0	0.0	19.6	0.9	0	0.0	20.4	0.1	0	0.0	20.5	0.0
LF6VENT-11	NS	NS	NS	NS	0	0.0	19.5	0.9	0	0.0	20.6	0.0	0	0.0	20.7	0.0
LF6VENT-12	NS	NS	NS	NS	0	0.0	20.1	0.7	0	0.0	20.5	0.0	0	0.0	20.3	0.5
LF6VENT-13	NS	NS	NS	NS	0	0.0	17.3	2.0	0	0.0	20.6	0.0	0	0.0	20.4	0.3
LF6VENT-14	NS	NS	NS	NS	0	0.0	19.2	1.4	0	0.0	20.6	0.0	0	0.0	20.5	0.4
LF6VENT-15	NS	NS	NS	NS	0	0.0	18.7	1.5	0	0.0	20.6	0.0	0	0.0	18.3	2.8
LF6VENT-16	NS	NS	NS	NS	0	0.0	15.7	4.1	0	0.0	20.7	0.0	0	0.0	13.4	5.7

Notes:
NI = Not Installed
NS = Not Sampled
-- = Not Monitored
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	19-Oct-11				10-May-12				5-Oct-12				2-May-13			
	Barometric Pressure (in.) =			29.11-29.14	Barometric Pressure (in.) =			28.99-29.32	Barometric Pressure (in.) =			29.44	Barometric Pressure (in.) = 29.73-29.85			
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	0	0.0	12.0	7.0	0	0.0	19.3	0.8	0	0.0	11.0	2.4	0	0.0	20.6	0.0
LF6GMP-02	0	0.0	19.7	0.8	0	0.0	22.8	0.1	0	0.0	12.4	6.7	0	0.0	20.3	0.0
LF6GMP-03	0	0.0	16.1	3.0	0	0.0	22.2	0.1	0	0.0	16.3	2.7	0	0.0	20.6	0.0
LF6GMP-04	0	0.0	14.8	5.7	0	0.0	22.4	0.1	0	0.0	15.3	5.4	0	0.0	20.6	0.0
LF6GMP-05	0	0.0	18.8	2.7	0	0.0	22.7	0.1	0	0.0	18.8	2.0	0	0.0	20.6	0.0
LF6GMP-06	0	0.0	19.0	2.6	0	0.0	22.8	0.2	0	0.0	18.6	2.4	0	0.0	20.5	0.1
LF6GMP-07	0	0.0	16.6	5.2	0	0.0	23.0	0.1	0	0.0	17.0	4.2	0	0.0	20.0	0.5
LF6GMP-08	0	0.0	4.6	14.7	0	0.0	23.0	0.1	0	0.0	11.4	8.5	0	0.0	12.2	5.8
LF6GMP-09	0	0.0	14.1	6.2	0	0.0	20.2	1.8	0	0.0	15.3	5.2	0	0.0	18	1.7
LF6GMP-10	0	0.0	20.5	1.4	0	0.0	22.9	0.1	0	0.0	19.5	1.2	0	0.0	20.3	0.0
