DEPARTMENT OF THE AIR FORCE
AIR FORCE CIVIL ENGINEER CENTER

July 29, 2016

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SUBJECT: Final 2016 Semiannual Long Term Monitoring Report for Landfill AOCs
Former Griffiss Air Force Base (AFB) Rome, New York
Contract Number FA8903-10-D-8595 / Delivery Order 0014
July 2016

Accompanying this letter please find the "Final 2016 Semiannual Long Term Monitoring Report for Landfill AOCs" in relation to work conducted at the Former Griffiss AFB in Rome, New York under the referenced Performance Based Remediation (PBR) contract.

Should you have any questions or concerns please contact me at 518-563-2871.

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FINAL

2016
SEMIANNUAL LONG TERM MONITORING 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
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Contract Number FA8903-10-D-8595

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July 2016

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LIST OF ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
AOC	Area of Concern
AOI	Area of Interest
bgs	below ground surface
CAPE	CAPE Environmental
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	contaminant of concern
CQCR	Chemical Quality Control Reports
CY	cubic yard
DCE	dichloroethene
FPM	FPM Remediations, Inc.
ft	feet
LTM	long term monitoring
LUC/IC	Land use Control/Institutional Control
MAROS	Monitoring and Remediation Optimization Systems
mg/L	milligrams per liter
MSL	mean sea level
µg/L	micrograms per liter
NYCRR	New York Codes of Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
OES	Optimized Exit Strategy
PCB	polychlorinated biphenyl
PCU	platinum-cobalt units
POC	point of compliance
SI	Supplemental Investigation
RI	Remedial Investigation
ROD	Record of Decision

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

TCE	trichloroethylene/trichloroethene
TDS	Total Dissolved Solids
TKN	Total Kjeldahl Nitrogen
TMC	Three Mile Creek
UFP QAPP	Uniform Federal Policy Quality Assurance Project Plan
USEPA	United States Environmental Protection Agency
VC	Vinyl Chloride
VOC	Volatile Organic Compound

1 INTRODUCTION

FPM Remediations Inc. (FPM), in association with CAPE Environmental (CAPE), has been contracted by the Air Force Civil Engineer Center (AFCEC) to perform Long Term Monitoring (LTM) at Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites at the former Griffiss Air Force Base (AFB), New York. The work discussed in this Annual Report is being conducted through contract number FA8903-10-D-8595-0014.

The purpose of this report is to track and monitor the effectiveness of the LTM program and provide an update to the optimized exit strategy (OES) that was proposed in 2011. The LTM program was developed for each Landfill Area of Concern (AOC) using the New York Codes of Rules and Regulations (NYCRR) Part 360 Regulations and was implemented to monitor the presence of contaminants of concern (COCs), assess the potential for migration of the COCs, identify groundwater trends for the COCs and establish an early warning system for assuring compliance with the potential COC receptors. By analyzing current and previous LTM data (groundwater, surface water and landfill gas), this report is also used to assess the LTM network functionality and potential optimization opportunities. The optimization recommendations are presented in the "Recommendation" sections for each site.

The following sections describe the 2016 semiannual site activities for the former Griffiss AFB Landfill AOCs. The site activities included the spring landfill cap inspections and maintenance and LF001 groundwater and surface water sampling. All activities performed at the Landfill AOCs are based on the elements provided in each Landfill AOCs individual work plan as referenced in the following sections.

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2 LF001 (LANDFILL 1 AOC)

2.1 SITE BACKGROUND

2.1.1 Site History

Landfill 1, approximately 22 acres in size, is located in the northeastern portion of the former Griffiss AFB on the east side of Six Mile Creek, northeast of the flight line and within the Six Mile Creek Drainage Basin. The landfill is bounded by the installation boundary to the north, regulated wetlands to the east, Six Mile Creek and regulated wetlands to the west and woodlands to the south (FPM, October 2002). Figure 2-1 illustrates the landfill boundary and the locations of monitoring wells. The wastes deposited at Landfill 1 consisted of general refuse, hardfill, and boiler ash that was buried using trench and cover methods. An estimated 90,000-100,000 cubic yards (CY) of wastes were disposed of at the site from 1960-1973. During a Landfill Cover Investigation performed in 1997 (LAW, December 1997) landfill waste was encountered anywhere from the surface (southwest corner of the landfill) to beyond 4 ft. Generally, debris was encountered at depths of 2 to 4 feet (ft). The total thickness of the debris was not determined.

The Record of Decision (ROD) for LF001 (Landfill 1 AOC) was signed by the United States Environmental Protection Agency (USEPA) on June 5, 2000. In accordance with the ROD, the landfill was re-graded and capped in 2003. The cap components include a gas venting layer, a 40-mil linear low density polyethylene geomembrane liner, a geocomposite drainage net, a minimum 12 inch thick barrier protection layer and a minimum 6 inch thick layer of topsoil. In addition to the cap, a groundwater/leachate collection trench was installed along the western edge of Landfill 1 to control leachate outbreaks and prevent them from adversely affecting the landfill cover or threatening surface waters. Following a groundwater/leachate collection trench pump test in November 2003 the continuation of the groundwater/leachate treatment system design and construction was suspended due to low levels of COCs entering the trench. The trench still remains at the western edge of Landfill 1. A ROD Amendment for the LF001 (Landfill 1 AOC) to remove the requirement for the collection and treatment of groundwater/ leachate at the landfill toe was signed be the USEPA on September 25, 2009. Five-Year Reviews were conducted in 2005, 2010, and 2015. The Five-Year Reviews indicated that the selected remedy is protective of human health and the environment.

A passive gas vent trench was installed between the northwestern landfill perimeter and the northern property boundary to prevent the migration of methane into neighboring properties in 2005 (Figure 2-2).

2.1.2 Site Geology and Hydrogeology

Landfill 1 rests on low permeability Utica Shale bedrock. The bedrock slopes to the southwest through the site at approximately 2 ft per 100 ft. The downward slope of the land surface towards Six Mile Creek and the unnamed stream south of the landfill truncates the thickness of unconsolidated material (glacial outwash and wastes) above bedrock. The decreased depth of these materials also reduces the thickness of the aquifer above the Utica Shale.

In December 1998, the unconfined aquifer under Landfill 1 varied in saturated thickness from about 7.5 ft in monitoring well HS4MW-1 at the northeast boundary of the landfill to more than 18 ft in LF1MW-101 located at the southwest boundary of the landfill. The saturated aquifer thickness measured in LF1P-2 along the southwest toe of the landfill was about 8.5 ft and may be less near the banks of the creek and along the unnamed creek tributary just south of Landfill 1. The steep slope of the land surface intersects the water table surface in the area south of the landfill, which causes the formation of springs and seeps (LF1L-1, -2, LF1LL-1 and -2).

The southwesterly course of groundwater flow continues on the east side of Six Mile Creek, although the gradient is much more gradual because of (a) groundwater discharged to the creek and (b) change in the thickness dimension of the aquifer. In this area, the land surface becomes topographically flat while the bedrock surface continues to slope to the southwest. The saturated aquifer thickness increases to in excess of 18 ft as measured in LF1P-5. Depth to water in wells in this area is generally less than 5 ft, as measured in wells LF1P-5 and LF1MW-7. The shallowness of the depth to water in the area helps create the jurisdictional wetlands, which drain southeast to Six Mile Creek.

The hydraulic conductivity value for the area in which Landfill 1 AOC is located is 50 ft/day or 0.0347 ft/minute. Based on the assigned hydraulic conductivity, a modeled hydraulic gradient of 0.025 ft per foot and an estimated effective porosity of 20% exists at Landfill 1. Ground water flow was calculated to be 2,280 ft per year. (LAW, December 1996). Groundwater flows to the southwest in the area of Landfill 1.

2.1.3 Previous LTM Activities and Results

For readability, previous investigations and LTM sampling plan sections have been removed from this report. These sections are provided in the 2009 Landfill AOCs LTM Report (FPM, November 2010). The following summarizes the previous LF001 (Landfill 1 AOC) LTM network activities and results.

LTM was initiated at LF001 in December 2003 in accordance with the LF001 (Landfill 1 AOC) Closure Plan (Conti & EA, October 2002) at 11 monitoring wells (MWSAR03, LF1P-2, -3, -5, LF1MW-1R, -5, -6, -10, -11, -12 and -13) and 3 surface water locations (LF1SW-1, -2SMC, and -3)). LF1MW-103 was added to the LTM network during the March 2004 sampling round and LF1MW-14 was added to the LTM network during the December 2004 sampling round. These sampling locations are illustrated in Figure 2-2. The LTM network was analyzed quarterly (routine) and annually (baseline) for New York State Department of Environmental Conservation (NYSDEC) Part 360 Parameters and volatile organic compounds (VOCs) from 2003 through 2006. The LTM network (groundwater and surface water monitoring) was optimized to semi-annual for 2007 and 2008 and then to annual from 2009 through 2013. All recommendations to alter the sampling network were provided in previous Landfill AOCs LTM Reports and CERCLA Sites Optimization Plans (CAPE/FPM, November 2011) which were reviewed by the USEPA and NYSDEC.

Boron, cyanide, mercury, polychlorinated biphenyls (PCBs), pesticides, and phenols were analyzed until 2006 and were then removed from the LTM sampling network due to their low or non-detect concentrations at the site. VOCs currently detected above the New York State (NYS) groundwater/surface water standards include 1,2-dichlorobenzene, 1,3-dichlorobenzene, benzene, and chlorobenzene. These exceedances only occur at monitoring wells LF1MW-11 and LF1MW-5 (benzene only) and concentrations have been stable and/or decreasing. Landfill leachate indicators previously detected above the NYS groundwater/surface water standards include ammonia, color, total dissolved solids (TDS), and total Kjeldahl nitrogen (TKN). The landfill leachate indicator detections showed stable trends. Metals analysis for this site showed levels above NYS groundwater/surface water standards. Metals that exceed standards include manganese, iron, sodium, aluminum, chromium, and nickel. However, several of the metals (e.g., manganese, iron, sodium) are indicative of base background conditions. As a result, metals analysis was eliminated from the Landfill 1 LTM network in 2011 in accordance with the LF001 (Landfill 1 AOC) Optimization Plan (CAPE/FPM, November 2011).

Landfill gas monitoring is performed at Landfill 1 to identify the presence and concentration of methane at or near the landfill. A total of 18 gas monitoring probes and 31 landfill gas vents were monitored on a quarterly basis from October 2005 until May 2010. Landfill gas monitoring was optimized after the spring 2010 sampling round to semiannual. Results from the gas sampling events at Landfill 1 continue to show elevated methane concentrations throughout the landfill. However, methane concentrations at point of compliance (POC) gas monitoring probes (LF1GMP-13 through -17) remained at non-detectable concentrations through the fall 2015 sampling round. The absence of methane at the POC gas monitoring probes demonstrates continued protection of potential receptors. In addition, the passive gas trench installed near the northwestern perimeter of Landfill 1 to prevent methane migration into neighboring properties appears to remain an effective barrier.

Since April 2005, landfill inspections and cover maintenance have been performed at Landfill 1. Inspections and maintenance were optimized after the spring 2010 sampling round 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. The fall inspections are performed in conjunction with the Base-wide LUC/IC Site Inspections.

Previous LTM results are provided in detail in the Spring 2009 Landfill AOCs LTM Report (FPM, November 2010), Spring 2010 Landfill AOCs LTM Report (FPM, February 2012), 2011 Landfill AOCs LTM Report (FPM/CAPE, July 2012), 2012 Landfill AOCs LTM Report (FPM/CAPE, March 2013), 2013 Landfill AOCs LTM Report (FPM/CAPE, February 2014), 2014 Landfill AOCs LTM Report (FPM/CAPE, August 2015) and the 2015 Landfill AOCs LTM/OES Report (FPM/Cape, December 2015).

2.2 LF001 (LANDFILL 1 AOC) – SPRING 2016 SITE ACTIVITIES

This section describes the spring 2016 Landfill 1 AOC site activities and monitoring data. The field activities include semiannual landfill cap inspections and annual groundwater and surface water sampling. Anual landfill gas monitoring and annual landfill cap mowing were not

performed in this semi-annual event. The LF001 (Landfill 1 AOC) LTM Network sampling locations are illustrated in Figure 2-2.

2.2.1 Landfill Cap Inspections/Maintenance

The spring 2016 inspection was conducted in May 2016 and did not identify any major deficiencies that would jeopardize the integrity of the cover.

The semiannual inspection report (Post-Closure Monitoring Reports) for spring 2016 can be found in Appendix A.

2.2.2 Groundwater and Surface water Monitoring

Groundwater and surface water monitoring was conducted at 12 monitoring wells (LF1P-2, -3, -5, LF1MW-1R, -5, -10, -11, -12, -13, -14, -103, and MWSAR03) and three surface water locations (LF1SW-1, -2, and -3) for leachate indicators in May 2016. In accordance with the CERCLA Sites Optimization Plans (FPM/CAPE, November 2011), VOCs analysis was also conducted for monitoring wells LF1MW-5, -6, -11, -12, LF1P-2, and MWSAR03 and for surface water locations LF1SW-1, -2, and -3. These locations are also illustrated in Figure 2-2

All sampling activities were performed in accordance with the Updated 2015 Uniform Federal Policy Quality Assurance Project Plan (UFP QAPP) for Performance Based-Remediation at the Former Griffiss AFB (CAPE/FPM, July 2015). All groundwater and surface water analytical data is presented in Table 2-1. Daily Chemical Quality Control Reports (CQCRs) completed during the May 2016 sampling round are provided in Appendix B. The complete list of analytes and the validated laboratory data are attached in Appendix C and the raw laboratory data are available in Appendix D.

2.2.2.1 Groundwater Monitoring Results

VOCs:
A benzene exceedance was reported at LF1MW-5 (1.1 micrograms per liter [µg/L]) and LF1MW-11 (1.4 µg/L). 1,2-dichlorobenzene and 1,4-dichlorobenzene exceedances were also reported at LF1MW-11. All exceedances were within one order of magnitude of the NYS Class GA Groundwater Standards and are similar to previous LTM results. The VOC plume at the site is illustrated in Figure 2-2. Figure 2-3 illustrates the VOC concentrations above NYS Class GA Standards and associated monitoring wells.

Landfill Leachate Indicators:
Leachate indicator exceedances were reported at monitoring wells LF1MW-5, -6, -11, -13, -1R, -103, LF1P-2, and MWSAR03. These exceedances are summarized below:

- TKN exceeded the NYS Groundwater Standard at monitoring well LF1MW-5 (2.1 milligrams per liter [mg/L]), LF1MW-11 (3.0 mg/L), LF1MW-103 (27 mg/L), and LF1P-2 (1.9 mg/L). The NYS Class GA Groundwater Standard of TKN is 1 mg/L.

- TDS exceeded the NYS Groundwater Standard at monitoring well LF1MW-11 (510 mg/L). The NYS Class GA Groundwater Standard for TDS is 500 mg/L.
- Ammonia exceeded the NYS Groundwater Standard at monitoring well LF1MW-11 (2.7 mg/L) and LF1MW-103 (30 mg/L). The NYS Class GA Groundwater Standard for ammonia is 2 mg/L.
- Color exceeded the NYS Groundwater Standard at monitoring wells LF1MW-5 (25 platinum-cobalt units (pcu)), LF1MW-6 (40 pcu), LF1MW-11 (130 pcu), LF1MW-13 (150 pcu), LF1P-2 (100 pcu), LF1MW-1R (50 pcu) and MWSAR03 (40 pcu). The NYS Groundwater Standard for color is 15 pcu.

Comparison of the 2016 and previous LTM results shows that TKN, TDS, ammonia and color concentrations are stable at the site.

Synoptic Results

The following summarizes the groundwater elevations (above mean sea level [MSL]) for each monitoring well sampled at Landfill 1 in the May 2016 sampling round: MWSAR03 (515.78 ft), LF1P-2 (499.69 ft), LF1P-3 (504.56 ft), LF1P-5 (491.89 ft), LF1MW-1R (537.46 ft), LF1MW-5 (493.93 ft), LF1MW-6 (496.68 ft), LF1MW-10 (505.41 ft), LF1MW-11 (499.48 ft), LFMW-12 (500.99 ft), LF1MW-13 (488.13 ft), LF1MW-14 (495.22 ft) and LF1MW-103 (484.90 ft). Based on the groundwater elevations above, the updated average hydraulic gradient at LF002 is approximately 0.0224 ft per foot. The groundwater elevations continue to indicate a southwestern groundwater flow gradient (Figure 2-4).

2.2.2.2 Surface Water Monitoring Results

VOCs:

No VOC exceedances were reported.

Leachate Indicators:

Color exceeded the NYS Groundwater Standard at sampling locations LF1SW-1, (50 pcu), LF1SW-2SMC (130 pcu) and LF1SW-3 (60 pcu). The NYS Groundwater Standard for color is 15 pcu.

2.2.2.3 MAROS Analysis

The purpose of the Monitoring and Remediation Optimization System (MAROS) methodology is to recommend an improved groundwater monitoring network by applying statistical techniques to existing historical and current site analytical data. The MAROS methodology also considers hydrogeologic factors, regulatory framework, and the location of potential receptors. The software trends and suggests components of an improved plan by analyzing individual monitoring wells in the current monitoring system as well as plume wide trends (if applicable).

For the purpose of evaluating the LF001 (Landfill 1 AOC) LTM network, only the statistical trend analysis portion of the MAROS program was utilized (Mann-Kendall Test and Linear Regression Analysis). Statistical trend analysis was used to determine if concentrations of site-specific target COCs, metals, and indicator parameters would exhibit any discernable trends.

As required by the MAROS program, several assumptions were necessary in order to perform the selected analyses. They included the following:

1. The MAROS optimization program has been applied to the Landfill 1 LTM network for data collected December 2003 through May 2016.
2. The MAROS program requires the selection of a single source area for each analyte and the designation of source area wells. For the purpose of this analysis, an area surrounding monitoring wells LF1P-2 and LF1MW-5 was used as the source area (historically based). Monitoring wells LF1MW-5, -11, and LF1P-2 were used as source area wells, due to historically elevated COC concentrations. Landfill 1 LTM monitoring wells LF1MW-12 and MWSAR03 were designated as tail wells. These source/ tail well designations were required for the MAROS program to perform any analysis. However, the plume analysis (including source or tail areas stability) was not relied upon for the evaluation of the LTM network.
3. The MAROS software uses site-specific hydrogeologic parameters, including groundwater seepage velocity, porosity, contaminated saturated water column thickness, and receptor locations.
4. Any non-detect values were set to one half the detection limit. By standardizing the non-detect values, any problems with trend interpretation caused by changing detection limits were avoided.

2.2.2.4 COC Selection

The following constituents were selected for the MAROS analysis as the primary COCs for the site: benzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene and chlorobenzene,

The selection of these four target COCs is based on considerations of risk, magnitude, extent, and past investigations of the site. Moreover, the selection of these target constituents is in compliance with Appendix A.7 of the MAROS guidance. The MAROS guidance recommends choosing as few constituents as possible and that they are conclusive and not borderline relative to set criteria, such as cleanup goals. By doing so, errors in data due to spatial and temporal variations caused by the natural variability of the subsurface system and the resulting likelihood of false identifications are limited.

The following summarizes the results of the Mann-Kendall test. Linear Regression was used to confirm any trend reported by the Mann-Kendall test. The statistical summary sheets for both tests can be located in Appendix E. The summarized results for the target COCs and indicator parameters are summarized below and detailed in Table 2-2.

<u>Benzene:</u>

Source Wells	Mann-Kendall Trend	Linear Regression Trend	MAROS Recommended Sampling Frequency
LF1MW-5	decreasing	decreasing	Annual

LF1MW-11	decreasing	decreasing	Annual
LF1P-2	decreasing	decreasing	Annual
Tail Wells			
LF1MW-6	no trend	no trend	Annual
LF1MW-10	non detect	non detect	Biennial
LF1MW-12	non detect	non detect	Biennial
MWSAR03	no trend	no trend	Annual

1,2-Dichlorobenzene:

Source Wells	Mann-Kendall Trend	Linear Regression Trend	MAROS Recommended Sampling Frequency
LF1MW-5	non detect	non detect	Biennial
LF1MW-11	decreasing	decreasing	Annual
LF1P-2	stable	stable	Biennial
Tail Wells			
LF1MW-6	non detect	non detect	Biennial
LF1MW-10	non detect	non detect	Biennial
LF1MW-12	non detect	non detect	Biennial
MWSAR03	non detect	non detect	Biennial

1,4-Dichlorobenzene:

Source Wells	Mann-Kendall Trend	Linear Regression Trend	MAROS Recommended Sampling Frequency
LF1MW-5	decreasing	decreasing	Annual
LF1MW-11	decreasing	decreasing	Annual
LF1P-2	no trend	no trend	Annual
Tail Wells			
LF1MW-6	stable	stable	Biennial
LF1MW-10	decreasing	decreasing	Annual
LF1MW-12	no trend	decreasing	Biennial
MWSAR03	stable	no trend	Annual

Chlorobenzene:

Source Wells	Mann-Kendall Trend	Linear Regression Trend	MAROS Recommended Sampling Frequency
LF1MW-5	decreasing	decreasing	Annual
LF1MW-11	decreasing	decreasing	Annual
LF1P-2	decreasing	decreasing	Annual
Tail Wells			

LF1MW-6	no trend	no trend	Annual
LF1MW-10	stable	probably decreasing	Biennial
LF1MW-12	non detect	non detect	Biennial
MWSAR03	increasing	increasing	Annual

2.2.3 Conclusions

Landfill Cap Inspections and Maintenance

The semiannual inspections (spring 2016) have not identified any major deficiencies that would jeopardize the integrity of the cover and there is optimal vegetation cover on the cap. Inspections are also conducted following significant weather events (5-year storm events). No significant weather events have occurred in 2016. If a significant weather event is recorded during the remainder of the year, an emergency response landfill inspection will be conducted and reported.

Groundwater and Surface Water

VOC exceedances at the site are limited to two monitoring wells, LF1MW-5 and -11. LF1MW-5 and -11 have shown sustained exceedances. Figure 2-5 has been provided to illustrate the stable and/or decreasing total VOC concentrations at monitoring wells LF1MW -5 and -11 over time. All of the detections are within one order of magnitude of the NYS Groundwater Standard.

Landfill leachate indicators were above NYS groundwater and surface water standards at LF1MW-5, -6, -11, -13, -1R, -103, LF1P-2, and MWSAR03. The exceedances included TKN, TDS, color and ammonia.

The concentrations of TKN, TDS, and ammonia at the overburden wells are comparable to previous results and below the typical range of municipal landfill leachate (Lee and Jones, 1991). This reference was used during the Baseline Study of the former Griffiss AFB Landfill AOCs and is provided in Table 2-3. LF1MW-103, the bedrock well, showed higher concentrations of indicator parameters ammonia and TKN compared to the overburden wells. The ammonia and TKN concentrations detected at LF1MW-103 were still within the typical range of municipal landfill leachate. The concentrations of other indicator parameters are generally low for the bedrock well, which discounts the possibility of leachate impacts. The higher concentrations at the bedrock well may also be attributed to differences in the geochemical environment of the water-table associated with the overburden well and the bedrock well; the difference in mineralogy between the bedrock (shale) and the overburden may account for the observed chemical differences.

Color concentrations reported during the May 2016 sampling round were higher than previous sampling rounds at downgradient monitoring wells LF1MW-5, -6, -11, -12, -13, LF1P-2, -5 and MWSAR03, upgradient well LF1MW-1R, and surface water sampling locations LF1SW-2SMC and -3. These elevated color concentrations were similar to results observed in the June 2015 sampling round at all LF AOCs. The increase may be attributed to natural conditions caused by greater rainfall and surface water runoff. Seven color exceedances occurred during the May

2016 sampling round (LF1MW-5, -6, -11, -13, -1R, LF1P-2 and MWSAR03). Future monitoring events will determine whether or not this was an anomaly.

The alkalinity and hardness concentrations at downgradient monitoring wells ranged from 57 mg/L to 500 mg/L, and 17 mg/L to 650 mg/L, respectively. Alkalinity and hardness concentrations at the LF001 LTM Network monitoring wells show no trends and are stable, respectively, as shown in Figure 2-6 and Figure 2-7. Alkalinity and hardness are important indicators of the plume extent because the landfill material tends to propagate microbial activity which generates carbon dioxide. This process increases the dissolution of minerals and alkalinity which increases hardness (Baedecker and Back, 1979). The stability of these parameters suggests that the landfill plume is fairly static.

For the May 2016 sampling round, alkalinity and hardness levels throughout the LTM network exceeded the level measured in the background well, LF1MW-1R (alkalinity was 38 mg/L and hardness was 46 mg/L). The highest levels of alkalinity and hardness are present in downgradient monitoring wells LF1MW-5, -6, -11, LF1P-2 and -3. Alkalinity levels appear to decrease as they approach the POC monitoring wells (LF1P-5 and LF1MW-13). The concentrations of leachate indicators alkalinity and hardness are plotted in Figure 2-8.

MAROS Analysis

Utilizing the results of the LTM sampling rounds, MAROS analysis was performed for the Landfill 1 AOC LTM network. Target COCs are selected for MAROS analysis based on recent VOC concentration exceedances at LF001 (Landfill 1 AOC). Results of the evaluation confirmed a decreasing trend at source monitoring wells for the selected target COCs (benzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene, and chlorobenzene) (Appendix E).

Based on the results of over 50% of the tail monitoring wells, the evaluation confirmed a stable trend for 1,4-dichlorobenzene concentrations, a stable/increasing trend for chlorobenzene, no trend/non detect for benzene and non detect for 1,2-dichlorobenzene. An increasing trend for chlorobenzene was only identified at one tail well, MWSAR03. Detected chlorobenzene concentrations at MWSAR03 ranged between 0.2 and 0.4 µg/L from 2013 to 2016, which is well below the NYS Groundwater Standard of 5 µg/L [and represented a fairly stable trend]. Future regular scheduled sampling events will be monitored for indications of persistent increasing trends in Chlorobenzene concentrations in this and other wells (Appendix E).

2.3 LTM RECOMMENDATIONS

The landfill leachate concentrations are still within or below the typical range of municipal landfill leachate (Lee and Jones, 1991) and VOC concentrations are decreasing. The current scope of annual groundwater sampling and surface water sampling is recommended for 2017; please refer to Table 2-4 for the summary of the LF001 (Landfill 1 AOC) LTM Network. If landfill leachate indicator and/or VOC concentrations show a sustained increase in levels, changes to the LTM sampling network (i.e. increased sampling frequency and/or a return to sampling the baseline study analyte list) would be recommended to address this concern. In addition to the monitoring recommendations above, it is recommended that the hydraulic

conductivity be re-evaluated prior to the next Five Year Review to confirm the groundwater flow rates reported during the 1994 RI.

Based on the landfill cap inspections, it is recommended that the frequency continue semiannually. The semiannual inspections ensure that vegetation growth on the landfill cap shows optimal coverage for erosion control and cover system stabilization. Semiannual inspections in the spring and fall ensure that nothing detrimental to the landfill cap occurred during the winter months or during the summer months which can bring heavy rains. Additional inspections or maintenance will be performed as needed, as identified in the Landfill 1 O&M Manual (Conti, January 2005).

3 LF002 (LANDFILL 2/3 AOC)

3.1 SITE BACKGROUND

3.1.1 Site History

Landfill 2/3, approximately 13 acres in size, is located on a topographic high point, east of Perimeter Road near the east-central boundary of the former Griffiss AFB. The landfills are bounded by the AFB boundary on the north, east and south sides, while areas to the west, southwest and northeast have been identified as wetlands. Figure 3-1 illustrates the landfill boundary and the location of existing monitoring wells.

The wastes at Landfill 2/3 consisted of hardfill 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 wastes in Landfill 3, located in the eastern portion of Landfill 2. Since Landfill 3 is situated within the boundary of Landfill 2, these two units are designated as a single AOC. Landfill 2 was in operation from 1973 to 1982, while Landfill 3 operated from 1980 to 1981. During a Landfill Cover Investigation performed in 1997 (LAW, December 1997) landfill waste was generally encountered at depths ranging from 1 to 4 ft. The total thickness of the debris was not determined. At some locations, auger borings that extended to 4 ft failed to penetrate through the cover to the landfill waste. The asbestos wastes in Landfill 3 were disposed of in an 8 foot deep pit.

The ROD for LF002 (Landfill 2/3 AOC) was signed by the USEPA on June 5, 2000. In accordance with the ROD, the landfill was re-graded and capped in summer 2003. The cap components include a gas venting layer with an 18 inch low permeability soil layer, covered by a 6 inch layer of topsoil with grass seed on top. Five-Year Reviews were conducted in 2005, 2010, and 2015. The Five-Year Reviews indicated that the selected remedy is protective of human health and the environment.

3.1.2 Site Geology and Hydrogeology

Landfill 2/3 is located on a small hill of outwash, approximately 40 ft high on the eastern boundary of the base. Surface cover material consists of dark brown sandy silt with coarse gravel and cobbles. Deeper soils range from brown fine sand to brown, sandy, gravelly silt to approximately 55 ft below ground surface (bgs). Bedrock at the site is Utica Shale that was encountered at depths up to 50 ft bgs.

Groundwater flow is very gradual to the southwest in the area of Landfill 2/3. Water-level measurements in December 1998 showed the water table elevation ranged from 521.4 ft MSL in well LF2MW-3 on the northeast edge of this area, to 519.8 ft MSL at well LF2MW2-2 near the western edge of the landfill boundary. The saturated zone was encountered at depths ranging from 48.3 ft bgs in well LF2MW-6 to 17.0 ft bgs in well LF2MW2-2. Saturated thickness increases in depth from outside the west-central area of the landfill to outside the northwest part of the landfill (Law, December 1996).

The average site-specific hydraulic conductivity within the vicinity of Landfill 2/3 is 0.00215 ft per minute, with a hydraulic gradient of 0.0084 ft per foot. Estimating the porosity to be 20 percent, the groundwater flow has been calculated to be 47.46 ft per year (Law, December 1996). Groundwater flow is very gradual to the southwest in the area of Landfill 2/3.

3.1.3 Previous LTM Activities and Results

For readability, the hydrology setting, previous investigations, and LTM sampling plan sections have been removed from this report. These sections are provided in the 2009 Landfill AOCs LTM Report (FPM, November 2010).

