



Department of  
Environmental  
Conservation

# FORT EDWARD LANDFILL 2016 ANNUAL GROUNDWATER MONITORING REPORT

Site Number 558001

December 2016



**FORT EDWARD  
LANDFILL 2016  
ANNUAL  
GROUNDWATER  
MONITORING REPORT**

Site Number 558001

---

Jeremy Wyckoff  
Project Geologist

---

Daniel Lang  
Project Manager

Prepared for:  
New York State Department of  
Environmental Conservation  
625 Broadway  
Albany, New York 12233

Prepared by:  
Arcadis CE, Inc.  
855 Route 146  
Suite 210  
Clifton Park  
New York 12065  
Tel 518 250 7300  
Fax 518 250 7301

Our Ref.:  
00266434.0000

Date:  
December 9, 2016

*This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.*

## CONTENTS

Executive Summary .....	1-1
1 Site Overview.....	1-1
1.1 Site Description .....	1-1
1.2 Site History .....	1-1
1.3 Landfill Closure, Remedial Activities, and Current Status.....	1-2
2 Groundwater Monitoring Program .....	2-1
2.1 Groundwater Monitoring Well Inspection .....	2-1
2.2 Water Level Survey .....	2-1
2.3 Groundwater Sampling.....	2-1
2.4 Analytical Results .....	2-2
2.4.1 VOCs.....	2-2
2.4.2 PCBs .....	2-2
2.4.3 Metals.....	2-2
2.4.4 General Chemistry .....	2-3
2.4.5 SVOC and Methane Data .....	2-3
3 Surface Water and Sediment Sampling .....	3-1
3.1 Surface Water.....	3-1
3.2 Sediment .....	3-1
4 Summary of Groundwater Results .....	4-1
4.1 VOCs .....	4-1
4.2 PCBs .....	4-1
4.3 Metals .....	4-1
4.4 General Chemistry.....	4-2
4.5 SVOC and Methane Data.....	4-2
5 Conclusions and Recommendations .....	5-1

## TABLES

Table 1	Groundwater Elevation Data
Table 2	Volatile Organic Compound Analytical Results for 2016 Groundwater
Table 3	PCB Analytical Results for 2016 Groundwater
Table 4	Metals Analytical Results for 2016 Groundwater
Table 5	General Chemistry Analytical Results for 2016
Table 6	Semi-Volatile Organic Compounds and Dissolved Gasses Analytical Results for 2016 Groundwater
Table 7	Volatile Organic Compounds Analytical Results for 2016 Surface Water
Table 8	PCB Analytical Results for 2016 Surface Water
Table 9	Metals Analytical Results for 2016 Surface Water
Table 10	General Chemistry Analytical Results for 2016 Surface Water
Table 11	Semi-Volatile Organic Compounds and Dissolved Gasses Analytical Results for 2016 Surface Water
Table 12	Volatile Organic Compound Analytical Results for 2016 Sediment
Table 13	PCB Analytical Results for 2016 Sediment
Table 14	Metals Analytical Results for 2016 Sediment
Table 15	Analytical Data May 1995 - May 2016 (trend analysis data)

## FIGURES

Figure 1	Site Location Map
Figure 2	Potentiometric Contours May 2016
Figure 3	Groundwater Analytical Results for VOCs
Figure 4	Groundwater Analytical Results for PCBs
Figure 5	Groundwater Analytical Results for Metals
Figure 6	Total VOCs in Groundwater
Figure 7	Total Iron in Groundwater
Figure 8	Total Magnesium in Groundwater
Figure 9	Total Manganese in Groundwater
Figure 10	Total Sodium in Groundwater

## APPENDICES

- A Well Inspection Forms
- B Groundwater Sampling Purge Logs
- C Analytical Data Packages

## EXECUTIVE SUMMARY

This Annual Groundwater Monitoring Report is a required element of the remedial program and the August 2015 Site Management Plan (SMP) for the Fort Edward Landfill located in Fort Edward, New York (hereinafter referred to as the "site"). The site is currently in the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program, Site No. 558001, which is administered by New York State Department of Environmental Conservation (NYSDEC). As the standby consultant, Arcadis, CE, Inc. (Arcadis) is submitting this report for the following reporting period: January 1, 2016 through December 31, 2016. Arcadis was assigned the project (WA No: D007618-10) in August 2016. The data collected during the reporting period was collected by Aztech Technologies, Inc. (Aztech) and provided by NYSDEC. Arcadis has prepared this report to summarize the annual groundwater, surface water, and sediment sampling results.

General Electric, Inc. (GE) historically disposed of approximately 850 tons of polychlorinated biphenyl (PCB)-containing scrap capacitors at this landfill. This waste represents approximately 79% of the total hazardous waste identified at this site. As a result of the 1980 "Seven Site Agreement" with the NYSDEC, GE produced a report in 1983 recommending encapsulation of the landfill within a slurry wall and cap; however, operation continued until 1991 and the proposed remedy was not initiated. Due to the extended operation of this landfill and the given problems associated with a similar encapsulation remedy taken at the adjacent Kingsbury Landfill (Site 5-58-008), the 1983 Remedial Design proposal was modified. The modified remedy included the construction of a low permeable landfill cap and a leachate collection system, and the construction of a pre-treatment building with final treatment in the three (3) constructed wetland cells (CWTS) (Cell 1 through Cell 3) and a polishing pond.

Based upon remedial and pre-design investigations, it was concluded that landfill-derived contaminants, including PCBs, were migrating from the site through the pathways of groundwater and leachate seepage to surface water. PCBs have been noted in wells upgradient, downgradient, and in the footprint of the landfill historically and currently. It was determined that the environmental condition of the site had been impacted by volatile organic compounds (VOCs), PCBs, and iron from the site's historical use as a landfill.

Currently the remedial measures in place appear to not meet the site remedial action objectives (RAOs). The pre-treatment system and CWTS are not currently able to handle the volume of flow from the three extraction wells (EW-1 through EW-3), the leachate collection well (EW-4), and groundwater collection trench. As such, EW-1 through EW-3 have not been pumped since prior to September 2012. CWTS distribution pumps within the pre-treatment building are one of the primary limiting factors. The groundwater quality in the monitoring well network continues to indicate that leachate is not being fully captured by the collection system and continues to impact the surrounding groundwater system. As part of the corrective measures process, leachate collection and treatment system upgrades are ongoing and will be completed in 2017. Once these system upgrades are fully functional and operating as designed, the performance of the systems and groundwater quality are expected to improve. Performance of the upgraded system will be evaluated and documented in the 2017 Periodic Review and Annual Groundwater Reports.

## 1 SITE OVERVIEW

The roughly 23-acre site is located off of Leavy Hollow Lane in the Town of Fort Edward, New York (Figure 1). The site is bounded by the Glens Falls Feeder Canal to the northeast; by a wooded area, private residences and commercial businesses (Burgoyne Avenue) to the northwest; by Leavy Hollow Lane and private residences to the west and southwest; by farm fields to the south and east; and by a bike path to the east.

The geology underlying the site consists of variable thickness of glacially deposited soil underlain by black shale bedrock. The glacial soil consists of delta sands and interbedded sand-clay lenses. The deltaic sediments overlay lacustrine clay and glacial till. On-site monitoring wells are screened in the shallow delta sands (MW-1, MW-2, MW-5, MW-6C, MW-7, and MW-8), the interbedded sand and clay (MW-2A and MW-6A), and the deeper lacustrine clays (MW-1A and MW-6B). The extraction wells (EW-1 through EW-3) and leachate collection well (EW-4) are screened at the landfill waste/delta sand interface.

The landfill contains non-hazardous municipal waste and hazardous industrial waste, including PCB-containing electrical components and solvents. The landfill requires continued site management including operation, maintenance and monitoring (OM&M) of the active leachate collection and treatment system, which has been in operation since late 1998.

### 1.1 Site Description

Topography in the immediate vicinity of the site is characterized by undulating hills, interspersed with slopes and small depressions. The eastern portion of the site is distinguished as a flat, low-lying area which contains several substantial wetlands. A gravel road provides access to the top of the landfill and the wetland expansion areas to the east. Nearby residences are located to the south and the west.

### 1.2 Site History

The Fort Edward Landfill was used for the disposal of approximately 70% municipal waste and approximately 30% PCB-containing scrap capacitor waste from GE, as well as solvents, from 1969 to 1982. Following a rise in public concern regarding the use of PCBs in the late 1970s, investigation began on the Fort Edward Landfill Site among others, and the site was placed on the New York State Registry of Inactive Hazardous Waste Sites (Site No. 558001).

In 1984, the NYSDEC approved plans and specifications for a containment remedy for the landfill, but allowed the Town of Fort Edward to receive non-hazardous municipal waste until a waste management system was implemented. The landfill was closed in 1991, and a temporary soil cap was installed over the waste materials between 1990 and 1993.

### 1.3 Landfill Closure, Remedial Activities, and Current Status

The landfill was covered with a multi-layer cap in 1997 and 1998. Prior to installation of the final cover system, the entire landfill was rough graded. Over 110,000 cubic yards of stripped soils and excavated materials were relocated and compacted along with 46,000 cubic yards of imported structural fill.

The leachate collection and treatment system was designed by URS beginning in 1995, and construction began in July 1997, in parallel to the landfill cap construction.

The remedial system began operating in September 1998. In October 1998, the air stripper was taken off-line since the VOCs were sufficiently being removed by the CWTS. The Operation and Maintenance (O&M) of the treatment system and groundwater monitoring responsibilities were assigned to AECOM in June 2007. O&M responsibilities were then transferred from AECOM to Aztech Technologies, Inc. (Aztech) in May 2009. Monitoring and maintenance reporting responsibilities were transferred to HRP in 2011, with Aztech still maintaining on-site O&M activities. In August 2015 HRP prepared a Remedial System Optimization (RSO) plan which was submitted to NYSDEC. The RSO plan outlined the necessary tasks required to improve the existing leachate collection and treatment system. HRP prepared a SMP for the site which was submitted to the NYSDEC in August 2015.

In August 2016 the site O&M responsibilities were transferred to Arcadis. Arcadis is currently implementing the RSO recommendations, which include upgrades to the existing leachate collection and treatment systems. The first phase of RSO upgrades includes completing the construction of the pre-treatment system.

In accordance with the SMP for the site, the following environmental monitoring activities were completed in 2016:

- Annual groundwater sampling
- Annual surface water sampling
- Annual sediment sampling
- Monthly O&M sampling
- Annual Site Inspection

Groundwater, surface water, and sediment sampling was conducted at the site in the months of May and June 2016. The following sections describe the 2016 monitoring activities in further detail. The O&M upgrades and monthly sampling are reported separately in a monthly report to the NYSDEC.



## 2 GROUNDWATER MONITORING PROGRAM

The 15-month groundwater monitoring was conducted in May 2016 to satisfy the sampling frequency requirement as defined in the site SMP. The site SMP called for sampling 13 onsite monitoring wells (MW-1, MW-1A, MW-1D, MW-2, MW-2A, MW-4, MW-5, MW-06A, MW-6B, MW-6C, MW-7, MW-8, and MW-NEW), and three extraction wells EW-1 through EW-3 (Figure 2). The next scheduled groundwater sampling event will be in Third Quarter 2017.

### 2.1 Groundwater Monitoring Well Inspection

The integrity of each well was inspected and the results recorded on a groundwater monitoring well inspection form (Appendix A). As indicated in the inspection forms, the monitoring wells are in acceptable condition and no significant problems were reported.

### 2.2 Water Level Survey

The network of monitoring wells has been installed to monitor both upgradient and down-gradient groundwater conditions at the site (Figure 2). Prior to sampling each well, depth to water was measured to the nearest hundredth of a foot using an electronic water level indicator. A summary of these data is presented on Table 1.

Groundwater flow in the unconsolidated saturated zone is generally toward the east-southeast, consistent with previous measurements. Potentiometric contours based on groundwater levels measured in May 2016 are presented on Figure 2.

### 2.3 Groundwater Sampling

Each monitoring and extraction well was purged of three well volumes using either a Monsoon® pump with low-flow sampling controller or a peristaltic pump, each with single-use disposable tubing. Prior to use at each monitoring well, the Monsoon® pump was decontaminated by a liquinox bath followed by a distilled water rinse. Monitoring well MW-5 lacked sufficient water to be purged using the above method, therefore a grab sample was collected using a dedicated bailer and no purging was completed before collecting the sample.