LF6GMP-11	0	0.0	18.5	3.0	0	0.0	23.0	0.1	0	0.0	18.5	2.5	0	0.0	20.0	0.7
LF6GMP-12	0	0.0	18.4	3.4	0	0.0	22.8	0.2	0	0.0	18.3	2.6	0	0.0	18.6	1.3
LF6GMP-13	0	0.0	18.3	3.4	0	0.0	22.2	0.7	0	0.0	17.8	3.0	0	0.0	19.0	1.3
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
LF6GMP-15S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-15D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6VENT-01	0	0.0	14.0	2.2	0	0.0	21.9	0.2	0	0.0	11.0	2.4	0	0.0	20.1	0.3
LF6VENT-02	24	1.2	6.2	0.4	0	0.0	21.4	0.7	35	1.7	4.1	0.6	0	0.0	19.6	0.0
LF6VENT-03	14	0.7	4.7	8.1	0	0.0	20.5	1.0	16	0.8	4.4	9.2	5	0.2	17.8	1.1
LF6VENT-04	>100	10.7	0.3	6.0	0	0.0	19.4	1.6	>100	8.1	0.7	7.4	0	0.0	19.6	0.7
LF6VENT-05	0	0.0	9.9	6.8	0	0.0	21.6	0.6	0	0.0	8.1	8.7	0	0.0	19.9	0.6
LF6VENT-06	2	0.0	8.9	1.3	0	0.0	22.4	0.0	0	0.0	8.5	0.8	0	0.0	20.0	0.2
LF6VENT-07	0	0.0	14.5	5.9	0	0.0	20.6	0.7	0	0.0	13.6	5.3	0	0.0	20.5	0.5
LF6VENT-08	0	0.0	16.2	4.5	0	0.0	19.7	1.8	0	0.0	15.5	3.7	0	0.0	20.7	0.4
LF6VENT-09	0	0.0	17.7	2.9	0	0.0	21.5	0.9	0	0.0	16.7	3.0	0	0.0	20.4	0.4
LF6VENT-10	0	0.0	14.6	5.2	0	0.0	21.1	0.8	0	0.0	11.0	6.4	0	0.0	20.3	0.6
LF6VENT-11	0	0.0	16.7	3.7	0	0.0	22.5	0.1	0	0.0	16.0	3.8	0	0.0	20.5	0.5
LF6VENT-12	0	0.0	14.6	5.2	0	0.0	22.2	0.2	0	0.0	11.6	5.7	0	0.0	19.0	1.3
LF6VENT-13	0	0.0	13.8	6.4	0	0.0	20.3	1.5	0	0.0	12.1	7.1	0	0.0	20.4	0.6
LF6VENT-14	0	0.0	16.3	4.0	0	0.0	22.2	0.1	0	0.0	16.4	3.3	0	0.0	20.2	0.5
LF6VENT-15	0	0.0	10.7	7.0	0	0.0	21.9	0.4	0	0.0	5.8	9.7	0	0.0	19.4	1.1
LF6VENT-16	0	0.0	10.0	7.7	0	0.0	16.4	3.0	0	0.0	8.3	7.3	0	0.0	18.2	1.9