LTM was initiated at the site in December 2003 in accordance with the LF002 (Landfill 2/3 AOC) Closure Plan (Conti & EA, March 2002) at six monitoring wells (LF2MW2-1, LF2MW-4, -12, -13, -14, and -100) and three surface water locations (LF2SW-1, -2, and -3). The LTM network was analyzed quarterly (routine) and annually (baseline) for NYSDEC Part 360 Parameters and VOCs from 2003 through 2005. The LTM network (groundwater and surface water monitoring) was optimized to semi-annual from 2006 through 2008, annual for 2009 and 2010 and then to biennial from 2011 through 2013. All recommendations to alter the sampling network were provided in previous Landfill AOCs LTM Reports and reviewed by the USEPA and NYSDEC.

VOCs, cyanide, mercury and phenols were analyzed until 2006 and then removed from the LTM sampling network due to their low or absent concentrations at the site. Landfill leachate indicators previously detected above the NYS Groundwater/Surface water standards included ammonia, chloride, bromide, color, TDS, TKN and nitrate. The landfill leachate indicator detections showed stable trends. TDS at LF002 has historically been detected near or below the NYS Groundwater Standard of 500 mg/L at all monitoring wells with the exception of LF2MW-100 (bedrock well). The TDS at LF2MW-100 has historically been detected above 2,000 mg/L. The TDS is higher at this well because the sampling method (bailing) produces a greater amount of suspended solids in the sample. All TDS exceedances are within one order of magnitude of the TDS standard.

Metals analysis for this site showed levels above NYS Groundwater Standards. Metals that exceed standards include barium, manganese, iron, sodium, aluminum, chromium, and nickel. However, several of the metals (e.g., manganese, iron, and sodium) are indicative of base background conditions. As a result, metals analysis was eliminated from the LF002 (Landfill 2/3 AOC) LTM network in 2001 in accordance with the LF002 (Landfill 2/3 AOC) Optimization Plan (CAPE/FPM, November 2011).

Landfill gas monitoring has been performed at Landfill 2/3 to identify the presence and concentration of methane at or near the landfill. A total of nine gas monitoring probes and 14 landfill gas vents were monitored on a quarterly basis from October 2005 until May 2010. Landfill gas sampling was optimized after the spring 2010 sampling round and is now sampled semiannually. Results from the gas sampling events at Landfill 2/3 continue to show site-wide stabilization of methane concentrations.

Since April 2005, landfill inspections and cover maintenance have been performed at Landfill 2/3. Inspections and maintenance were conducted on a quarterly basis and optimized after the spring 2010 sampling round 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. The fall inspections are performed in conjunction with the Base-wide LUC/IC Site Inspections.

The debris pile identified in the 2009 sampling event in the southern portion of the AOC was removed in March 2012 in association with Area of Interest (AOI) 474. A removal action was conducted in 2013 to remove approximately 60 cubic yards of metals contaminated soil. Confirmatory soil sampling results showed all contaminant concentrations were below the Title 6 of the New York Codes, Rules, and Regulations Part 375 Residential use Soil Cleanup Objectives. This AOI is not associated with LF002 (Landfill 2/3 AOC) and site closure was achieved in 2015.

Previous LTM results are provided in detail in the Spring 2009 Landfill AOCs LTM Report (FPM, November 2010), Spring 2010 Landfill AOCs LTM Report (FPM, February 2012), 2011 Landfill AOCs LTM Report (FPM/CAPE, July 2012), 2012 Landfill AOCs LTM Report (FPM/CAPE, March 2013), 2013 Landfill AOCs LTM Report (FPM/CAPE, February 2014), 2014 Landfill AOCs LTM Report (FPM/CAPE, August 2015) and the 2015 Landfill AOCs LTM/OES Report (FPM/Cape, December 2015).

3.2 LF002 (LANDFILL 2/3 AOC) – SPRING 2016 SITE ACTIVITIES

This section describes the LF002 (Landfill 2/3 AOC) site activities and monitoring data for 2016 (through July). The field activities include semiannual landfill cap inspections. annual landfill gas monitoring, annual landfill cap mowing, and groundwater and surface water sampling every five years were not performed prior to the end of contract date. Biennial groundwater and surface water sampling were not scheduled to be conducted in 2016. The LF002 (Landfill 2/3 AOC) LTM Network sampling locations are illustrated in Figure 3-1.

3.2.1 Landfill Cap Inspections/Maintenance

The spring 2016 inspection was conducted in May 2016 and did not identify any major deficiencies that would jeopardize the integrity of the cover.

The semiannual inspection report (Post-Closure Monitoring Reports) for spring 2016 can be found in Appendix A.

3.2.2 Conclusions

Landfill Cap Inspections and Maintenance

The semiannual inspections (spring 2016) did not identified any major deficiencies that would jeopardize the integrity of the cover and there is optimal vegetation cover on the cap. Inspections are also conducted following significant weather events (5-year storm events). If a

significant weather event is recorded during the remainder of the year, an emergency response landfill inspection will be conducted and reported.

3.3 LTM RECOMMENDATIONS

Based on the landfill cap inspections, it is recommended that the frequency continue semiannually. The semiannual inspections ensure that vegetation growth on the landfill cap shows optimal coverage for erosion control and cover system stabilization. Additional inspections or maintenance will be performed as needed, as identified in the Landfill 2/3 O&M Manual (Conti, December 2004).

4 LF003 (LANDFILL 7 AOC)

4.1 SITE BACKGROUND

4.1.1 Site History

Landfill 7, approximately 11 acres, is located northeast of the main runway and south of Perimeter Road. Figure 4-1 illustrates the landfill boundary and the locations of existing monitoring wells.

The wastes at Landfill 7 consisted of domestic refuse, solid waste, liquid wastes, petroleum products, and miscellaneous Base operations waste (such as airplane parts), which were placed into four trenches in the landfill area and subsequently burned. Landfill 7 was active from 1950-1954. During a Landfill Cover Investigation performed in 1997 (LAW, December 1997), landfill waste was encountered from approximately 1.2 to 4 ft bgs. The total thickness of the debris was not determined.

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. Five-Year Reviews were conducted in 2005, 2010, and 2015. The Five-Year Reviews indicated that the selected remedy is protective of human health and the environment.

4.1.2 Site Geology and Hydrogeology

Landfill 7 rests on a sloping plane of low permeability Utica Shale bedrock. At the toe of the landfill, the bedrock is about 15 ft bgs. Clay glacial till overlies the Utica Shale and is found at depths ranging from 5 to 35 ft bgs. Deposits above the clay layer are comprised of unconsolidated glacial till which extends to the surface where the topography slopes to the southwest at a grade of approximately 10 percent.

The Baseline Study (FPM, July 2000) described the general south-southwest direction of groundwater flow as diverging to the west and south through the area of Landfill 7. Synoptic water-level measurements in December 1998 showed the depth to groundwater ranged from 502 ft MSL in well LF7MW-16 on the north edge of this area, to 480 ft MSL at well LF7MW-21 near the 30-inch storm drain outside the landfill boundary to the southwest. Both measurements were within 1 foot of those measured in these wells in 1993-4 (Law, December 1996). The Baseline Study also described the depth to the water table varied from a maximum of 28 ft bgs in well LF7MW-17 located at the topographic high in the center of landfill, to less than 1 foot in monitoring wells LF7MW-21 and LF7MW-23. LF7MW-23 is located within the boundary of the jurisdictional wetlands and adjacent to the 24-inch storm drain.

The average hydraulic conductivity in the vicinity of Landfill 7 was determined from monitoring well data collected during the Remedial Investigation (RI) (Law, December 1996) and calculated to be 9.04 ft per day, with a hydraulic gradient of 0.027 ft per foot. With an estimated porosity of 20 percent, groundwater was calculated to flow across the site at 445 ft per year (Law,

December 1996). The groundwater flow rate at Landfill 7 is estimated to be 445 ft per year (LAW, December 1996).

4.1.3 Previous LTM Activities and Results

For readability, the hydrology setting, previous investigations, and LTM sampling plan sections have been removed from this report. These sections are provided in the 2009 Landfill AOCs LTM Report (FPM, November 2010).

LTM was initiated at the site in February 2003 in accordance with the LF003 (Landfill 7 AOC) Closure Plan (Conti & EA, March 2002) at eight monitoring wells (LF7W-22, -23, -26, -27, -28, -29, -30, and -100) and two wetland surface water locations (LF7WL-3 and -4). These sampling locations are illustrated in Figure 4-2. The LTM network was analyzed quarterly (routine) and annually (baseline) for NYSDEC Part 360 Parameters and VOCs from 2003 through 2005. The LTM network (groundwater and surface water monitoring) was optimized to semi-annual from 2006 through 2008, annual for 2009 and 2010 and then to biennial from 2011 through 2013. All recommendations to alter the sampling network were provided in previous Landfill AOCs LTM Reports and reviewed by the USEPA and NYSDEC.

VOCs, mercury, PCBs and all leachate indicators were removed from the Landfill 7 LTM network analysis list in spring 2006, due to their low or absent concentrations at the site. Landfill leachate indicators previously detected above the NYS groundwater/surface water standards included color, TDS, and TKN. Landfill leachate indicator detections at monitoring wells and surface water sampling locations showed stable trends and metals analysis showed levels above NYS Groundwater Standards. Metals in exceedance include magnesium, manganese, iron, sodium, aluminum, chromium, and nickel. However, several of the metals (e.g., manganese, iron, and sodium) are indicative of base background conditions. As a result, metals analysis was eliminated from the Landfill 7 LTM network in 2001 in accordance with the LF003 (Landfill 7 AOC) Optimization Plan (CAPE/FPM, November 2011).

Since September 2003, landfill inspections and cover maintenance have been performed at Landfill 7. Inspections and maintenance were conducted on a quarterly basis and optimized after the spring 2010 sampling round 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. The fall inspections are performed in conjunction with the Base-wide LUC/IC Site Inspections.

Previous LTM results are provided in detail in the Spring 2009 Landfill AOCs LTM Report (FPM, November 2010), Spring 2010 Landfill AOCs LTM Report (FPM, February 2012), 2011 Landfill AOCs LTM Report (FPM/CAPE, July 2012), 2012 Landfill AOCs LTM Report (FPM/CAPE, March 2013), 2013 Landfill AOCs LTM Report (FPM/CAPE, February 2014), 2014 Landfill AOCs LTM Report (FPM/CAPE, August 2015) and the 2015 Landfill AOCs LTM/OES Report (FPM/Cape, December 2015).

4.2 LF003 (LANDFILL 7 AOC) – SPRING 2016 SITE ACITIVITIES

This section describes the LF003 (Landfill 7 AOC) site activities and monitoring data for 2016 (through July). The field activities include semiannual landfill cap inspections. Annual landfill cap mowing, and groundwater and surface water sampling every five years were not performed prior to the end of contract date. The LF003 (Landfill 7 AOC) LTM Network sampling locations are illustrated in Figure 4-1.

4.2.1 Landfill Cap Inspections/Maintenance

The spring 2016 inspection was conducted in May 2015 and did not identify any major deficiencies that would jeopardize the integrity of the cover.

The semiannual inspection report (Post-Closure Monitoring Reports) for spring 2016 can be found in Appendix A.

4.3 CONCLUSIONS

Landfill Cap Inspections and Maintenance

The semiannual inspections have not identified any major deficiencies that would jeopardize the integrity of the cover and there is optimal vegetation cover on the cap. Inspections are also conducted following significant weather events (5-year storm events). If a significant weather event is recorded during the remainder of the year, an emergency response landfill inspection will be conducted and reported.

4.4 LTM RECOMMENDATIONS

Based on the spring landfill cap inspections it is recommended that the frequency continue semiannually. The semiannual inspections ensure that vegetation growth on the landfill cap shows optimal coverage for erosion control and cover system stabilization. Additional inspections or maintenance will be performed as needed, as identified in the Landfill 7 O&M Manual (Conti, May 2004).

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5 LF007 (LANDFILL 5 AOC)

5.1 SITE BACKGROUND

5.1.1 Site History

Landfill 5 encompasses approximately 4 acres and is located in the south-central portion of the former Base, south of Patrick Square, immediately southwest of the unpaved access road and east of Three Mile Creek (TMC). Figure 5-1 illustrates the landfill boundary together with the location of existing monitoring wells.

The waste at Landfill 5 consisted of domestic wastes, reportedly having been burned and then buried. Approximately 18,000 CY of wastes were disposed of at the site from 1950-1960. During a Landfill Cover Investigation performed in 1997 (LAW, December1997) landfill waste was encountered from approximately 0.8 to 2.4 ft bgs. The total thickness of the debris was not determined.

The ROD for LF007 (Landfill 5 AOC) 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 an 18 inch low permeability soil layer, covered by a 6 inch layer of topsoil with grass seed on top. Five-Year Reviews were conducted in 2005, 2010, and 2015. The Five-Year Reviews indicated that the selected remedy is protective of human health and the environment.

5.1.2 Site Geology and Hydrogeology

Shallow site soils consist of sandy peat, silty fine sand, and sandy silt to a depth of 2 ft bgs. Deeper soils consist of fine brown sand with varying amounts of silt and gravel from 2 ft bgs to 20 ft bgs.

The Baseline Study (FPM, July 2000) indicated that the principal groundwater flow directions at Landfill 5 are to the west in the area bordering the northern part of the landfill and to the southwest in the central and southern parts of the landfill. The southern portion of the site is near the floodplain of Three Mile Creek, adjacent to wetland areas. Some groundwater drainage from Landfill 5 may flow into the wetland area and to the pond located to the southeast of the landfill site.

The average hydraulic conductivity in the vicinity of Landfill 5 was determined from monitoring well data collected during the RI (Law, December 1996) and calculated to be 30 ft per day, with a hydraulic gradient of 0.0044 ft per foot. With an estimated porosity of 20 percent, groundwater was calculated to flow across the site at 240.51 ft per year (Law, December 1996). Principal groundwater flow directions at Landfill 5 are to the west in the area bordering the northern part of the landfill and to the southwest in the central and southern parts of the landfill.

The June 2003 synoptic water-level measurements showed the depth to groundwater varied from 4.85 ft bgs in well LF5MW-5 to 20.85 ft bgs in well LF5MW-1A. The groundwater depths

reported in the Supplemental Investigation (SI) (E&E, November 1998) ranged from about 3 to 4 ft bgs in well LF5MW-4 to nearly 15 ft bgs in well LF5MW-2.

5.1.3 Previous LTM Activities and Results

For readability, the hydrology setting, previous investigations, and LTM sampling plan sections have been removed from this report. These sections are provided in the 2009 Landfill AOCs LTM Report (FPM, November 2010).

LTM was initiated at the site in February 2003 in accordance with the LF007 (Landfill 5 AOC) Closure Plan (Conti & EA, July 2002) at five monitoring wells (LF5MW-1A, -3, -5, -100R, and MW49D07) and three surface water locations (LF5SW-1, -2, and -3). The sampling locations are illustrated in Figure 19. The LTM network was analyzed quarterly (routine) and annually (baseline) for NYSDEC Part 360 Parameters and VOCs from 2003 through 2005. The LTM network (groundwater and surface water monitoring) was optimized to semi-annual from 2006 through 2008, annual for 2009 and 2010 and then to biennial from 2011 through 2013. All recommendations to alter the sampling network were provided in previous Landfill AOCs LTM Reports and reviewed by the USEPA and NYSDEC.

VOC and PCB analysis conducted at the site did not show any detections above standards at the overburden monitoring wells or surface water sampling locations. PCB exceedances were reported at LF5MW-100R (bedrock well) in 2005 and 2006. No PCBs were detected at this location in 2007 and 2008, however. Landfill leachate indicators previously detected above the NYS groundwater/surface water standards included ammonia, bromide, chloride, color, nitrate, sulfate, TDS, and TKN. The landfill leachate indicators detections showed stable trends before the analysis was removed from the LTM network in 2006. Metals analysis for this site showed levels above NYS Groundwater Standards. Metals detected above standards include manganese, iron, sodium, aluminum, chromium, and nickel. However, several of the metals (e.g., manganese, iron, and sodium) are indicative of base background conditions. As a result, metals analysis was eliminated from the Landfill 5 LTM network in 2001 in accordance with the LF007 (Landfill 5 AOC) Optimization Plan (CAPE/FPM, November 2011).

Landfill inspections and cover maintenance have been performed at Landfill 5 since September 2003. Inspections and maintenance were conducted on a quarterly basis and optimized after the spring 2010 sampling round 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 quarterly as part of the landfill cover inspection program. The fall inspections are performed in conjunction with the Base-wide LUC/IC Site Inspections.

Previous LTM results are provided in detail in the Spring 2009 Landfill AOCs LTM Report (FPM, November 2010), Spring 2010 Landfill AOCs LTM Report (FPM, February 2012), 2011 Landfill AOCs LTM Report (FPM/CAPE, July 2012), 2012 Landfill AOCs LTM Report (FPM/CAPE, March 2013), 2013 Landfill AOCs LTM Report (FPM/CAPE, February 2014), 2014 Landfill AOCs LTM Report (FPM/CAPE, August 2015) and the 2015 Landfill AOCs LTM/OES Report (FPM/Cape, December 2015).

5.2 LF007 (LANDFILL 5 AOC) – SPRING 2016 SITE ACTIVITIES

This section describes the LF007 (Landfill 5 AOC) site activities and monitoring data for 2016 (through July). The field activities include semiannual landfill cap inspections. Annual landfill cap mowing, and groundwater and surface water sampling every five years were not performed prior to the end of contract date. The LF007 (Landfill 5 AOC) LTM Network sampling locations are illustrated in Figure 5-1.

5.2.1 Landfill Cap Inspections/Maintenance

The spring 2016 inspection was conducted in May 2016 and did not identify any major deficiencies that would jeopardize the integrity of the cover.

The semiannual inspection report (Post-Closure Monitoring Reports) for spring 2016 can be found in Appendix A. A beaver dam was identified during a previous semiannual inspection within Three Mile Creek near LF007. The dam is now inactive and water levels have returned to normal. No surface water was observed near the landfill cap from the dam.

5.2.2 Conclusions

Landfill Cap Inspections and Maintenance

The semiannual inspections have not identified any major deficiencies that would jeopardize the integrity of the cover and there is optimal vegetation cover on the cap. Inspections are also conducted following significant weather events (5-year storm events). If a significant weather event is recorded during the remainder of the year, an emergency response landfill inspection will be conducted and reported.

5.3 LTM RECOMMENDATIONS

Based on the spring landfill cap inspections it is recommended that the frequency continue semiannually. The semiannual inspections ensure that vegetation growth on the landfill cap shows optimal coverage for erosion control and cover system stabilization. Additional inspections or maintenance will be performed as needed, as identified in the Landfill 5 O&M Manual (Conti, May 2004).

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6 LF009 (LANDFILL 6 AOC)

6.1 SITE BACKGROUND

6.1.1 Site History

Landfill 6 is an unlined landfill comprising of approximately 15.7 acres located near the southern boundary of the former Griffiss AFB, between Perimeter Road and TMC. The southern edge of the landfill is bound by a dirt access road. Figure 6-1 illustrates the landfill boundary and the locations of existing monitoring wells.

The wastes at Landfill 6 consisted of general refuse and hardfill that was buried and some of which was burned at the site. An estimated 38,000-62,000 CY of wastes were disposed at the site from 1955-1959. The total thickness of general refuse and hardfill is not known. 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 Landfill 6. The contaminated fill was reportedly placed in compacted 6-inch layers to a total depth of 3 ft bgs and the cap consisted of a 12-inch clay layer, covered by at least 6 inches of topsoil and seeded with grass.

The ROD for LF009 (Landfill 6 AOC) was signed by the USEPA on June 7, 2001. In accordance with the ROD, the landfill was re-graded and capped in 2004. The cap components include a 12-inch gas venting layer, a 40-mil[1] linear low density polyethylene geomembrane liner, a geocomposite drainage net, a minimum 12 inch thick barrier protection layer, and a minimum 6 inch thick layer of topsoil. A portion of the fill material used at Landfill 6 consisted of soil/debris from various on-base projects, including: approximately 52,600 CY of material from the TMC restoration project, approximately 3,000 CY of cobbles from the Apron 1 biopile remediation project and approximately 2 CY of soil from the Rainbow Creek remediation project. Five-Year Reviews were conducted in 2005, 2010, and 2015. The Five-Year Reviews indicated that the selected remedy is protective of human health and the environment.

6.1.2 Site Geology and Hydrogeology

Surface cover material consists of brown silty fine sand with coarse gravel and cobbles. Deeper soils, from 2 to 74 ft bgs, consist of predominantly brown fine sand with variable silt and gravel. Landfill 6 rests on low permeability Utica Shale bedrock, which was encountered at 104 ft bgs in well LF6MW4-2R (466.13 ft MSL) (Law, December 1996).

Based on groundwater data from seven groundwater monitoring wells at the site, groundwater flows south-southwest toward Three Mile Creek. During the RI, the saturated zone was encountered at 9 to 60.5 ft bgs, with groundwater elevations declining approximately 9 ft across the site (based on water levels recorded in seven monitoring wells across the site). During a groundwater study conducted in 2000 (E&E, August 2000), the saturated zone was encountered

[1] "mil" is a thousandth of an inch

from 2.6 ft to 64.7 ft bgs, with an average of about 19 ft bgs across the site (based on water levels recorded in 12 monitoring wells).

The average hydraulic conductivity in the vicinity of Landfill 6 was determined from monitoring well data collected during the RI (Law, December 1996) and calculated to be 3 ft per day, with a hydraulic gradient of 0.0057 ft per foot. With an estimated porosity of 20 percent, groundwater was calculated to flow across the site at 31.2 ft per year (Law, December 1996). Groundwater flows south-southwest toward TMC at Landfill 6.

6.1.3 Previous LTM Activities and Results

For readability, the hydrology setting, previous investigations, and LTM sampling plan sections have been removed from this report. These sections are provided in the 2009 Landfill AOCs LTM Report (FPM, November 2010).

LTM was initiated at the site in June 2006 in accordance with the LF009 (Landfill 6 AOC) Closure Plan (Conti & EA, December 2003) at 19 monitoring wells (775VMW-10, -18R, -20R, LF6MW-1, -12, LF6VMW-10R2, -17D, -17S, -18, -19, -20, -21, -22, -23, -24, -25, -26, TMCMW-9 and TMC-USGS-2), three surface water locations (LF6SW-1, -2, -3), and one wetland sampling location (LF6W-1). As recommended by the NYSDEC, landfill leachate sampling locations LF6LH-1 and -2 were added to the LF009 (Landfill 6 AOC) LTM network in December 2006. These sampling locations are illustrated in Figure 6-2. The LTM network was analyzed quarterly (routine) and annually (baseline) for NYSDEC Part 360 Parameters and VOCs from 2006 to 2009. The LTM network (groundwater and surface water monitoring) was optimized to semi-annual for 2010 and then to annual from 2011 through 2013. All recommendations to alter the sampling network were provided in previous Landfill AOCs LTM Reports and reviewed by the USEPA and NYSDEC.

VOCs detected above the NYS groundwater/surface water standards include trichloroethene (TCE), cis-1,2 dichloroethene (DCE), trans-1,2 DCE, and vinyl chloride (VC). Exceedances occur at monitoring wells 775VMW-10, LF6MW-12, and LF6VMW-26. Landfill leachate indicators detected above associated standards included chloride, color, TDS, and TKN.

Landfill gas monitoring has been performed at the site to identify the presence and concentration of methane at or near the landfill. A total of 13 gas monitoring probes and 16 landfill gas vents were monitored on a quarterly basis from October 2005 until October 2009. Landfill gas sampling was optimized after the October 2009 sampling round to semiannual. Results from the gas sampling events at LF009 (Landfill 6 AOC) showed elevated methane concentrations throughout the landfill, but these levels have declined.

Landfill inspections and cover maintenance have been performed at the site since 2006. Inspections and maintenance were conducted on a quarterly basis and optimized after the spring 2010 sampling round 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. The fall inspections are performed in conjunction with the Base-wide LUC/IC Site Inspections.

Previous LTM results are provided in detail in the Spring 2009 Landfill AOCs LTM Report (FPM, November 2010), Spring 2010 Landfill AOCs LTM Report (FPM, February 2012), 2011 Landfill AOCs LTM Report (FPM/CAPE, July 2012), 2012 Landfill AOCs LTM Report (FPM/CAPE, March 2013), 2013 Landfill AOCs LTM Report (FPM/CAPE, February 2014), 2014 Landfill AOCs LTM Report (FPM/CAPE, August 2015) and the 2015 Landfill AOCs LTM/OES Report (FPM/Cape, December 2015).

6.2 LF009 (LANDFILL 6 AOC) – SPRING 2016 SITE ACTIVITIES

This section describes the LF003 (Landfill 7 AOC) site activities and monitoring data for 2016 (through July). The field activities include semiannual landfill cap inspections. Annual landfill cap mowing, semiannual landfill gas monitoring and annual groundwater and surface water sampling were not performed prior to the end of contract date. The LF009 (Landfill 6 AOC) LTM Network sampling locations are illustrated in Figure 6-1.

6.2.1 Landfill Cap Inspections/Maintenance

The spring 2016 inspection was conducted in May 2016 and did not identify any major deficiencies that would jeopardize the integrity of the cover. Several woodchuck holes were observed on the landfill cap. Trapping activities were conducted and removed one woodchuck. All traps were removed on June 30, 2016.

The semiannual inspection reports (Post-Closure Monitoring Reports) for spring 2016 can be found in Appendix A.

6.2.2 Conclusions

Landfill Cap Inspections and Maintenance

The semiannual inspections have not identified any major deficiencies that would jeopardize the integrity of the cover and there is optimal vegetation cover on the cap. Inspections are also conducted following significant weather events (5-year storm events). If a significant weather event is recorded during the remainder of the year, an emergency response landfill inspection will be conducted and reported.

6.3 LTM RECOMMENDATIONS

Based on the landfill cap inspections, it is recommended that the frequency continue semiannually. The semiannual inspections ensure that vegetation growth on the landfill cap shows optimal coverage for erosion control and cover system stabilization. Additional inspections or maintenance will be performed as needed, as identified in the Landfill 6 O&M Manual (Conti, December 2006).