After purging up to three well volumes of groundwater, the groundwater was pumped through a flow cell equipped with a multi-parameter probe (e.g., YSI®) and temperature, conductivity, pH, turbidity, dissolved oxygen, and oxidation/reduction potential of the water were recorded on the sampling logs. The measurements are noted on the inspection logs and sampling logs in Appendix A and Appendix B, respectively. All groundwater samples were bottled in laboratory-provided containers in a decreasing order of volatility. Samples were packed on ice, placed in cooler, and submitted under standard Chain-of-Custody (COC) procedures to TestAmerica. The samples were submitted for VOCs, TAL metals, PCBs, phenol, hardness as calcium carbonate, total organic carbon, methane, biochemical oxygen demand, total dissolved solids, sulfide, nitrate, alkalinity, ammonia, COD, phosphorus, and total suspended solids. A summary of the samples collected and their respective analysis is presented on Tables 2 through 6. The laboratory analytical data are provided in Appendix C.

## 2.4 Analytical Results

Thirteen monitoring wells and three extraction wells (listed above in section 2.0) were sampled on May 12 through May 20, 2016 by Aztech in accordance with the SMP requirements. Analytical results were compared to previous results at each sampling location and to the applicable New York State Ambient Water Quality Standards and Guidance Values (Class GA for groundwater) as provided under NYSDEC Technical & Operational Guidance Series (TOGS) 1.1.1.

### 2.4.1 VOCs

VOCs were reported at concentrations greater than the NYSDEC Class GA Standards in samples from MW-1A, MW-5, MW-6A, MW-6C, EW-1, EW-2 and EW-3, as summarized below:

- Acetone and 2-butanone (methyl ethyl ketone - MEK) at upgradient well MW-1A at concentrations of 120 micrograms per liter ( $\mu\text{g/L}$ ) and 320  $\mu\text{g/L}$ , respectively.
- Cis-1,2-dichloroethene (59  $\mu\text{g/L}$  and 260  $\mu\text{g/L}$ ,) and vinyl chloride (1,200  $\mu\text{g/L}$  and 910  $\mu\text{g/L}$ ) at MW-5 and EW-1, respectively.
- 1,2,4-trichlorobenzene (12  $\mu\text{g/L}$ ), 1,3-dichlorobenzene (6.0  $\mu\text{g/L}$ ), and 1,4-dichlorobenzene (4.3  $\mu\text{g/L}$ ) at MW-6A.
- Benzene and chlorobenzene at MW-6C at concentrations of 3.4  $\mu\text{g/L}$  and 24  $\mu\text{g/L}$ , respectively.
- Benzene at EW-2 with a concentration of 5.2  $\mu\text{g/L}$ .
- 1,4-dichlorobenzene (5.7  $\mu\text{g/L}$ ), benzene (5.4  $\mu\text{g/L}$ ), and chlorobenzene (34  $\mu\text{g/L}$ ) at EW-3.

The VOC concentrations are summarized in Table 2. Concentration trends for VOCs are shown in Figure 6 and discussed in Section 5.

### 2.4.2 PCBs

Total PCB concentrations were estimated or detected above the NYSDEC Class GA Standard in 10 of the 16 wells during the 2016 sampling event: MW-1A, MW-4, MW-5, MW-6A, MW-6B, MW-6C, MW New Well, EW-1, EW-2, and EW-3. Total PCB concentrations ranged from non-detect to 970  $\mu\text{g/L}$  in EW-1. These results are summarized in Table 3.

### 2.4.3 Metals

At least one inorganic parameter was detected at a concentration greater than the respective NYSDEC Class GA Standards at each of the 16 monitoring wells during the 2016 sampling event, with the exception of MW-8 (Table 4). The most frequent exceedances were in iron, magnesium, manganese, and sodium concentrations. Results are discussed below.

### Iron

Iron concentrations exceeded the NYSDEC Class GA Standard (0.3 milligrams per liter [mg/L]) in 13 of the 16 wells sampled during the 2016 sampling event. Concentrations ranged from 0.073 mg/L (MW-8) to 1,530 mg/L (EW-1) (Table 4). Concentration trends of iron are shown on Figure 7 and discussed in Section 4.

### Magnesium

Six of the 16 groundwater samples in 2016 had concentrations of magnesium that exceeded the NYSDEC guidance value (35 mg/L). As shown in Table 4, concentrations of magnesium ranged from 1.3 mg/L in MW-6B to 168 mg/L in MW New Well. Magnesium concentration trends are shown on Figure 8 and discussed below in Section 4.

### Manganese

Concentrations of manganese exceeded the NYSDEC Class GA Standard (0.3 mg/L) in nine wells during the 2016 groundwater sampling event (Table 4). Trends of manganese concentrations are shown in Figure 9 and discussed in Section 4. The lowest concentration of manganese was seen in MW-1 (0.0007 mg/L), and the highest concentration of manganese was in monitoring well MW-7 (4.2 mg/L).

### Sodium

Sodium concentrations exceeded the NYSDEC Class GA Standard (20 mg/L) in 13 of the 16 wells sampled during the 2016 sampling event. Concentrations ranged from 2.4 in MW-7 to 155 mg/L in monitoring well New Well (Table 4). Concentration trends of sodium are shown in Figure 10 and discussed below in Section 4.

In samples from MW-5, EW-1, and EW-2, several other metals were detected above the NYSDEC Class GA Standards. These metals include arsenic (MW-5, EW-1 and EW-2), barium and nickel (EW-1) and chromium (MW-5 and EW-1). These results were inconsistent with previous results, and will be specifically evaluated during the next sampling event.

## **2.4.4 General Chemistry**

The NYSDEC TOGS 1.1.1 has only a few guidance values and standards for the list of general chemistry parameters, including ammonia, ammonia nitrogen, nitrate as N, nitrite as N, and sulfate. Of the five listed above only two had concentrations above the NYSDEC Class GA Standards. Ammonia was detected in samples from five monitoring wells (EW-1, EW-3, MW-5, MW-6A and MW-6C) above the NYSDEC Class GA Standard (2 mg/L) with concentrations ranging from 4.5 mg/l to 100 mg/L. Ammonia nitrogen was detected in samples from six monitoring wells (EW-1, EW-2, EW-3, MW-5, MW-6A, and MW-6C) above the NYSDEC Class GA Standard (2 mg/L). Concentrations ranged from 2.5 mg/L to 122 mg/L (Table 5).

## **2.4.5 SVOC and Methane Data**

Phenol (a SVOC) and dissolved methane were analyzed in each sample. Phenol was not detected in any of the samples with the exception of EW-1, where an estimated concentration of 4.7 J µg/L was reported above the NYSDEC Class GA Standard (1.0 µg/L).

Methane was detected in all wells with the exception of upgradient well MW-1. Detected methane concentrations ranged from an estimated value of 1.7  $\mu\text{g/L}$  in MW-8 to 4,500  $\mu\text{g/L}$  in EW-2. There is no NYSDEC guidance value for methane, however dissolved methane results can be used to indicate the presence of anaerobic degradation by naturally-occurring microorganisms in groundwater.

## 3 SURFACE WATER AND SEDIMENT SAMPLING

Surface water and sediment sampling were collected by Aztech during the 2016 sampling event. Surface water samples were collected on May 16 and May 20, 2016 at sample locations Surface 1 through Surface 3 and analyzed for VOCs, PCBs, metals, general chemistry, SVOC (phenol) and dissolved gasses (methane). Sediment samples were collected on June 24, 2016 at locations Sediment 1 and Sediment 2 and analyzed for VOCs, PCBs, and metals.

### 3.1 Surface Water

Surface water sample analytical results are discussed below and are summarized in Tables 7 through 11.

VOCs were not reported above laboratory detection limits in any of the surface water locations with the exception of a low estimated concentration of acetone at locations Surface 1 and Surface 3 (3.7  $\mu\text{g/L}$  for each) and a concentration of 21  $\mu\text{g/L}$  at Surface 2. Toluene and estimated concentrations of 2-Butanone, benzene, carbon disulphide, and Methyl tert-butyl ether were also detected at sample location Surface 2 (Table 7).

PCBs were non-detect at all three locations with the exception of an estimated concentration at Surface 2 and Surface 3. PCB concentrations for surface water samples are provided on Table 8.

Metals were detected in one or more of the surface water samples collected during the 2016 sampling event, including aluminium, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, sodium, vanadium, zinc, and mercury. Metal concentrations for surface water samples are provided on Table 9.

Alkalinity, ammonia, ammonia nitrogen, BOD, nitrate, nitrite, COD, hardness, sulfate, TDS, phosphorus, phosphate, TSS, and TOC were reported in one or more of the surface water samples collected during the 2016 sampling event. Leachate indicator parameter concentrations for surface water samples are provided on Table 10.

Phenols and methane concentrations are summarized in Table 11. Phenols were non-detect at all three locations. Methane was detected in Surface 2 (900  $\mu\text{g/L}$ ) and Surface 3 (25  $\mu\text{g/L}$ ).

### 3.2 Sediment

Sediment sample analytical results are discussed below and are summarized in Tables 12 through 14.

VOCs were not reported above laboratory detection limits in any of the sediment locations with the exception of estimated concentrations of acetone, cyclohexane, and methylcyclohexane at Sediment 1 and concentrations of 2-butanone and acetone at location Sediment 2 (Table 12).

Sediment 1 and Sediment 2 both had low concentrations of PCBs. PCB data are provided on Table 13.

## Fort Edward Landfill 2016 Annual Groundwater Monitoring Report

Metals were detected in one or more of the sediment samples collected during the 2016 sampling event, including arsenic, barium, cadmium, chromium, lead, silver, and mercury. Metal concentrations for sediment samples are provided on Table 14.

## 4 SUMMARY OF GROUNDWATER RESULTS

### 4.1 VOCs

VOCs were detected at concentrations above the NYSDEC Class GA Standards in the shallow delta sands (MW-5, MW-6C), the interbedded sand and clay (MW-6A), the deeper lacustrine clays (MW-1A) and in the landfill waste/delta sand interface (EW-1 through EW-3). MW-1A is located hydraulically upgradient of the landfill. Detections of the VOCs acetone and MEK in the May 2016 sample from MW-1A are inconsistent with previous results, not indicative of landfill-derived constituents, and appear to be anomalous.

The May 2016 analytical data for VOCs are summarized on Table 8 and Figure 3. Table 15 and Figure 6 show VOC concentration trends from May 1995 to August 2016 for MW-6A, MW-6B, and MW-6C. VOC totals from 1995 through 2000 include only concentrations of VOCs that were detected above NYSDEC Class GA Standards, however the 2007, 2008, 2011, 2012, 2015, and 2016 totals include all detections, whether above or below NYSDEC Class GA Standards.

Total VOC concentrations (for detected VOCs) have generally increased from 2007 through 2016 at MW-6A and MW-6C. At MW-6A, VOC concentrations increased from 8.0 µg/L to 67.7 µg/L between 2007 and 2011 and decreased to 28.18 µg/L in 2016. MW-6C total VOC concentrations remained relatively constant between 2007 and 2012 (at approx. 23 µg/L), but increased slightly to 40.75 µg/L in 2015 and 31.7 µg/L in 2016. No VOCs have been detected at MW-6B since May 1999, with the exception of a low total VOC concentration of 0.94 µg/L in 2015. These total VOC concentration trends will continue to be evaluated during the next event (Third Quarter 2017).

### 4.2 PCBs

Total PCB concentrations over NYSDEC Class GA Standards were detected in seven of the 13 monitoring wells and all three of the extraction wells sampled during the 2016 sampling event. (Table 3, Figure 4). PCBs were detected in all four geological units (including the landfill waste/delta sand interface) with the highest concentrations in samples from the three extraction wells. Total PCB levels are increasing across the site. Ongoing and planned upgrades to the Groundwater Water Treatment System and extraction wells are designed to improve groundwater collection and treatment of PCBs and other landfill-derived constituents.

### 4.3 Metals

A total of eight metals were detected in groundwater at concentrations exceeding the NYSDEC Class GA Standards. With the exception of the sample from MW-8, all samples contained one or more metals at concentrations exceeding the NYSDEC Class GA Standards. The most common metal exceeding its respective standard was iron. The analytical data is presented on Table 4 and Figure 5.