Notes:
NI = Not Installed
NS = Not Sampled
-- = Not Monitored
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	15-Oct-13				8-May-14				19-Nov-14				5-May-15			
	Barometric Pressure (in.) =			29.47-29.58	Barometric Pressure (in.) =			29.48-29.57	Barometric Pressure (in.) =			29.52-29.60	Barometric Pressure (in.) =			29.67-29.75
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	0	0.0	14.4	4.4	0	0.0	19.5	0.2	0	0.0	19.5	2.0	0	0.0	19.9	0.7
LF6GMP-02	0	0.0	11.6	7.1	0	0.0	13.0	4.3	0	0.0	15.7	4.8	0	0.0	15.8	3.7
LF6GMP-03	0	0.0	16.5	2.7	0	0.0	17.2	1.6	0	0.0	18.1	1.7	0	0.0	20.9	0.2
LF6GMP-04	0	0.0	15.6	5.4	0	0.0	17.1	2.8	0	0.0	17.8	3.3	0	0.0	18.4	2.9
LF6GMP-05	0	0.0	19.0	2.0	0	0.0	19.5	8.0	0	0.0	16.2	3.7	0	0.0	20.5	0.9
LF6GMP-06	0	0.0	18.7	2.5	0	0.0	19.0	12.0	0	0.0	18.5	2.9	0	0.0	20.3	1.4
LF6GMP-07	0	0.0	17.1	4.6	0	0.0	20.3	0.1	0	0.0	19.1	2.1	0	0.0	20.2	1.3
LF6GMP-08	0	0.0	7.3	12.7	0	0.0	20.0	0.2	0	0.0	11.0	9.5	0	0.0	14.0	5.8
LF6GMP-09	0	0.0	16.5	4.6	0	0.0	17.8	1.9	0	0.0	18.2	3.7	0	0.0	20.1	1.4
LF6GMP-10	0	0.0	19.4	2.2	0	0.0	20.5	0.0	0	0.0	16.1	3.8	0	0.0	21.4	0.0
LF6GMP-11	0	0.0	19.2	2.2	0	0.0	19.7	0.9	0	0.0	14.5	4.0	0	0.0	20.9	1.2
LF6GMP-12	0	0.0	18.3	2.9	0	0.0	18.3	1.7	0	0.0	19.4	2.1	0	0.0	19.8	1.8
LF6GMP-13	0	0.0	18.5	2.9	0	0.0	19.0	1.3	0	0.0	20.0	1.8	0	0.0	20.5	1.5
LF6GMP-14	NI	NI	NI	NI												
LF6GMP-15S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-15D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17D	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LF6VENT-01	0	0.0	12.3	2.5	0	0.0	17.4	1.1	0	0.0	19.1	1.5	0	0.1	19.8	1.1
LF6VENT-02	58	2.9	4.5	0.4	0	0.0	12.3	0.0	0	0.0	19.8	0.2	0	0.0	20.9	0.0
LF6VENT-03	58	2.9	5.4	9.2	0	0.0	13.8	3.1	0	0.0	19.9	0.6	0	0.1	20.5	0.9
LF6VENT-04	>100	10.5	4.8	4.5	80	4.0	5.3	3.3	0	0.0	19.9	0.5	0	0.0	20.3	0.5
LF6VENT-05	0	0.0	10.1	6.8	0	0.0	13.9	3.1	0	0.0	20.0	0.5	0	0.0	19.7	1.7
LF6VENT-06	17	0.9	5.2	1.1	0	0.0	12.4	0.7	0	0.0	20.6	0.2	0	0.2	20.8	0.0
LF6VENT-07	0	0.0	13.4	5.8	0	0.0	17.7	2.1	0	0.0	20.6	0.3	0	0.1	20.7	0.9
LF6VENT-08	0	0.0	12.4	6.1	0	0.0	15.8	2.9	0	0.0	20.7	0.3	0	0.1	20.9	0.6
LF6VENT-09	0	0.0	17.2	3.0	0	0.0	18.8	1.3	0	0.0	20.6	0.3	0	0.0	20.9	0.3
LF6VENT-10	0	0.0	9.2	8.5	0	0.0	16.6	2.6	0	0.0	20.5	0.2	0	0.1	20.6	0.7
LF6VENT-11	0	0.0	17.3	3.3	0	0.0	19.1	1.3	0	0.0	20.7	0.2	0	0.1	20.6	0.5
LF6VENT-12	0	0.0	8.4	9.4	0	0.0	15.7	2.7	0	0.0	20.2	0.2	0	0.0	20.5	1.0
LF6VENT-13	0	0.0	13.8	6.7	0	0.0	16.6	3.6	0	0.0	19.8	0.5	0	0.0	18.9	2.3
LF6VENT-14	0	0.0	16.6	3.5	0	0.0	18.8	1.6	0	0.0	19.5	0.2	0	0.1	20.4	1.2
LF6VENT-15	0	0.0	18.6	2.5	0	0.0	15.3	4.2	0	0.0	19.6	0.2	0	0.0	19.0	3.2
LF6VENT-16	0	0.0	12.5	6.6	0	0.0	14.9	4.8	0	0.0	19.4	0.5	0	0.0	18.1	3.7