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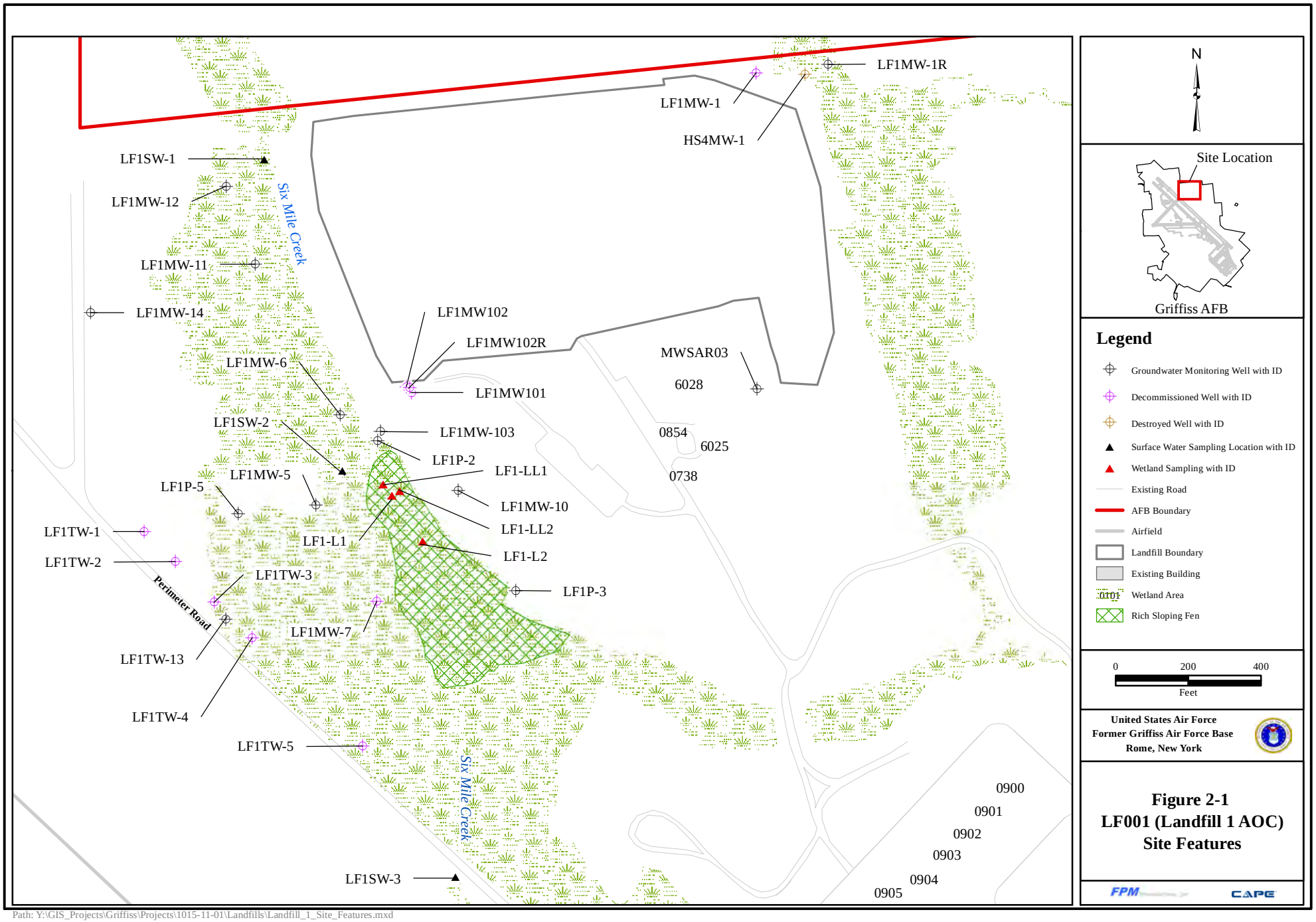
FIGURES



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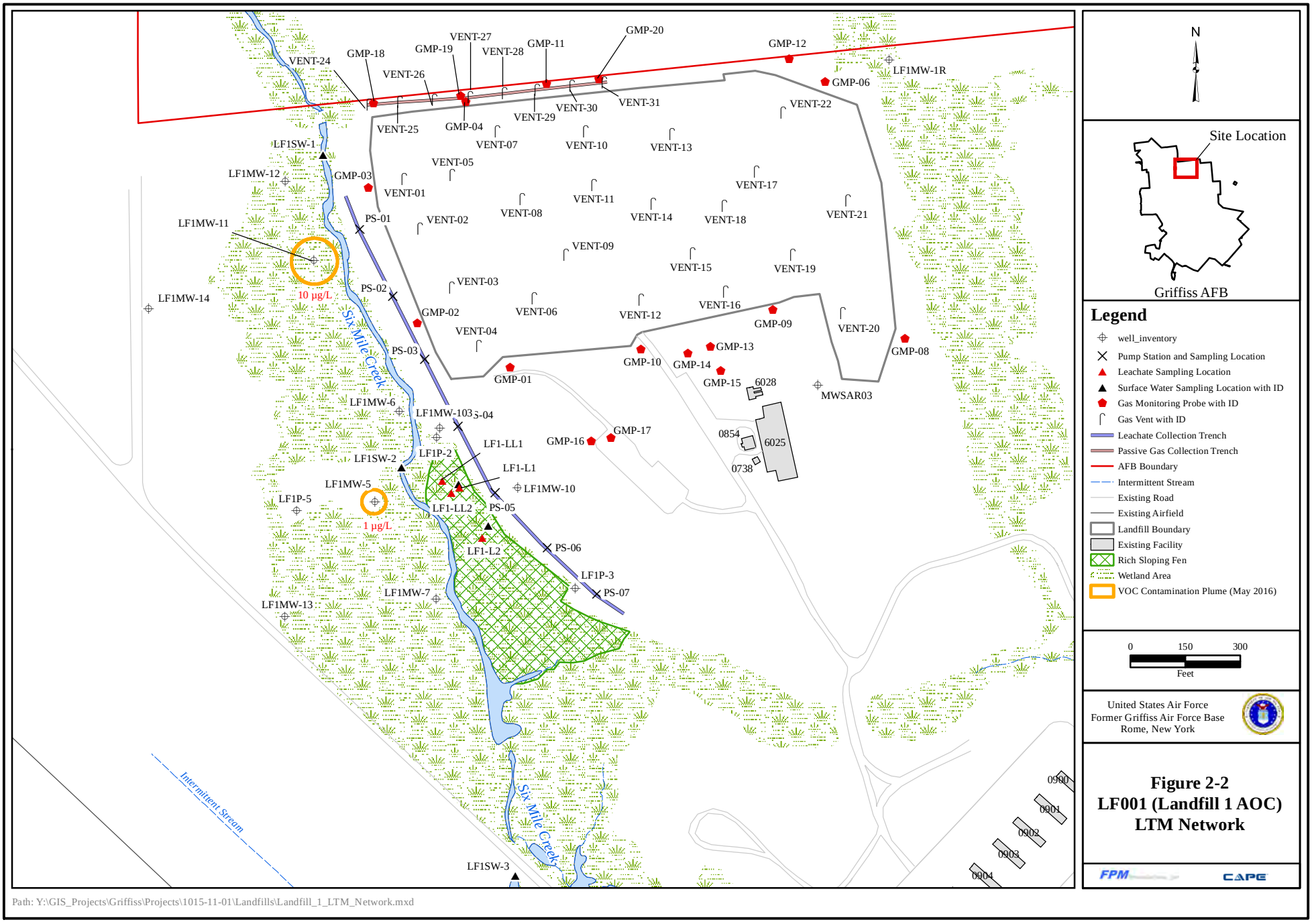

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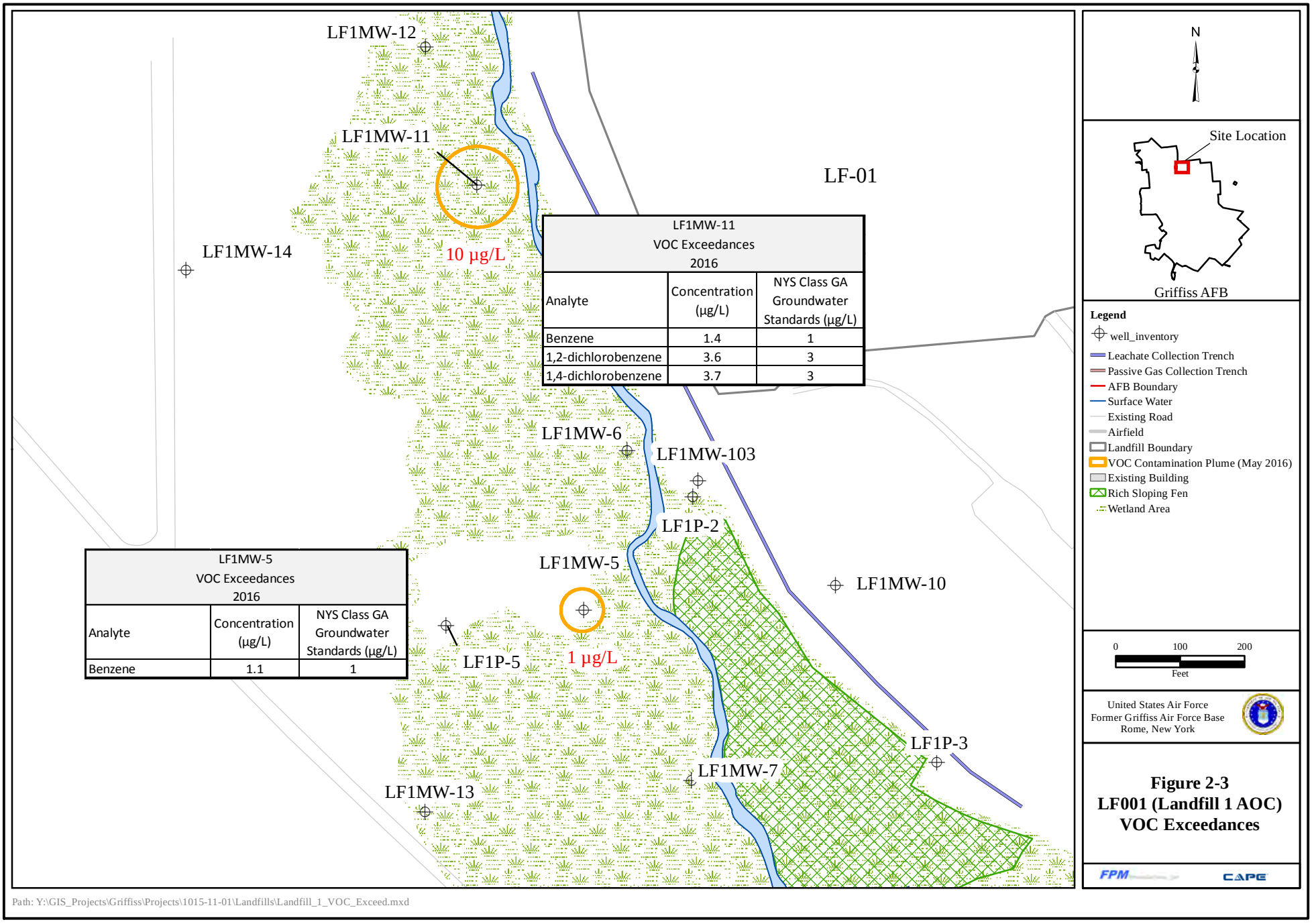
LF1MW-12
LF1MW-11
LF1MW-14
10 µg/L
LF-01
LF1MW-6
LF1MW-103
LF1P-2
LF1MW-5
LF1MW-10
LF1P-5
1 µg/L
LF1P-3
LF1MW-7
LF1MW-13
LF1MW-11
VOC Exceedances
2016
Analyte | Concentration (µg/L) | NYS Class GA Groundwater Standards (µg/L)
Benzene | 1.4 | 1
1,2-dichlorobenzene | 3.6 | 3
1,4-dichlorobenzene | 3.7 | 3
LF1MW-5
VOC Exceedances
2016
Analyte | Concentration (µg/L) | NYS Class GA Groundwater Standards (µg/L)
Benzene | 1.1 | 1
N
Site Location
Griffiss AFB
Legend
well_inventory
Leachate Collection Trench
Passive Gas Collection Trench
AFB Boundary
Surface Water
Existing Road
Airfield
Landfill Boundary
VOC Contamination Plume (May 2016)
Existing Building
Rich Sloping Fen
Wetland Area
0
100
200
Feet
United States Air Force
Former Griffiss Air Force Base
Rome, New York
Figure 2-3
LF001 (Landfill 1 AOC)
VOC Exceedances
FPM
CAPE
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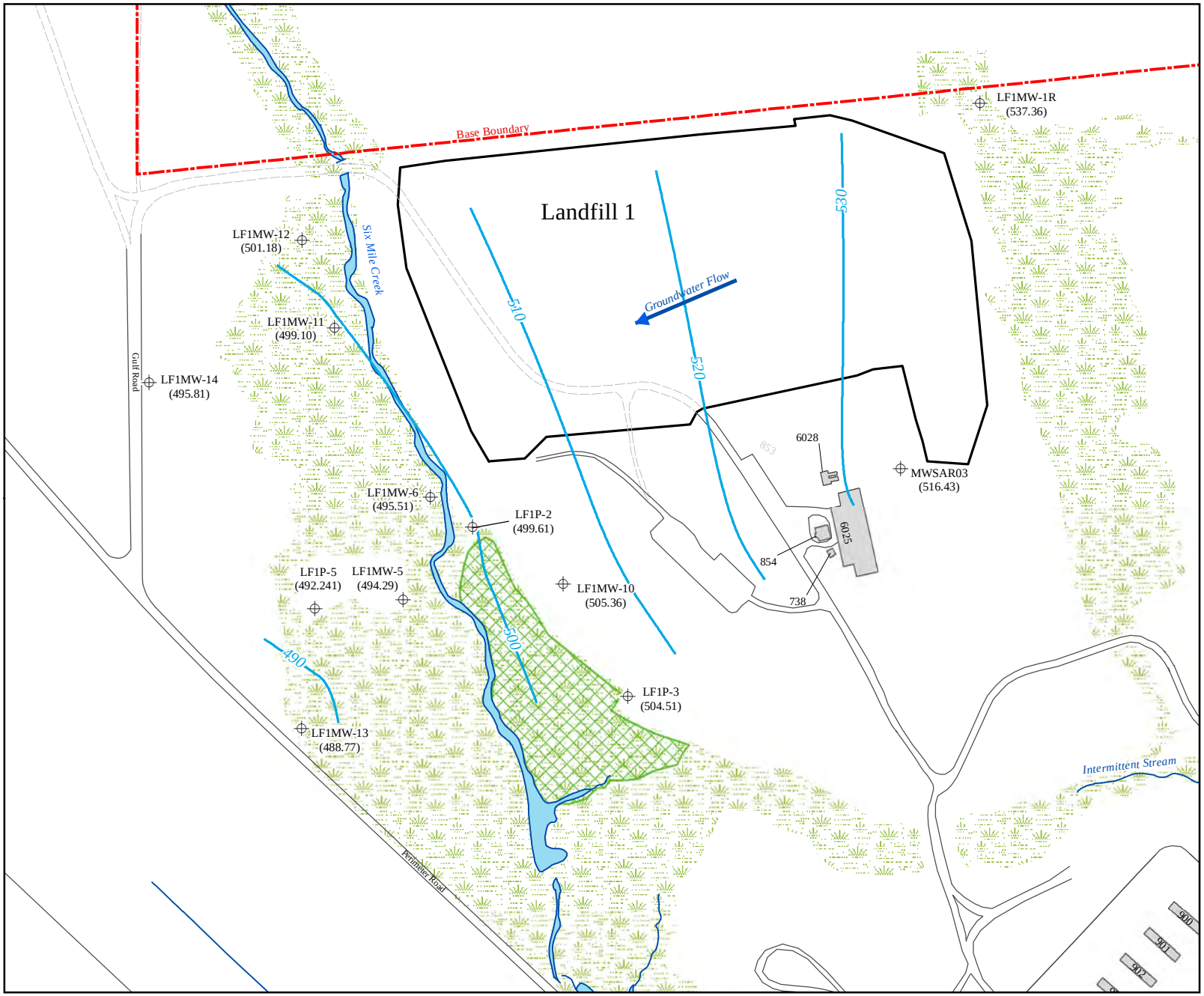

N

Site Location

Legend

- Groundwater Sampling Location with ID
- Groundwater Flow
- Groundwater Contour 2016 (Ft AMSL)
- Base Boundary
- Surface Water
- Removed Road
- Existing Road /Airfield
- Six Mile Creek
- Landfill 1 Boundary
- Building
- Rich Sloping Fen
- Wetland Area

0 200 400
Feet

United States Air Force
Former Griffiss Air Force Base
Rome, New York

Figure 2-4
Landfill 1 AOC
Groundwater Contours
2016

FPM Remediation, Inc.
CAPE

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Figure 2-5
LF001 (Landfill 1 AOC)
VOC Exceedance Trends

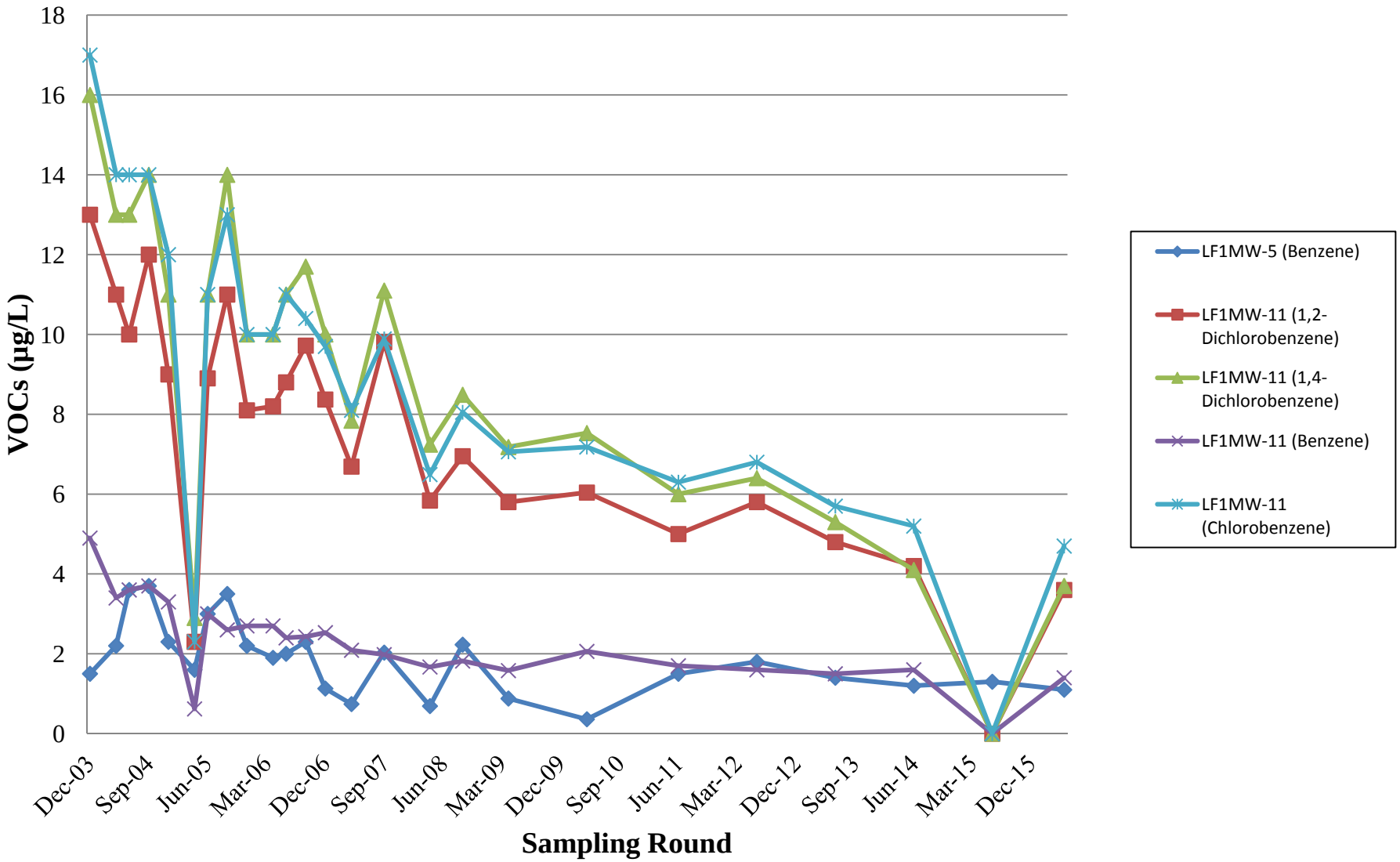


Figure 2-6
LF001 (Landfill 1 AOC)
Alkalinity Concentration Trends

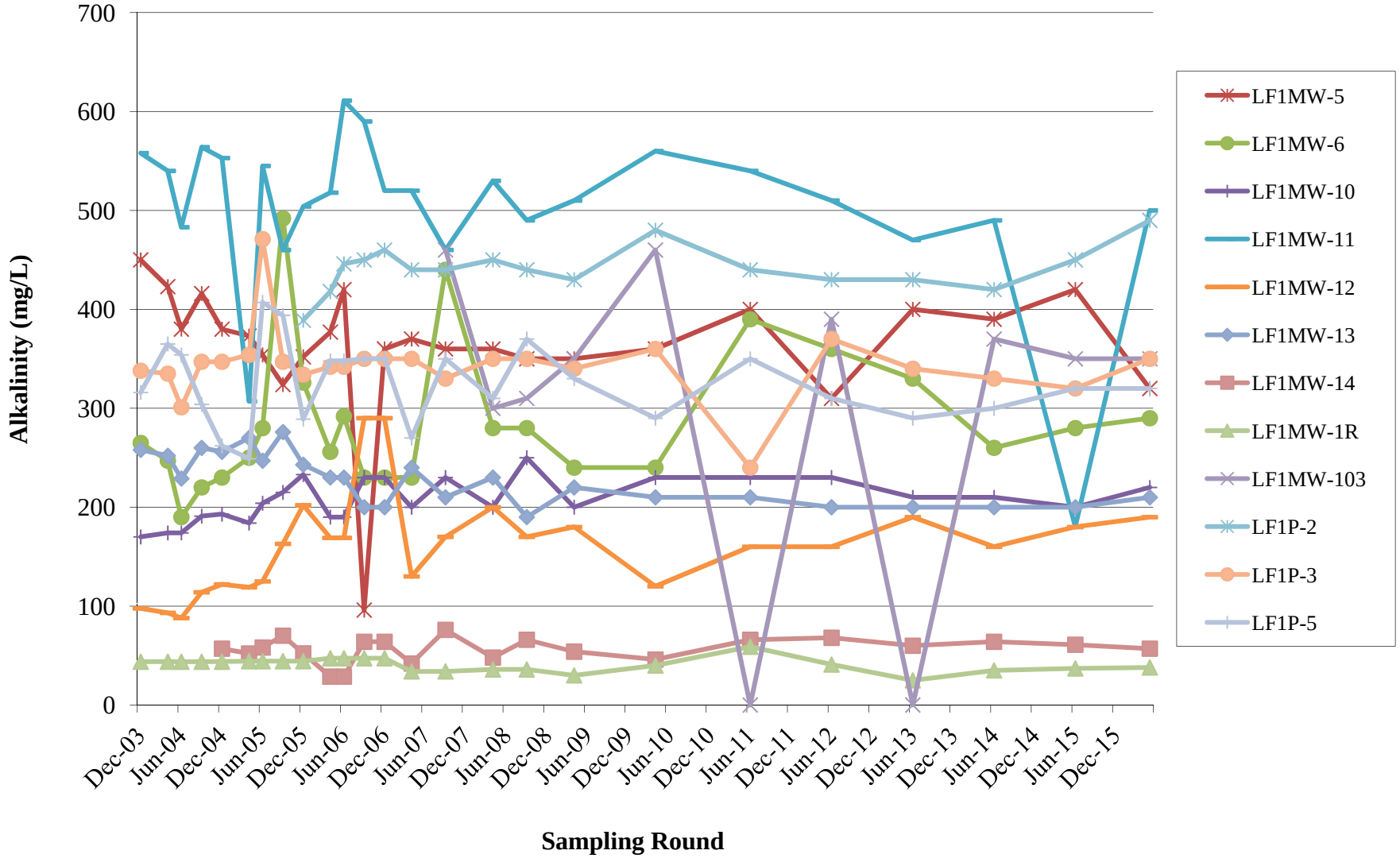


Figure 2-7
LF001 (Landfill 1 AOC)
Hardness Concentration Trends

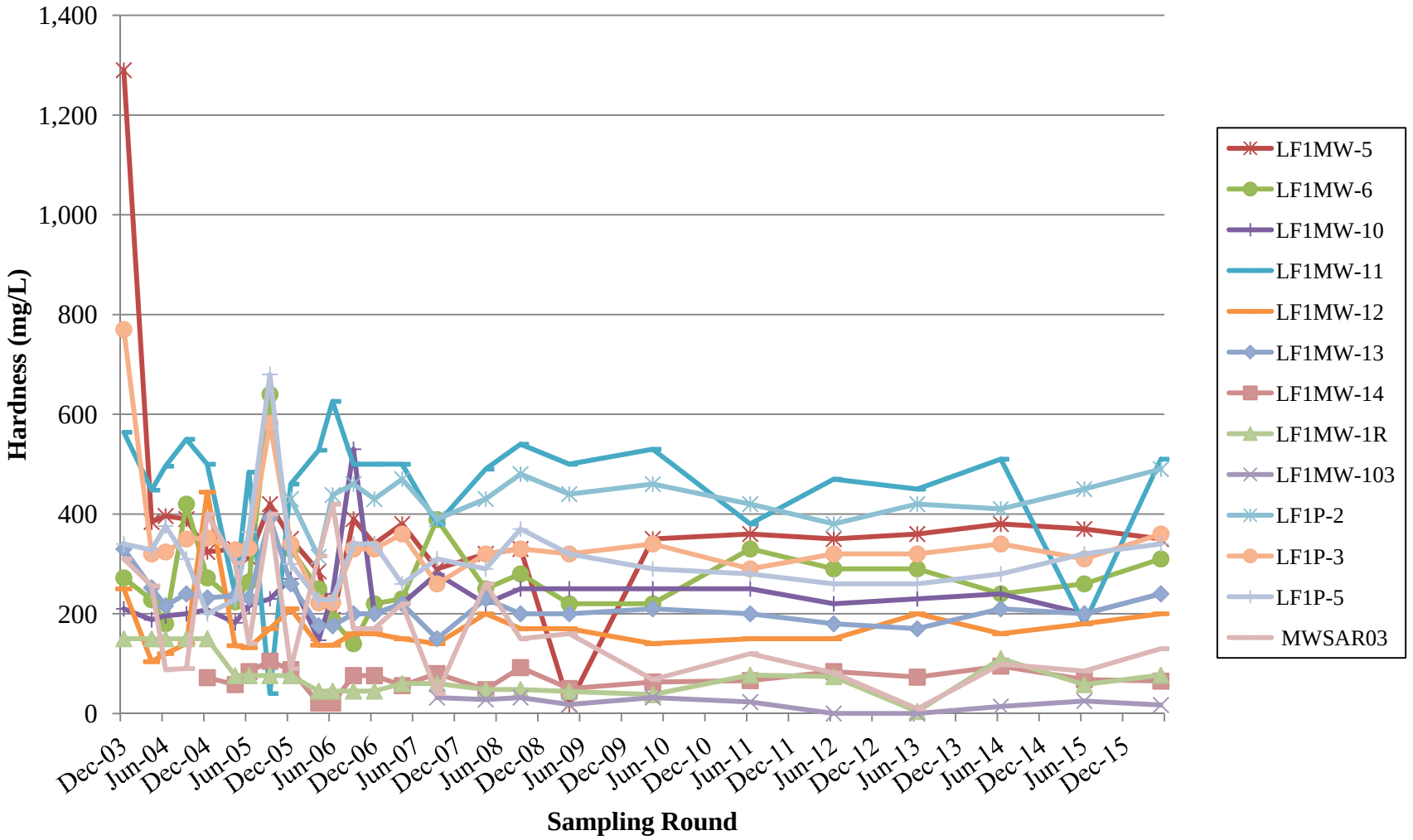
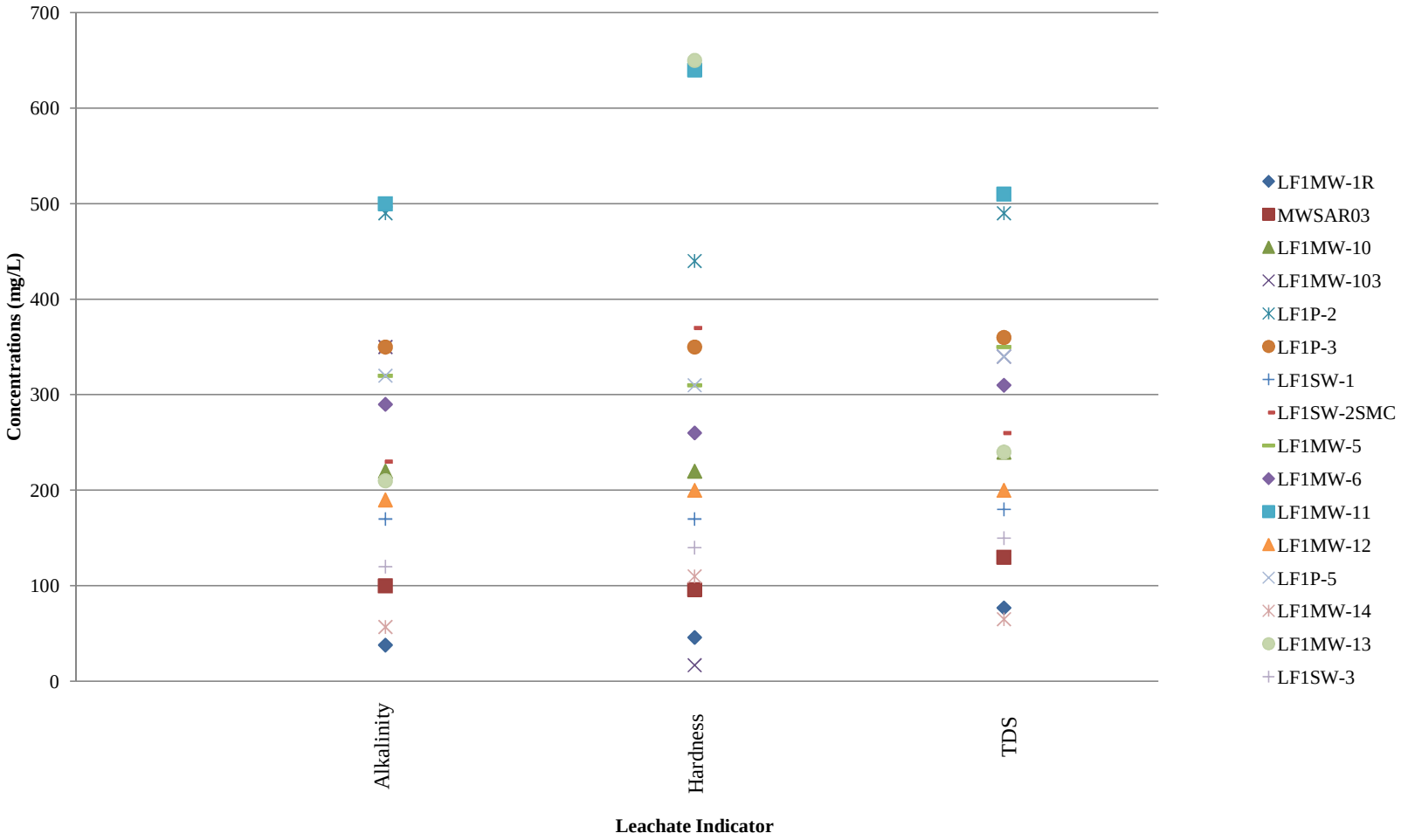
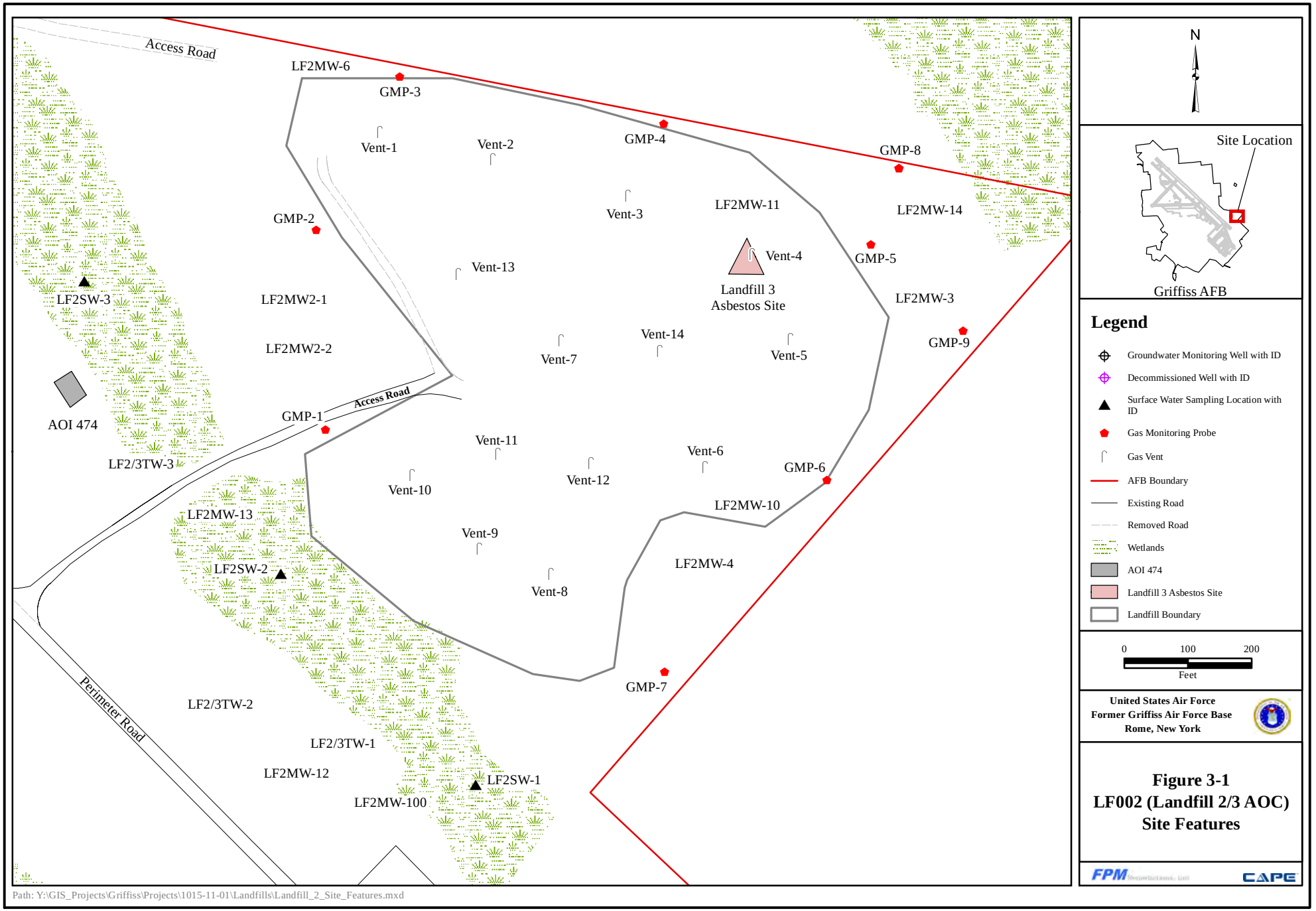