Historical data and a trend analysis for iron, magnesium, manganese, and sodium detected at six monitoring well locations (MW-2, MW-2A, MW-6A, MW-6B, MW-6C, MW-7) are summarized in Table 15

and presented in Figures 7 through 10. Iron concentrations continue to remain generally above the NYSDEC Class GA Standard (300 µg/L). Iron concentrations in each well have remained consistent, except in MW-6B, where they continue to fluctuate over several orders of magnitude (Figure 7).

With the exception of MW-6A, concentrations of magnesium (Figure 8 and Table 15) have decreased substantially (to well below the Class GA Guidance Value) in all wells since the May 2000 sampling event. From a historical perspective, the magnesium concentration in MW-6B in the 2007 event (69,600 µg/L) appears to be anomalous.

Figure 9 shows a historical graph for manganese concentrations. Wells in which concentrations exceeded the standard for manganese (300 µg/L) include MW-2, MW-2A, MW-6A, MW-6C and MW-7. Manganese concentrations have been relatively stable over time, except in samples from MW-6B.

MW-7 sodium concentrations remain below the NYSDEC Class GA Standard (20,000 µg/l). Concentrations of total sodium in MW-02, MW-2A, MW-6A, and MW-6B, (Table 4 and Figure 10) have remained relatively constant and above the NYSDEC Class GA Standard. The concentration of total sodium in MW-6C continues to fluctuate over time.

#### 4.4 General Chemistry

Ammonia and ammonia nitrogen were the only two constituents detected above the NYSDEC Class GA Standard (2 mg/L) with concentrations ranging from 4.5 mg/l to 100 mg/L in five locations and from 2.5 mg/L to 122 mg/L respectively in six locations (Table 5). The highest concentrations were in MW-5, EW-1 and EW-3 for both ammonia and ammonia nitrogen. General chemistry was not analyzed in 2015, however the 2016 general chemistry results are generally similar to results from 2012 and 2013. These detections, as well as other general chemistry parameter concentrations will continue to be monitored during the next event.

#### 4.5 SVOC and Methane Data

Table 6 summarizes the phenol and dissolved gasses (methane) results from the 2016 sampling event. Phenols were non-detect at all sampling locations with the exception of an estimated concentration at EW-1 above the NYSDEC Class GA Standard. In 2015 phenols were detected in MW-2 and MW-6B, but were below the NYSDEC Class GA Standard. Methane was detected in all locations with the exception of MW-1. Detected methane concentrations ranged from an estimated concentration of 1.7 J (µg/L) in MW-8 to 4,500 µg/L in EW-2.

Methane was analyzed in 2013 and 2016 with generally similar results. Several locations were non-detect and the highest concentrations were observed in EW-1, EW-2, EW-3 and MW-6C during both events.



## 5 CONCLUSIONS AND RECOMMENDATIONS

Groundwater, surface water, and sediment sampling was conducted at the site in the months of May and June 2016. Concentrations of VOCs appear to be increasing at MW-6A and MW-6C. Total PCB concentrations increased between 2015 and 2016 at MW-6A, MW-6B, MW-6C, EW-2 and EW-3, all located off the northeastern corner of the landfill. The highest total PCB concentration (970 µg/L) was detected in the May 2016 sample from EW-1, consistent with previous results.

A total of eight metals were detected in groundwater at concentrations exceeding the NYSDEC Class GA Standards, with iron concentrations exceeding in the majority of the wells. In general, most of the detected metals remain consistent with historical results or show decreasing trends. The general chemistry parameters as well as the methane and phenol concentrations will continue to be monitored. Surface water and sediment will continue to be analyzed in accordance with the SMP.

As part of the corrective measures process, leachate collection and treatment system upgrades are ongoing and will be completed in 2017. Once these system upgrades are fully functional and operating as designed, the performance of the systems and groundwater quality will be evaluated and documented in the annual groundwater report. If needed, at this time recommendations will be made to better improve the groundwater monitoring program after the next groundwater sampling event, which is scheduled for August 2017.

# TABLES



**Table 1**  
**Summary of Water Level Data**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well ID	Elevation of Riser*	Depth to Water May 2016	Groundwater Elevation May 2016
MW-1	258.87	41.03	217.84
MW-1A	257.51	40.65	216.86
MW-1D	NA	38.91	NA
MW-2	192.59	7.24	185.35
MW-2A	192.4	8.42	183.98
MW-4	NA	6.33	NA
MW-5	NA	7.50	NA
MW-06A	193.61	10.71	182.90
MW-6B	193.68	16.32	177.36
MW-6C	193.08	8.00	185.08
MW-7	203.43	17.61	185.82
MW-08	240.24	7.74	232.50
NEW-MW	---	6.30	---
UI-MW-1	---		---
UI-MW-2	---		---
UI-MW-3	---		---
UI-MW-4	---		---

Notes:

All measurements in feet.

\* Elevation Data from URS 1995 survey

--- = Well could not be located

NA - Not available

Table 2  
Volatile Organic Compound Analytical Results for 2016 Groundwater  
Fort Edward Landfill, Fort Edward, NY  
NYSDEC Site # 558001

Well ID	NYSDEC Class GA Standard or Guidance <sup>1</sup>	MW-1	MW-1A	MW-1D	MW-2	MW-2A	MW-4	MW-5	MW-6A	MW-6B	MW-6C	MW-7	MW-8	MW New Well	DUP-01	EW-1	EW-2	EW-3
		5/12/2016	5/17/2016	5/12/2016	5/17/2016	5/17/2016	5/17/2016	5/19/2016	5/20/2016	5/20/2016	5/20/2016	5/16/2016	5/17/2016	5/19/2016	5/17/2016	5/18/2016	5/18/2016	5/18/2016
1,1,1-Trichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,2-Dibromoethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	6.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	4.3	1.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	5.7
2-Butanone (MEK)	50	10 U	320	10 U	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	10 U	20 U
2-Hexanone	50*	5.0 U	11	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	10 U
4-Methyl-2-pentanone (MIBK)	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	100 U	5.0 U	10 U
Acetone	50*	10 U	120	10 U	10 U	10 U	10 U	200 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	200 U	5.3 J	20 U
Benzene	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	0.54 J	1.0 U	3.4	1.0 U	1.0 U	1.0 U	1.0 U	20 U	5.2	5.4
Bromodichloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Carbon disulfide	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	3.9	1.0 U	24	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.6	34
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Chloromethane	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	59	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	260	1.0 U	2.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Cyclohexane	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.7	0.6	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Isopropylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Methyl acetate	--	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	50 U	2.5 U	5.0 U
Methyl tert-butyl ether	10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	0.24 J	1.0 U	0.6 J	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Methylcyclohexane	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20 U	1.0 U	2.0 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	910	1.0 U	2.0 U
Xylenes, Total	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	40 U	2.0 U	4.0 U

Notes:

1 NYSDEC Class GA standards and guidance values are taken from the Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998.

-- No regulatory criteria exists for respective analyte

\*Guidance Value

\*\*Sum of these compounds can not exceed 0.4 ug/L

J = Detected but below the reporting limit, therefore result is an estimated concentration

U = Not detected. Reporting limit provided

Gray shading with a bold value indicates analyte exceeds NYSDEC GA Standard/ Guidance Value

All units are in micrograms per liter (ug/L)

Locations EW-1, EW-2, and EW-3 are labeled as E-1, E-2, and E-3 respectively on the sample logs and within the laboratory data package.

Table 3  
 PCB Analytical Results for 2016 Groundwater  
 Fort Edward Landfill, Fort Edward, NY  
 NYSDEC Site # 558001

Well ID	NYSDEC Class GA Standard or Guidance <sup>1</sup>	MW-1	MW-1A	MW-1D	MW-2	MW-2A	MW-4	MW-5	MW-6A	MW-6B	MW-6C	MW-7	MW-8	MW New Well	DUP-01	EW-1	EW-2	EW-3
Sampling Date		5/12/2016	5/17/2016	5/12/2016	5/17/2016	5/17/2016	5/17/2016	5/19/2016	5/20/2016	5/20/2016	5/20/2016	5/16/2016	5/17/2016	5/19/2016	5/17/2016	5/18/2016	5/18/2016	5/18/2016
PCB-1016	--	0.46 U	0.45 J	0.47 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	0.46 U	0.46 U	0.46 U	0.47 U	0.46 U	48 U	19 U	0.96 U
PCB-1221	--	0.46 U	0.46 U	0.47 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	0.46 U	0.46 U	0.46 U	0.47 U	0.46 U	48 U	19 U	0.96 U
PCB-1232	--	0.46 U	0.46 U	0.47 U	0.46 U	0.46 U	0.27 J	0.54	14	29	15	0.46 U	0.46 U	4.9	0.25 J	970	400	23
PCB-1242	--	0.46 U	0.46 U	0.47 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	0.46 U	0.46 U	0.46 U	0.47 U	0.46 U	48 U	19 U	0.96 U
PCB-1248	--	0.46 U	0.46 U	0.47 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	0.46 U	0.46 U	0.46 U	0.47 U	0.46 U	48 U	19 U	0.96 U
PCB-1254	--	0.46 U	0.46 U	0.47 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	0.46 U	0.46 U	0.46 U	0.47 U	0.46 U	48 U	19 U	0.96 U
PCB-1260	--	0.46 U	0.46 U	0.47 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	0.46 U	0.46 U	0.46 U	0.47 U	0.46 U	48 U	19 U	0.96 U
<b>Total PCB</b>	0.09*	0.46 U	<b>0.45 J</b>	0.47 U	0.46 U	0.46 U	<b>0.27 J</b>	<b>0.54</b>	<b>14</b>	<b>29</b>	<b>15</b>	1.46 U	0.46 U	<b>4.9</b>	<b>0.25 J</b>	<b>970</b>	<b>400</b>	<b>23</b>

Notes:

1 NYSDEC Class GA standards and guidance values are taken from the Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998.

-- No regulatory criteria exists for respective analyte

\*Sum of these compounds can not exceed 0.09 ug/L.

J = Detected but below the reporting limit, therefore result is an estimated concentration.

U = Not detected. Reporting limit provided.

Gray shading with a bold value indicates analyte exceeds NYSDEC GA Standard/ Guidance Value

All units are in micrograms per liter (ug/L)

Locations EW-1, EW-2, and EW-3 are labeled as E-1, E-2, and E-3 respectively on the sample logs and within the laboratory data package.