Notes:
NI = Not Installed
NS = Not Sampled
-- = Not Monitored
% = percent
in. = inches
LEL = Lower Explosive Limit

Table 3
LF009 (Landfill 6 AOC) Landfill Gas Monitoring Results (2010-2017)
Former Griffiss Air Force Base
Rome, New York

Sample Location	9-Sep-15				30-Nov-16				7-Nov-17			
	Barometric Pressure (in.) =			29.32-29.48	Barometric Pressure (in.) =			29.87-29.75	Barometric Pressure (in.) =			29.49 - 29.49
	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)	LEL (%)	Methane (%)	Oxygen (%)	Carbon Dioxide (%)
LF6GMP-01	0	0.0	18.9	1.5	0	0	20.7	0.2	--	--	--	--
LF6GMP-02	0	0.0	20.6	0.1	0	0	13.2	6.4	--	--	--	--
LF6GMP-03	0	0.0	20.7	0.0	0	0	20.4	0.5	--	--	--	--
LF6GMP-04	0	0.0	20.7	0.0	0	0	16.6	4.9	--	--	--	--
LF6GMP-05	0	0.0	20.6	0.0	0	0	18.7	2.6	--	--	--	--
LF6GMP-06	0	0.0	20.5	0.1	0	0	18.3	3.3	--	--	--	--
LF6GMP-07	0	0.0	20.5	0.1	0	0	20.7	0.3	--	--	--	--
LF6GMP-08	0	0.0	20.1	0.8	0	0	8.8	11.1	--	--	--	--
LF6GMP-09	0	0.0	20.0	0.9	0	0	20	1.1	--	--	--	--
LF6GMP-10	0	0.0	20.3	0.4	0	0	20.3	1.2	--	--	--	--
LF6GMP-11	0	0.0	20.7	0.1	0	0	20.1	1.4	--	--	--	--
LF6GMP-12	0	0.0	20.7	0.1	0	0	18.6	2.9	--	--	--	--
LF6GMP-13	0	0.0	20.4	0.4	0	0	20.2	1	--	--	--	--
LF6GMP-14	NI	NI	NI	NI	NI	NI	NI	NI	--	--	--	--
LF6GMP-15S	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-15D	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16S	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-16D	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17S	--	--	--	--	--	--	--	--	--	--	--	--
LF6GMP-17D	--	--	--	--	--	--	--	--	--	--	--	--
LF6VENT-01	1	0.0	20.9	0.0	0	0	16.7	2.4	--	--	--	--
LF6VENT-02	0	0.0	20.8	0.0	3	0.1	13.4	0.4	0.0	0.0	18.8	0.4
LF6VENT-03	0	0.0	20.7	0.0	0	0	15.1	4.3	0.0	0.0	18.5	2.2
LF6VENT-04	0	0.0	20.8	0.0	3	0.1	12.8	2.6	0.0	0.0	19.1	1.7
LF6VENT-05	1	0.0	20.8	0.0	0	0	17	3.3	--	--	--	--
LF6VENT-06	0	0.2	20.8	0.0	0	0	16.3	0.9	0.0	0.0	19.7	0.6
LF6VENT-07	1	0.0	20.8	0.0	0	0	16.4	4.4	--	--	--	--
LF6VENT-08	1	0.0	20.7	0.0	0	0	21	0.1	--	--	--	--
LF6VENT-09	1	0.0	19.9	0.7	0	0	17.5	3.3	--	--	--	--
LF6VENT-10	1	0.0	12.8	5.9	0	0	11.1	7.5	--	--	--	--
LF6VENT-11	1	0.0	18.2	2.2	0	0	17.4	3.7	--	--	--	--
LF6VENT-12	0	0.0	12.3	7.4	0	0	14.5	5	--	--	--	--
LF6VENT-13	0	0.0	13.7	6.2	0	0	14.4	5.6	--	--	--	--
LF6VENT-14	0	0.0	17.4	2.4	0	0	20.8	0.1	--	--	--	--
LF6VENT-15	2	0.1	3.8	17.4	0	0	9.2	10.2	--	--	--	--
LF6VENT-16	2	0.1	5.7	12.6	0	0	9.7	9.9	--	--	--	--

Notes:
NI = Not Installed
NS = Not Sampled
-- = Not Monitored
% = percent
in. = inches
LEL = Lower Explosive Limit

ATTACHMENT C – LANDFILL INSPECTION REPORTS

Attachment C-1

Spring 2017 Landfill Inspection Reports

**LANDFILL 001
INSPECTION REPORT
FORMER GRIFFISS AIR FORCE BASE**

Type of Inspection: Routine Semi-Annual Response to Storm Event _____

Date of Inspection: 4.28.17

Personnel Present: S. Liberatore (Parsons)

Weather Conditions: 60s Sunny

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity – No issues observed

Slopes – No issues observed

Cover Vegetation – No issues observed

Leachate Breakouts - Downslope of Vent 1; East of Vent 31

Vectors – None observed

Drainage – Saturated northwest edge; scattered standing water.