Figure 2-8
LF001 (Landfill 1 AOC)
Leachate Indicator Concentrations (2016)





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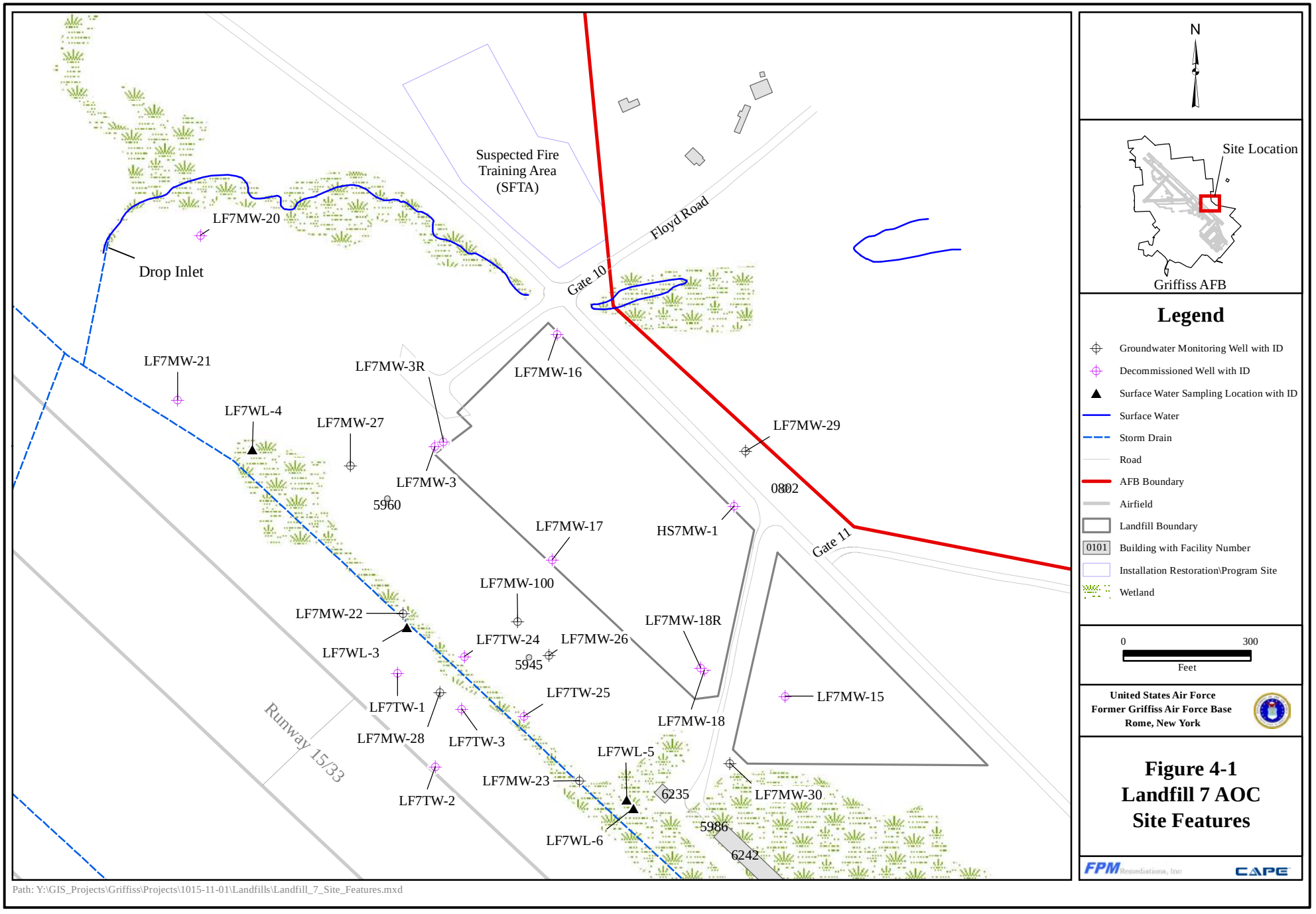

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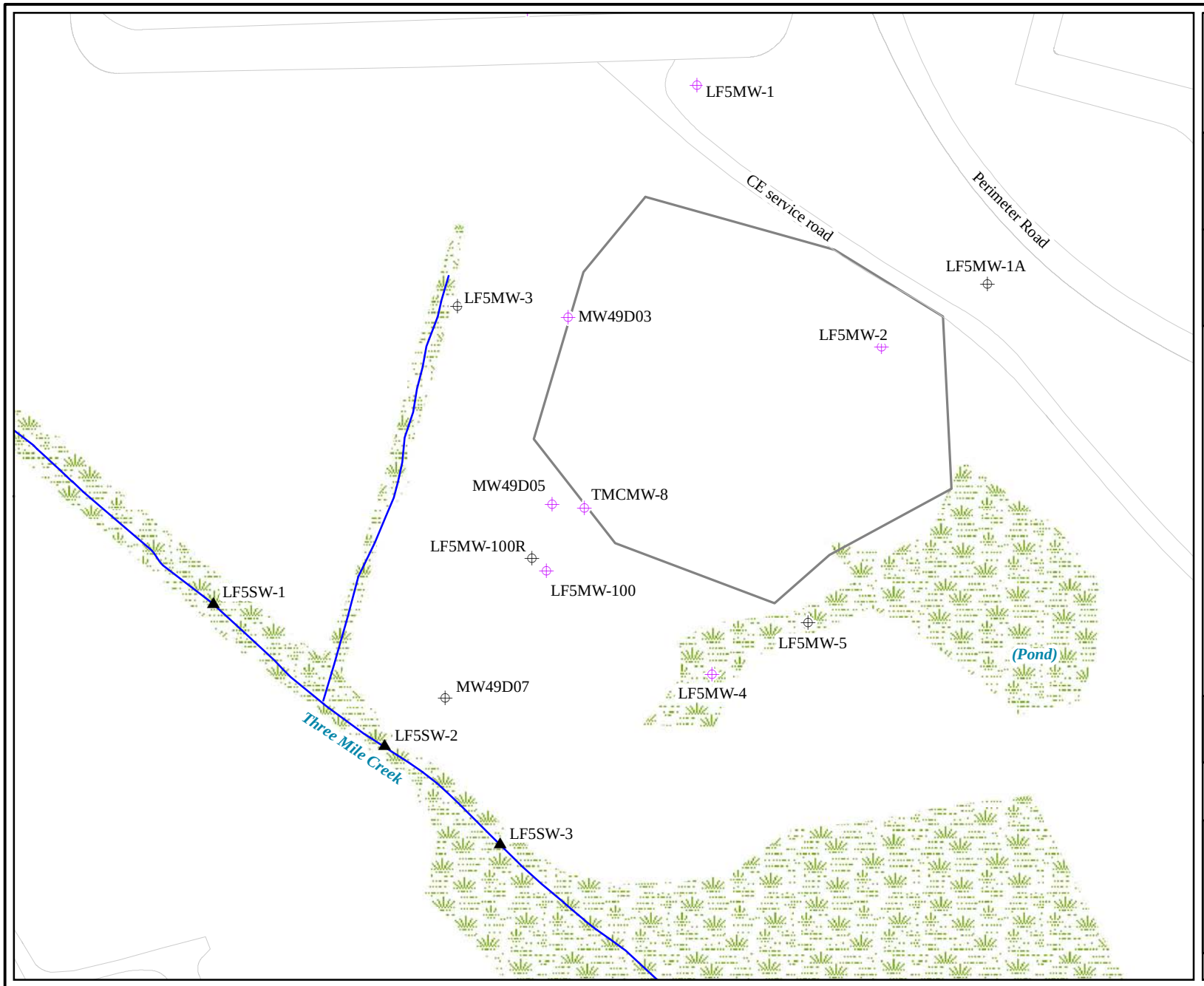

N

Site Location

Griffiss AFB

Legend

- Groundwater Monitoring Well with ID
- Decommissioned Well with ID
- Surface Water Sampling Location with ID
- Road
- Landfill Boundary
- Surface Water
- Wetlands

0 150

Feet

United States Air Force
Former Griffiss Air Force Base
Rome, New York

Figure 5-1
Landfill 5 AOC
Site Features

FPM Remediations, Inc

CAPE

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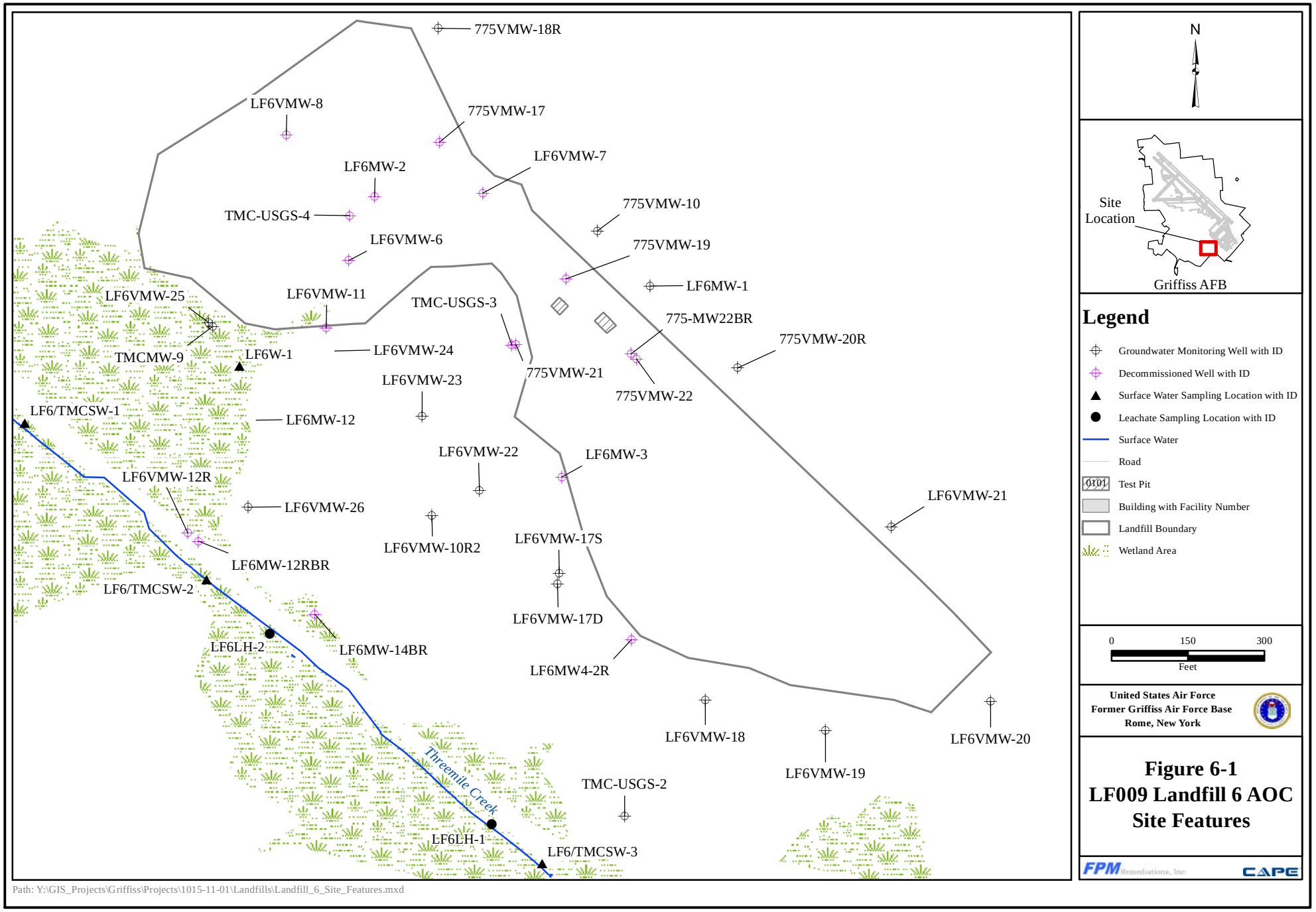

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TABLES

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-5												
Date of Collection			12/8/2003	3/30/2004	6/28/2004	9/16/2004	12/14/2004	4/5/2005	6/22/2005	9/9/2005	12/21/2005	3/17/2006	6/19/2006	9/15/2006	12/18/2006
Sample ID No.			LF1M0526AA	LF1M0526BA	LF1M0526CA	LF1M0526DA	LF1M0526EA	LF1M0526FA	LF1M0526GA	LF1M0526HA	LF1M0526IA	LF1M0526JA	LF1M0526KA	LF1M0526LA	LF1M0526MA
Depth to Water (ft)			3.07	2.67	3.29	3.11	2.96	3.17	4.28	4.98	3.61	3.20	3.65	2.28	3.05
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	0.24 F	0.22 F	0.31 F	0.3 F	0.25 F	0.24 F	0.28 F	0.33 F	U	U	U	0.24 F	0.170 F
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	**20**	**20**	**23**	**31**	**8.7**	1.1	1.3	U	0.35 F	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U	UJ
1,3,5-trimethylbenzene	5*	1	**7.6**	**7.4**	**6.2**	**6.3**	1.2	0.3 F	U	0.49 F	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	1.7	1.5	1.6	1.6	U	0.86	0.82	0.87	0.79	0.76	0.53	0.65 F	0.59
acetone	50	10	1.3 F	U	U	U	U	U	U	U	U	U	1.5 F	U	U
benzene	1	0.1	**1.5**	**2.2**	**3.6**	**3.7**	**2.3**	**1.6**	**3.0**	**3.5**	**2.2**	**1.9**	**2.0**	**2.3**	**1.13**
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	2.2	2.8	3.6	3.6	2.3	1.4	2.3	2.7	1.8	1.7	1.8	2.02	1.12
chloroethane	5*	1	U	0.2 F	0.27 F	0.25 F	0.33 F	0.25 F	0.32 F	U	U	U	0.2 F	U	0.120 F
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	0.23 F	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	0.24 F	0.26 F	U	0.38 F	0.3 F	0.25 F	U	U	U	U		U	U
dichlorodifluoromethane	5*	1	U	0.44 F	0.4 F	0.37 F	0.34 F	U	0.36 F	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	0.39 F	U	0.51 F	0.51 F	U	U	0.28 F	U	U	U	U	U	U
methylene chloride	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	U	0.22 F	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	**8.8**	3.2	**19**	**18**	1.6 F	0.42 F	1.6 F	U	U	U	U	U	U
naphthalene	10	1	0.29 F	0.29 F	0.41 F	0.35 F	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	0.27 F	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	0.36 F	0.39 F	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	0.61 F	U	0.59 F	U	0.29 F	U	0.32 F	0.36 F	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	0.24 F	0.25 F	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	0.180 F
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	0.24 F	0.25 F	0.3 F	0.37 F	0.33 F	U	0.39 F	0.7 F	0.32 F	0.34 F	U	0.25 F	0.160 F
Total VOCs (µg/L)			**45.11**	**38.76**	**60.66**	**67.37**	**17.94**	**6.42**	**11.73**	**9.36**	**5.46**	**4.7**	**6.03**	**5.72**	**3.28**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	450	423	380	416	380	373	354	324	352	377	420	96	360
ammonia	2	0.2	**2.6**	1.9	1.9	2	1.1	1.9	1.6	1.8	1.8	1.8 B	1.3	**2.5**	**2.3**
BOD5	--	2.4	4.5	5.1	5.8	3.7	U	6.5	3.6	U	U	3.2	14.5	5.5	4.2
bromide	2	0.5	U	0.27 F	0.2 F	0.19 F	U	U	U	U	0.26 F	0.48 F	0.1 F	0.11 F	0.11
COD	--	5	U	12.4	U	U	U	U	3.6 F	19.7	U	U	31.1 B	18	20 B
chloride	250	1	15.9	13.8	13.6	11.5	9.1	9.4	8.3	4.4	10	10.2	9.7	9.2	9.4
color	15	5	**150**	NA	NA	NA	NA	**100**	NA	NA	NA	**60**	NA	NA	NA
cyanide, Total	200	0.02	0.048 J	NA	NA	NA	NA	U	NA	NA	NA	U	NA	NA	NA
hardness, Total	--	1	1,290	384	396	390	324	330	312	420	350	285	188	390	340
nitrate	10	1	U	U	U	U	U	U	U	U	U	U	0.03 F	0.024 F	0.032 F
TKN	1	1	**2.7**	**2.6**	**2.5**	**2.6**	**2.3**	**1.9**	**2.3**	**2.7**	**3.5**	**2.9**	U	**2.6**	**2.4**
sulfate	250	1	U	U	U	0.74 F	1.2	U	1.4	1.7	0.75 F	0.46 F	0.77 F	0.6 F	0.54 F
TDS	500	10	485	428	453	450	395	398	339	349	370	396	392	430	390
TOC	--	1	3.5	3.6	2	3.1	3.5	2.7	2.7	2.8	2	2.2	2.7	2.4	2.8

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-5											
Date of Collection			**4/4/2007**	**9/27/2007**	**4/2/2008**	**9/18/2008**	**4/17/2009**	**3/31/2010**	**6/16/2011**	**6/25/2012**	**6/10/2013**	**6/18/2014**	**6/24/2015**	**5/18/2016**
Sample ID No.			**LF1M0526NA**	**LF1M0526OA**	**LF1M0526PA**	**LF1M0526QA**	**LF1M0526RA**	**LF1M0526SA**	**LF1M0526TA**	**LF1M0526UA**	**LF1M0526VA**	**LF1M0526VA**	**LF1M0526WA**	**LF1M0526XA**
Depth to Water (ft)			**2.75**	**3.83**	**2.80**	**3.94**	**2.88**	**2.55**	**3.00**	**3.40**	**3.15**	**3.11**	**3.08**	**3.44**
VOCs (µg/L)														
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U	**1.3**	U
1,1-dichloroethane	5*	1	0.140 F	0.180 F	U	0.230 F	0.150 F	0.150 F	0.19 F	0.19 J	0.17 J	0.16 J	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	0.480 F	0.550	0.470 F	0.590	0.420 F	0.450 F	0.44 F	0.44 J	0.39 J	0.28 J	0.36 J	0.27 J
acetone	50	10	U	U	U	U	U	1.32 F	U	U	7.0 J	U	U	6.9
benzene	1	0.1	0.740 F	**2.03**	0.690	**2.23**	0.880	0.360 F	**1.5**	**1.8**	**1.4**	**1.2**	**1.3**	**1.1**
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	0.980 F	1.98	0.750	1.77	0.930	0.480 F	1.2	1.2	0.96 J	0.90 J	0.93 J	0.78 J
chloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	0.250 F	U	0.300 F	0.170 F	0.140 F	0.25 F	0.30 J	0.23 J	0.21 J	0.19 J	0.21 J
dichlorodifluoromethane	5*	1	U	0.300 F	U	U	U	U	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	0.130 F	0.120 F	0.140 F	0.120 F	U	U	U	0.17 J	U	U
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	0.110 F	0.660 F	U	U	U	U	U	U	0.25 J	U	U	0.19 J
Total VOCs (µg/L)			**2.61**	**5.95**	**2.04**	**5.24**	**2.69**	**3.02**	**3.58**	**3.93**	**9.47**	**2.92**	**4.08**	**9.45**
Leachate Indicators (mg/L)														
alkalinity, Total	--	10	370	360	360	350	350	360 B	400	400	400	390	420	420 B
ammonia	2	0.2	**2.4**	**2.4**	**2.30**	1.8	**2.1**	1.9	1.4	0.76	**2.1**	1.9	**2.8**	1.8
BOD5	--	2.4	5.0	5.9	4.4	4.4	4.4	4.1	3.4 F	U	3.8	3.4 B	U	U
bromide	2	0.5	U	0.076 F	0.096 F	0.077 F	0.081 F	0.12	0.17 F	0.18 J	U	0.16 J	0.17 J	0.15 J
COD	--	5	19 B	13	11	8.2 F	10	U	7.3 F	9.3 J	14 J	U	6.4 J	U
chloride	250	1	8.6	6.5	8.0	5.5	5.8	12 B	14	11	10	9.5	10	8.8
color	15	5	NA	NA	U	NA	U	U	**35**	U	U	15 B	**180**	**25**
cyanide, Total	200	0.02	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U
hardness, Total	--	1	380	290	320	330	18	350 B	360	350	360	380	370	310
nitrate	10	1	U	0.035 F	0.041 F	0.041 F	U	0.061 BF	U	U	U	U	U	U
TKN	1	1	**2.3**	**2.2**	**2.2**	**2.4**	**2.2**	**2.5**	**2.0**	**2.0**	**1.6**	1.0	**1.4**	**2.1**
sulfate	250	1	0.65 F	1.0	1.0	0.71 F	0.78 F	U	U	U	0.38 J	0.33 J	U	0.74 J
TDS	500	10	410	400	380	380	370	370	410	410	420	430	430	340
TOC	--	1	2.4	2.8	3.5	2.4	1.9	2.4	2.4	2.2	2.3	U	2.2	1.8

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-6												
Date of Collection			12/5/2003	3/30/2004	6/28/2004	9/16/2004	12/15/2004	4/1/2005	6/22/2005	9/9/2005	12/21/2005	3/20/2006	6/19/2006	9/14/2006	12/18/2006
Sample ID No.			LF1M0620AA	LF1M0620BA	LF1M0620CA	LF1M0620DA	LF1M0620EA	LF1M0620FA	LF1M0620GA	LF1M0620HA	LF1M0620IA	LF1M0620JA	LF1M0620KA	LF1M0620LA	LF1M0620MA
Depth to Water (ft)			2.58	2.11	2.88	2.66	2.64	2.50	3.13	3.41	2.76	2.74	3.09	2.75	2.59
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	0.33 F	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	1.6	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U	UJ
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	U	U	U	U	U	U	1.1	U	U	U	0.14 F	U
acetone	50	10	U	1.4 F	3.3 F	U	U	U	U	U	U	U	1.2 F	1.27 F	U
benzene	1	0.1	U	U	U	U	U	U	U	**3.3**	U	U	U	0.12 F	U
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	0.32 F	U	U	0.33 F	U	U	U	U	U	U	0.31 F	0.250 F
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	U	U	U	U	U	U	U	3.4	U	U	U	U	U
chloroethane	5*	1	U	U	U	U	U	U	U	0.38 F	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	U	0.61 F	U	U	U	U	U
dichlorodifluoromethane	5*	1	U	U	U	U	U	U	U	0.62 F	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	0.58 F	U	U	U	U	U
methylene chloride	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	0.210 F
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	2.1	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	0.4 F	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	0.18 F	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	U	U	U	U	U	U	U	1.2	U	U	U	U	U
Total VOCs (µg/L)			**0**	**1.72**	**3.3**	**0**	**0.33**	**0**	**0**	**16.22**	**0**	**0**	**1.2**	**2.02**	**0.46**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	265 B	247	190	220	230	250	280	492	326	256	292	230	230
ammonia	2	0.2	0.41	0.31	0.39	0.43	0.33	0.4	0.5	**2.1**	0.82	0.54	0.44	0.68	0.52
BOD5	--	2.4	2.8	3.8	4.7	U	3.8	2.5	4.8	7.8	U	U	U	7.8	3.4
bromide	2	0.5	U	U	U	0.19 F	U	U	0.20 F	U	0.56	0.59	0.07 F	0.14 F	0.13
COD	--	5	U	U	U	U	U	U	U	22.6	10.6	11.7	U	11	20 B
chloride	250	1	24 B	23.5	27.5	26.4	23.2	23.2	22.1	15.1	21	19.3	21	22	23
color	15	5	0	NA	NA	NA	NA	12	NA	NA	NA	13	NA	NA	NA
cyanide, Total	200	0.02	0.066 B	NA	NA	NA	NA	U	NA	NA	NA	U	NA	NA	NA
hardness, Total	--	1	272 B	228	180	420	272	224	264	640	330	250	188	140 B	220
nitrate	10	1	U	U	U	U	U	U	U	0.04 F	0.11 F	U	U	0.012 F	U
TKN	1	1	0.46	0.51	0.51	0.54 B	0.43	0.49	0.72	**5.6**	**2.2**	0.71	2.2	0.64	0.59
sulfate	250	1	U	U	U	U	U	U	U	U	U	U	U	U	U
TDS	500	10	296 B	287	252	249	286	278	322	**536**	349	299	286	280	270
TOC	--	1	U	0.76 F	U	U	U	0.68 F	0.75 F	3.2	0.62 F	1.1	0.54 F	0.71 F	0.70 F

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-6											
Date of Collection			**4/4/2007**	**9/27/2008**	**4/2/2008**	**9/18/2008**	**4/20/2009**	**3/31/2010**	**6/15/2011**	**6/25/2012**	**6/10/2013**	**6/19/2014**	**6/23/2015**	**5/18/2016**
Sample ID No.			**LF1M0620NA**	**LF1M0620OA**	**LF1M0620PA**	**LF1M0620QA**	**LF1M0620RA**	**LF1M0620SA**	**LF1M0620TA**	**LF1M0620UA**	**LF1M0620VA**	**LF1M0620VA**	**LF1M0620WA**	**LF1M0620XA**
Depth to Water (ft)			**2.23**	**3.24**	**2.25**	**2.91**	**2.20**	**NS**	**1.58**	**2.3**	**2.95**	**3.25**	**3.64**	**2.47**
VOCs (µg/L)														
1,1,1-trichloroethane	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	0.150 F	U	U	U	NS	U	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	NS	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	1.08	U	0.200 F	U	NS	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	NS	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	NS	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	NS	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	0.140 F	U	U	U	NS	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	NS	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	0.400 F	U	U	U	NS	U	U	U	U	U	U
acetone	50	10	U	U	U	U	U	NS	U	U	U	U	2.5 J	3.6 J
benzene	1	0.1	U	1.65	U	0.410 F	U	NS	U	0.27 J	U	U	U	U
bromodichloromethane	50	0.5	U	U	U	U	U	NS	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	NS	U	0.27 J	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	NS	U	U	U	U	U	U
chlorobenzene	5*	0.5	U	0.93	U	U	U	NS	U	U	U	U	U	U
chloroethane	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	NS	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	0.180 F	U	U	U	NS	U	U	U	U	U	U
dichlorodifluoromethane	5*	1	U	0.270 F	U	U	U	NS	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
isopropylbenzene	5*	1	U	0.160 F	U	U	U	NS	U	U	U	U	U	U
methylene chloride	5*	1	U	0.230 F	U	U	U	NS	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	NS	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
m,p-xylene	5*	2	U	0.730 F	U	0.160 F	U	NS	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	NS	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	NS	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
toluene	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	NS	U	U	U	U	U	U
vinyl chloride	2	1	U	U	U	U	U	NS	U	U	U	U	U	U
Total VOCs (µg/L)			**0**	**4.92**	**0**	**0.77**	**0**	**NS**	**0**	**0.54**	**0**	**0**	**2.5**	**3.6**
Leachate Indicators (mg/L)														
alkalinity, Total	--	10	230	440	280	280	240	NS	390	360	330	260	280	290 B
ammonia	2	0.2	0.50	**2.4**	0.72	1.10	0.54	NS	1.6 F	0.44	1.0	0.80	0.53	0.49
BOD5	--	2.4	4.2	6.7	U	10	3.3	NS	1.8 F	2.6	1.9 J	U	U	U
bromide	2	0.5	0.11	0.16	0.13	0.14	0.14	NS	0.17 F	0.21 J	U	0.17 JB	0.20 J	0.17 J
COD	--	5	10 B	8.5 F	6.3 F	U	6.0 F	NS	U	8.0 J	15 J	U	U	U
chloride	250	1	22	16	21	19	20	NS	16	U	17	17	18	15
color	15	5	NA	NA	U	NA	U	NS	**30**	**25**	U	U	**60**	**40 D**
cyanide, Total	200	0.02	NA	NA	NA	NA	NA	NS	NA	U	U	U	U	U
hardness, Total	--	1	230	389	250	280	220	NS	330	290	290	240	260	260
nitrate	10	1	U	0.016 F	0.021 F	0.016 F	U	NS	U	0.052 J	U	U	U	U
TKN	1	1	0.54	**2.2**	0.67	**1.1**	0.57	NS	**1.2**	**1.5**	1.0	0.42 J	0.42 J	0.63 J
sulfate	250	1	U	U	U	U	U	NS	U	U	0.37 J	U	0.61 J	0.37 J
TDS	500	10	280	490	310	330	280	NS	410	380	340	240	320	310
TOC	--	1	0.47 F	2.0	0.50 F	0.73 F	U	NS	1.2	1.1	0.90 J	0.85 JB	0.90 J	0.64 J