**Table 4**  
**Metals Analytical Results for 2016 Groundwater**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well ID	NYSDEC Class GA Standard or Guidance <sup>1</sup>	MW-1	MW-1A	MW-1D	MW-2	MW-2A	MW-4	MW-5	MW-6A	MW-6B	MW-6C	MW-7	MW-8	MW New Well	DUP-01	EW-1	EW-2	EW-3
Sampling Date		5/12/2016	5/17/2016	5/12/2016	5/17/2016	5/17/2016	5/17/2016	5/19/2016	5/20/2016	5/20/2016	5/20/2016	5/16/2016	5/17/2016	5/19/2016	5/17/2016	5/18/2016	5/18/2016	5/18/2016
Aluminum	--	0.2 U	0.42	0.095 J	0.2 U	0.2 U	1.0	41.8	0.085 J	0.2 U	0.2 U	0.2 U	0.2 U	0.16 J	1.5	19.6	0.2 U	0.2 U
Antimony	0.003	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.10 U	0.02 U	0.02 U
Arsenic	0.025	0.015 U	0.0067 J	0.015 U	0.015 U	0.015 U	0.015 U	<b>0.042</b>	0.015	0.0087 J	0.015	0.0087 J	0.015 U	0.015 U	0.015 U	<b>0.14</b>	<b>0.028</b>	0.015 U
Barium	1	0.021	0.011	0.55	0.014	0.069	0.057	0.75	0.12	0.0066	0.029	0.02	0.02	0.058	0.064	<b>3.2 J</b>	0.18	0.36
Beryllium	0.003	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0018 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0014	0.002 U	0.002 U
Cadmium	0.005	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.00064 J	0.00053 J	0.00073 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.012	0.002 U	0.002 U
Calcium	--	49.3	11.4	20.8	76	41.8	104	135	98.7	7.6	72.9	56.6	70.9	68.7	108	160	105	81
Chromium	0.05	0.004 U	0.0022 J	0.004 U	0.004 U	0.005	0.0043	<b>0.052</b>	0.0029 J	0.004 U	0.0052	0.004 U	0.004 U	0.004 U	0.0038 J	<b>0.26</b>	0.0019 J	0.003 J
Cobalt	--	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.034	0.0025 J	0.004 U	0.022	0.024	0.004 U	0.004 U	0.004 U	0.0052 J	0.0011 J	0.0075
Copper	0.2	0.01 U	0.0022 J	0.01 U	0.0049 J	0.01 U	0.0035 J	0.044	0.0067 J	0.0019 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0022 J	0.14	0.0044 J	0.0017 J
Iron	0.3	0.079	<b>0.48 B</b>	0.2 B	<b>5.3 B</b>	<b>10.8 B</b>	<b>7.1 B</b>	<b>100</b>	<b>19.7</b>	<b>0.34</b>	<b>106</b>	<b>157</b>	0.073 B	<b>1.4</b>	<b>5.4 B</b>	<b>1530</b>	<b>30.3</b>	<b>33.9</b>
Lead	0.025	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.05	0.0052 J	0.01 U	0.0042 J	0.006 J	0.01 U	0.01 U	0.01 U	0.18	0.0032 J	0.0034 J
Magnesium	35	11.5	1.5	5.3	11.8	14.7	25.9	<b>56</b>	<b>41.9</b>	1.3	14.6	12.1	14.5	<b>168</b>	26.3	<b>38.3</b>	<b>39.4</b>	<b>44.3</b>
Manganese	0.3	0.0007	0.025 B	0.017	<b>0.35 B</b>	<b>0.4 B</b>	<b>0.51 B</b>	<b>1.7</b>	<b>1.7</b>	0.027	<b>1.5</b>	<b>4.2</b>	0.021 B	0.035	<b>0.51 B</b>	<b>2.4</b>	<b>0.68</b>	0.16
Nickel	0.1	0.01 U	0.0015 J B	0.01 U	0.01 U	0.0054 J B	0.0038 J B	0.069	0.011	0.01 U	0.0065 J	0.01 U	0.01 U	0.0013 J	0.0029 J B	<b>0.17</b>	0.0091 J	0.013
Potassium	--	1.1	0.58	3.2	1.7	1.5	2.3	20.3	8.1	0.8	5.4	1.6	0.99	1.5	1.8	15.1	3.7	57.4
Selenium	0.01	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
Silver	0.05	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.03 U	0.006 U	0.006 U
Sodium	20	<b>44.3</b>	<b>22.7</b>	<b>46.4</b>	<b>37.7</b>	<b>41.8</b>	<b>24.1</b>	<b>227</b>	<b>39</b>	<b>39.4</b>	10.9	2.4	15.2	<b>155</b>	<b>20.9</b>	<b>89.4</b>	<b>100</b>	<b>146</b>
Thallium	0.0005	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.10 U	0.02 U	0.02 U
Vanadium	--	0.005 U	0.005 U	0.005 U	0.0015 J	0.005 U	0.0025 J	0.095	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.002 J	0.091	0.005 U	0.011
Zinc	2	0.0021	0.0046 J	0.011	0.01 U	0.01 U	0.017	0.29	0.0044 J	0.016	0.0022 J	0.0058 J B	0.0036 J	0.01 U	0.0058 J	1.3	0.0068 J	0.034
Mercury	0.0007	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U

Notes:

- 1 NYSDEC Class GA standards and guidance values are taken from the Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998.
- Gray shading with a bold value indicates analyte exceeds NYSDEC GA Standard/ Guidance Value
- NYSDEC = New York State Department of Environmental Conservation
- B = Compound was found in the blank and sample.
- J = Detected but below the reporting limit, therefore result is an estimated concentration.
- U = Not detected. Method Detection Limit (MDL) shown.
- No standard or guidance value
- All units are in milligrams per liter (mg/L)
- Locations EW-1, EW-2, and EW-3 are labeled as E-1, E-2, and E-3 respectively on the sample logs and within the laboratory data package.

**Table 5**  
**General Chemistry Analytical Results for 2016 Groundwater**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well ID	NYSDEC Class GA Standard or Guidance <sup>1</sup>	MW-1	MW-1A	MW-1D	MW-2	MW-2A	MW-4	MW-5	MW-6A	MW-6B	MW-6C	MW-7	MW-8	MW New Well	DUP-01	EW-1	EW-2	EW-3
Sampling Date		5/12/2016	5/17/2016	5/12/2016	5/17/2016	5/17/2016	5/17/2016	5/19/2016	5/20/2016	5/20/2016	5/20/2016	5/16/2016	5/17/2016	5/19/2016	5/17/2016	5/18/2016	5/18/2016	5/18/2016
Alkalinity, Total	--	140 B	57.5	183 B	200 B	91.8 B	328 B	771 B	506 B	90.7 B	290 B	159 B	228 B	1030 B	321 B	477 B	497 B	999 B
Ammonia	2*	0.02 U	0.099	1.0	0.17	0.066	0.12	<b>34.4</b>	<b>6.1</b>	0.02 U	<b>4.5</b>	0.41	0.02 U	0.02 U	0.12	<b>15.4</b>	2.0	<b>100</b>
Ammonia as NH3	2*	0.024 U	0.12	1.3	0.21	0.08	0.14	<b>41.8</b>	<b>7.4</b>	0.024 U	<b>5.5</b>	0.49	0.024 U	0.024 U	0.15	<b>18.8</b>	<b>2.4</b>	<b>122</b>
Nitrate as N	10	2.4	0.024 J	0.05 U	0.05 U	0.05 U	0.05 U	0.42	0.05 U	0.28	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Nitrite as N	1	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.061	0.05 U	0.05 U	0.05 U	0.13	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Chemical Oxygen Demand	--	10 U	10 U	10 U	10 U	10 U	10 U	207	6.4 J	10 U	26	24.1	10 U	9.5 J	10 U	427	83.9	141
Sulfate	250	32.4 B	9.4 B	9.5 B	3.0 J B	36.8 B	46.1 B	2.0 J B	3.2 J B	3.7 J B	15.9 B	4.0 J B	26.8 B	115 B	42.0 B	1.9 J B	1.7 J B	1.7 J B
Total Organic Carbon	--	1.0 U	5.0 U	1.0 U	4.1	1.7	3.1	65	5.3	1.7	7.2	3.1	0.52 J	4.2	3.0	17.1	28.3	54.6
Hardness as calcium carbonate	--	168	36	1000	232	236	350	504	428	24	256	208	152	810	368	440	440	384
Total Dissolved Solids	--	305	66	185	648	271	392	1180	519	115	411	367	252	1060	391	790	708	868
Phosphorus	--	0.021	0.15	0.01 U	0.061	10 U	10 U	1.8	0.15	0.12	0.66	0.14	10 U	0.008 J	0.1	14.7	0.54	0.26
Phosphorus as PO4	--	0.064	0.47	0.031 U	0.19	0.01 U	0.01 U	5.6	0.45	0.38	2.0	0.44	0.01 U	0.025 J	0.32	45.1	1.7	0.79
Sulfide	--	0.1 U	0.031 U	0.1 U	0.1 U	0.031 U	0.13	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.031 U	0.10 U	0.031 U	0.10 U	0.10 U	0.10 U
Biochemical Oxygen Demand	--	2.0 U	2.6	2.0 U	2.0 U	0.1 U	0.1 U	20.1	2.0	2.0 U	13.7	16.2	0.1 U	2.0 U	3.3	>39.48	28.9	23.9
Total Suspended Solids	--	4.0 U	6.4	8.0	5.6	6.0	32.4	4280	62.4	4.00 U	44.8	44.4	4.0 U	6.8	75.2	3140	53.6	49.2

Notes:

1 NYSDEC Class GA standards and guidance values are taken from the Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998.

\* NH<sub>3</sub> + NH<sub>4</sub><sup>+</sup> as N

-- No regulatory criteria exists for respective analyte

J = Detected but below the reporting limit, therefore result is an estimated concentration

U = Not detected. Reporting limit provided.

Gray shading with a bold value indicates analyte exceeds NYSDEC GA Standard/ Guidance Value

All units are in milligrams per liter (mg/L)

Locations EW-1, EW-2, and EW-3 are labeled as E-1, E-2, and E-3 respectively on the sample logs and within the laboratory data package.

**Table 6**  
**Semi-Volatile Organic Compounds and Dissolved Gases Analytical Results for 2016 Groundwater**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well ID	NYSDEC Class GA Standard or Guidance <sup>1</sup>	MW-1	MW-1A	MW-1D	MW-2	MW-2A	MW-4	MW-5	MW-6A	MW-6B	MW-6C	MW-7	MW-8	MW New Well	DUP-01	EW-1	EW-2	EW-3
Sampling Date		5/12/2016	5/17/2016	5/12/2016	5/17/2016	5/17/2016	5/17/2016	5/19/2016	5/20/2016	5/20/2016	5/20/2016	5/16/2016	5/17/2016	5/19/2016	5/17/2016	5/18/2016	5/18/2016	5/18/2016
<b>SVOCs</b>																		
Phenols	1*	4.7 U	4.7 U	4.8 U	4.6 U	4.6 U	4.6 U	4.7 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	<b>4.7 J</b>	4.6 U	4.7 U
<b>Dissolved Gases</b>																		
Methane	--	4.0 U	41	41	140	8.6	61	200	190	3.9 J	2500	870	1.7 J	20	63	2900	4500	1800

Notes:

1 NYSDEC Class GA standards and guidance values are taken from the Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998.

\* Applies to sum of substances

J = Detected but below the reporting limit, therefore result is an estimated concentration.

U = Not detected. Reporting limit provided.

Gray shading with a bold value indicates analyte exceeds NYSDEC GA Standard/ Guidance Value

All units are in micrograms per liter (ug/L)

Locations EW-1, EW-2, and EW-3 are labeled as E-1, E-2, and E-3 respectively on the sample logs and within the laboratory data package.

-- No regulatory criteria exists for respective analyte



**Table 7**  
**Volatile Organic Compounds Analytical Results**  
**for 2016 Surface Water**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC # 558001**

Well	Surface 1	Surface 2	Surface 3
Date	5/16/2016	5/20/2016	5/20/2016
Units	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	1.0 U	1.0	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0 U	1.0	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0	1.0 U
1,1-Dichloroethane	1.0 U	1.0	1.0 U
1,1-Dichloroethene	1.0 U	1.0	1.0 U
1,2,4-Trichlorobenzene	1.0 U	1.0	1.0 U
1,2-Dibromo-3-Chloropropane	1.0 U	1.0	1.0 U
1,2-Dibromoethane	1.0 U	1.0	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0	1.0 U
1,2-Dichloroethane	1.0 U	1.0	1.0 U
1,2-Dichloropropane	1.0 U	1.0	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0	1.0 U
2-Butanone (MEK)	10 U	<b>3.3 J</b>	10 U
2-Hexanone	5 U	5.0	5.0 U
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0	5.0 U
Acetone	<b>3.7 J</b>	<b>21</b>	<b>3.7 J</b>
Benzene	1.0 U	<b>0.56 J</b>	1.0 U
Bromodichloromethane	1.0 U	1.0	1.0 U
Bromoform	1.0 U	1.0	1.0 U
Bromomethane	1.0 U	1.0	1.0 U
Carbon disulfide	1.0 U	<b>0.34 J</b>	1.0 U
Carbon tetrachloride	1.0 U	1.0	1.0 U
Chlorobenzene	1.0 U	1.0	1.0 U
Chloroethane	1.0 U	1.0	1.0 U
Chloroform	1.0 U	1.0	1.0 U
Chloromethane	1.0 U	1.0	1.0 U
cis-1,2-Dichloroethene	1.0 U	1.0	1.0 U
cis-1,3-Dichloropropene	1.0 U	1.0	1.0 U
Cyclohexane	1.0 U	1.0	1.0 U
Dibromochloromethane	1.0 U	1.0	1.0 U
Dichlorodifluoromethane	1.0 U	1.0	1.0 U
Ethylbenzene	1.0 U	1.0	1.0 U
Isopropylbenzene	1.0 U	1.0	1.0 U
Methyl acetate	2.5 U	2.5	2.5 U
Methyl tert-butyl ether	1.0 U	<b>0.32 J</b>	1.0 U
Methylcyclohexane	1.0 U	1.0	1.0 U
Methylene Chloride	1.0 U	1.0	1.0 U

**Table 7**  
**Volatile Organic Compounds Analytical Results**  
**for 2016 Surface Water**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC # 558001**