Institutional Controls - Two damaged signs at road from pistol range.

Monitoring Wells – No issues observed

Gas Probes – No issues observed

Gas Vents – No issues observed

Security Fencing/Gates – Downed tree on fence east of Vent 31.

Comments/Follow Up Needs:



**April 2017 Photo 1: LF001 (Landfill 1 AOC) – Facing north at damaged sign along southern boundary of LF001.
Photograph taken near LF1GMP-10**



**April 2017 Photo 2: LF001 (Landfill 1 AOC) – Facing north at damaged sign along southern boundary of LF001.
Photograph taken near LF1GMP-14**



April 2017 Photo 3: LF001 (Landfill 1 AOC) – Facing southwest at the southwest corner of LF001. Photograph taken near LF1GMP-1



April 2017 Photo 4: LF001 (Landfill 1 AOC) – Facing northwest along western boundary of LF001. Photograph taken near Vent 4



April 2017 Photo 5: LF001 (Landfill 1 AOC) – Facing north at standing water along western boundary of LF001. Photo taken between Vent-3 and Vent-6



April 2017 Photo 6: LF001 (Landfill 1 AOC) – Facing west at potential leachate downslope of Vent-1



April 2017 Photo 7: LF001 (Landfill 1 AOC) – Facing north at northern boundary of LF001 near Vent-27.



April 2017 Photo 8: LF001 (Landfill 1 AOC) – Facing north at potential leachate breakout east of Vent-31 along northern boundary of LF001.



April 2017 Photo 9: LF001 (Landfill 1 AOC) – Facing south along eastern boundary of LF001. Photograph taken near Vent-22.



April 2017 Photo 10: LF001 (Landfill 1 AOC) – Facing west along southern boundary of LF001. Photograph taken from southeast corner near Vent-20

**LANDFILL 002
INSPECTION REPORT
FORMER GRIFFISS AIR FORCE BASE**

Type of Inspection: Routine Semi-Annual Response to Storm Event

Date of Inspection: 4.28.17

Personnel Present: S. Liberatore (Parsons)

Weather Conditions: 60s Sunny

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity – No issues observed

Slopes – No issues observed

Cover Vegetation – No issues observed

Leachate Breakouts – None observed

Vectors – None observed

Drainage – Some saturated areas on northern edge.

Institutional Controls – No issues observed.

Monitoring Wells – No issues observed

Gas Probes – No issues observed

Gas Vents – No issues observed

Security Fencing/Gates – Main access gate lock does not lock easily.

Comments/Follow Up Needs:



April 2017 Photo 1: LF002 (Landfill 2/3 AOC) – Facing northeast along the western boundary of LF002 at VENT-03.



April 2017 Photo 2: LF002 (Landfill 2/3 AOC) – Facing south at southern boundary of LF002. Photograph taken near Vent-09



April 2017 Photo 3: LF002 (Landfill 2/3 AOC) – Facing south at the southwest corner of LF002. Photograph taken near Vent-08



April 2017 Photo 4: LF002 (Landfill 2/3 AOC) – Facing east along eastern boundary of LF002. Photograph taken near GMP-06



April 2017 Photo 5: LF002 (Landfill 2/3 AOC) – Facing west along northern boundary of LF002. Photograph taken near GMP-04



April 2017 Photo 6: LF002 (Landfill 2/3 AOC) – Facing northwest at northwest corner of LF002. Photograph taken near Vent-01



April 2017 Photo 7: LF002 (Landfill 2/3 AOC) – Facing southeast at center of LF002. Photograph taken near Vent-01 in northwest corner of LF002.