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-10												
Date of Collection			**12/9/2003**	**3/30/2004**	**6/28/2004**	**9/17/2004**	**12/15/2004**	**4/4/2005**	**6/23/2005**	**9/8/2005**	**12/22/2005**	**3/16/2006**	**9/14/2006**	**4/3/2007**	**9/26/2007**
Sample ID No.			**LF1M1029AA**	**LF1M1030BA**	**LF1M1029CA**	**LF1M1030DA**	**LF1M1030EA**	**LF1M1030FA**	**LF1M1030GA**	**LF1M1030HA**	**LF1M1030IA**	**LF1M1030JA**	**LF1M1030LA**	**LF1M1030NA**	**LF1M1030OA**
Depth to Water (ft)			**25.67**	**25.03**	**25.57**	**26.12**	**25.92**	**25.46**	**26.24**	**27.65**	**26.81**	**25.27**	**26.60**	**24.60**	**27.10**
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	**3.9**	2	1.2	1.7	1.2	0.98	0.69	1.2	1	0.64	0.52 F	0.240 F	0.400 F♦
acetone	50	10	U	U	U	U	U	U	U	U	U	U	U	U	U
benzene	1	0.1	U	U	U	U	U	U	U	U	U	U	U	U	U
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	0.7	0.25 F	U	U	U	U	U	U	U	U	U	U	U
chloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
dichlorodifluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	0.130 F	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	0.21 F	0.120 F	0.260 F♦
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	U	U	U	U	U	U	U	U	0.1 F	U	0.130 F
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	0.230 F
vinyl chloride	2	1	U	U	U	U	U	U	U	U	U	U	U	U	U
Total VOCs (µg/L)			**4.6**	**2.25**	**1.2**	**1.7**	**1.2**	**0.98**	**0.69**	**1.2**	**1**	**0.64**	**0.83**	**0.49**	**1.02**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	170	174	174	191	193	184	204	215	233	190	230	200	230
ammonia	2	0.2	1.1	0.39	0.25	0.19	0.15	0.13	0.2	0.17	0.16	0.041 F	0.048 F	0.038 F	0.071
BOD5	--	2.4	U	2.3	U	U	U	U	U	U	U	U	U	U	U
bromide	2	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
COD	--	5	U	17.4	U	U	U	U	4.3 F	5.3 F	18.8 B	U	5 F	10 B	8.5 F
chloride	250	1	2.0	0.39 F	1.7	1.7	1.4	1.4	1.4 B	1.2	1.2	0.68 F	1.1	0.80 F	0.85 F♦
color	15	5	**25**	NA	NA	NA	NA	7.5	U	NA	NA	U	NA	NA	NA
cyanide, Total	200	0.02	U	NA	NA	NA	NA	U	U	NA	NA	0.0062 F	NA	NA	NA
hardness, Total	--	1	210	188	196	200	208	182	216	230	270 B	147	240	530	200 J♦
nitrate	10	1	U	0.88 F	0.23 F	0.13 F	0.07 F	0.14 F	0.26 F	0.04 F	0.26 F	0.26 F	0.17 F	0.32	0.18
TKN	1	1	0.96	0.66	0.46	0.38	U	U	0.5 B	0.76	0.61	U	U	U	0.13 F♦
sulfate	250	1	14.7	9.2	9.1	7.4	8.5	14.3	15 B	14.2	10	6.9	13	11	9.2♦
TDS	500	10	225	186	199	196	224	221	226	234	245	230	270	210	250
TOC	--	1	1.1	3.1	U	0.6 F	U	0.78 F	0.78 F	1 B	U	0.51 F	0.73 F	0.65 F	0.90 F

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-10									
Date of Collection			**4/1/2008**	**9/17/2008**	**4/21/2009**	**3/30/2010**	**6/15/2011**	**6/26/2012**	**6/11/2013**	**6/16/2014**	**6/22/2015**	**5/16/2016**
Sample ID No.			**LF1M1030PA**	**LF1M1030QA**	**LF1M1030RA**	**LF1M1030SA**	**LF1M1030TA**	**LF1M1030UA**	**LF1M1030VA**	**LF1M1030VA**	**LF1M1030WA**	**LF1M1030XA**
Depth to Water (ft)			**24.52**	**26.55**	**24.44**	**25.90**	**NS**	**25.9**	**25.53**	**24.93**	**25.29**	**25.24**
VOCs (µg/L)												
1,1,1-trichloroethane	5*	1	U	U	U	U	NS	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	NS	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	NS	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	NS	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	NS	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	NS	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	NS	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	NS	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	U	U	NS	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	NS	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	0.340 F	U	U	0.180 F	NS	U	U	U	U	U
acetone	50	10	U	U	U	1.33 F	NS	U	3.4 J	U	U	U
benzene	1	0.1	U	U	U	U	NS	U	U	U	U	U
bromodichloromethane	50	0.5	U	U	U	U	NS	U	U	U	U	U
bromoform	50	1	U	U	U	U	NS	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	NS	U	U	U	U	U
chlorobenzene	5*	0.5	U	U	U	U	NS	U	U	U	U	U
chloroethane	5*	1	U	U	U	U	NS	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	NS	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	NS	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	NS	U	U	U	U	U
dichlorodifluoromethane	5*	1	U	U	U	U	NS	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	NS	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	NS	U	U	U	U	U
methylene chloride	5*	1	U	U	U	U	NS	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	NS	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	NS	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	NS	U	U	U	U	U
naphthalene	10	1	U	U	U	U	NS	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	NS	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	NS	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	NS	U	U	U	U	U
tetrachloroethene	5	1	0.170 F	0.200 F♦	0.180 F	0.280 F	NS	U	0.21 J ♦	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	NS	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	U	0.120 F	NS	U	U	U	U	U
toluene	5*	1	U	U	U	U	NS	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	NS	U	U	U	U	U
vinyl chloride	2	1	U	U	U	U	NS	U	U	U	U	U
Total VOCs (µg/L)			**0.51**	**0.200**	**0.180**	**1.91**	NS	**0**	**0.21**	**0**	**0**	**0**
Leachate Indicators (mg/L)												
alkalinity, Total	--	10	200	250	200	230	NS	230	210	210	200	220
ammonia	2	0.2	0.026 F	0.050 B♦	U	U	NS	0.11 JB	0.11	U	U	U
BOD5	--	2.4	U	U	U	U	NS	U	U	U	U	U
bromide	2	0.5	U	U	U	U	NS	U	U	U	U	U
COD	--	5	8.5 F	U	6.0 F	U	NS	0.78 J ♦	13 J	U	U	U
chloride	250	1	0.79 F	0.79 F	0.53 F	0.39 F	NS	1.9 J	2.0 J	0.92 J	0.50 J	1.2 J
color	15	5	U	NA	U	U	NS	U	U	5	U	U
cyanide, Total	200	0.02	NA	NA	NA	NA	NS	U	U	U	U	U
hardness, Total	--	1	220	280	220	250	NS	220	240 ♦	240	200	220
nitrate	10	1	0.36	0.098 F	0.62	0.21	NS	0.59 ♦	0.39 J ♦	0.42 J	0.43 J	0.39 J
TKN	1	1	0.13 F	0.25 B	U	0.24 B	NS	0.70 J	0.59 J	U	U	U
sulfate	250	1	22	12	15	17	NS	6.0	6.2 J	6.2	4.9 J	4.0 J
TDS	500	10	230	270	250	250	NS	240	230	230	230	240
TOC	--	1	0.71 F	0.97 F	0.54 F	0.77 F	NS	0.78 J ♦	0.63 J ♦	0.68 JB	0.65 J	0.85 J

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-11												
Date of Collection			**12/5/2003**	**3/29/2004**	**6/25/2004**	**9/16/2004**	**12/15/2004**	**4/1/2005**	**6/22/2005**	**9/8/2005**	**12/23/2005**	**3/16/2006**	**6/19/2006**	**9/15/2006**	**12/18/2006**
Sample ID No.			**LF1M1111AA**	**LF1M1111BA**	**LF1M1111CA**	**LF1M1111DA**	**LF1M1111EA**	**LF1M1111FA**	**LF1M1111GA**	**LF1M1111HA**	**LF1M1111IA**	**LF1M1111JA**	**LF1M1111KA**	**LF1M1111LA**	**LF1M1111MA**
Depth to Water (ft)			**2.99**	**2.57**	**3.31**	**3.10**	**3.13**	**2.89**	**3.64**	**3.98**	**3.35**	**3.01**	**4.90**	**3.65**	**3.21**
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	1.6	0.93 F	1.2	1.3	1.2	0.29 F	1.1	0.8 F	1.1	1.2	0.86 F	0.93 F	1.05
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	0.22 F	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	0.27 F	0.58 F	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	0.13 F	0.120 F
1,2-dichlorobenzene	3	1	**13**	**11**	**10**	**12**	**9**	2.3	**8.9**	**11**	**8.1**	**8.2**	**8.8**	**9.72**	**8.37**
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U	UJ
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	1.5	1	1.4	1.4	1	0.3 F	1.2	1.6	1.1	0.94 F	0.99 F	0.99 F	0.860 F
1,4-dichlorobenzene	3	0.5	**16**	**13**	**13**	**14**	**11**	2.9	**11**	**14**	**10**	**10**	**11**	**11.7**	**10.0**
acetone	50	10	U	U	3.6 F	U	U	1.8 F	2 F	U	U	U	2.3 F	3.89 F	2.30 F
benzene	1	0.1	**4.9**	**3.4**	**3.6**	**3.7**	**3.3**	0.62	**3**	**2.6**	**2.7**	**2.9**	**2.4**	**2.43**	**2.53**
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	**17**	**14**	**14**	**14**	**12**	2.3	**11**	**13**	**10**	**10**	**11**	**10.4**	**9.70**
chloroethane	5*	1	1.2	0.66 F	0.78 F	0.91 F	1	U	1.2	0.73 F	0.68 F	0.93 F	0.94 F	0.95 F	0.840 F
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	0.2 F	U	U
cis-1,2-dichloroethene	5*	1	0.48 F	0.32 F	U	0.46 F	0.45 F	U	0.37 F	U	U	U	U	0.26 F	0.340 F
dichlorodifluoromethane	5*	1	2.7	2.4	2.3	2.6	2.4	0.36 F	2.3	U	2	2.8	1.5	1.62	1.27
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	2.1	1.7	1.8	1.7	1.3	U	0.65 F	0.5 F	U	U	U	U	U
methylene chloride	5*	1	U	U	U	U	U	U	U	U	U	U	U	0.18 F	0.190 F
methyl iodide	5*	0.5	U	U	U	U	U	U	0.21 F	U	U	U	U	U	U
n-propylbenzene	5*	1	1.8	0.88 F	0.67 F	0.41 F	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	0.3 F	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	0.88 F	0.58 F	0.89 F	0.84 F	0.63	U	0.5 F	0.59 F	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	0.28 F	U	0.34 F	0.36 F	0.28	U	0.37 F	U	U	U	0.24 F	0.17 F	0.190 F
trichloroethene (TCE)	5*	1	U	U	U	U	U	U	U	0.39 F	U	U	U	U	U
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	0.24 F	U
trichlorofluoromethane	5*	1	0.14	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	1.9	1.3	1.3	1.6	1.8	0.24 F	1.4	1	1.2	1.5	1	1.18	1.17
Total VOCs (µg/L)			**65.78**	**51.44**	**54.86**	**55.28**	**45.36**	**11.33**	**45.20**	**46.21**	**36.88**	**36.97**	**41.23**	**44.79**	**38.93**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	558 M	540	483	564	553	307	545	460	504	518	611	590	520
ammonia	2	0.2	**3.6 M**	**2.3**	**2.3**	**3.4**	**2.3**	0.85	**2.5**	**2.9**	**3**	**2.2**	1.9	**4.2**	**4**
BOD5	--	2.4	7.4	3.8	2.9	5.6	5.7	5.4	4.7	U	12.3	3 B	6.2	16	14
bromide	2	0.5	U	0.24 F	0.27 F	U	U	U	0.2 F	0.21 F	0.26 F	0.52	0.09 F	0.13 F	0.14
COD	--	5	19.5	34.1	U	18.2	14.8	13.5	11.7	13.3	25.3	17.4	30.1 B	22	24 B
chloride	250	1	13 B	11.3	12.4	12.8	11.4	7.4	12.3	12.6	10.8	8.2	9.6	11	13
color	15	5	**80**	NA	NA	NA	NA	**120**	NA	NA	NA	**120**	NA	NA	NA
cyanide, Total	200	0.02	0.022 M	NA	NA	NA	NA	U	NA	NA	NA	U	NA	NA	NA
hardness, Total	--	1	564 B	448	496	550	500	240	484	38.4 F	460	528	626	500	500
nitrate	10	1	U	0.03 F	U	U	0.06 F	U	U	0.5 F	U	U	U	0.027 F	0.070 F
TKN	1	1	**4.1**	**3.6**	**3.7**	**3.4**	**3.4**	**1.1**	**3.6**	**5.2**	**5.4**	**3.6**	**3.2**	**3.9**	**4.0**
sulfate	250	1	1.9 B	3.3	4.2	3	2	2.6	2.6	2.2	1.6	3.6	4.2	3.5	2.8
TDS	500	10	**573 B**	**587**	**566**	**576**	**592**	306	594	465	480	**520**	**572**	**590**	**570**
TOC	--	1	6.2	4.9	4.2	5	4.4	5	4.6	4.3 B	3.6	3	4.4	4	4.0

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-11											
Date of Collection			**4/3/2007**	**9/26/2007**	**4/1/2008**	**9/17/2008**	**4/17/2009**	**3/31/2010**	**6/15/2011**	**6/21/2012**	**6/10/2013**	**6/19/2014**	**6/24/2015**	**5/17/2016**
Sample ID No.			**LF1M1111NA**	**LF1M1111OA**	**LF1M1111PA**	**LF1M1111QA**	**LF1M1111RA**	**LF1M1111SA**	**LF1M1111TA**	**LF1M1111UA**	**LF1M1111VA**	**LF1M1111VA**	**LF1M1111WA**	**LF1M1111XA**
Depth to Water (ft)			**3.00**	**4.33**	**2.67**	**3.82**	**3.06**	**2.56**	**3.45**	**4.07**	**3.23**	**3.34**	**3.35**	**3.27**
VOCs (µg/L)														
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	0.950 F	0.750 F	0.750 F	0.740 F	0.730 F	0.900 F	0.81 F	0.73 J	0.76 J	0.74 J	U	0.69 J
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	0.130 F	U	U	U	U	U	U	0.18 J	U	U	U
1,2-dichlorobenzene	3	1	**6.69**	**9.81**	**5.84**	**6.95**	**5.80**	**6.04**	**5.0**	**5.8**	**4.8**	**4.2**	U	**3.6**
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	0.100 F	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	0.740 F	1.16	0.660 F	0.780 F	0.600 F	0.710 F	0.54 F	0.59 J	0.55 J	0.42 J	U	0.37 J
1,4-dichlorobenzene	3	0.5	**7.84**	**11.10**	**7.24**	**8.49**	**7.18**	**7.53**	**6.0**	**6.4**	**5.3**	**4.1**	U	**3.7**
acetone	50	10	U	U	U	U	U	1.78 F	U	U	U	U	U	U
benzene	1	0.1	**2.09**	**1.98**	**1.67**	**1.82**	**1.58**	**2.06**	**1.7**	**1.6**	**1.5**	**1.6**	U	**1.4**
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	**8.10**	**9.89**	**6.49**	**8.05**	**7.06**	**7.18**	**6.3**	**6.8**	**5.7**	**5.2**	U	4.7
chloroethane	5*	1	0.650 F	0.670 F	0.610 F	0.720 F	0.700 F	0.720 F	0.54 F	0.52 J	0.50 J	0.65 J	U	0.50 J
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	0.280 F	0.260 F	0.230 F	0.260 F	0.180 F	0.260 F	0.25 F	0.20 J	0.26 J	0.24 J	U	0.26 J
dichlorodifluoromethane	5*	1	1.06	0.740 F	0.760 F	0.670 F	1.29	0.280 F	U	U	0.57 J	U	U	0.47 J
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5*	1	0.120 F	U	U	U	U	U	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	0.170 F	0.290 F	U	0.210 F	0.120 F	0.170 F	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	0.180 F	U	U	0.160 F	U	U	U	U	0.52 J	U
toluene	5*	1	0.150 F	0.180 F	0.130 F	0.180 F	0.130 F	0.150 F	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	1.22	0.840 F	0.940 F	0.800 F	0.870 F	0.970 F	0.88 F	U	0.53 J	0.70 J	U	0.56 J
Total VOCs (µg/L)			**30.06**	**37.90**	**25.50**	**29.67**	**26.24**	**28.91**	**22.02**	**21.91**	**22.0**	**18.73**	**0.52**	**15.56**
Leachate Indicators (mg/L)														
alkalinity, Total	--	10	520	460	530	490	510	560 B	540	510	470	490	180	500
ammonia	2	0.2	**4**	**3.9**	**3.6**	**4.1**	**3.5**	**3.3**	**2.6**	1.4	**3.1**	**2.9**	0.044 J	**2.7**
BOD5	--	2.4	14	6.8	14	12	14	19	7.9	8.3	4.4	7.6	U	U
bromide	2	0.5	0.14	0.10	0.12	0.11	0.15	0.10	0.15 F	0.15 J	U	0.14 JB	U	U
COD	--	5	24 B	15	17	13	17	9.9 F	9.7 F	9.7 J	21	13 J	5	8.1 J
chloride	250	1	13	9.2	9.7	7.9	10.0	8.2 B	11.0	8.4	6.3	9.9	4.1	7.5
color	15	5	NA	NA	120	NA	U	U	**25**	**25**	U	U	15	**130**
cyanide, Total	200	0.02	NA	NA	NA	NA	NA	NA	U	U	U	U	U	U
hardness, Total	--	1	500	380	490	540	500	530 B	380	470	450	510	180	640
nitrate	10	1	0.070 F	0.053 F	0.086 F	U	U	U	U	U	U	U	U	U
TKN	1	1	**4.0**	**3.7**	**3.7**	**4.0**	**3.7**	**4.1**	**2.9**	**3 B**	**2.3**	**1.6**	U	**3.0**
sulfate	250	1	2.8	2.9	2.1	0.94	0.83 F	0.43 BF	0.39 F	U	0.81 J	0.43 J	2.9	0.60 J
TDS	500	10	**570**	**500**	**530**	340	**540**	**570**	**550**	500	**510**	**520**	200	**510**
TOC	--	1	4.0	3.5	3.4	3.5	3.0	4.0	2.9	2.8	2.6	2.6 B	0.77 J	2.7 B

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-12												
Date of Collection			**12/8/2003**	**3/29/2004**	**6/25/2004**	**9/16/2004**	**12/14/2004**	**4/1/2005**	**6/22/2005**	**9/8/2005**	**12/23/2005**	**3/16/2006**	**9/15/2006**	**4/4/2007**	**9/26/2007**
Sample ID No.			**LF1M1212AA**	**LF1M1212BA**	**LF1M1212CA**	**LF1M1212DA**	**LF1M1212EA**	**LF1M1212FA**	**LF1M1212GA**	**LF1M1212HA**	**LF1M1212IA**	**LF1M1212JA**	**LF1M1212LA**	**LF1M1212NA**	**LF1M1212OA**
Depth to Water (ft)			**3.09**	**2.72**	**3.31**	**3.13**	**3.14**	**2.92**	**4.48**	**5.39**	**3.57**	**3.15**	**4.35**	**2.85**	**5.77**
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	U	U	U	U	U	U	U	U	U	0.16 F	U	U
acetone	50	10	2 F	U	2.8 F	1.8 F	U	U	U	U	U	U	1.31 F	U	U
benzene	1	0.1	U	U	U	U	U	U	U	U	U	U	U	U	U
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	0.230 F
dichlorodifluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5*	1	U	U	U	U	U	U	U	U	U	U	U	0.110 F	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	0.74 F	0.55 F	0.78 F	0.99 F	0.74 F	0.44 F	0.48 F	0.66 F	0.69 F	0.7 F	0.53 F	0.390 F	0.280 F
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	U	U	U	U	U	U	U	U	U	U	U	U	U
Total VOCs (µg/L)			**2.74**	**0.55**	**3.56**	**2.79**	**0.74**	**0.44**	**0.48**	**0.66**	**0.69**	**0.7**	**2**	**0.5**	**0.51**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	97.7	93.2	87.9	114	122	119	125	163	202	169	290	130	170
ammonia	2	0.2	U	U	0.012 F	0.041 F	U	0.05	0.057	0.18	0.11 B	U	0.15	0.054 B	0.43
BOD5	--	2.4	U	U	U	U	U	U	U	U	U	U	U	U	2.3
bromide	2	0.5	U	U	U	U	U	U	U	U	0.17 F	U	0.034 F	0.022 F	0.17
COD	--	5	U	U	U	U	U	U	U	7.6 F	14.8	12.2	7.1 F	6.1 F	13
chloride	250	1	9.4	15.8	11.3	9.3	16.2	7	8.4	7.3	10.2	8.4	7	5.7	21
color	15	5	2.5	NA	NA	NA	NA	7.5	NA	NA	NA	**20**	NA	NA	NA
cyanide, Total	200	0.02	0.041 J	NA	NA	NA	NA	U	NA	NA	NA	U	NA	NA	NA
hardness, Total	--	1	250	104	120	140	444	136	132	170	210	137	160	150	140
nitrate	10	1	U	0.82 F	0.51 F	0.28 F	U	U	U	U	U	U	U	U	U
TKN	1	1	U	0.12 F	U	U	0.22 B	0.16 F	U	1	**1.9**	U	0.061 F	U	0.42
sulfate	250	1	9.1	7.9	8.1	7.3	6.1	5	3	4.4	7.5	7.3	3.8	4.4 B	2.1
TDS	500	10	142	140	154	145	165	166	183	192	223	205	160	170	220
TOC	--	1	U	U	U	U	0.66 F	0.52 F	0.68 F	3.1 B	0.71 F	0.45 F	0.67 F	U	1.9 B

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-12									
Date of Collection			4/2/2008	9/17/2008	4/17/2009	3/31/2010	6/15/2011	6/26/2012	6/10/2013	6/17/2014	6/22/2015	5/17/2016
Sample ID No.			LF1M1212PA	LF1M1212QA	LF1M1212RA	LF1M1212SA	LF1M1212TA	LF1M1212UA	LF1M1212VA	LF1M1212VA	LF1M1212WA	LF1M1212XA
Depth to Water (ft)			2.79	4.65	3.11	2.78	3.31	4.6	3.21	3.4	3.2	3.39
VOCs (µg/L)												
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	0.200 F	U	U	U	U	U	U	U	U	U
acetone	50	10	U	U	U	2.47 F	U	U	U	U	2.2 J	U
benzene	1	0.1	U	U	U	U	U	U	U	U	U	U
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	U	U	U	U	U	U	U	U	U	U
chloroethane	5*	1	U	U	U	U	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	U	U	U	U
dichlorodifluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
methylene chloride	5*	1	U	U	U	U	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	0.510 F	0.700 F	0.490 F	0.500 F	0.50 F	0.64 J	0.56 J	0.52 J	0.50 J	0.50 J
toluene	5*	1	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	U	U	U	U	U	U	U	U	U	U
Total VOCs (µg/L)			**0.71**	**0.70**	**0.49**	**2.97**	**0.50**	**0.64**	**0.56**	**0.52**	**2.72**	**0.5**
Leachate Indicators (mg/L)												
alkalinity, Total	--	10	200	170	180	120 B	160	160	190	160	180	190
ammonia	2	0.2	0.13	0.11 B	0.032 F	0.027 F	0.19	0.083 JB	0.040 J	0.037 J	0.027 J	U
BOD5	--	2.4	U	U	U	U	U	1.4 J	1.5 J	3.1	U	U
bromide	2	0.5	0.035 F	0.040 F	0.027 F	U	U	U	U	U	U	U
COD	--	5	U	U	3.7 F	U	U	10 J	11 J	U	U	U
chloride	250	1	6.3	5.5	5.3	10 B	6.2	5.0	4.5 J	4.4	4.0	4.2
color	15	5	U	NA	U	U	U	**25**	U	U	10	10
cyanide, Total	200	0.02	NA	NA	NA	NA	NA	U	U	U	U	U
hardness, Total	--	1	200	170	170	140 B	150	150	200	160	180	200♦
nitrate	10	1	U	U	U	0.026 BF	U	U	0.059 J	U	U	U
TKN	1	1	U	0.27 B	U	0.18 F	0.50 F	0.80 J	0.46 J	U	0.25 J	0.41 J
sulfate	250	1	4.3	4.3	3.8	5.8 B	2.1 J	1.8 J	3.0 J	1.9 J	2.8 J	3.2 J ♦
TDS	500	10	210	160	98	160	180	180	190	190	200	200 ♦
TOC	--	1	0.47 F	0.53 F	U	1.7	0.74 F	0.66 J	0.56 J	0.89 JB	0.70 J	0.91 J B♦

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-13												
Date of Collection			**12/8/2003**	**3/29/2004**	**6/25/2004**	**9/16/2004**	**12/14/2004**	**4/1/2005**	**6/22/2005**	**9/8/2005**	**12/23/2005**	**3/14/2006**	**9/15/2006**	**4/3/2007**	**9/26/2007**
Sample ID No.			**LF1M1316AA**	**LF1M1316BA**	**LF1M1316CA**	**LF1M1316DA**	**LF1M1316EA**	**LF1M1316FA**	**LF1M1316GA**	**LF1M1316HA**	**LF1M1316IA**	**LF1M1316JA**	**LF1M1316LA**	**LF1M1316NA**	**LF1M1316OA**
Depth to Water (ft)			**6.32**	**4.92**	**7.28**	**6.53**	**5.54**	**5.14**	**8.21**	**9.18**	**7.13**	**5.68**	**7.88**	**4.92**	**9.25**
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	U	U	UM	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	UM	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	UM	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	UM	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	UM	U	U	U	UM	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	U	U	U	U	U	U	UM	U	U	0.18 F	U	U
acetone	50	10	U	U	4.9 F	1.4 F	U	U	U	U	U	U	1.03 F	U	U
benzene	1	0.1	U	U	U	U	U	U	U	U	U	U	U	U	U
bromodichloromethane	50	0.5	U	U	U	UM	U	U	U	UM	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	UM	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	UM	U	U	U	U	U	U
chlorobenzene	5*	0.5	U	U	U	U	U	U	U	UM	U	U	U	U	U
chloroethane	5*	1	U	U	U	U	UM	U	U	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	UM	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
dichlorodifluoromethane	5*	1	U	U	U	U	U	UM	U	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5*	1	U	U	U	U	UM	U	U	UM	U	U	0.19 F	0.200 F	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	UM	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	UM	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	UM	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	UM	U	U	U	U	U
vinyl chloride	2	1	**2.5**	**2.5**	1.7	**2.1**	**2.7 M**	**2.2**	1.8	**2.6**	1.8	2	1.12	1.28	1.32
Total VOCs (µg/L)			**2.5**	**2.5**	**6.6**	**3.5**	**2.7**	**2.2**	**1.8**	**2.6**	**1.8**	**2**	**2.52**	**1.48**	**1.32**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	258	252	229 M	260 M	256	270	247	276 M	243	230 B	200	240	210
ammonia	2	0.2	0.23	0.17	0.2	0.21 J	0.13 M	0.19	0.13	0.23	0.26 M	0.042 F	0.32	0.14	0.35
BOD5	--	2.4	U	U	2.7	U	U	U	U	2.1	U	U	2.1	U	U
bromide	2	0.5	U	U	U	U	U	U	U	UM	0.4 M	U	0.087 F	0.094 F	0.069 F
COD	--	5	U	U	UM	U	U	11.4	3.6 F	15.9	13.2 J	U	14	13 B	11
chloride	250	1	18.1	18.2	18.3	19.6	15.9 M	18	20.7	15.7 M	16.6 M	17.6 B	20	16	15
color	15	5	**150 J**	NA	NA	NA	NA	**120**	NA	NA	NA	**80**	NA	NA	NA
cyanide, Total	200	0.02	U	NA	NA	NA	NA	0.0091 M	NA	NA	NA	U	NA	NA	NA
hardness, Total	--	1	330	252	216 M	240	232	236	232	392	260	176	200	220	150
nitrate	10	1	U	U	U	UM	U	U	U	UM	0.08 F	U	0.028 F	U	U
TKN	1	1	0.31	0.56	0.47	0.23 B	0.48 B	0.29	0.43	**1.1**	1 J	0.25 B	0.26 F	0.30 J	0.32
sulfate	250	1	9.4	7.8	8.3	7.5	6.1 M	6.8	7.8	6 M	6 M	5.6	7.1	4.7 F	6.5
TDS	500	10	312	318	312	280	338	292	310	268	278	316	250	270	260
TOC	--	1	2.2	2.1	0.52 F	2.1	2.7	2.4	2	2.4 B	1.9	U	2.5	3.2	2.8