Well	Surface 1	Surface 2	Surface 3
Date	5/16/2016	5/20/2016	5/20/2016
Units	ug/L	ug/L	ug/L
Styrene	1.0 U	1.0	1.0 U
Tetrachloroethene	1.0 U	1.0	1.0 U
Toluene	1.0 U	<b>1.4</b>	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0	1.0 U
Trichloroethene	1.0 U	1.0	1.0 U
Trichlorofluoromethane	1.0 U	1.0	1.0 U
Vinyl chloride	1.0 U	1.0	1.0 U
Xylenes, Total	2.0 U	2.0	2.0 U

Notes:

U = Concentration not detected at or above the reporting limit

J = The concentration is an approximate value

**Bold** = Concentration detected above reporting limit

ug/L = Micrograms per Liter

**Table 8**  
**PCB Analytical Results for 2016 Surface Water**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well	Surface 1	Surface 2	Surface 3
Date	5/16/2016	5/20/2016	5/20/2016
Units	ug/L	ug/L	ug/L
PCB-1016	0.46 U	0.47 U	0.47 U
PCB-1221	0.46 U	0.47 U	0.47 U
PCB-1232	0.46 U	<b>0.26 J</b>	<b>0.38 J</b>
PCB-1242	0.46 U	0.47 U	0.47 U
PCB-1248	0.46 U	0.47 U	0.47 U
PCB-1254	0.46 U	0.47 U	0.47 U
PCB-1260	0.46 U	0.47 U	0.47 U

Notes:

U = Concentration not detected at or above the reporting limit

J = The concentration is an approximate value

**Bold** = Concentration detected above reporting limit

ug/L = Micrograms per Liter

**Table 9**  
**Metals Analytical Results for 2016 Surface Water**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well	Surface 1	Surface 2	Surface 3
Date	5/16/2016	5/20/2016	5/20/2016
Units	mg/L	mg/L	mg/L
Aluminum	0.2 U	<b>0.58</b>	<b>14.7</b>
Antimony	0.02 U	0.02 U	0.02 U
Arsenic	0.015 U	<b>0.007 J</b>	<b>0.017</b>
Barium	<b>0.0032</b>	<b>0.13</b>	<b>0.69</b>
Beryllium	0.002 U	0.002 U	<b>0.00091 J</b>
Cadmium	0.002 U	0.002 U	<b>0.0016 J</b>
Calcium	<b>45.2</b>	<b>98.5</b>	<b>111</b>
Chromium	0.004 U	<b>0.0011 J</b>	<b>0.017</b>
Cobalt	0.004 U	<b>0.0012 J</b>	<b>0.0091</b>
Copper	<b>0.0019 J</b>	<b>0.0018 J</b>	<b>0.025</b>
Iron	<b>0.46</b>	<b>39</b>	<b>237</b>
Lead	0.01 U	<b>0.0055 J</b>	<b>0.047</b>
Magnesium	<b>9.2</b>	<b>28.2</b>	<b>30.5</b>
Manganese	<b>0.027</b>	<b>0.5</b>	<b>7.9</b>
Nickel	0.01 U	<b>0.0083 J</b>	<b>0.019</b>
Potassium	<b>0.91</b>	<b>2.8</b>	<b>7.2</b>
Selenium	0.025 U	0.025 U	0.025 U
Silver	0.006 U	0.006 U	0.006 U
Sodium	<b>1.1</b>	<b>71</b>	<b>62.2</b>
Thallium	0.02 U	0.02 U	0.02 U
Vanadium	0.005 U	<b>0.0022 J</b>	<b>0.031</b>
Zinc	<b>0.0064 J B</b>	<b>0.0076 J</b>	<b>0.11</b>
Mercury	0.0002 U	0.0002 U	<b>0.00034</b>

Notes:

U = Concentration not detected at or above the reporting limit

B = Compound was found in the blank and the sample

J = The concentration is an approximate value

**Bold** = Concentration detected above reporting limit

mg/L = Milligrams per Liter

**Table 10**  
**General Chemistry Analytical Results for 2016 Surface Water**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well	Surface 1	Surface 2	Surface 3
Date	5/16/2016	5/20/2016	5/20/2016
Units	mg/L	mg/L	mg/L
Alkalinity, Total	<b>144 B</b>	<b>424 B</b>	<b>243 B</b>
Ammonia	0.02 U	<b>0.57</b>	<b>0.73</b>
Ammonia as NH3	0.024 U	<b>0.69</b>	<b>0.89</b>
Nitrate as N	<b>0.19</b>	0.05 U	<b>0.081</b>
Nitrite as N	0.05 U	0.05 U	<b>0.029 J</b>
Chemical Oxygen Demand	<b>26.4</b>	<b>111</b>	<b>146</b>
Sulfate	<b>2.0 J B</b>	5.0 U	<b>2.7 J B</b>
Total Organic Carbon	<b>7.1</b>	<b>31</b>	<b>22.1</b>
Hardness as calcium carbonate	<b>144</b>	<b>372</b>	<b>228</b>
Total Dissolved Solids	<b>165</b>	<b>694</b>	<b>387</b>
Phosphorus	0.01 U	<b>1.4</b>	<b>4</b>
Phosphorus as PO4	0.031 U	<b>4.2</b>	<b>12.3</b>
Sulfide	0.10 U	0.10 U	0.10 U
Biochemical Oxygen Demand	<b>3.4</b>	<b>177</b>	<b>9.0</b>
Total Suspended Solids	<b>19.2</b>	<b>836</b>	<b>156.0</b>

Notes:

U = Concentration not detected at or above the reporting limit

B = Compound was found in the blank and the sample

J = The concentration is an approximate value

**Bold** = Concentration detected above reporting limit

mg/L = Milligrams per Liter

**Table 11**  
**Semi-Volatile Organic Compounds and Dissolved Gases Analytical**  
**Results for 2016 Surface Water**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well	Surface 1	Surface 2	Surface 3
Date	5/16/2016	5/20/2016	5/20/2016
Units	ug/L	ug/L	ug/L
<b>SVOCs</b>			
Phenols	4.6 U	230 U	46 U
<b>Dissolved Gases</b>			
Methane	4.0 U	<b>900</b>	<b>25</b>

Notes:

U = Concentration not detected at or above the reporting limit

**Bold** = Concentration detected above reporting limit

ug/L = Micrograms per Liter

**Table 12**  
**Volatile Organic Compound Analytical Results for 2016 Sediment**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well	Sediment 1	Sediment 2
Date	6/24/2016	6/24/2016
Units	ug/Kg	ug/Kg
1,1,1-Trichloroethane	11 U	9.5 U
1,1,2,2-Tetrachloroethane	11 U	9.5 U
1,1,2-Trichloro-1,2,2-trifluoroethane	11 U	9.5 U
1,1,2-Trichloroethane	11 U	9.5 U
1,1-Dichloroethane	11 U	9.5 U
1,1-Dichloroethene	11 U	9.5 U
1,2,4-Trichlorobenzene	11 U	9.5 U
1,2-Dibromo-3-Chloropropane	11 U	9.5 U
1,2-Dibromoethane	11 U	9.5 U
1,2-Dichlorobenzene	11 U	9.5 U
1,2-Dichloroethane	11 U	9.5 U
1,2-Dichloropropane	11 U	9.5 U
1,3-Dichlorobenzene	11 U	9.5 U
1,4-Dichlorobenzene	54 U	48 U
2-Butanone (MEK)	54 U	<b>85</b>
2-Hexanone	54 U	48 U
4-Methyl-2-pentanone (MIBK)	54 U	48 U
Acetone	<b>41 J</b>	<b>350</b>
Benzene	11 U	9.5 U
Bromodichloromethane	11 U	9.5 U
Bromoform	11 U	9.5 U
Bromomethane	11 U	9.5 U
Carbon disulfide	11 U	9.5 U
Carbon tetrachloride	11 U	9.5 U
Chlorobenzene	11 U	9.5 U
Chloroethane	11 U	9.5 U
Chloroform	11 U	9.5 U
Chloromethane	11 U	9.5 U
cis-1,2-Dichloroethene	11 U	9.5 U
cis-1,3-Dichloropropene	11 U	9.5 U
Cyclohexane	<b>2.3 J</b>	9.5 U
Dibromochloromethane	11 U	9.5 U
Dichlorodifluoromethane	11 U	9.5 U
Ethylbenzene	11 U	9.5 U
Isopropylbenzene	11 U	9.5 U
Methyl acetate	11 U	9.5 U
Methyl tert-butyl ether	11 U	9.5 U
Methylcyclohexane	<b>1.7 J</b>	9.5 U
Methylene Chloride	11 U	9.5 U
Styrene	11 U	9.5 U
Tetrachloroethene	11 U	9.5 U
Toluene	11 U	9.5 U
trans-1,2-Dichloroethene	11 U	9.5 U
trans-1,3-Dichloropropene	11 U	9.5 U
Trichloroethene	11 U	9.5 U
Trichlorofluoromethane	11 U	9.5 U

**Table 12**  
**Volatile Organic Compound Analytical Results for 2016 Sediment**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well	Sediment 1	Sediment 2
Date	6/24/2016	6/24/2016
Units	ug/Kg	ug/Kg
Vinyl chloride	11 U	9.5 U
Xylenes, Total	22 U	19 U

Notes:

U = Concentration not detected at or above the reporting limit

J = The concentration is an approximate value

**Bold** = Concentration detected above reporting limit

ug/Kg = Micrograms per Kilogram



**Table 13**  
**PCB Analytical Results for 2016 Sediment**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well	Sediment 1	Sediment 2
Date	6/24/2016	6/24/2016
Units	ug/Kg	ug/Kg
PCB-1016	0.43 U	0.42 U
PCB-1221	0.43 U	0.42 U
PCB-1232	<b>0.60</b>	<b>0.60</b>
PCB-1242	0.43 U	0.42 U
PCB-1248	0.43 U	0.42 U
PCB-1254	0.43 U	<b>0.21 J</b>
PCB-1260	0.43 U	0.42 U

Notes:

U = Concentration not detected at or above the reporting limit

J = The concentration is an approximate value

**Bold** = Detected above reporting limit

ug/Kg = Micrograms per Killigram

**Table 14**  
**Metals Analytical Results for 2016 Sediment**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC # 558001**

Well	Sediment 1	Sediment 2
Date	6/24/2016	6/24/2016
Units	mg/Kg	mg/Kg
Arsenic	<b>3.5 J</b>	<b>7.0</b>
Barium	<b>51</b>	<b>130</b>
Cadmium	<b>0.13 J</b>	<b>0.23 J</b>
Chromium	<b>12.1</b>	<b>9.8</b>
Lead	<b>5.9</b>	<b>16.7</b>
Selenium	8.8 U	7.4 U
Silver	1.3 U	<b>0.91 J</b>
Mercury	<b>0.018 J</b>	<b>0.068</b>

Notes:

U = Concentration not detected at or above the reporting limit

J = The concentration is an approximate value

**Bold** = Concentration detected above reporting limit

mg/Kg = Milligram per Killigram

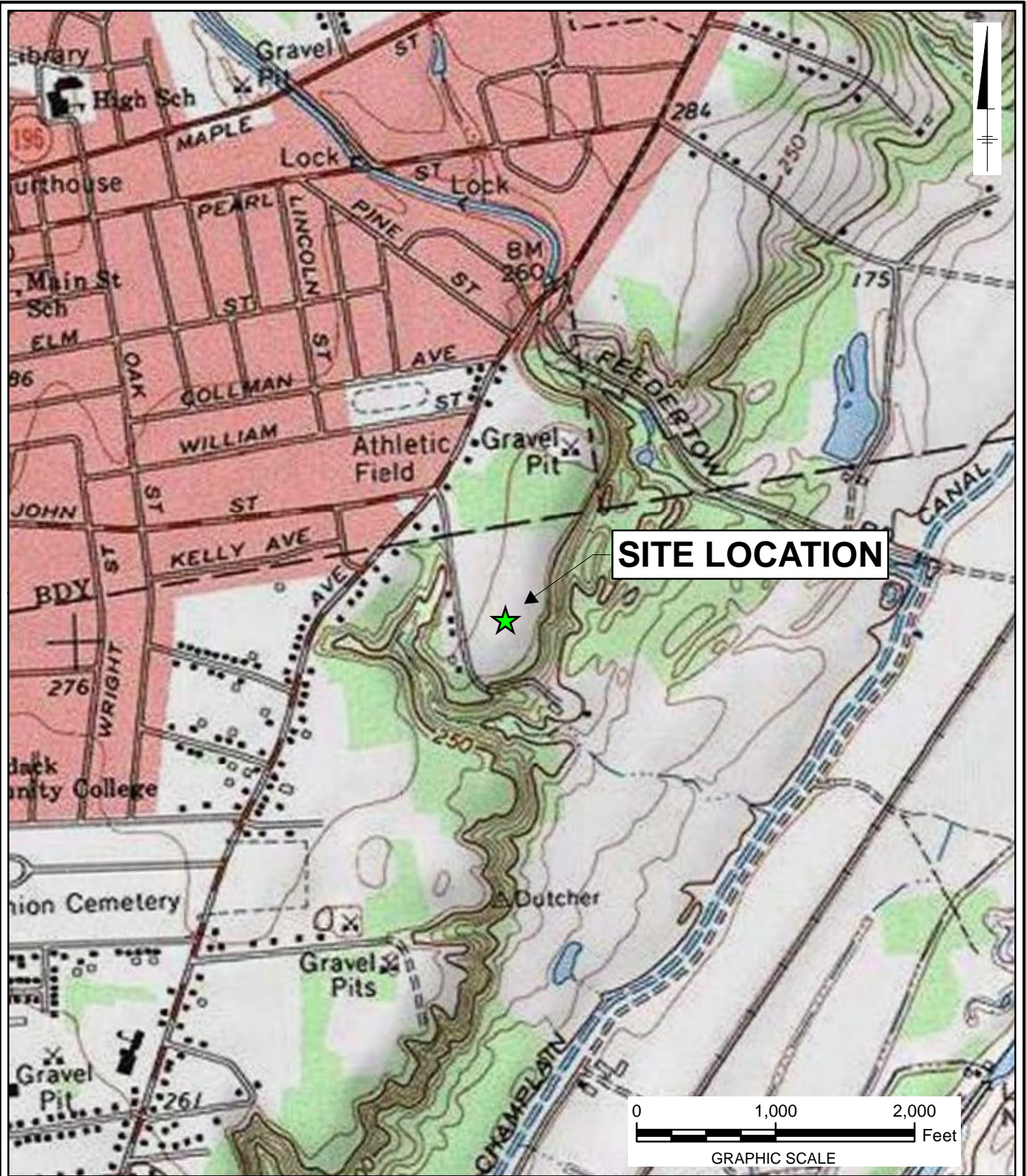
**Table 15**  
**Analytical Data May 1995 - May 2016**  
**Fort Edward Landfill, Fort Edward, NY**  
**NYSDEC Site # 558001**

Well ID	Parameter	NYSDEC TOGS 1.1.1	Sample Date										
			May-95	Aug-95	May-99	Oct-99	May-00	Jul-07	Oct-08	Oct-11	Sep-12	Jan-15	May-16
MW-02	Iron	300	1,270	8,030	7,620	2,900	15,000	9,860	5,320	4,740	2,800	1,700	5,300
	Magnesium	35,000 (GV)	62,300	71,400	31,800	31,000	25,000	11,300	14,700	10,900	13,400	14,800	11,800
	Manganese	300	1,350	2,320	1,940	1,300	500	423	684	544	600	850	350
	Sodium	20,000	76,100	106,000	37,700	51,000	28,000	60,100	61,700	54,000	66,100	42,700	37,700
MW-02A	Iron	300	4,620	4,890	4,830	8,600	13,000	15,200	11,200	11,200	9,100	10,700	10,800
	Magnesium	35,000 (GV)	16,900	21,500	22,300	24,000	24,000	17,400	15,900	15,900	14,600	15,200	14,700
	Manganese	300	414	492	505	430	700	459	319	376	300	300	400
	Sodium	20,000	18,700	27,000	23,000	26,000	28,000	28,900	31,200	29,300	42,400	42,700	41,800
MW-06A	TVOCs		30	ND	ND	2	ND	8	19	67.7	35.41	35.25	28.18
	Benzene	1	ND	ND	ND	2	ND	ND	ND	ND	ND	0.57	0.5
	Chloroform	7	30	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Iron	300	404	428	388	2,600	35,000	33,100	27,400	24,400	23,800	21,200	19,700
	Magnesium	35,000 (GV)	10,100	40,900	48,100	42,000	50,000	43,500	40,600	42,600	44,600	43,600	41,900
	Manganese	300	214	4,910	2,410	3,200	5,200	2,620	2,320	2,040	1,600	1,800	1,700
	Sodium	20,000	31,700	36,600	90,300	87,000	130,000	96,900	76,000	47,900	54,500	44,200	39,000
MW-06B	TVOCs		ND	30	8	ND	ND	ND	ND	ND	ND	0.94	ND
	Toluene	5	ND	30	8	ND	ND	ND	ND	ND	ND	ND	ND
	Iron	300	8,130	19,900	49,000	1,200	17,000	157,000	3,160	521	780	5,000	340
	Magnesium	35,000 (GV)	4,610	19,900	25,100	1,800	15,000	69,600	4,070	1,320	1,400	1,600	1,300
	Manganese	300	213	419	1,600	60	640	3,820	280	ND	22	68	27
	Sodium	20,000	44,600	44,700	42,700	39,000	47,000	54,800	46,400	33,100	42,800	39,900	39,400
MW-6C	TVOCs		112	83	26	38	ND	17	23	23	22.4	40.75	31.70
	Benzene	1	13	14	2	4	ND	ND	ND	ND	2.1	3.6	3.4
	Chlorobenzene	5	24	29	24	34	ND	17	23	23	18	33	24
	Xylene	5	68	40	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Vinyl Chloride	2	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Iron	300	37,400	63,700	49,300	80,000	84,000	135,000	120,000	139,000	103,000	106,000	106,000
	Magnesium	35,000 (GV)	40,700	46,700	45,000	28,000	51,000	17,200	16,500	16,400	12,700	16,300	14,600
	Manganese	300	651	499	1,930	2,300	2,300	4,360	2,610	3,230	1,800	1,500	1,500
	Sodium	20,000	199,000	283,000	71,100	100,000	84,000	3,370	17,700	3,300	6,100	8,600	10,900
	MW-07	Iron	300	23,600	30,800	8,060	2,200	17,000	217,000	143,000	188,000	146,000	154,000
Magnesium		35,000 (GV)	16,400	17,800	26,000	24,000	32,000	16,600	14,200	15,200	16,200	10,200	12,100
Manganese		300	1,080	1,000	4,040	4,900	15,000	12,600	7,800	6,570	6,600	4,600	4,200
Sodium		20,000	4,830	4,650	6,260	8,400	8,900	3,490	3,460	2,190	3,300	2,400	2,400

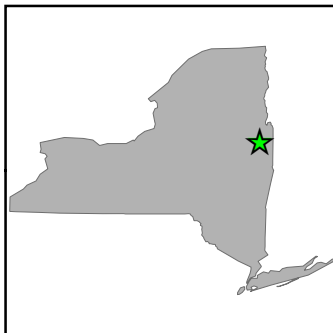
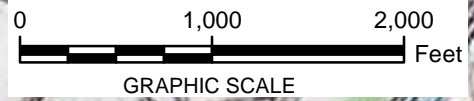
Notes:  
 All Concentrations are in µg/L  
 ND = Not detected above Method Detection Limit or the Reporting Limit  
 95-'00 Data Source: Final Evaluation and Assessment Report. Fort Edward Landfill. NYSDEC. July 2001. URS Consultants  
 Highlighted cells = Sample Exceeds NYSDEC Class GA Criteria; GV = Guidance Value

# FIGURES





**SITE LOCATION**



FORT EDWARD LANDFILL  
 LEAVY HOLLOW ROAD  
 FORT EDWARD, NEW YORK  
 HRP# NEW9622.OM  
**PERIODIC REVIEW REPORT 2016**

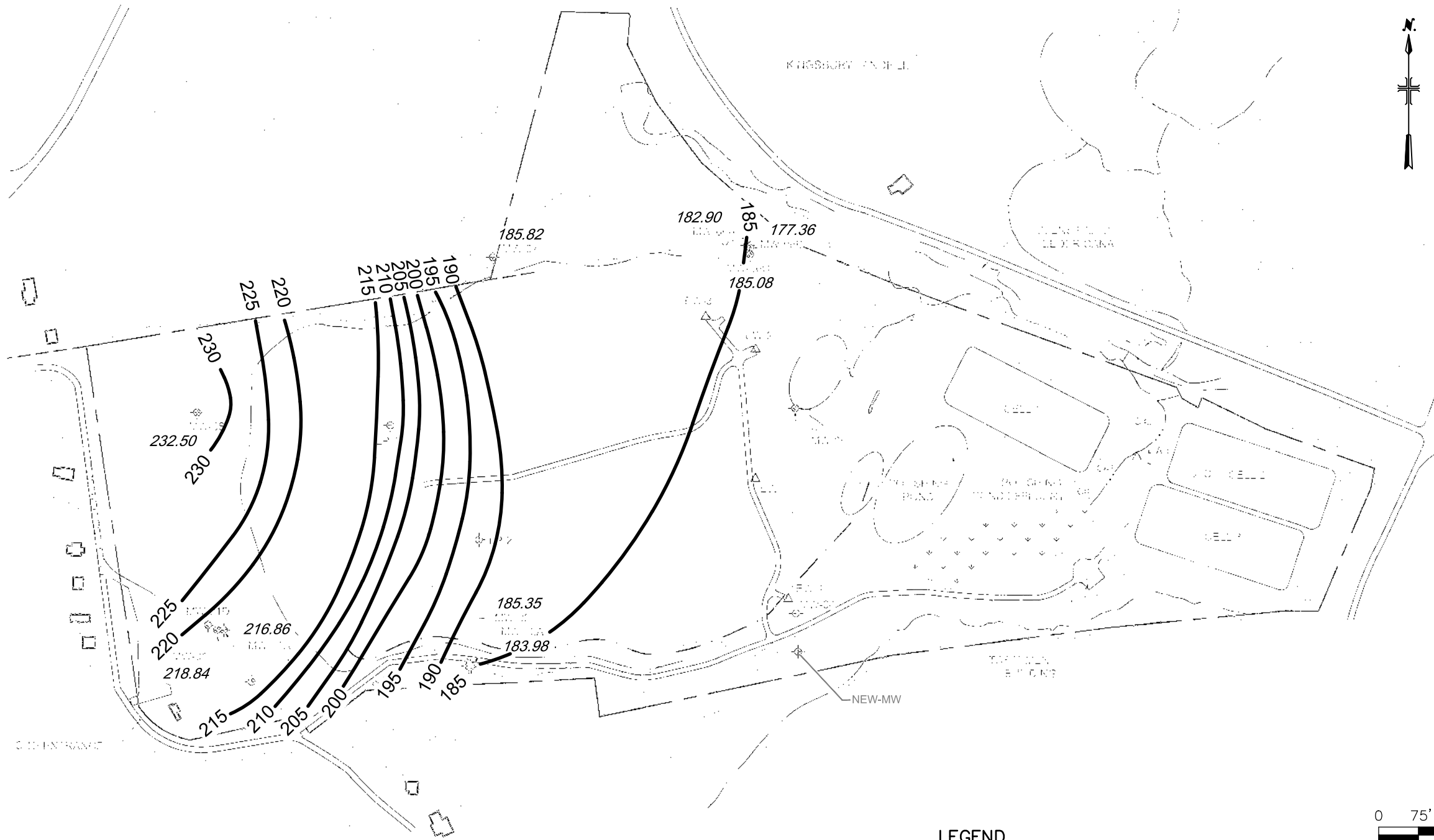
**SITE LOCATION MAP**



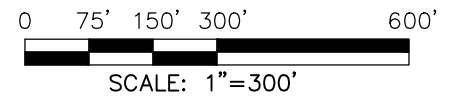
**FIGURE  
1**

**NOTE:**

1. USGS QUADRANGLE INFORMATION  
 QUAD ID: 43073-C5  
 NAME: HUDSON FALLS, NEW YORK  
 DATE PUB: 1968



- LEGEND**
- ◆ MONITORING WELL
  - TOPOGRAPHIC CONTOUR
  - STREAM/DRAINAGE CHANNEL/POND
  - △ EXTRACTION WELL OR COLLECTION SUMP
  - GROUNDWATER COLLECTION TRENCH
  - 220 ————— POTENTIOMETRIC CONTOUR
  - 185.35 ————— GROUNDWATER ELEVATION (FEET A.M.S.L.)