**LANDFILL 003
INSPECTION REPORT
FORMER GRIFFISS AIR FORCE BASE**

Type of Inspection: Routine Semi-Annual X Response to Storm Event

Date of Inspection: 4.28.17

Personnel Present: S. Liberatore (Parsons)

Weather Conditions: 60s Sunny

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity – No issues observed

Slopes – No issues observed

Cover Vegetation – No issues observed

Leachate Breakouts – None observed

Vectors – None observed

Drainage – Saturated along northern corner of western block.

Institutional Controls – Sign missing on southern edge of western block. Sign damaged on western edge of western block.

Monitoring Wells – SS case prevents locking in SE corner

Gas Probes – No issues observed

Gas Vents – No issues observed

Security Fencing/Gates – No issues observed.

Comments/Follow Up Needs:



April 2017 Photo 1: LF003 (Landfill 7 AOC) – Facing east from the southwest corner of western block



April 2017 Photo 2: LF003 (Landfill 7 AOC) – Facing southwest along southern boundary of western block



April 2017 Photo 3: LF003 (Landfill 7 AOC) – Facing south from southern boundary of western block



April 2017 Photo 4: LF003 (Landfill 7 AOC) – Facing east towards eastern block. Photograph taken from the southeast corner of western block



April 2017 Photo 5: LF003 (Landfill 7 AOC) – Submersible pump stuck in monitoring well LF7MW-30 at southwest corner of eastern block



April 2017 Photo 6: LF003 (Landfill 7 AOC) – Facing northwest along northern boundary of eastern block.



April 2017 Photo 7: LF003 (Landfill 7 AOC) – Facing northwest along northern boundary of western block.



April 2017 Photo 8: LF003 (Landfill 7 AOC) – Facing north at tilted sign along western boundary of western block.

**LANDFILL 007
INSPECTION REPORT
FORMER GRIFFISS AIR FORCE BASE**

Type of Inspection: Routine Semi-Annual Response to Storm Event

Date of Inspection: 4.28.17

Personnel Present: S. Liberatore (Parsons)

Weather Conditions: 70s Sunny

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity – No issues observed

Slopes – No issues observed

Cover Vegetation – No issues observed

Leachate Breakouts – Leachate observed in stream to west

Vectors – None observed

Drainage – No issues observed.

Institutional Controls – No issues observed.

Monitoring Wells – No issues observed.

Gas Probes – No issues observed.

Gas Vents – No issues observed.

Security Fencing/Gates – No issues observed.

Comments/Follow Up Needs:



April 2017 Photo 1: LF007 (Landfill 5 AOC) – Facing west along northern boundary of LF007



April 2017 Photo 2: LF007 (Landfill 5 AOC) – Facing southwest along western boundary of LF007. Photograph taken from northwest corner of LF007



April 2017 Photo 3: LF007 (Landfill 5 AOC) – Facing south along ditch west of LF007



April 2017 Photo 4: LF007 (Landfill 5 AOC) – Facing south along ditch west of LF007 at potential landfill leachate.



April 2017 Photo 5: LF007 (Landfill 5 AOC) – Potential leachate breakout in ditch west of LF007



April 2017 Photo 6: LF007 (Landfill 5 AOC) – Facing west at confluence of three mile creek and the ditch southwest of LF007



April 2017 Photo 7: LF007 (Landfill 5 AOC) – Facing east along southern boundary of LF007

**LANDFILL 009
INSPECTION REPORT
FORMER GRIFFISS AIR FORCE BASE**

Type of Inspection: Routine Semi-Annual Response to Storm Event

Date of Inspection: 4.28.17

Personnel Present: S. Liberatore (Parsons)

Weather Conditions: 70s Sunny

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity – No issues observed

Slopes – No issues observed.

Cover Vegetation – No issues observed.

Leachate Breakouts – Possible leachate downslope from Vent 5.

Vectors – None observed.

Drainage – No issues observed.

Institutional Controls – Sign missing west of GMP-06.

Monitoring Wells – No issues observed.

Gas Probes – No issues observed.

Gas Vents – No issues observed.

Security Fencing/Gates – N/A.

Comments/Follow Up Needs:



April 2017 Photo 1: LF009 (Landfill 6 AOC) – Facing southwest along walking path on the western boundary of LF009.