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-13									
Date of Collection			**4/1/2008**	**9/17/2008**	**4/17/2009**	**3/30/2010**	**6/16/2011**	**6/21/2012**	**6/6/2013**	**6/12/2014**	**6/23/2015**	**5/17/2016**
Sample ID No.			**LF1M1316PA**	**LF1M1316QA**	**LF1M1316RA**	**LF1M1316SA**	**LF1M1316TA**	**LF1M1316UA**	**LF1M1316VA**	**LF1M1316VA**	**LF1M1316WA**	**LF1M1316XA**
Depth to Water (ft)			**4.65**	**8.59**	**6.33**	**5.85**	**6.8**	**7.35**	**6.85**	**7.24**	**6.56**	**7.2**
VOCs (µg/L)												
1,1,1-trichloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,1-dichloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,2,3-trichlorobenzene	5	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,2,4-trimethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,2-dichloroethane	0.6	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,2-dichlorobenzene	3	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	NA	NA	NA	NA	NA	NA
1,3,5-trimethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,3-dichlorobenzene	3	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,4-dichlorobenzene	3	0.5	0.180 F	U	U	U	NA	NA	NA	NA	NA	NA
acetone	50	10	U	U	U	1.31♦	NA	NA	NA	NA	NA	NA
benzene	1	0.1	U	U	U	U	NA	NA	NA	NA	NA	NA
bromodichloromethane	50	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA
bromoform	50	1	U	U	U	U	NA	NA	NA	NA	NA	NA
carbon disulfide	1,000	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA
chlorobenzene	5*	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA
chloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
chloroform	7	0.3	U	U	U	U	NA	NA	NA	NA	NA	NA
chloromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
cis-1,2-dichloroethene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
dichlorodifluoromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
ethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
isopropylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
methylene chloride	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
methyl iodide	5*	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA
n-propylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
m,p-xylene	5*	2	U	U	U	U	NA	NA	NA	NA	NA	NA
naphthalene	10	1	U	U	U	U	NA	NA	NA	NA	NA	NA
o-xylene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
p-isopropyltoluene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
sec-butylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
tetrachloroethene	5	1	U	U	U	U	NA	NA	NA	NA	NA	NA
tert-butylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
trichloroethene (TCE)	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
toluene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
trichlorofluoromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
vinyl chloride	2	1	1.48	1.25	1.16♦	1.27	NA	NA	NA	NA	NA	NA
Total VOCs (µg/L)			**1.66**	**1.25**	**1.16**	**2.58**	NA	NA	NA	NA	NA	NA
Leachate Indicators (mg/L)												
alkalinity, Total	--	10	230	190	220♦	210	210*	200	200	200	200	210
ammonia	2	0.2	0.17	0.34	0.17	0.16♦	0.57	0.21 B♦	0.25 J	0.30 ♦	0.25	0.21
BOD5	--	2.4	U	2.3	U	U	3.9*	U	U	1.9 J	U	U
bromide	2	0.5	0.078 F♦	0.075 F	0.089 F♦	0.078 F♦	U	0.13 J	U	U	0.15 J	U
COD	--	5	15♦	8.2 F	13	12♦	4.6 F	8.6♦	15 J	10 ♦	7.1 J	4.7 J
chloride	250	1	14	14	15	13	14	14	12	11.0	11.0	9.4
color	15	5	**100**	NA	**45**	U	**35**	**50♦**	U	**20♦**	**200 ♦**	**150**
cyanide, Total	200	0.02	NA	NA	NA	NA	U	U	U	U	U	U
hardness, Total	--	1	230	200	200	210♦	200	180	170	210	200	650
nitrate	10	1	0.016 F	U	0.025 F	0.015 F	U	U	U	U	U	U
TKN	1	1	0.2	0.49 B	0.18 F♦	0.54 B♦	0.57 F	1.4 B♦	0.63 J	U	U	0.42 J
sulfate	250	1	5.2	5.8	5.7	6.0	6.8	6.9♦	5.9	5.7 ♦	6.6	4.9 J
TDS	500	10	370 J♦	210	240	250	240	220	230	240	280 ♦	240
TOC	--	1	2.1 J♦	2.0	1.5	2.0♦	1.9	2.2	2.8	2.3 B♦	2	2 B

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-14									
Date of Collection			12/15/2004	4/4/2005	6/22/2005	9/9/2005	12/19/2005	3/15/2006	9/15/2006	4/3/2007	9/26/2007	4/2/2008
Sample ID No.			LF1M1413EA	LF1M1413FA	LF1M1413GA	LF1M1413HA	LF1M1414IA	LF1M1414JA	LF1M1410LA	LF1M1414NA	LF1M1413OA	LF1M1414PA
Depth to Water (ft)			6.91	5.87	10.67	12.88	8.41	6.64	10.42	5.90	15.63	5.37
VOCs (µg/L)												
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	1	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	0.28 F	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	U	U	U	U	U	U	U	U	U
acetone	50	10	U	U	U	U	U	U	U	U	U	U
benzene	1	0.1	U	U	U	U	U	U	U	U	U	U
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	U	U	U	U	U	U	U	U	U	U
chloroethane	5*	1	U	U	U	U	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	U	U	U	U
dichlorodifluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
methylene chloride	5*	1	U	U	U	U	U	U	U	U	0.250 F	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	0.21 F	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	U	U	U	U	U	U	U	U
toluene	5*	1	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	U	U	U	U	U	U	U	U	U	U
Total VOCs (µg/L)			**0**	**0**	**0.49**	**0**	**0**	**0**	**0**	**0**	**0.25**	**0**
Leachate Indicators (mg/L)												
alkalinity, Total	--	10	57	52.1	58.2	70.1	52.2	28.7	64	42	76	48
ammonia	2	0.2	0.071 F	0.024 F	U	0.076	U	U	U	0.012 F	0.11	0.013 F
BOD5	--	2.4	U	U	U	U	U	U	U	U	NA	U
bromide	2	0.5	U	U	U	U	U	0.52	U	U	U	U
COD	--	5	U	U	U	8.8 F	18.4	U	7.1 F	8.3 F	120	4.1 F
chloride	250	1	5.5	4.7	8.1	7.6	2.7	1.9	3.4	1.6	6.0	1.4
color	15	5	NA	**25**	NA	NA	NA	10	NA	NA	NA	U
cyanide, Total	200	0.02	NA	U	NA	NA	NA	U	NA	NA	NA	NA
hardness, Total	--	1	72	58	84	105	88	21.3	76 B	56	80	48
nitrate	10	1	0.070 F	0.38 F	U	0.83 F	0.1 F	U	0.2 F	0.072 F	0.15	0.43
TKN	1	1	0.23	U	U	0.4	0.065	U	0.3 F	U	**4.3**	U
sulfate	250	1	10.2	9.9	10.5	10	10.5	9.8	9.8	9.1	9.8	7.8
TDS	500	10	107	778	121	140	99	95	98	68	150	67
TOC	--	1	U	0.76 F	0.45 F	0.84 F	U	0.71 F	0.61 F	0.61 F	3.4	1.3

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-14									
Date of Collection			4/2/2008	9/18/2008	4/21/2009	3/30/2010	6/16/2011	6/26/2012	6/6/2013	6/19/2014	6/24/2015	5/17/2016
Sample ID No.			LF1M1414PA	LF1M1412QA	LF1M1412RA	LF1M1414SA	LF1M1414TA	LF1M1411UA	LF1M1414VA	LF1M1414VA	LF1M1414WA	LF1M1414XA
Depth to Water (ft)			5.37	11.90	7.41	6.85	8.90	10.75	8.47	8.85	8.53	9.12
VOCs (µg/L)												
1,1,1-trichloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,1-dichloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,2,3-trichlorobenzene	5	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,2,4-trimethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,2-dichloroethane	0.6	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,2-dichlorobenzene	3	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	NA	NA	NA	NA	NA	NA
1,3,5-trimethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,3-dichlorobenzene	3	1	U	U	U	U	NA	NA	NA	NA	NA	NA
1,4-dichlorobenzene	3	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA
acetone	50	10	U	U	U	1.45	NA	NA	NA	NA	NA	NA
benzene	1	0.1	U	U	U	U	NA	NA	NA	NA	NA	NA
bromodichloromethane	50	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA
bromoform	50	1	U	U	U	U	NA	NA	NA	NA	NA	NA
carbon disulfide	1,000	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA
chlorobenzene	5*	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA
chloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
chloroform	7	0.3	U	U	U	U	NA	NA	NA	NA	NA	NA
chloromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
cis-1,2-dichloroethene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
dichlorodifluoromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
ethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
isopropylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
methyl iodide	5*	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA
n-propylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
m,p-xylene	5*	2	U	U	U	U	NA	NA	NA	NA	NA	NA
naphthalene	10	1	U	U	U	U	NA	NA	NA	NA	NA	NA
o-xylene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
p-isopropyltoluene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
sec-butylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
tetrachloroethene	5	1	U	U	U	U	NA	NA	NA	NA	NA	NA
tert-butylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
trichloroethene (TCE)	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
toluene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
trichlorofluoromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA
vinyl chloride	2	1	U	U	U	U	NA	NA	NA	NA	NA	NA
Total VOCs (µg/L)			**0**	**0**	**0**	**1.45**	NA	NA	NA	NA	NA	NA
Leachate Indicators (mg/L)												
alkalinity, Total	--	10	48	66	54	46	66	68	60	64	61	57
ammonia	2	0.2	0.013 F	U	U	U	0.14 F	0.13 B	0.033 J	U	0.028 J	U
BOD5	--	2.4	U	U	U	U	U	U	U	U	U	U
bromide	2	0.5	U	U	U	U	U	U	U	U	U	U
COD	--	5	4.1 F	U	3.7 F	U	U	6.0 J	22	U	U	U
chloride	250	1	1.4	2.1	0.75 F	4.4	3.0	6.7	2.8 J	2.7	1.8 J	2.0 J
color	15	5	U	NA	U	U	U	U	U	U	5	U
cyanide, Total	200	0.02	NA	NA	NA	NA	U	U	U	U	U	U
Fluoride	1.5	1	NA	NA	NA	NA	U	U	U	0.098 J	U	0.062 J
hardness, Total	--	1	48	92	50	63	66	84	73	95 J	68	110
nitrate	10	1	0.43	0.24	0.15	1.3	U	0.98	0.95	0.64 ♦	0.96	0.13 J
TKN	1	1	U	0.48	0.93	0.19 FB	0.54 F	0.82 JB	0.70 J	U	U	U
sulfate	250	1	7.8	8.0	7.5	7.9	8.0	8.3	7.0	6.8 ♦	6.5	5.1
TDS	500	10	67	47	66	74	83	100	80	84 ♦	83	65 B
TOC	--	1	1.3	0.45 F	0.58 F	0.74 F	0.94 F	0.98 J	1.0	0.78 JB	0.67 J	0.94 JB

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-1R										
Date of Collection			12/5/2003	4/4/2005	3/15/2006	4/3/2007	4/1/2008	4/21/2009	3/30/2010	6/20/2011	6/26/2012	6/12/2013	6/25/2014
Sample ID No.			LF1M01R11AA	LF1M01R11FA	LF1M01R11JA	LF1M01R11NA	LF1M01R11PA	LF1M01R11RA	LF1M01R11SA	LF1M01R11TA	LF1M01R11UA	LF1M01R11VA	LF1M01R11CA
Depth to Water (ft)			4.30	3.99	3.14	4.09	3.75	4.15	4.18	4.93	4.62	4.02	3.27
VOCs (µg/L)													
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	NA	NA	NA	NA
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	NA	NA	NA	NA
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	NA	NA	NA	NA
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	NA	NA	NA	NA
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	NA	NA	NA	NA
1,4-dichlorobenzene	3	0.5	U	U	U	U	U	U	U	NA	NA	NA	NA
acetone	50	10	U	U	U	U	U	U	1.63 F	NA	NA	NA	NA
benzene	1	0.1	U	U	U	U	U	U	U	NA	NA	NA	NA
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	NA	NA	NA	NA
bromoform	50	1	U	U	U	U	U	U	U	NA	NA	NA	NA
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	NA	NA	NA	NA
chlorobenzene	5*	0.5	U	U	U	U	U	U	U	NA	NA	NA	NA
chloroethane	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
chloroform	7	0.3	U	U	U	U	U	U	U	NA	NA	NA	NA
chloromethane	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
dichlorodifluoromethane	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
ethylbenzene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
isopropylbenzene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
methyl iodide	5*	0.5	U	U	U	U	U	U	U	NA	NA	NA	NA
n-propylbenzene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
m,p-xylene	5*	2	U	U	U	U	U	U	U	NA	NA	NA	NA
naphthalene	10	1	U	U	U	U	U	U	U	NA	NA	NA	NA
o-xylene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
tetrachloroethene	5	1	U	U	U	U	U	U	U	NA	NA	NA	NA
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
trichloroethene (TCE)	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
toluene	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	NA	NA	NA	NA
vinyl chloride	2	1	U	U	U	U	U	U	U	NA	NA	NA	NA
Total VOCs (µg/L)			**0**	**0**	**0**	**0**	**0**	**0**	**1.63**	**NA**	**NA**	**NA**	**NA**
Leachate Indicators (mg/L)													
alkalinity, Total	--	10	43.8 B	44.3	47.3	34	36	30	40	59	41	25	35
ammonia	2	0.2	U	0.076	0.061	0.080	0.037 F	0.07	0.046 F	0.25	0.13 JB	0.093 J	0.089 JB
BOD5	--	2.4	U	U	U	U	U	U	U	U	U	U	UJ
bromide	2	0.5	U	0.32 F	0.49 F	0.033 F	0.028 F	0.014 F	U	U	U	U	U
COD	--	5	U	19.2	13.2	19 B	20	17	6.5 F	U	37	18 J	15 J
chloride	250	1	33 B	40.4	13.7	9.4	7.0	6.3	7.3	10.0	10.0	8.2	7.1
color	15	5	**80**	**40**	**80**	NA	**80**	**50**	U	**40**	U	U	15 J
cyanide, Total	200	0.02	0.034 B	U	U	NA	NA	NA	NA	NA	U	U	NA
Fluoride	1.5	1	NA	NA	NA	NA	NS	NA	NA	U	NA	0.18 J	0.14 J
hardness, Total	--	1	150 B	76	44.8	60	48	44	38	77	74	4.1	110
nitrate	10	1	U	U	U	U	U	0.021 F	0.013 F	U	U	0.10 J	UJ
TKN	1	1	0.54	U	0.063 F	0.24	0.15 F	0.32	0.30 B	0.53 F	1.2 B	0.29 J	U
sulfate	250	1	9.9 B	6.7	7.8	11	9.0	9.9	8.7	8.4	8.3	10.0	10.0
TDS	500	10	130 B	147	141	86	75	81	76	110	89	88	78
TOC	--	1	2.1	4.8	4.2	5.1	7.1	8.0	2.6	1.7	5.1	5.1	3.3

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-1R										
Date of Collection			**6/22/2015**	**5/16/2016**									
Sample ID No.			**LF1M01R11WA**	**LF1M01R11XA**									
Depth to Water (ft)			**4.39**	**4.29**									
VOCs (µg/L)													
1,1,1-trichloroethane	5*	1	NA	NA									
1,1-dichloroethane	5*	1	NA	NA									
1,2,3-trichlorobenzene	5	1	NA	NA									
1,2,4-trimethylbenzene	5*	1	NA	NA									
1,2-dichloroethane	0.6	1	NA	NA									
1,2-dichlorobenzene	3	1	NA	NA									
1,2-dibromo-3-chloropropane	0.04	2	NA	NA									
1,3,5-trimethylbenzene	5*	1	NA	NA									
1,3-dichlorobenzene	3	1	NA	NA									
1,4-dichlorobenzene	3	0.5	NA	NA									
acetone	50	10	NA	NA									
benzene	1	0.1	NA	NA									
bromodichloromethane	50	0.5	NA	NA									
bromoform	50	1	NA	NA									
carbon disulfide	1,000	0.5	NA	NA									
chlorobenzene	5*	0.5	NA	NA									
chloroethane	5*	1	NA	NA									
chloroform	7	0.3	NA	NA									
chloromethane	5*	1	NA	NA									
cis-1,2-dichloroethene	5*	1	NA	NA									
dichlorodifluoromethane	5*	1	NA	NA									
ethylbenzene	5*	1	NA	NA									
isopropylbenzene	5*	1	NA	NA									
methyl iodide	5*	0.5	NA	NA									
n-propylbenzene	5*	1	NA	NA									
m,p-xylene	5*	2	NA	NA									
naphthalene	10	1	NA	NA									
o-xylene	5*	1	NA	NA									
p-isopropyltoluene	5*	1	NA	NA									
sec-butylbenzene	5*	1	NA	NA									
tetrachloroethene	5	1	NA	NA									
tert-butylbenzene	5*	1	NA	NA									
trichloroethene (TCE)	5*	1	NA	NA									
toluene	5*	1	NA	NA									
trichlorofluoromethane	5*	1	NA	NA									
vinyl chloride	2	1	NA	NA									
Total VOCs (µg/L)			**NA**	**NA**									
Leachate Indicators (mg/L)													
alkalinity, Total	--	10	37	38									
ammonia	2	0.2	0.097 J	0.084 J									
BOD5	--	2.4	U	U									
bromide	2	0.5	U	U									
COD	--	5	U	U									
chloride	250	1	7.3	5.0									
color	15	5	**250**	**50**									
cyanide, Total	200	0.02	U	U									
Fluoride	1.5	1	U	0.081 J									
hardness, Total	--	1	58	46									
nitrate	10	1	U	U									
TKN	1	1	U	0.27 J									
sulfate	250	1	9.8	7.7									
TDS	500	10	80	77									
TOC	--	1	4.9	3.1									

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-103												
Date of Collection			**3/31/2004**	**6/28/2004**	**9/17/2004**	**12/15/2004**	**4/5/2005**	**6/23/2005**	**9/9/2005**	**12/22/2005**	**3/17/2006**	**9/15/2006**	**4/4/2007**	**9/27/2007**	**4/1/2008**
Sample ID No.			**LF1M10334BA**	**Not Sampled**	**LF1M10335DA**	**Not Sampled**	**Not Sampled**	**LF1M10335GA**	**LF1M10335HA**	**LF1M10335IA**	**Not Sampled**	**LF1M10314LA**	**LF1M10333NA**	**LF1M10335OA**	**LF1M10331PA**
Depth to Water (ft)			**33.77**	**34.37**	**34.90**	**34.41**	**34.41**	**34.68**	**34.75**	**34.50**	**34.45**	**33.60**	**32.93**	**33.12**	**30.61**
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
1,1-dichloroethane	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
1,2-dichloroethane	0.6	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
1,2-dichlorobenzene	3	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
1,3-dichlorobenzene	3	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	NS	U	NS	NS	U	U	U	NS	U	U	0.180 F	U
acetone	50	10	4.9 F	NS	1.5 F	NS	NS	U	U	U	NS	U	U	U	U
benzene	1	0.1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
bromodichloromethane	50	0.5	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
bromoform	50	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
carbon disulfide	1,000	0.5	0.31 F	NS	U	NS	NS	U	U	U	NS	U	U	U	U
chlorobenzene	5*	0.5	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
chloroethane	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
chloroform	7	0.3	4.7 B	NS	0.51 B	NS	NS	U	U	U	NS	U	U	U	U
chloromethane	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
dichlorodifluoromethane	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
ethylbenzene	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
isopropylbenzene	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
methyl iodide	5*	0.5	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
n-propylbenzene	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
m,p-xylene	5*	2	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
naphthalene	10	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
o-xylene	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
p-isopropyltoluene	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
sec-butylbenzene	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
tetrachloroethene	5	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
tert-butylbenzene	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
trichloroethene (TCE)	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
toluene	5*	1	0.34 F	NS	U	NS	NS	U	U	U	NS	U	U	U	U
trichlorofluoromethane	5*	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
vinyl chloride	2	1	U	NS	U	NS	NS	U	U	U	NS	U	U	U	U
Total VOCs (µg/L)			**10.25**	**NS**	**2.01**	**NS**	**NS**	**0**	**0**	**0**	**NS**	**0**	**0**	**0.180**	**0**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	460	300
ammonia	2	0.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	0.34
BOD5	--	2.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
bromide	2	0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.86 F	NA
COD	--	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	22
chloride	250	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	31	NA
color	15	5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
cyanide, Total	200	0.02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
Fluoride	1.5	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA
hardness, Total	--	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	32	28
nitrate	10	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**220**	NA
TKN	1	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	**1.6**
sulfate	250	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**390**	NA
TDS	500	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**2,400**	NA
TOC	--	1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.2	2.9

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1MW-103										
Date of Collection			**9/18/2008**	**4/21/2009**	**3/31/2010**	**6/16/2011**	**6/26/2012**	**6/12/2013**	**6/18/2014**	**6/23/2015**	**5/18/2016**		
Sample ID No.			**LF1M10333QA**	**LF1M10333RA**	**LF1M10317SA**	**LF1M10312TA**	**LF1M10318UA**	**LF1M10319VA**	**LF1M10317VA**	**LF1M10317WA**	**LF1M10317XA**		
Depth to Water (ft)			**17.51**	**14.10**	**16.60**	**12.31**	**17.61**	**19.84**	**20.19**	**20.92**	**35.27**		
VOCs (µg/L)													
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	NA	NA	NA		
1,1-dichloroethane	5*	1	U	U	U	U	U	U	NA	NA	NA		
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	NA	NA	NA		
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	NA	NA	NA		
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	NA	NA	NA		
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	NA	NA	NA		
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	NA	NA	NA		
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	NA	NA	NA		
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	NA	NA	NA		
1,4-dichlorobenzene	3	0.5	U	U	U	U	U	U	NA	NA	NA		
acetone	50	10	13.6	18.0	13.5	13	13	13	NA	NA	NA		
benzene	1	0.1	U	U	U	U	U	U	NA	NA	NA		
bromodichloromethane	50	0.5	U	U	U	U	U	U	NA	NA	NA		
bromoform	50	1	U	U	U	U	U	U	NA	NA	NA		
carbon disulfide	1,000	0.5	U	U	U	U	U	U	NA	NA	NA		
chlorobenzene	5*	0.5	U	U	U	U	U	U	NA	NA	NA		
chloroethane	5*	1	U	U	U	U	U	U	NA	NA	NA		
chloroform	7	0.3	U	U	U	U	U	U	NA	NA	NA		
chloromethane	5*	1	U	U	U	U	0.33 J	U	NA	NA	NA		
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	NA	NA	NA		
dichlorodifluoromethane	5*	1	U	U	U	U	U	U	NA	NA	NA		
ethylbenzene	5*	1	U	U	U	U	U	U	NA	NA	NA		
isopropylbenzene	5*	1	U	U	U	U	U	U	NA	NA	NA		
methyl iodide	5*	0.5	U	U	U	U	U	U	NA	NA	NA		
n-propylbenzene	5*	1	U	U	U	U	U	U	NA	NA	NA		
m,p-xylene	5*	2	U	U	U	U	U	U	NA	NA	NA		
naphthalene	10	1	U	U	U	U	U	0.31 J	NA	NA	NA		
o-xylene	5*	1	U	U	U	U	U	U	NA	NA	NA		
p-isopropyltoluene	5*	1	U	U	U	U	U	U	NA	NA	NA		
sec-butylbenzene	5*	1	U	U	U	U	U	U	NA	NA	NA		
tetrachloroethene	5	1	U	U	U	U	U	U	NA	NA	NA		
tert-butylbenzene	5*	1	U	U	U	U	U	U	NA	NA	NA		
trichloroethene (TCE)	5*	1	U	U	U	U	U	U	NA	NA	NA		
toluene	5*	1	U	U	U	U	U	U	NA	NA	NA		
trichlorofluoromethane	5*	1	U	U	U	U	U	U	NA	NA	NA		
vinyl chloride	2	1	U	U	U	U	U	U	NA	NA	NA		
Total VOCs (µg/L)			**13.60**	**18.0**	**13.5**	**13**	**13.33**	**13.31**	**NA**	**NA**	**NA**		
Leachate Indicators (mg/L)													
alkalinity, Total	--	10	310	350	460	U	390	U	370	350	350		
ammonia	2	0.2	NS	**21**	**25**	**25**	U	**31**	U	**32**	**30**		
BOD5	--	2.4	NS	NA	NA	U	U	U	U	U	NS		
bromide	2	0.5	NS	0.12	0.10	U	0.12 J	U	U	0.14 J	0.11 J		
COD	--	5	NS	37	12	U	U	8.7 J	U	U	7.1 J		
chloride	250	1	NA	4.9	4.3 B	U	5.2	U	4.0	5.4	5.7		
color	15	5	NA	10	U	U	U	U	U	**30**	U		
cyanide, Total	200	0.02	NA	NA	NA	NA	U	U	U	U	U		
Fluoride	1.5	1	NA	NA	NA	U	0.75 J	U	0.74	0.76 J	0.68 J		
hardness, Total	--	1	32	18	32 B	23	U	U	14	25	17		
nitrate	10	1	NS	5.9	2.1 B	U	1.0	U	0.61	0.52	U		
TKN	1	1	NS	**21**	**30**	**22**	U	**8.6**	U	**22**	**27**		
sulfate	250	1	NS	27	18 B	U	14.0	U	14.0	15.0	15.0		
TDS	500	10	NS	440	420	U	370	U	350	330	340		
TOC	--	1	NS	4.2	2.9	2.4	U	1.7	2.1 B	1.5	0.85 JB		

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1P-2												
Date of Collection			**12/22/2005**	**3/16/2006**	**6/19/2006**	**9/14/2006**	**12/18/2006**	**4/4/2007**	**9/26/2007**	**4/1/2008**	**9/18/2008**	**4/21/2009**	**3/30/2010**	**6/15/2011**	**6/21/2012**
Sample ID No.			**LF1P0213IA**	**LF1P0213JA**	**LF1P0213KA**	**LF1P0213LA**	**LF1P0213MA**	**LF1P0213NA**	**LF1P0213OA**	**LF1P0213PA**	**LF1P0213QA**	**LF1P0213RA**	**LF1P0213SA**	**LF1P0213TA**	**LF1P0213UA**
Depth to Water (ft)			**5.77**	**4.96**	**5.82**	**5.89**	**5.28**	**4.77**	**6.25**	**4.15**	**6.05**	**5.02**	**4.78**	**4.80**	**5.51**
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	0.2 F	0.220 F	0.130 F	0.140 F	U	U	U	0.120 F	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	0.16 J	U
1,2-dichlorobenzene	3	1	U	U	U	0.19 F	0.290 F	0.250 F	0.350 F	0.250 F	0.370 F	0.220 F	0.500 F	0.43 J	0.33 J
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	UJ	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	1.3	1.1	1.2	1.72	2.21	1.87	2.04	1.70	2.30	1.38	2.70	2.50	1.60
acetone	50	10	U	U	U	2.86 F	U	U	U	U	U	U	U	U	U
benzene	1	0.1	0.78	0.77	0.76	0.95	**1.01**	0.670	0.700	0.550	0.730	0.540	0.800	0.68 J	0.45 J
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	1.7	1.4	1.6	2.04	2.27	1.92	2.05	1.43	1.86	1.45	2.21	2.0	1.1
chloroethane	5*	1	U	U	0.25 F	0.2 F	0.300 F	0.220 F	U	U	U	U	0.340 F	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	0.120 F	U	U	U	U	U	U	U	U
dichlorodifluoromethane	5*	1	U	0.35 F	0.26 F	U	U	0.240 F	0.140 F	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	0.28 J	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	0.120 F	U	U
trichloroethene (TCE)	5*	1	U	U	U	U	0.190 F	U	U	0.110 F	U	U	U	U	U
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	0.45 F	0.52 F	0.56 F	0.57 F	0.550 F	0.380 F	U	U	U	U	U	0.41 J	U
Total VOCs (µg/L)			**4.23**	**4.14**	**4.63**	**8.86**	**7.16**	**5.78**	**3.38**	**2.34**	**5.26**	**3.59**	**6.79**	**6.46**	**2.38**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	389	418	446	450	460	440	440	450	440	430	480	440	430
ammonia	2	0.2	1.5	1.3	1.2	**2.4**	**2.6**	**2.4**	**2.2**	**2.1**	**2.2**	2.0	1.7	1.6	0.74
BOD5	--	2.4	2.1	U	4.6	11	6.0	13.0	8.1	U	6.0	3.5	U	5.0	4.8 J
bromide	2	0.5	0.28 F	0.49 F	0.11 F	0.18 F	0.12	0.10	0.13	0.085 F	0.14	0.12	0.13	0.14 J	0.11 J
COD	--	5	7.3 F	U	26.7 B	16	14 B	13 B	8.5 F	8.5 F	3.7 F	6.0 F	14	7.3 J	6.3 J
chloride	250	1	7.4	9.5	11.5	15	11	8.7	12	6.7	11	9	12	20	5.2
color	15	5	NA	**140**	NA	NA	NA	NA	NA	**60**	NA	**40**	U	**40**	**25**
cyanide, Total	200	0.02	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	U	U
Fluoride	1.5	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.16 J	0.16 J
hardness, Total	--	1	430 B	314	438	460	430	470	390	430	480	440	460	420	380
nitrate	10	1	0.07 F	U	0.03 F	0.039 F	0.030 F	U	0.065 F	0.054 F	U	0.085 F	0.086 F	U	0.087 J
TKN	1	1	**2.2**	**2.1**	**1.9**	**2.4**	**2.7**	**2.4**	**2.1**	**2.1**	**2.3**	**2.1**	**2.1**	**1.9 J**	**1.7 B**
sulfate	250	1	5.8	3.8	5.2	3.9	3.5	3.3 B	1.8	1.8	0.97 F	0.72 F	0.22 F	0.93 J	U
TDS	500	10	380	456	471	490	500	490	480	460	340	470	460	460	410
TOC	--	1	U	1.7	2.7	2.8	3.0	2.4	3.7	2.3	2.2	3.1	2.3	2.3	2.0