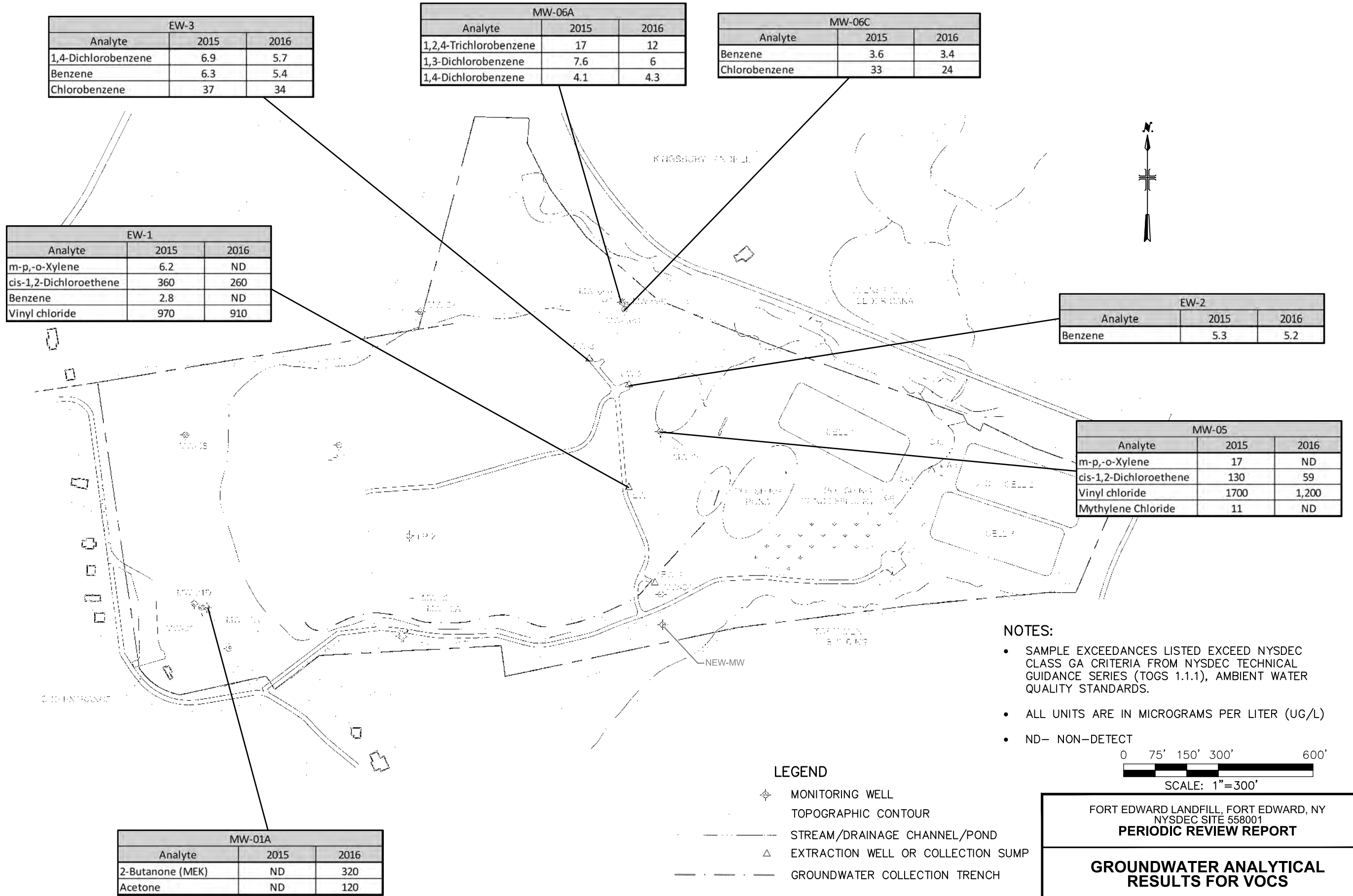
FORT EDWARD LANDFILL, FORT EDWARD, NY  
NYSDEC SITE 558001  
**PERIODIC REVIEW REPORT**

---

**POTENTIOMETRIC CONTOURS  
MAY 2016**


---

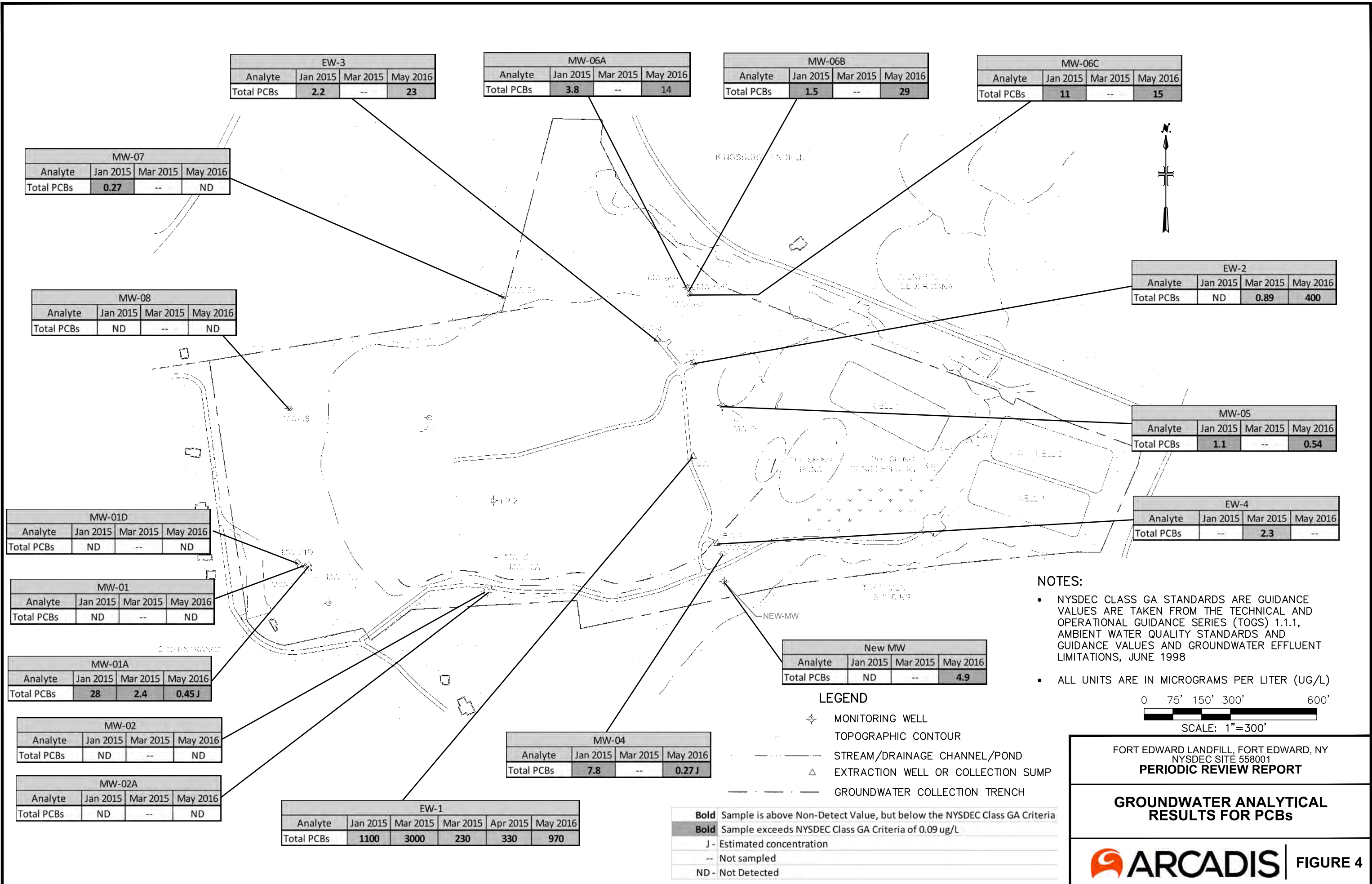
**ARCADIS** | **FIGURE 2**



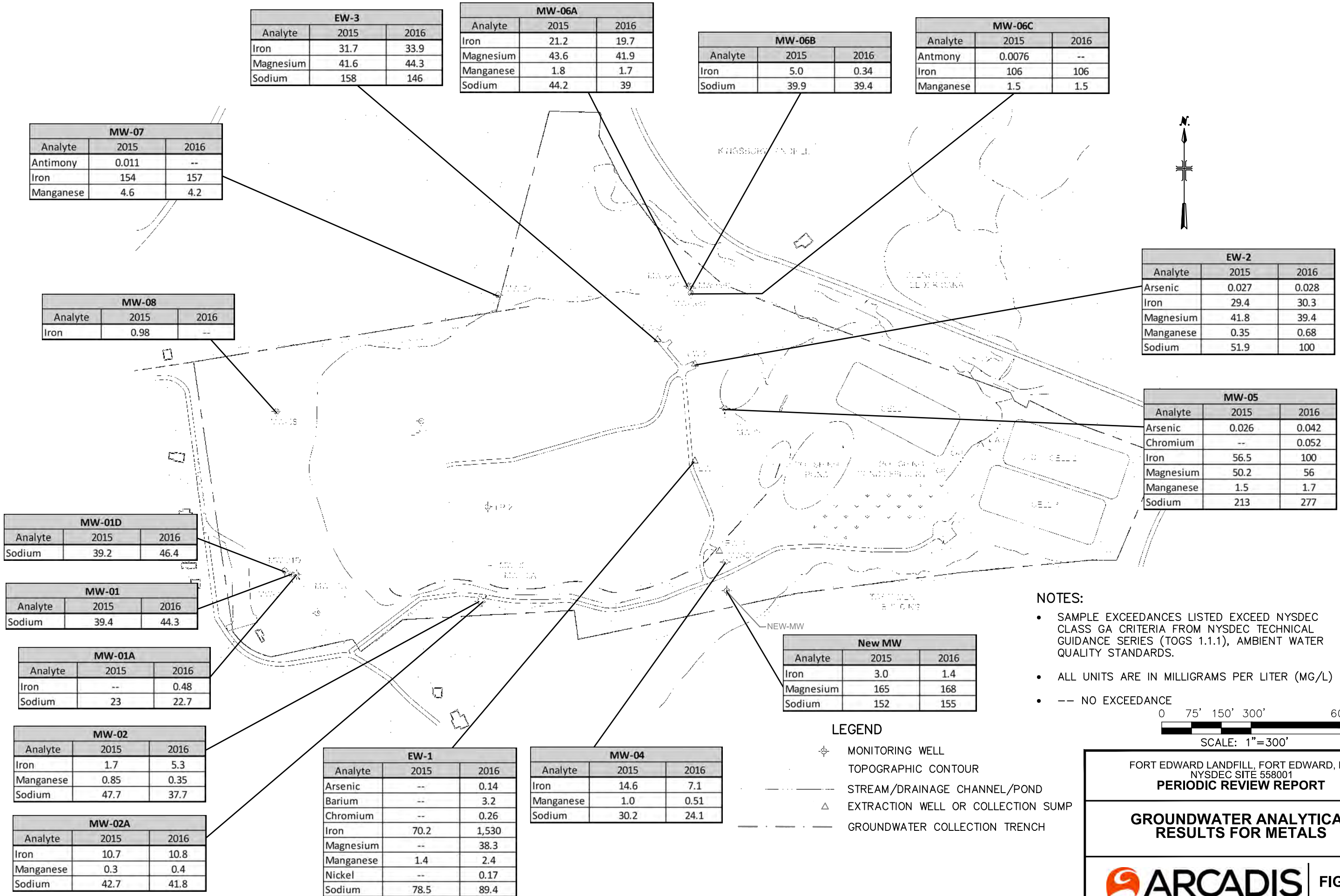
FORT EDWARD LANDFILL, FORT EDWARD, NY  
 NYSDEC SITE 558001  
**PERIODIC REVIEW REPORT**

**GROUNDWATER ANALYTICAL RESULTS FOR VOCS**

 **FIGURE 3**







- NOTES:**
- SAMPLE EXCEEDANCES LISTED EXCEED NYSDEC CLASS GA CRITERIA FROM NYSDEC TECHNICAL GUIDANCE SERIES (TOGS 1.1.1), AMBIENT WATER QUALITY STANDARDS.
  - ALL UNITS ARE IN MILLIGRAMS PER LITER (MG/L)
  - -- NO EXCEEDANCE