April 2017 Photo 2: LF009 (Landfill 6 AOC) – Facing southeast from western boundary of LF009 towards Vent-03.



April 2017 Photo 3: LF009 (Landfill 6 AOC) – Facing southwest at the southern boundary of the landfill downslope of VENT-05.



April 2017 Photo 4: LF009 (Landfill 6 AOC) – Facing northeast towards GMP-12. Photograph taken near GMP-13.



April 2017 Photo 5: LF009 (Landfill 6 AOC) – Facing north-northwest along southern boundary of LF009. Photograph taken near GMP-11.



April 2017 Photo 6: LF009 (Landfill 6 AOC) – Facing northwest from south east corner of LF009 near GMP-08.



April 2017 Photo 7: LF009 (Landfill 6 AOC) – Facing south from northern boundary of LF009 near VENT-11.



April 2017 Photo 8: LF009 (Landfill 6 AOC) – Facing west from northern boundary of LF009 near VENT-07.

Attachment C-2
Fall 2017 Landfill Inspection Reports

**LANDFILL 001
INSPECTION REPORT
FORMER GRIFFISS AIR FORCE BASE**

Type of Inspection: Routine Semi-Annual X Response to Storm Event _____

Date of Inspection: 11.7.17

Personnel Present: S. Liberatore (Parsons)

Weather Conditions: 40s Overcast

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity – No issues observed

Slopes – No issues observed

Cover Vegetation – No issues observed

Leachate Breakouts – None observed

Vectors – None observed

Drainage – Saturated northwest corner; standing water south of Vent 6.

Institutional Controls - Two damaged signs at road from pistol range.

Monitoring Wells – No issues observed

Gas Probes – No issues observed

Gas Vents – No issues observed

Security Fencing/Gates – Downed tree on fence east of Vent 31 remains.

Comments/Follow Up Needs:



November 2017 Photo 1: LF001 (Landfill 1 AOC) – Facing southeast from Vent-9



November 2017 Photo 2: LF001 (Landfill 1 AOC) – Facing southeast standing between Vent-10 and Vent-13

**LANDFILL 002
INSPECTION REPORT
FORMER GRIFFISS AIR FORCE BASE**

Type of Inspection: Routine Semi-Annual Response to Storm Event

Date of Inspection: 11.7.17

Personnel Present: S. Liberatore (Parsons)

Weather Conditions: 40s Cloudy

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity – No issues observed

Slopes – No issues observed

Cover Vegetation – No issues observed

Leachate Breakouts – None observed

Vectors – Animal burrow at base of Vent 1.

Drainage – Southwest corner by entrance road saturated; some saturated areas on northern edge.

Institutional Controls – No issues observed.

Monitoring Wells – No issues observed.

Gas Probes – No issues observed.

Gas Vents – No issues observed.

Security Fencing/Gates – Main access gate lock does not lock easily. Northwest entrance gate remains in good condition.

Comments/Follow Up Needs:



November 2017 Photo 1: LF002 (Landfill 2/3 AOC) – Facing northeast from VENT-10



November 2017 Photo 2: LF002 (Landfill 2/3 AOC) – Facing southwest from VENT-09



November 2017 Photo 3: LF002 (Landfill 2/3 AOC) – Facing north towards VENT-06



November 2017 Photo 4: LF002 (Landfill 2/3 AOC) – Facing east towards VENT-05



November 2017 Photo 5: LF002 (Landfill 2/3 AOC) – Facing north towards VENT-13

**LANDFILL 003
INSPECTION REPORT
FORMER GRIFFISS AIR FORCE BASE**

Type of Inspection: Routine Semi-Annual Response to Storm Event

Date of Inspection: 11.7.17

Personnel Present: S. Liberatore (Parsons)

Weather Conditions: 40s Cloudy

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity – No issues observed.

Slopes – No issues observed.

Cover Vegetation – No issues observed.

Leachate Breakouts – None observed.

Vectors – Small animal burrow in Western block, ~100 feet southwest of northeast corner.