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1P-2							
Date of Collection			**6/11/2013**	**6/16/2014**	**6/22/2015**	**5/16/2016**				
Sample ID No.			**LF1P0213VA**	**LF1P0213VA**	**LF1P0213WA**	**LF1P0213XA**				
Depth to Water (ft)			**4.98**	**5.14**	**5.39**	**5.31**				
VOCs (µg/L)										
1,1,1-trichloroethane	5*	1	U	U	U	U				
1,1-dichloroethane	5*	1	U	U	U	U				
1,2,3-trichlorobenzene	5	1	U	U	U	U				
1,2,4-trimethylbenzene	5*	1	U	U	0.31 J	U				
1,2-dichloroethane	0.6	1	U	U	U	U				
1,2-dichlorobenzene	3	1	0.41 J	0.28 J	0.29 J	0.32 J				
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U				
1,3,5-trimethylbenzene	5*	1	U	U	U	U				
1,3-dichlorobenzene	3	1	U	U	U	U				
1,4-dichlorobenzene	3	0.5	2.1	1.20	1.60	1.90				
acetone	50	10	3.6 J	U	5.4 J	U				
benzene	1	0.1	0.68 J	0.48 J	0.60 J	0.54 J				
bromodichloromethane	50	0.5	U	U	U	U				
bromoform	50	1	U	U	U	U				
carbon disulfide	1,000	0.5	U	U	U	U				
chlorobenzene	5*	0.5	1.6	1.0	1.4	1.5				
chloroethane	5*	1	U	U	U	U				
chloroform	7	0.3	U	U	U	U				
chloromethane	5*	1	U	U	U	U				
cis-1,2-dichloroethene	5*	1	U	U	U	U				
dichlorodifluoromethane	5*	1	U	U	U	U				
ethylbenzene	5*	1	U	U	U	U				
isopropylbenzene	5*	1	U	U	U	U				
methyl iodide	5*	0.5	U	U	U	U				
n-propylbenzene	5*	1	U	U	U	U				
m,p-xylene	5*	2	U	U	U	U				
naphthalene	10	1	U	U	U	U				
o-xylene	5*	1	U	U	U	U				
p-isopropyltoluene	5*	1	U	U	U	U				
sec-butylbenzene	5*	1	U	U	U	U				
tetrachloroethene	5	1	U	U	U	U				
tert-butylbenzene	5*	1	U	U	U	U				
trichloroethene (TCE)	5*	1	U	U	U	U				
toluene	5*	1	U	U	U	U				
trichlorofluoromethane	5*	1	U	U	U	U				
vinyl chloride	2	1	U	U	0.22 J	U				
Total VOCs (µg/L)			**5.92**	**2.96**	**9.82**	**4.26**				
Leachate Indicators (mg/L)										
alkalinity, Total	--	10	430	420	450	490				
ammonia	2	0.2	1.8	1.60	1.80	1.70				
BOD5	--	2.4	14	3.4	4.2 J	6.1				
bromide	2	0.5	U	0.14 J	0.22 J	0.19 J				
COD	--	5	16 J	U	13 J	U				
chloride	250	1	11	9.3	15	15				
color	15	5	U	U	**200**	**100**				
cyanide, Total	200	0.02	U	U	U	U				
Fluoride	1.5	1	0.060 J	0.11 J	0.16 J	U				
hardness, Total	--	1	420	410	450	440				
nitrate	10	1	U	0.19 J	U	U				
TKN	1	1	**1.4**	**1.1**	**1.1**	**1.9**				
sulfate	250	1	0.56 J	0.73 J	0.29 J	0.51 J				
TDS	500	10	480	450	**540**	490				
TOC	--	1	2.0	2.0 B	1.9	2.1 B				

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1P-3												
Date of Collection			12/8/2003	3/30/2004	6/28/2004	9/16/2004	12/15/2004	4/4/2005	6/22/2005	9/9/2005	12/22/2005	3/17/2006	9/13/2006	4/4/2007	9/26/2007
Sample ID No.			LF1P0317AA	LF1P0303BA	LF1P0317CA	LF1P0317DA	LF1P0317EA	LF1P0317FA	LF1P0317GA	LF1P0317HA	LF1P0317IA	LF1P0317JA	LF1P0317LA	LF1P0317NA	LF1P0317OA
Depth to Water (ft)			3.76	3.20	3.54	3.79	3.75	3.33	4.01	5.37	4.53	3.35	4.35	2.85	5.17
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	U	U	U	U	U	U	U	U	U	0.11 F	U	U
acetone	50	10	1.3 F	U	2.9 F	U	U	U	U	U	U	U	1 F	U	U
benzene	1	0.1	U	U	U	U	U	U	U	U	U	U	U	U	U
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	0.25 F	U	2.1	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
dichlorodifluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	0.26 F	U	0.26 F	0.33 F	0.27 F	0.34 F	0.44 F	0.5 F	U	0.3 F	0.13 F	U	0.240 F
Total VOCs (µg/L)			**1.56**	**0**	**3.16**	**0.33**	**0.27**	**0.34**	**0.69**	**0.5**	**2.1**	**0.3**	**1.86**	**0**	**0.240**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	338	335	301	347	347	354	471	347	334	342	350	340	330
ammonia	2	0.2	0.29	0.27	0.32	0.35	0.34	0.36	6	0.41	0.3	0.3 B	0.36	0.41	0.40
BOD5	--	2.4	U	2.4	U	U	U	U	U	U	U	2.3	4.9	U	2.2
bromide	2	0.5	U	U	U	U	U	U	U	U	0.23 F	0.52	0.085 F	0.089 F	0.10
COD	--	5	U	U	U	U	U	U	50.1	12	13.9 B	U	5 F	8.3 F	U
chloride	250	1	10.8	10.5	12	11.9	10.8	12.2	12.1	11.6	12.2	11.4	11	11	10
color	15	5	2.5	NA	NA	NA	NA	5	NA	NA	NA	U	NA	NA	NA
cyanide, Total	200	0.02	0.085 J	NA	NA	NA	NA	U	NA	NA	NA	U	NA	NA	NA
Fluoride	1.5	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
hardness, Total	--	1	770	320	324	350	352	328	332	582	340 B	222	330	360	260
nitrate	10	1	U	U	U	U	U	U	U	U	U	U	0.023 F	0.038 F	0.020 F
TKN	1	1	0.39	0.31	0.36	0.35 B	0.4	0.4	**6.4**	0.77	0.73	**4**	0.3 F	0.38	0.52
sulfate	250	1	22.3	19.9	24.7	18.2	16.8	17.8	14.1	11.9	11.4	10.3	8.8	8.2 B	8.3
TDS	500	10	385	384	371	378	400	384	385	386	351	366	370	360	380
TOC	--	1	U	0.8 F	U	U	U	0.72 F	0.53 F	0.95 F	U	U	U	U	1.3

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1P-3										
Date of Collection			**4/2/2008**	**9/18/2008**	**4/21/2009**	**3/31/2010**	**6/15/2011**	**6/21/2012**	**6/10/2013**	**6/16/2014**	**6/22/2015**	**5/17/2016**	
Sample ID No.			**LF1P0317PA**	**LF1P0317QA**	**LF1P0317RA**	**LF1P0317SA**	**LF1P0317TA**	**LF1P0317UA**	**LF1P0317VA**	**LF1P0317VA**	**LF1P0317WA**	**LF1P0317XA**	
Depth to Water (ft)			**2.68**	**4.67**	**3.13**	**3.78**	**2.65**	**3.89**	**3.71**	**3.22**	**3.57**	**3.52**	
VOCs (µg/L)													
1,1,1-trichloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,1-dichloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,2,3-trichlorobenzene	5	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,2,4-trimethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,2-dichloroethane	0.6	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,2-dichlorobenzene	3	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,3,5-trimethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,3-dichlorobenzene	3	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,4-dichlorobenzene	3	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA	
acetone	50	10	U	U	U	U	NA	NA	NA	NA	NA	NA	
benzene	1	0.1	U	U	U	U	NA	NA	NA	NA	NA	NA	
bromodichloromethane	50	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA	
bromoform	50	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
carbon disulfide	1,000	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA	
chlorobenzene	5*	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA	
chloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
chloroform	7	0.3	U	U	U	U	NA	NA	NA	NA	NA	NA	
chloromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
cis-1,2-dichloroethene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
dichlorodifluoromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
ethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
isopropylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
methyl iodide	5*	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA	
n-propylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
m,p-xylene	5*	2	U	U	U	U	NA	NA	NA	NA	NA	NA	
naphthalene	10	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
o-xylene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
p-isopropyltoluene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
sec-butylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
tetrachloroethene	5	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
tert-butylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
trichloroethene (TCE)	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
toluene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
trichlorofluoromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
vinyl chloride	2	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
Total VOCs (µg/L)			**0**	**0**	**0**	**0**	NA	NA	NA	NA	NA	NA	
Leachate Indicators (mg/L)													
alkalinity, Total	--	10	350	350	340	360 B	240	370	340	330	320	350	
ammonia	2	0.2	0.38	0.42	0.42	0.36 B	0.57	0.32 B	0.43	0.43	0.41	0.23	
BOD5	--	2.4	U	U	U	U	3.4	3.0	2.7	2.3	U	U	
bromide	2	0.5	0.092 F	0.10	0.12	0.093 F	0.12 F	0.15 J	U	0.13 J	0.15 J	0.12 J	
COD	--	5	8.5 F	U	8.2 F	U	U	U	5.4 J	U	U	U	
chloride	250	1	11	9.5	10.0	9.1 B	10.0	9.7	8.8	9.3	9.5	8.2	
color	15	5	U	NA	U	U	U	U	U	U	5	U	
cyanide, Total	200	0.02	NA	NA	NA	NA	U	U	U	U	U	U	
Fluoride	1.5	1	NA	NA	NA	NA	U	U	U	0.087 J	U	U	
hardness, Total	--	1	320	330	320	340 B	290	320	320	340	310	320	
nitrate	10	1	0.041 F	U	U	U	U	0.042 J	U	9.3	U	0.055 J	
TKN	1	1	0.33	0.55	0.39	0.75	0.68 F	1.1 B	0.66 J	U	U	0.41 J	
sulfate	250	1	9.4	8.1	7.2	4.5 B	2.7 J	2.0 J	1.8 J	1.7 J	1.1 J	1.6 J	
TDS	500	10	**510**	380	380	370	360	370	350	350	360 J	360	
TOC	--	1	U	U	0.60 F	U	0.44 F	0.48 J	0.59 J	0.61 JB	0.46 J	0.71 JB	

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1P-5												
Date of Collection			12/5/2003	3/30/2004	6/28/2004	9/16/2004	12/14/2004	4/1/2005	6/22/2005	9/9/2005	12/21/2005	3/17/2006	9/15/2006	4/4/2007	9/27/2007
Sample ID No.			LF1P0525AA	LF1P0525BA	LF1P0525CA	LF1P0525DA	LF1P0525EA	LF1P0525FA	LF1P0525GA	LF1P0525HA	LF1P0525IA	LF1P0525JA	LF1P0525LA	LF1P0525NA	LF1P0525OA
Depth to Water (ft)			4.20	3.57	4.91	4.39	4.05	4.02	5.93	6.98	5.03	4.37	5.16	3.53	6.38
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
acetone	50	10	U	U	U	U	U	U	U	U	U	U	U	U	U
benzene	1	0.1	U	U	U	U	U	U	U	U	U	U	U	U	U
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
dichlorodifluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	U	U	U	U	U	U	U	U	U	U	U	U	U
Total VOCs (µg/L)			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	316 B	365	354	304	262	249	407	394	289	348	350	270	350
ammonia	2	0.2	0.64	0.45	0.55	0.66	0.54	0.16	0.44	0.58	0.61 B	0.56 B	0.7	0.28	0.71
BOD5	--	2.4	5.9	5	2.6	3.6	U	U	2.5	5.7	U	U	9.8	U	4.5
bromide	2	0.5	U	0.19 F	U	U	0.2 F	U	U	U	0.4 F	0.3 F	0.11 F	0.070 F	0.11
COD	--	5	U	U	U	10.9	U	U	U	19.1	20.7	U	11	13 B	4.1 F
chloride	250	1	11.2	13.2	16.6	11.1	9.1	11.1	15	14.8	10.9	11.3	11	9.5	11
color	15	5	**100**	NA	NA	NA	NA	**35**	NA	NA	NA	**160**	NA	NA	NA
cyanide, Total	200	0.02	U	NA	NA	NA	NA	U	NA	NA	NA	0.017 F	NA	NA	NA
Fluoride	1.5	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
hardness, Total	--	1	340 B	328	376	310	200	228	364	680	300	228	340	260	310
nitrate	10	1	U	U	U	U	0.04 F	U	U	U	0.07 F	U	0.014 F	U	0.020 F
TKN	1	1	1	0.71	0.65	0.98 B	0.63 B	0.26	0.9	**1.2**	**2.7**	**2.2**	0.69	0.34	0.7
sulfate	250	1	U	U	U	U	2	3.2	U	U	0.41 F	U	U	1.9 B	U
TDS	500	10	320 B	382	423	323	284	259	413	430	295	331	390	280	380
TOC	--	1	1.9	1.8	U	1.7	2.1	U	1.7	1.8	1.1	1.4	1.5	1.5	2.7

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	LF1P-5										
Date of Collection			**4/2/2008**	**9/18/2008**	**4/20/2009**	**3/31/2010**	**6/16/2011**	**6/25/2012**	**6/10/2013**	**6/18/2014**	**6/24/2015**	**5/18/2016**	
Sample ID No.			**LF1P0525PA**	**LF1P0525QA**	**LF1P0525RA**	**LF1P0525SA**	**LF1P0525TA**	**LF1P0525TA**	**LF1P0525VA**	**LF1P0525VA**	**LF1P0525WA**	**LF1P0525XA**	
Depth to Water (ft)			**3.45**	**6.17**	**4.28**	**3.90**	**4.84**	**4.99**	**4.55**	**4.7**	**4.73**	**5.05**	
VOCs (µg/L)													
1,1,1-trichloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,1-dichloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,2,3-trichlorobenzene	5	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,2,4-trimethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,2-dichloroethane	0.6	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,2-dichlorobenzene	3	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,3,5-trimethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,3-dichlorobenzene	3	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
1,4-dichlorobenzene	3	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA	
acetone	50	10	U	U	U	U	NA	NA	NA	NA	NA	NA	
benzene	1	0.1	U	U	U	U	NA	NA	NA	NA	NA	NA	
bromodichloromethane	50	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA	
bromoform	50	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
carbon disulfide	1,000	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA	
chlorobenzene	5*	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA	
chloroethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
chloroform	7	0.3	U	U	U	U	NA	NA	NA	NA	NA	NA	
chloromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
cis-1,2-dichloroethene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
dichlorodifluoromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
ethylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
isopropylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
methyl iodide	5*	0.5	U	U	U	U	NA	NA	NA	NA	NA	NA	
n-propylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
m,p-xylene	5*	2	U	U	U	U	NA	NA	NA	NA	NA	NA	
naphthalene	10	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
o-xylene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
p-isopropyltoluene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
sec-butylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
tetrachloroethene	5	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
tert-butylbenzene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
trichloroethene (TCE)	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
toluene	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
trichlorofluoromethane	5*	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
vinyl chloride	2	1	U	U	U	U	NA	NA	NA	NA	NA	NA	
Total VOCs (µg/L)			**0**	**0**	**0**	**0**	NA	NA	NA	NA	NA	NA	
Leachate Indicators (mg/L)													
alkalinity, Total	--	10	310	370	330	290 B	350	310	270	300	320	320	
ammonia	2	0.2	0.42	0.71	0.29	0.13 B	0.40	0.21 B	0.070 J	0.13	0.35	0.055 J	
BOD5	--	2.4	U	3.9	U	U	3.1	U	2.7	U	U	U	
bromide	2	0.5	0.093 F	0.12	0.11	0.087 F	0.11 F	0.14 J	U	0.14 J	0.16 J	0.12 J	
COD	--	5	6.3 F	U	6.0 F	U	5.0 F	U	11 J	4.6 J	U	U	
chloride	250	1	9.3	11	9.9	8.8 B	8.4	8.7	7.5	8.2	9.3	7.9	
color	15	5	15	NA	U	U	25	U	U	10 B	**100**	**25**	
cyanide, Total	200	0.02	NA	NA	NA	NA	NA	U	U	U	U	U	
Fluoride	1.5	1	NA	NA	NA	NA	U	U	0.062 J	U	0.066 J	0.060 J	
hardness, Total	--	1	290	370	320	290 B	280	260	260	280	320	310	
nitrate	10	1	0.18	U	0.21 F	0.27 BF	0.12 F	0.068 J	0.29 J	0.26 J	U	0.38 J	
TKN	1	1	0.41	0.83	0.35	0.38	0.60 F	1.0	0.57 J	U	U	0.39 J	
sulfate	250	1	0.53 F	U	U	0.50 BF	0.41 F	U	1.6 J	0.69 J	U	0.74 J	
TDS	500	10	270	390	280	300	320	320	290	320	330	340	
TOC	--	1	1.5	1.3	1.10	1.4	1.9	U	2.0	U	2.1	2	

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	MWSAR03												
Date of Collection			12/8/2003	3/30/2004	6/28/2004	9/17/2004	12/15/2004	4/4/2005	6/23/2005	9/8/2005	12/22/2005	3/16/2006	6/19/2006	9/15/2006	12/18/2006
Sample ID No.			MWSAR0324AA	MWSAR0324BA	MWSAR0324CA	MWSAR0324DA	MWSAR0324EA	MWSAR0324FA	MWSAR0321GA	MWSAR0324HA	MWSAR0324IA	MWSAR0324JA	MWSAR0321KA	MWSAR0321LA	MWSAR0321MA
Depth to Water (ft)			18.45	16.65	19.07	19.19	17.71	16.65	20.59	22.61	20.45	17.61	20.75	20.83	18.30
VOCs (µg/L)															
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U	UJ
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	0.46 F	0.25 F	1.4	1.2	U	0.3 F	0.95	2.6	2.2	U	1.7	2.06	0.590
acetone	50	10	1.3 F	U	1.4 F	U	U	U	1.6 F	U	4.8 F	U	U	1.46 F	U
benzene	1	0.1	U	U	0.35 F	0.51	U	U	0.41 F	0.48 F	0.37 F	U	0.59	0.62	0.380 F
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	0.19 F	0.210 F
chloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	U	U	U	U	U	U	U	0.15 F	0.140 F
dichlorodifluoromethane	5*	1	U	U	U	0.34 F	U	U	0.43 F	U	U	U	0.2 F	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	U	U	U	U	0.25 F	U	U	U	U	U	U	U	0.110 F
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	0.46 F	U	0.73 F	**2.2**	U	0.26 F	**4.5**	0.47 F	0.48 F	U	1	1.48	U
Total VOCs (µg/L)			**2.22**	**0.25**	**3.88**	**4.25**	**0.25**	**0.56**	**7.89**	**3.55**	**7.85**	**0**	**3.49**	**5.96**	**1.43**
Leachate Indicators (mg/L)															
alkalinity, Total	--	10	165	206	102	77.3	424	308	111	209	148 B	273	74.7	140	170
ammonia	2	0.2	U	U	0.22	0.23	0.015 F	0.11	0.33	0.42	0.37	0.0093 F	0.25	0.56	0.14
BOD5	--	2.4	U	U	4	4.9	U	U	3.1	3.5	7.9	U	9.2	14	6.6
bromide	2	0.5	U	U	U	U	U	U	U	U	0.34 F	U	U	0.021 F	0.027 F
COD	--	5	U	11.4	U	U	U	U	12.7	16.2	12.9 B	U	40 B	16	14 B
chloride	250	1	8.8	6.6	7	8.5	2.3	2.4	U	5.9	8.9	4.3	5.3	5.8	5.0
color	15	5	**25**	NA	NA	NA	NA	50	U	NA	NA	**20**	NA	NA	NA
cyanide, Total	200	0.02	U	NA	NA	NA	NA	U	U	NA	NA	U	NA	NA	NA
Fluoride	1.5	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
hardness, Total	--	1	310	256	88	90	400	302	140	400	90 B	316	420	170 B	170
nitrate	10	1	U	0.79 F	0.23	0.52 F	0.89 F	2.2	U	U	0.09 F	2.3	U	U	0.13
TKN	1	1	U	0.1 F	0.49	0.29	0.28	0.13 F	0.73 B	1	**1.1**	0.19 F	0	0.49	0.14 F
sulfate	250	1	16.8	24.7	11.3	15.1	18.1	21	U	6.1	14.2	21.3	17.9	9.9	12
TDS	500	10	209	244	150	115	473	356	117	114	145	304	193	140	220
TOC	--	1	1.4	1.3	U	0.81 F	1.4	1.3	1.2	1.7 B	1.4	1.3	U	1.1	1.2

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class GA Groundwater Standards	Reporting Limit	MWSAR03											
Date of Collection			**4/3/2007**	**9/26/2007**	**4/1/2008**	**9/18/2008**	**4/21/2009**	**3/30/2010**	**6/20/2011**	**6/26/2012**	**6/12/2013**	**6/17/2014**	**6/23/2015**	**5/16/2016**
Sample ID No.			**MWSAR0324NA**	**MWSAR0324OA**	**MWSAR0324PA**	**MWSAR0324QA**	**MWSAR0324RA**	**MWSAR0324SA**	**MWSAR0324TA**	**MWSAR0324UA**	**MWSAR0324VA**	**MWSAR0324VA**	**MWSAR0324WA**	**MWSAR0324XA**
Depth to Water (ft)			**15.17**	**21.69**	**16.17**	**21.00**	**17.86**	**19.04**	**17.35**	**20.31**	**19.08**	**18.6**	**18.66**	**19.31**
VOCs (µg/L)														
1,1,1-trichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
1,1-dichloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2,3-trichlorobenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichloroethane	0.6	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dibromo-3-chloropropane	0.04	2	U	U	U	U	U	U	U	U	U	U	U	U
1,3,5-trimethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
1,3-dichlorobenzene	3	1	U	U	U	U	U	U	0.24 F	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	2.05	0.380 F	0.620	U	1.81	U	0.73 J	1.2	0.36 J	1.4	0.88 J
acetone	50	10	U	U	U	U	U	1.52 F	U	U	5.9 J	U	U	U
benzene	1	0.1	U	0.350 F	U	0.550	0.350 F	0.410 F	0.50 F	0.34 J	0.43 J	0.23 J	0.38 J	0.28 J
bromodichloromethane	50	0.5	U	U	U	U	U	U	U	U	U	U	U	U
bromoform	50	1	U	U	U	U	U	U	U	U	U	U	U	U
carbon disulfide	1,000	0.5	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5*	0.5	U	0.250 F	U	U	U	0.310 F	U	U	0.31 J	0.23 J	0.42 J	0.33 J
chloroethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
chloroform	7	0.3	U	U	U	U	U	U	U	U	U	U	U	U
chloromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
cis-1,2-dichloroethene	5*	1	U	U	U	U	0.120 F	U	0.17	U	0.22 J	U	U	0.17 J
dichlorodifluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
ethylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
isopropylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
methyl iodide	5*	0.5	U	U	U	U	U	U	U	U	U	U	U	U
n-propylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
m,p-xylene	5*	2	U	U	U	U	U	U	U	U	U	U	U	U
naphthalene	10	1	U	U	U	U	U	U	U	U	0.23 J	U	U	U
o-xylene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
p-isopropyltoluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
sec-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
tetrachloroethene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
tert-butylbenzene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
trichloroethene (TCE)	5*	1	0.130 F	U	U	U	U	U	U	U	U	U	U	U
toluene	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
trichlorofluoromethane	5*	1	U	U	U	U	U	U	U	U	U	U	U	U
vinyl chloride	2	1	U	U	U	1.55	U	0.830 F	U	**6.0**	0.56 J	0.20 J	0.68 J	0.40 J
Total VOCs (µg/L)			**0.25**	**2.86**	**0.38**	**2.72**	**0.47**	**4.88**	**0.91**	**7.08**	**8.85**	**1.02**	**2.88**	**2.06**
Leachate Indicators (mg/L)														
alkalinity, Total	--	10	210	140	250	120	160	180	130	80	290	76	81	100
ammonia	2	0.2	0.019 F	0.40	0.09	0.49	0.035 F	0.24	0.22	0.22 B	0.27	0.077 J	0.30	0.17
BOD5	--	2.4	U	U	U	6.7	3.5	13	3.0	2.8	5.1	3.1	5.5	4.6 J
bromide	2	0.5	U	0.039 F	0.047 F	0.029 F	0.034 F	U	U	U	0.12 J	U	U	U
COD	--	5	8.3 F	28	11	26	6.0 F	20	5.3 F	9.0 J	12 J	5.0 J	7.1 J	U
chloride	250	1	2.1	4.8	3.5	3.7	3.4	4.9	4.2	6.6	4.2	3.5	4.5 J	5.0
color	15	5	NA	NA	35	NA	U	U	15	U	U	5	**130**	**40**
cyanide, Total	200	0.02	NA	NA	NA	NA	NA	NA	NA	U	U	U	U	U
Fluoride	1.5	1	NA	NA	NA	NA	NA	NA	0.14 J	U	0.77 J	0.20 J	U	0.13
hardness, Total	--	1	220	40	260	150	160	68	120	81	9.2	99	85	96
nitrate	10	1	2.7	U	0.14	U	U	0.13 F	U	U	0.15 J	0.35 J	U	U
TKN	1	1	0.094 F	0.5	0.063 F	0.84	U	0.40 B	0.40 F	0.84 J	0.57 J	U	U	0.40 J
sulfate	250	1	9.0	4.0	6.1	3.9	1.8	4.2	1.3 F	0.40 J	0.57 J	0.36 J	U	0.62 J
TDS	500	10	250	240	270	120	200	180	150	120	310	110	94 J	130
TOC	--	1	0.75 F	1.6	0.97 F	0.69 F	1.10	1.1	1.3	1.4	1.2	1.0 B	1.4	1.3 B

For notes, please refer to the end of the Table Section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class A Surface Water Standards	Reporting Limit	LF1SW-1											
Date of Collection			12/9/2003	3/30/2004	6/25/2004	9/17/2004	12/15/2004	4/1/2005	6/22/2005	9/8/2005	12/20/2005	3/16/2006	9/15/2006	4/3/2007
Sample ID No.			LF1SW0101AA	LF1SW0101BA	LF1SW0101CA	LF1SW0101DA	LF1SW0101EA	LF1SW0101FA	LF1SW0101GA	LF1SW0101HA	LF1SW0101IA	LF1SW0101JA	LF1SW0101LA	LF1SW0101NA
Depth to Water (ft)			Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
VOCs (µg/L)														
1,1-dichloroethane	5	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	U	U	U	U	U	0.41 F	U	U	U	0.34 F	U
acetone	50	10	2.8 F	U	2.6 F	U	2 F	U	U	3.6 F	U	U	2.94 F	U
benzene	1	0.1	U	U	U	U	U	U	0.30 F	U	U	U	0.12 F	U
chlorobenzene	5	0.5	U	U	U	U	U	U	1.6	U	U	U	0.84	U
dichlorodifluoromethane	5**	1	U	U	U	U	U	U	0.68 F	U	U	U	U	U
methylene chloride	5	1	U	U	U	U	U	U	U	1.2	U	U	0.1 F	U
Naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U
toluene	5	1	U	U	U	U	U	U	0.84 F	U	U	U	0.11 F	U
Leachate Indicators (mg/L)														
alkalinity, Total	--	10	48.3	17.5	49.3	57.9	95.3	130	370	428	213	154	280	120
ammonia	2	0.2	U	U	0.0099 F	0.14	U	0.032 F	0.28	0.023 F	0.13	0.034 F	0.25	0.016 F
BOD5	--	2.4	U	U	U	U	U	U	8.8	3.6	U	U	6.6	U
bromide	2	0.5	U	U	U	U	U	U	U	U	U	U	0.031 F	U
COD	--	5	U	13.1	U	10.5 B	U	U	27.2	24.5	U	U	14	6.1 F
chloride	250	1	9.5	7.9	13	11.9	15.5	9.1	5	5.8	5.5	8.6	4	27
color	15	5	5	NA	NA	NA	NA	7.5	NA	NA	NA	**20**	NA	NA
Fluoride	1.5	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
hardness, Total	--	1	210	U	72	90	124	136	400	500	280	129	280	140
nitrate	10	1	U	0.77 F	1	1.1	2.5	1.2	U	U	U	0.71 F	0.013 F	1.9
TKN	1	1	U	0.3	0.32	0.38	0.21	0.13 F	**6.6**	1	**2.2**	U	**1.1**	0.091 F
sulfate	250	1	9.5	7.2	13.3	12	8.6	7.5	4	9.4	10.4	9.2	6.9	9.3
TDS	500	10	111	55	120	87	173	156	432	449	237	220	240	190
TOC	--	1	1.1	1.7	U	1.5	0.72 F	1.1	6.8	6.9 B	0.69 F	0.84 F	2.8	0.94 F

For notes, please refer to the end of the tables section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class A Surface Water Standards	Reporting Limit	LF1SW-1										
Date of Collection			9/26/2007	4/2/2008	9/18/2008	4/20/2009	3/31/2010	6/15/2011	6/26/2012	6/11/2013	6/16/2014	6/22/2015	5/18/2016
Sample ID No.			LF1SW0101OA	LF1SW0101PA	LF1SW0101QA	LF1SW0101RA	LF1SW0101SA	LF1SW0101TA	LF1SW0101UA	LF1SW0101VA	LF1SW0101VA	LF1SW0101WA	LF1SW0101XA
Depth to Water (ft)			Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
VOCs (µg/L)													
1,1-dichloroethane	5	1	U	U	0.310 F	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	5	1	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	0.120 F	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	0.69	U	0.310 F	U	U	U	U	U	U	U	U
acetone	50	10	U	U	3.34 F	U	2.29 F	U	U	5.3 J	U	U	7.3
benzene	1	0.1	0.120 F	U	0.690	U	U	U	U	U	U	U	U
chlorobenzene	5	0.5	U	U	1.05	U	U	NA	NA	U	0.17 J	U	U
dichlorodifluoromethane	5**	1	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5	1	U	U	U	U	U	U	U	U	U	U	U
Naphthalene	10	1	U	U	3.92	U	U	NA	NA	U	U	U	U
toluene	5	1	0.420 F	U	1.31	U	U	U	0.29 J	U	U	U	U
Leachate Indicators (mg/L)													
alkalinity, Total	--	10	400	110	640	44	24 B	150	240	130	190	170	170
ammonia	2	0.2	1.9	0.23	0.022 F	U	0.057 B	0.12	0.063 JB	0.043 J	U	0.080 J	U
BOD5	--	2.4	110 J	U	15	U	U	U	2.0 J	U	1.4 J	U	U
bromide	2	0.5	0.20	U	0.075 F	0.015 F	U	U	U	U	U	U	U
COD	--	5	150	U	31	6.0 F	U	U	U	21	5.3 J	U	21
chloride	250	1	8.4	26	4.8	12	7.4 B	3.9	3.6	5.8	4.1	4.3	3.4
color	15	5	NA	U	NA	U	U	U	U	U	5	10	**50 D**
Fluoride	1.5	1	NA	NA	NA	NA	NA	NA	NA	U	0.11 J	U	0.084 J
hardness, Total	--	1	36	130	600	56	31 B	140	250	140	140	180	170
nitrate	10	1	0.016 F	0.92	U	0.78	0.24 B	0.094 F	U	0.19 J	U	0.077 J	U
TKN	1	1	**11**	0.22	0.57	0.11 F	0.29	0.40 F	0.80 JB	0.58 J	U	U	0.49 J
sulfate	250	1	3.8	8.9	1.6	10	6.6 B	3.5 F	3.0 J	4.4 J	3.4 J	3.9 J	3.2 J
TDS	500	10	130	170	**700**	110	90	160	240	160	210	210	180
TOC	--	1	16	1.1	3.2	1.2	3.2	0.92 F	1.3	2.1	1.2 B	1.2	3.6