Drainage – Saturated along northern corner and eastern edge of western block.

Institutional Controls – Sign missing on southern edge of western block. Sign damaged on western edge of western block. One sign slightly tipped over along northwest edge of western block.

Monitoring Wells – SS case prevents locking in SE corner.

Gas Probes – No issues observed.

Gas Vents – No issues observed.

Security Fencing/Gates – No issues observed.

Comments/Follow Up Needs:



November 2017 Photo 1: LF003 (Landfill 7 AOC) – Facing southeast from the northwest corner of western block



November 2017 Photo 2: LF003 (Landfill 7 AOC) – Facing northwest at western boundary of western block



November 2017 Photo 3: LF003 (Landfill 7 AOC) – Facing southeast from center of western block



November 2017 Photo 4: LF003 (Landfill 7 AOC) – Facing southeast towards saturated area on eastern boundary of western block



November 2017 Photo 5: LF003 (Landfill 7 AOC) – Facing northwest towards the center of LF003 western block

**LANDFILL 007
INSPECTION REPORT
FORMER GRIFFISS AIR FORCE BASE**

Type of Inspection: Routine Semi-Annual Response to Storm Event

Date of Inspection: 11.7.17

Personnel Present: S. Liberatore (Parsons)

Weather Conditions: 40s Cloudy

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity – No issues observed

Slopes – No issues observed

Cover Vegetation – No issues observed

Leachate Breakouts – No issues observed.

Vectors – None observed.

Drainage – No issues observed.

Institutional Controls – One sign along eastern edge tipped over, otherwise in good condition.

Monitoring Wells – No issues observed.

Gas Probes – No issues observed.

Gas Vents – No issues observed.

Security Fencing/Gates – No issues observed.

Comments/Follow Up Needs:



November 2017 Photo 1: LF007 (Landfill 5 AOC) – Facing southwest at southern edge of LF007



November 2017 Photo 2: LF007 (Landfill 5 AOC) – Facing west towards northwest corner of LF007



November 2017 Photo 3: LF007 (Landfill 5 AOC) – Facing east towards the center of LF007

**LANDFILL 009
INSPECTION REPORT
FORMER GRIFFISS AIR FORCE BASE**

Type of Inspection: Routine Semi-Annual Response to Storm Event

Date of Inspection: 11.7.17

Personnel Present: S. Liberatore (Parsons)

Weather Conditions: 40s Cloudy

INSPECTION ITEMS COMMENTS/NEED FOR ACTION

Soil Cover Integrity – No issues observed

Slopes – No issues observed.

Cover Vegetation – No issues observed.

Leachate Breakouts – No issues observed.

Vectors – Animal burrows at base of Vents 9 and 10. Animal burrow on side slope along northern edge, between Vents 14 and 11.

Drainage – Standing water on Northwest side along walking path; standing water along Southeast edge, near GMP-08.

Institutional Controls – Signs missing in southwest corner downslope of Vent 3, and west of GMP-06.

Monitoring Wells – No issues observed.

Gas Probes – No issues observed.

Gas Vents – Vent 3 tipped slightly forward, Vent 10 tipped slightly backward.

Security Fencing/Gates – Security gate on eastern entrance locked and in good condition. Chain across walking path in place and in good condition.

Comments/Follow Up Needs:



November 2017 Photo 1: LF009 (Landfill 6 AOC) – Facing southwest along walking path on the western boundary of LF009



November 2017 Photo 2: LF009 (Landfill 6 AOC) – Facing southeast from western boundary of LF009 near GMP-01



November 2017 Photo 3: LF009 (Landfill 6 AOC) – Facing southwest at the southern boundary of the landfill downslope of VENT-03



November 2017 Photo 4: LF009 (Landfill 6 AOC) – Facing northeast towards VENT-02



November 2017 Photo 5: LF009 (Landfill 6 AOC) – Facing southeast towards VENT-06



November 2017 Photo 6: LF009 (Landfill 6 AOC) – Facing east from southern boundary of LF009 near GMP-13.