3.3

For notes, please refer to the end of the tables section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class A Surface Water Standards	Reporting Limit	LF1SW-2	LF1SW-2SMC										
Date of Collection			12/9/2003	4/29/2004	6/29/2004	9/20/2004	12/17/2004	4/1/2005	6/22/2005	9/9/2005	12/20/2005	3/17/2006	9/15/2006	4/3/2007
Sample ID No.			LF1SW0201AA	LF1SW02SMC01BA	LF1SW02SMC01CA	LF1SW02SMC01DA	LF1SW02SMC01EA	LF1SW02SMC01FA	LF1SW02SMC01GA	LF1SW02SMC01HA	LF1SW02SMC01IA	LF1SW02SMC01JA	LF1SW02SMC01LA	LF1SW02SMC01NA
Depth to Water (ft)			Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
VOCs (µg/L)														
1,1-dichloroethane	5	1	U	U	U	U	U	U	U	U	U	U	0.12 F	U
1,2,4-Trimethylbenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	0.27 F	U	U	0.24 F	0.48 F	U	U	U	0.39 F	U
1,4-dichlorobenzene	3	0.5	0.84	0.40 F	1.3	0.27 F	0.94	1.3	2.7	1.4	1.4	1.2	2.61	0.480 F
acetone	50	10	1.3 F	1.6 F	1.7 F	U	1.6 F	2.4 F	2.8 F	U	U	U	3.92 F	U
benzene	1	0.1	0.21 F	U	0.27 F	U	U	0.23 F	0.30 F	U	U	U	0.2 F	U
chlorobenzene	5	0.5	0.79	0.42 F	1.2	0.27 F	0.96	1.2	1.6	0.59	1.1	1.1	1.07	0.380 F
dichlorodifluoromethane	5**	1	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5	1	U	U	U	U	U	U	U	U	U	U	U	U
Naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U
toluene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
Leachate Indicators (mg/L)														
alkalinity, Total	--	10	110	63	153	59.8	150	217	406	414	318	245	410	150
ammonia	2	0.2	0.24	0.15	0.63	0.11	0.49	0.8	2	**2.1**	1.1	0.67 B	2	0.24
BOD5	--	2.4	U	U	1.5 F	U	U	U	U	U	U	U	3.4	U
bromide	2	0.5	U	U	U	U	U	U	U	U	U	U	0.13 F	0.024 F
COD	--	5	U	U	16.4 J	U	U	U	4 F	6.6 F	3.1 F	U	11	8.3 F
chloride	250	1	9.6	11.7	13.1	9.2	9	7.7	10.2	11.7	7.9	8.2	11	24
color	15	5	**60**	**20**	**40**	**20**	**50**	**100**	NA	NA	NA	**100**	NA	NA
Fluoride	1.5	1	NA	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
hardness, Total	--	1	124	80	180	200	156	208	388	460	350	219	1,000	170
nitrate	10	1	U	0.76 F	0.74 F	0.68 F	1.1	0.56 F	U	0.03 F	U	0.38 F	0.014 F	1.7
TKN	1	1	U	0.31 B	0.84	0.36	0.56	0.98	**3.1**	**3**	**3.3**	**1.2**	**2.8**	0.34
sulfate	250	1	9.3	8.9	11.7	10	7.6	6.6	4	3	8.1	8.4	4.1	8.5 B
TDS	500	10	167	120	202	100	204	237	452	443	357	266	430	230
TOC	--	1	19.3	U	U	2	1.9	2.4	3.4	3.5	1.9	1.4	3.7	1.2

For notes, please refer to the end of the tables section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class A Surface Water Standards	Reporting Limit	LF1SW-2SMC										
Date of Collection			9/26/2007	4/2/2008	9/18/2008	4/20/2009	3/31/2010	6/16/2011	6/26/2012	6/11/2013	6/16/2014	6/23/2015	5/18/2016
Sample ID No.			LF1SW02SMC01OA	LF1SW02SMC01PA	LF1SW02SMC01QA	LF1SW02SMC01RA	LF1SW02SMC01SA	LF1SW02SMC01TA	LF1SW02SMC01UA	LF1SW02SMC01VA	LF1SW02SMC01VA	LF1SW02SMC01WA	LF1SW02SMC01XA
Depth to Water (ft)			Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
VOCs (µg/L)													
1,1-dichloroethane	5	1	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	5	1	U	U	U	U	U	U	0.19 J	U	U	U	U
1,2-dichlorobenzene	3	1	0.260 F	U	0.480 F	U	U	U	0.55 J	0.98 J	0.31 J	0.20 J	U
1,4-dichlorobenzene	3	0.5	2.03	0.490 F	2.89	U	U	U	2.7	0.90 J	1.6	1.4	U
acetone	50	10	U	U	U	U	U	U		6.7 J	U	U	10
benzene	1	0.1	0.180 F	U	0.240 F	U	U	U	0.42 J	0.26 J	0.21 J	U	U
chlorobenzene	5	0.5	0.930	0.310 F	1.280	U	U	NA	0.34 J	0.66 J	1.1	0.91 J	U
dichlorodifluoromethane	5**	1	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5	1	U	U	U	U	U	U	1.8 J	U	U	U	U
Naphthalene	10	1	U	U	U	U	U	NA	U	0.86 J	U	U	U
toluene	5	1	0.310 F	U	0.120 F	U	U	U	0.34 J	U	U	U	U
Leachate Indicators (mg/L)													
alkalinity, Total	--	10	450	140	450	64	28 B	260	390	210	300	260	230
ammonia	2	0.2	1.8	0.28	1.9	0.074	0.037 BF	0.41	0.62	0.39	0.83	0.52	0.18
BOD5	--	2.4	4.7	U	3.0	U	U	2.7	4.3	1.8 J	U	U	3.8
bromide	2	0.5	0.14	U	0.16	0.018 F	U	U	0.13 J	U	U	0.11 J	U
COD	--	5	22	4.1 F	37	10	U	5.3 F	10 J	17 J	9.7 J	U	790 D
chloride	250	1	13	22	13	11	7.3 B	3.1	7.9	6.6	6.3	5.4	1.6 J
color	15	5	NA	10	NA	10	5	**25**	U	U	5	**80**	**130**
Fluoride	1.5	1	NA	NA	NA	NA	NA	0.061 J	0.065 J	0.060 J	0.12 J	0.067 J	U
hardness, Total	--	1	400	160	440	74	35 B	270	360	200	540	260	370 D
nitrate	10	1	0.016 F	0.76	U	0.68	0.23 B	0.053 F	U	0.14 J	0.18 J	0.050 J	U
TKN	1	1	**2.1**	0.30	**2.70**	0.15 F	0.37	0.67 F	**1.7 B**	0.81 J	0.35 J	U	3.4
sulfate	250	1	1.2	8.2	0.89 F	10	6.4 B	1.2 F	0.54 J	3.1 J	2.3 J	3.1 J	0.53 J
TDS	500	10	460	200	450	120	86	270	400	230	340	290	260
TOC	--	1	4.6	1.7	3.6	1.5	3.4	3.4	2.8	2.7	2.7 B	2.1	8.3

For notes, please refer to the end of the tables section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class A Surface Water Standards	Reporting Limit	LF1SW-3											
Date of Collection			**12/9/2003**	**3/30/2004**	**6/25/2004**	**9/17/2004**	**12/15/2004**	**4/1/2005**	**6/22/2005**	**9/8/2005**	**12/20/2005**	**3/14/2006**	**9/15/2006**	**4/3/2007**
Sample ID No.			**LF1SW0301AA**	**LF1SW0301BA**	**LF1SW0301CA**	**LF1SW0301DA**	**LF1SW0301EA**	**LF1SW0301FA**	**LF1SW0301GA**	**LF1SW0301HA**	**LF1SW0301IA**	**LF1SW0301JA**	**LF1SW0301LA**	**LF1SW0301NA**
Depth to Water (ft)			**Surface**	**Surface**	**Surface**	**Surface**	**Surface**	**Surface**	**Surface**	**Surface**	**Surface**	**Surface**	**Surface**	**Surface**
VOCs (µg/L)														
1,1-dichloroethane	5	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	U	U	0.24 F	0.21 F	U	U	U	U	0.64	U	U
acetone	50	10	U	1.5 F	3.1 F	2.2 F	1.8 F	2.2 F	3.4 F	U	U	U	1.15 F	U
benzene	1	0.1	U	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5	0.5	U	U	U	U	U	U	U	U	U	U	U	U
dichlorodifluoromethane	5**	1	U	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5	1	U	U	U	U	U	U	U	U	U	U	U	U
Naphthalene	10	1	U	U	U	U	U	U	U	U	U	U	U	U
toluene	5	1	U	U	U	U	U	U	U	U	U	U	U	U
Leachate Indicators (mg/L)														
alkalinity, Total	--	10	92.5	24.3	111	92.8	93	33.3	258	284	102	67.1	150	48
ammonia	2	0.2	0.072	U	0.16	0.12	0.2	0.13	0.55	0.12	0.26	0.093	0.055	0.044 F
BOD5	--	2.4	U	U	U	U	U	U	U	U	U	U	U	U
bromide	2	0.5	U	U	U	U	U	U	U	U	U	0.38 F	0.044 F	0.038 F
COD	--	5	U	11.8	10.2	13.3 B	U	13.5	U	15.9	U	16.4	9.2 F	15 B
chloride	250	1	10.6	8.1	14.3	13.1	10.8	7	9.9	10.8	9.6	10	23	9.3
color	15	5	**25**	NA	NA	NA	NA	**50**	NA	NA	NA	**25**	NA	NA
Fluoride	1.5	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
hardness, Total	--	1	168	U	140	90	100	36	264	318	160	48.9	180 B	56
nitrate	10	1	U	0.62 F	0.47 F	0.81 F	0.45 F	0.15 F	0.36 F	0.82 F	0.17 F	0.19 F	0.14 F	0.25
TKN	1	1	U	0.27	0.53	0.37	0.95	0.44	**1.1**	1	**1.1 B**	0.31	0.2 F	0.18 F
sulfate	250	1	10.7	7.2	10.7	10.6	8.3	5	7.4	9	12	8.6	6.4	6.2 B
TDS	500	10	157	60	174	134	160	56	332	313	154	149	200	89
TOC	--	1	1.8	2.1	1.3	2.4	2.3	4.5	3.4	3.6 B	1.6	2.5	4.4	2.8

For notes, please refer to the end of the tables section.

Table 2-1

LF001 (Landfill 1 AOC) Groundwater and Surface Water Sampling Results

Location of Well	NYSDEC Class A Surface Water Standards	Reporting Limit	LF1SW-3										
Date of Collection			9/26/2007	4/2/2008	9/18/2008	4/17/2009	3/30/2010	6/16/2011	6/26/2012	6/11/2013	6/12/2014	6/24/2015	5/17/2016
Sample ID No.			LF1SW0301OA	LF1SW0301PA	LF1SW0301QA	LF1SW0301RA	LF1SW0301SA	LF1SW0301TA	LF1SW0301UA	LF1SW0301VA	LF1SW0301VA	LF1SW0301WA	LF1SW0301XA
Depth to Water (ft)			Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
VOCs (µg/L)													
1,1-dichloroethane	5	1	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	5	1	U	U	U	U	U	U	U	U	U	U	U
1,2-dichlorobenzene	3	1	U	U	U	U	U	U	U	U	U	U	U
1,4-dichlorobenzene	3	0.5	U	U	U	U	U	U	U	U	U	U	U
acetone	50	10	1.55 F	U	U	1.15 F	1.36 F	U	U	U	3.4 J	U	U
benzene	1	0.1	U	U	U	U	U	U	U	U	U	U	U
chlorobenzene	5	0.5	U	U	U	U	U	NA	U	U	U	U	U
dichlorodifluoromethane	5**	1	U	U	U	U	U	U	U	U	U	U	U
methylene chloride	5	1	0.120 F	U	U	U	U	U	U	U	U	U	U
Naphthalene	10	1	U	U	U	U	U	NA	U	U	U	U	U
toluene	5	1	U	U	U	U	U	U	U	U	U	U	U
Leachate Indicators (mg/L)													
alkalinity, Total	--	10	220	46	240	58	28	170	160	36	130	130	120
ammonia	2	0.2	0.061	0.077	0.2	U	U	0.034 F	0.078 JB	0.044 J	0.14	0.030 J	U
BOD5	--	2.4	U	U	U	U	U	U	1.8 J	U	3.0	1.6 J	U
bromide	2	0.5	0.043 F	U	0.068 F	0.015 F	U	U	U	U	U	U	U
COD	--	5	8.5 F	4.1 F	8.2 F	10	5.4 F	9.3 F	10 J	40	28	12 J	14 J
chloride	250	1	15	9.5	14	11	8.2	5.3	7.0 J	4.0	3.5	4.5	10
color	15	5	NA	**30**	NA	10	U	**25**	U	U	U	**35**	**60**
Fluoride	1.5	1	NA	NA	NA	NA	NA	NA	NA	U	0.11 J	U	0.10 J
hardness, Total	--	1	190	52	240	64	38	160	150	37	180	160	140
nitrate	10	1	0.14	0.14	0.21	0.39	0.28	0.17 F	0.061 J	U	0.12 J	0.073 J	U
TKN	1	1	0.23	0.20	0.47	0.22	0.40 B	0.47 F	0.90 JB	0.59 J	0.38 J	U	0.47 J
sulfate	250	1	10	5.8	5.0	9.3	7.3	3.9 F	3.0 J	1.8 J	2.2	3.9	3.5 J
TDS	500	10	280	77	280	U	71	170	190	64	160	160	150
TOC	--	1	3.3	3.3	3.7	2.4	2.8	3.9	4.4	12	6.4	5.1	5.3

For notes, please refer to the end of the tables section.

Notes and Data Qualifiers

B = The analyte was found in an associated blank, as well as in the sample.

F = The analyte was positively identified above MDL, however the concentration is below the reporting limit (RL).

J = For the 2002 to 2010 results, the analyte was positively identified, but the quantitation is an approximation.

J = For the 2011 and 2012 results, the analyte was positively identified above MDL, however the concentration is below the reporting limit (RL).

M = A matrix effect was present.

NI = Not Installed

U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.

UJ = The result is estimated at the method detection limit.

UM = A matrix effect was present; the analyte was not detected above the method detection limit.

NA = Not analyzed

NS = Not sampled

R = The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria.

* - Color is analyzed in Platinum Cobalt Units (PCU)

♦ = Duplicate value was used.

-- = No value reported

= Value exceeded NYSDEC Groundwater standard.

Table 2-2
Landfill 1 MAROS Trend Results

Well ID	Well Type	Number of Samples	Number of Detects	Mann-Kendall Statistic	Mann-Kendall Trend/ % Confidence		Linear Regression Trend/ % Confidence	
1,4-Dichlorobenzene								
LF1MW-10	Tail	22	15	-189	D	100	D	100
LF1MW-11	Source	25	23	-204	D	100	D	100
LF1MW-12	Tail	23	2	3	NT	52.1	D	100
LF1MW-5	Source	25	24	-265	D	100	D	100
LF1MW-6	Tail	24	3	-4	S	52.9	S	72.9
LF1P-2	Source	25	24	45	NT	84.7	NT	85.1
MWSAR03	Tail	25	19	0	S	49.1	NT	59.2
Chlorobenzene								
LF1MW-10	Tail	22	2	-41	S	86.9	PD	91.6
LF1MW-11	Source	25	23	-229	D	100	D	100
LF1MW-12	Tail	23	0	0	ND	48.9	ND	100
LF1MW-5	Source	25	24	-191	D	100	D	100
LF1MW-6	Tail	24	2	-5	NT	53.9	NT	73.3
LF1P-2	Source	25	24	-153	D	100	D	100
MWSAR03	Tail	25	7	117	I	99.7	I	100
1,2-Dichlorobenzene								
LF1MW-10	Tail	22	0	0	ND	48.9	ND	100
LF1MW-11	Source	25	23	-204	D	100	D	100
LF1MW-12	Tail	23	0	0	ND	48.9	ND	100
LF1MW-5	Source	25	0	0	ND	49.1	ND	100
LF1MW-6	Tail	24	0	0	ND	49	ND	100
LF1P-2	Source	25	6	-9	S	57.3	NT	58.3
MWSAR03	Tail	25	0	0	ND	49.1	ND	100
Benzene								
LF1MW-10	Tail	22	0	0	ND	48.9	ND	100
LF1MW-11	Source	25	23	-223	D	100	D	100
LF1MW-12	Tail	23	0	0	ND	48.9	ND	100
LF1MW-5	Source	25	24	-133	D	99.9	D	99.1
LF1MW-6	Tail	24	5	13	NT	61.6	NT	64.2
LF1P-2	Source	25	24	-206	D	100	D	100
MWSAR03	Tail	25	17	32	NT	76.3	NT	81.5

Notes:
D = Decreasing
I = Increasing
NT = No trend
PD = Probably decreasing
PI = Probably increasing
S = Stable
* = One of the variables in the MAROS program is the value assigned to non-detects. This value was set at one half the detection limit, which causes a false positive for the COC's average concentration. Instead of 0 µg/L, the value of one half the detection limit was reported.

Table 2-3
Concentration Ranges for Select Components of Municipal Landfill Leachate[1]

Leachate Indicators	"Typical" Range[2]	Average[2]
Alkalinity	500-100,000	3,600
Ammonia-N	100-400	300
BOD5	1,000-30,000	10,500
Chemical Oxygen Demand	1,000-50,000	15,000
Chloride	100-2,000	980
Hardness	500-10,000	4,200
Nitrate-N	0.1-10.0	4
Nitrogen-TKN	10-500	500
Phosphate	0.5-50	30
Sulfate	10-1,000	380
TDS	1,000-20,000	11,000
Total Organic Carbon	700-10,000	3,500

1 = Lee, G. Fred, and A. R. Jones, Groundwater Pollution by municipal landfills: Leachate Composition, Detection and its Water Quality Significance. Proceedings of the National Water Well Association Fifth National Outdoor Action Conference, Las Vegas, 1991.
2 = units in milligrams per Liter

Table 2-4
LF001 (Landfill 1 AOC) LTM Network

Sampling Locations	Screen Interval Depth (ft MSL)	Sampling Rationale	Target Analytes/ EPA Method Numbers[1]	Matrix	# of Samples	Current Sampling Frequency	Evaluation Criteria
Groundwater		----------	Anions – SW9056	Water	16[2]	Annually	If downgradient wells do not exhibit exceedances of NYS Groundwater Standards or Base background levels for two successive monitoring events, evaluate monitoring frequency and number of wells. Surface water analytes and frequency will be varied to follow groundwater program.
LF1P-3	494.13' – 489.13'	Downgradient	Nitrogen (TKN) – 351.2				
LF1P-5	479.91' – 474.94'	Downgradient	Ammonia – 350.1				
LF1MW-1R	534.46' – 524.46'	Upgradient	Chemical Oxygen Demand (COD) – 410.4				
LF1MW-13	495.82' – 485.82'	POC well	Biological Oxygen Demand (BOD) – 405.1				
LF1MW-103	32.8' – 22.8'[4]	Bedrock	Total Organic Carbon (TOC) - SW9060				
LF1MW-14	483.91' – 473.91'	Downgradient	Total Dissolved Solids (TDS) – 160.1				
		----------	Alkalinity – 310.2				
			Phenols – SW9066				
			Hardness – 130.2				
			Color – 110.2				
			Boron – SW6010B				
LF1P-2	495.07' – 490.07'	Downgradient	VOCs – SW8260				
LF1MW-5	485.26' – 475.26'	Downgradient	Anions – SW9056				
LF1MW-6	492.36' – 482.36'	Downgradient	Nitrogen (TKN) – 351.2				
LF1MW-10	511.08' – 501.08'	Downgradient	Ammonia – 350.1				
LF1MW-11	494.25' – 484.25'	Downgradient	Chemical Oxygen Demand (COD) – 410.4				
LF1MW-12	483.91' – 473.91'	Downgradient	Biological Oxygen Demand (BOD) – 405.1				
MWSAR03	521.28' – 511.28'	Downgradient	Total Organic Carbon (TOC) - SW9060				
Surface Water (Six Mile Creek)	Depth to groundwater ranged from 0.0 to 27.1 ft bgs.		Total Dissolved Solids (TDS) – 160.1				
LF1SW-1		Potential contaminant receptor	Alkalinity – 310.2				
LF1SW-2SMC		Potential contaminant receptor	Phenols – SW9066				
LF1SW-3		Potential contaminant receptor	Hardness – 130.2				
			Color – 110.2				
			Boron – SW6010B				
Methane All gas monitoring probes and vents	--	In accordance with 6 NYCRR 360-2.17(f)	CGI Methane or %LEL[3]	Gas	20 probes 31 vents	Annually	

1 Baseline parameters based on 6 NYCRR Part 360, Subpart 2, Appendix A.

2 Please refer to FSP for details concerning the number of quality assurance/quality control (QA/QC) samples and their locations. At least one matrix spike/matrix spike duplicate (MS/MSD) and two field duplicates will be collected per sample delivery group (SDG); one equipment blank per day and one ambient blank per day; one trip blank per cooler containing VOCs.

3 Combustible Gas Indicator (CGI); Lower Explosive Limit (LEL).

4 Monitoring well has not been surveyed. The reported value is in ft bgs.

Table 3-1
LF002 (Landfill 2/3 AOC) LTM Network

Sampling Locations	Screen Interval Depth (ft MSL)	Sampling Rationale	Target Analytes/ Method Numbers[1]	Matrix	# of Samples	Current Sampling Frequency	Evaluation Criteria
Groundwater LF2MW2-1 LF2MW-4 LF2MW-12 LF2MW-13 LF2MW-14 LF2MW-100 **Surface Water** LF2SW-1 LF2SW-2 LF2SW-3	 516.28' – 506.28' 526.17' – 516.19' 521.5'– 511.5' 519.98' – 509.98' 531.35' – 521.35' 475.2'– 465.2' Depth to groundwater ranged from 3.12 to 29.79 ft bgs.	---------- Downgradient from potential source Downgradient from potential source Downgradient from potential source Downgradient from potential source Upgradient from potential source Downgradient from potential source Potential contaminant receptor Potential contaminant receptor Potential contaminant receptor	<u>Landfill Leachate Indicators:</u> Anions – SW9056 Nitrogen (TKN) – 351.2 Ammonia – 350.1 COD – 410.4 BOD – 405.1 TOC – SW9060 TDS – 160.1 Alkalinity – 310.2 Phenols – SW9066 Hardness – 130.2 Color – 110.2 Boron – SW6010B	Water	9	Every 5 Years	If downgradient wells do not exhibit exceedances of NYS Groundwater Standards or Base background levels for two successive monitoring events, evaluate monitoring frequency and number of wells.
Gas Sampling Gas monitoring probes/vents		In accordance with 6 NYCRR 360-2.17(f)	Methane (FID/CGI)	Gas	9 probes 14 vents	Annually	

[1] Baseline parameters based on 6 NYCRR Part 360, Subpart 2, Appendix A.

Table 4-1
LF003 (Landfill 7 AOC) LTM Network

Sampling Locations	Screen Interval Depth (ft MSL)	Sampling Rationale	Target Analytes/ Method Numbers[1]	Matrix	# of Samples	Sampling Frequency	Evaluation Criteria
Groundwater		----------	Landfill Leachate Indicators:	Water	10	Every 5 Years	If downgradient wells do not exhibit exceedances of NYS Groundwater Standards or Base background levels for two successive monitoring events, evaluate monitoring frequency and number of wells.
LF7MW-22	479.12' – 474.19'	Downgradient from source,	Anions – SW9056				
			Nitrogen (TKN) – 351.2				
LF7MW-23	482.03' – 472.01'	within plume	Ammonia – 350.2				
		Downgradient from	COD – 410.4				
LF7MW-26	495.53' – 485.53'	source,	BOD – 405.1				
		cross-gradient from	TOC – SW9060				
LF7MW-27	500.91' – 490.91'	plume	TDS – 160.1				
LF7MW-28	484.31' – 474.31'	Downgradient from	Alkalinity – 310.1				
LF7MW-29	514.56' – 504.56'	source, within plume	Phenols – SW9066				
LF7MW-30	494.67' – 484.67'	Downgradient from	Hardness – 130.2				
LF7MW-100	470.57' – 460.57'	source	Color – 110.2				
		POC well	Boron – SW6010B				
	----------	Upgradient from source					
		Downgradient from					
Surface	Depth to	source					
Water	groundwater ranged	Downgradient from					
LF7WL-3	from less than	source, within plume,					
	1 ft to 17.71 ft bgs.	Bedrock well					
LF7WL-4		----------					
		Potential contaminant receptor					
		Potential contaminant receptor					

1 Baseline parameters based on 6 NYCRR Part 360, Subpart 2, Appendix A.

Table 5-1
LF007 (Landfill 5 AOC) LTM Network

Sampling Locations	Screen Interval Depth (ft MSL)	Sampling Rationale	Target Analytes/ Method Numbers[1]	Matrix	# of Samples	Sampling Frequency	Evaluation Criteria
Groundwater		----------	Landfill Leachate Indicators:	Water	8	Every 5 Years	If downgradient wells do not exhibit exceedances of NYS Groundwater Standards or Base background levels for two successive monitoring events, evaluate monitoring frequency and number of wells.
LF5MW-3	459.25' – 449.25'	Downgradient of potential source and between landfill and hardfill	Anions – SW9056 Nitrogen (TKN) – 351.2 Ammonia – 350.2 COD – 410.4 BOD – 405.1 TOC – SW9060 TDS – 160.1 Alkalinity – 310.1 Phenols – SW9066 Hardness – 130.2 Color – 110.2 Boron – SW6010B				
MW49D07							
LF5MW-5	455.51' – 445.51'	Downgradient from potential source					
LF5MW-100							
LF5MW-1A	459.49' – 449.49'	Downgradient from potential source					
Leachate Samples	405.92' – 395.92'	Bedrock, downgradient					
	465.6' –	Upgradient from potential					
Surface Water	455.6'	None encountered					
LF5SW-1		----------					
LF5SW-2							
LF5SW-3	----------	Potential contaminant receptor					
	Depth to groundwater ranged from 4.90 to 21.80 ft bgs.	Potential contaminant receptor					
		Potential contaminant receptor					

1 Baseline parameters based on 6 NYCRR Part 360, Subpart 2, Appendix A.

Table 6-1
LF009 (Landfill 6 AOC) LTM Network

Sampling Locations	Screen Interval Depth (ft MSL)	Sampling Rationale	Target Analytes/ Method Numbers[1]	Matrix	# of Samples	Sampling Frequency	Evaluation Criteria
Groundwater		----------	Landfill Leachate Indicators:	Water	23	Annually	If downgradient wells do not exhibit exceedances of NYS Groundwater Standards or Base background levels for two successive monitoring events, evaluate monitoring frequency and number of wells.
LF6MW-1	460.8' – 450.8'	Upgradient well	Anions – SW9056				
TMC-USGS-2	428.6' – 426.1'	Downgradient from landfill	Nitrogen (TKN) – 351.2				
775VMW-18R	423.7' – 413.7'	Upgradient well	Ammonia – 350.2				
775VMW-20R	413.9' – 403.9'	Upgradient well	COD – 410.4				
LF6VMW-10R2	439.2' – 429.2'	Downgradient from landfill	BOD – 405.1				
LF6VMW-17S[2]	457.18' – 447.18'	Downgradient, vertical profile	TOC – SW9060				
LF6VMW-17D[2]	422.1' – 412.1'	Downgradient, vertical profile	TDS – 160.1				
LF6VMW-18[3]	411.88' – 421.88'	Downgradient, vertical profile	Alkalinity – 310.1				
LF6VMW-19[3]	438.95' – 428.95'	Downgradient, vertical profile	Phenols – SW9066				
LF6VMW-20[3]	398.26' – 388.26'	Downgradient, vertical profile	Hardness – 130.2				
LF6VMW-21[3]	434.93' – 424.93'	Upgradient well	Color – 110.2				
LF6VMW-22[3]	435.76' – 425.76'	Downgradient, vertical profile	Boron – SW6010B				
Leachate Locations		Leachate locations					
LF6LH-1							
LF6LH-2							

Table 6-1 (continued)
LF009 (Landfill 6 AOC) LTM Network

Sampling Locations	Screen Interval Depth (ft MSL)	Sampling Rationale	Target Analytes/ Method Numbers[1]	Matrix	# of Samples	Sampling Frequency	Evaluation Criteria
Groundwater 775VMW-10 LF6MW-12 LF6VMW-23[2] LF6VMW-24[2] LF6VMW-25[2] LF6VMW-26[3] TMCMW-9 **Surface Water (TMC)** LF6/TMCSW-1 LF6/TMCSW-2 LF6/TMCSW-3 **Wetlands** LF6W-1	427.1' – 412.1' 416.59' – 406.59' 424.57' – 414.57' 419.25' – 409.25' 416.6' – 406.6' 412.9' – 402.9' 439.16' – 429.16'	Upgradient well Downgradient from landfill Downgradient, vertical profile Downgradient, vertical profile Downgradient, vertical profile Downgradient from landfill Downgradient from landfill ---------- Potential contaminant receptor Potential contaminant receptor Potential contaminant receptor Potential contaminant receptor	<u>Landfill Leachate Indicators:</u> Anions – SW9056 Nitrogen (TKN) – 351.2 Ammonia – 350.2 COD – 410.4 BOD – 405.1 TOC – SW9060 TDS – 160.1 Alkalinity – 310.1 Phenols – SW9066 Hardness – 130.2 Color – 110.2 Boron – SW6010B	Water	23	Annually	If downgradient wells do not exhibit exceedances of NYS Groundwater Standards or Base background levels for two successive monitoring events, evaluate monitoring frequency and number of wells. Surface water analytes and frequency will be varied to follow groundwater program.
Gas Sampling Gas monitoring probes/vents		In accordance with 6 NYCRR 360-2.17(f)	Methane (FID/CGI)	Gas	13 probes 16 vents	Annual	

1 Baseline parameters based on 6 NYCRR Part 360, Subpart 2, Appendix A.