**LEGEND**

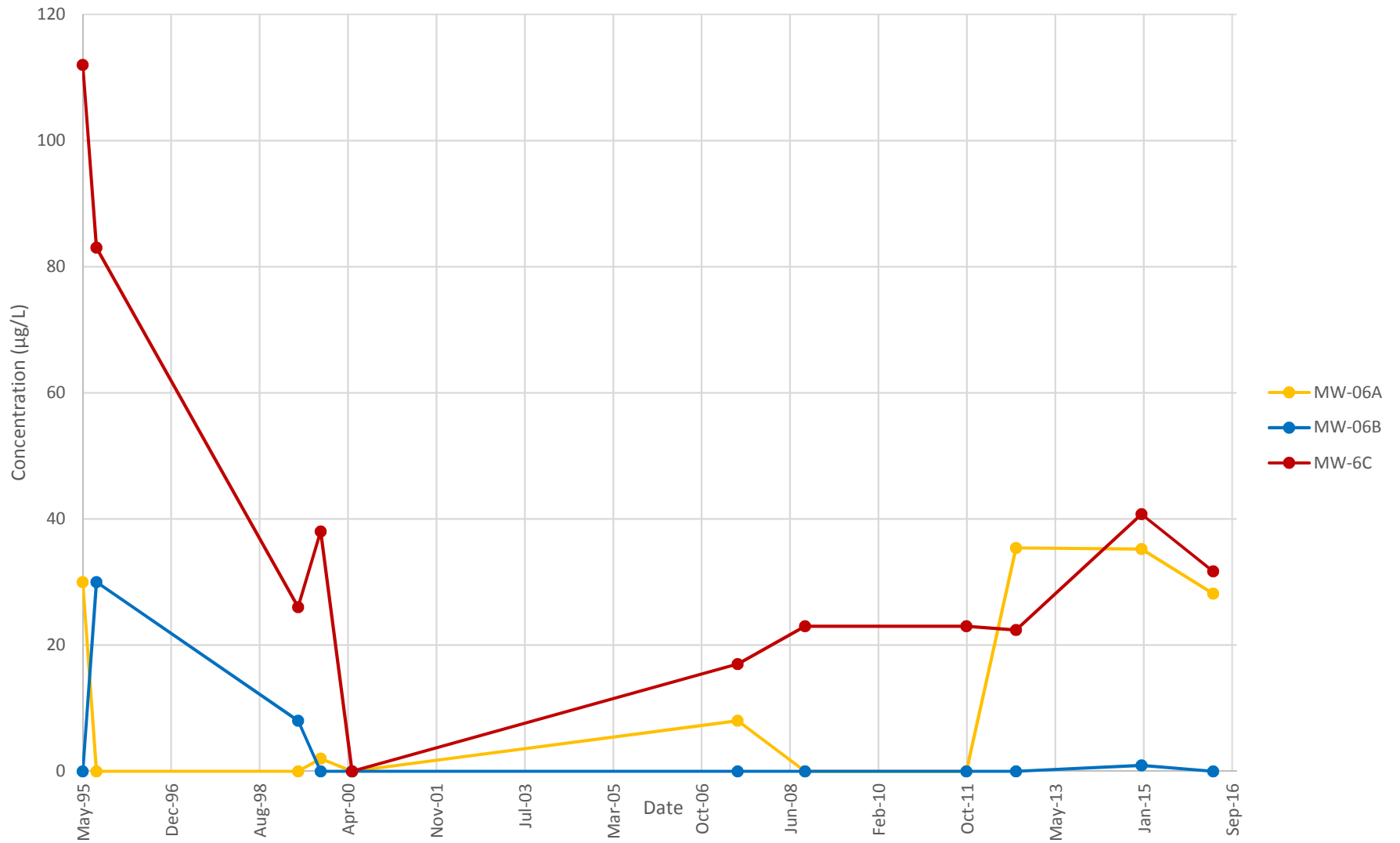
- ⊕ MONITORING WELL
- TOPOGRAPHIC CONTOUR
- STREAM/DRAINAGE CHANNEL/POND
- △ EXTRACTION WELL OR COLLECTION SUMP
- GROUNDWATER COLLECTION TRENCH

FORT EDWARD LANDFILL, FORT EDWARD, NY  
 NYSDEC SITE 558001  
**PERIODIC REVIEW REPORT**

**GROUNDWATER ANALYTICAL RESULTS FOR METALS**

**ARCADIS** | FIGURE 5

Figure 6  
Total VOCs in Groundwater  
Fort Edward Landfill  
Site No. 558001



**NYSDECTOGs  
Standard**

Figure 7  
Total Iron in Groundwater  
Fort Edward Landfill  
Site No. 558001

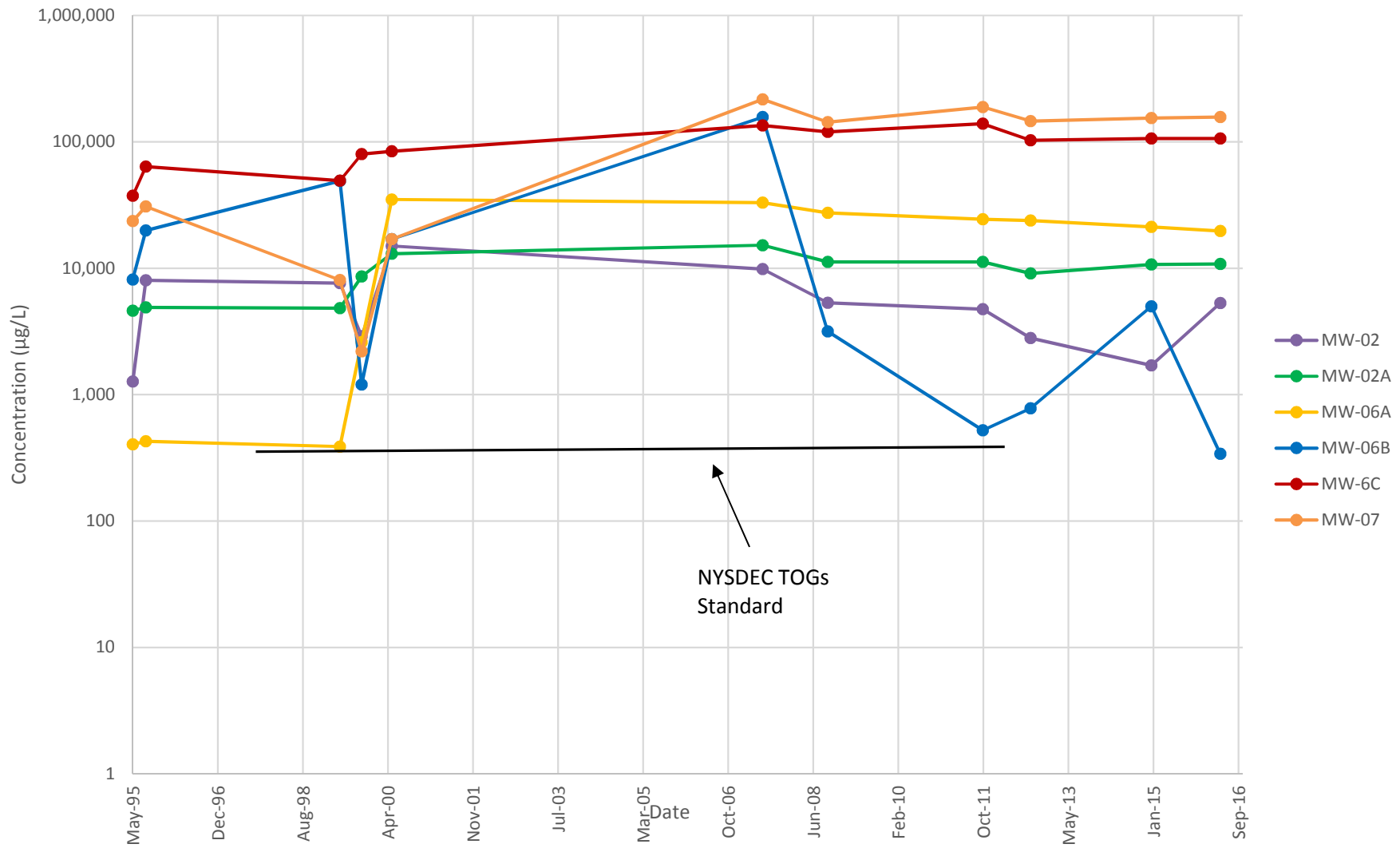


Figure 8  
Total Magnesium in Groundwater  
Fort Edward Landfill  
Site No. 558001

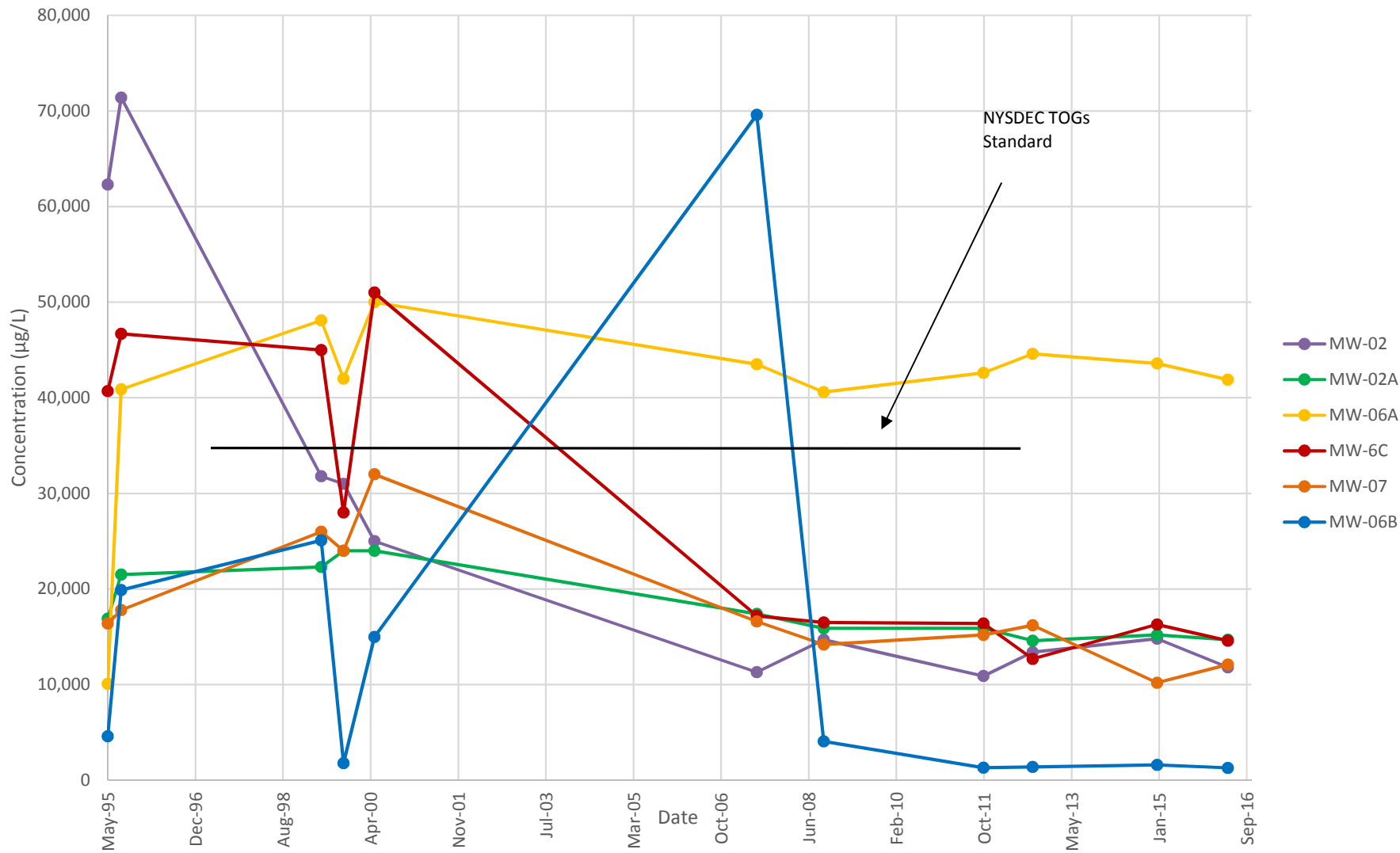


Figure 9  
Total Manganese in Groundwater  
Fort Edward Landfill  
Site No. 558001

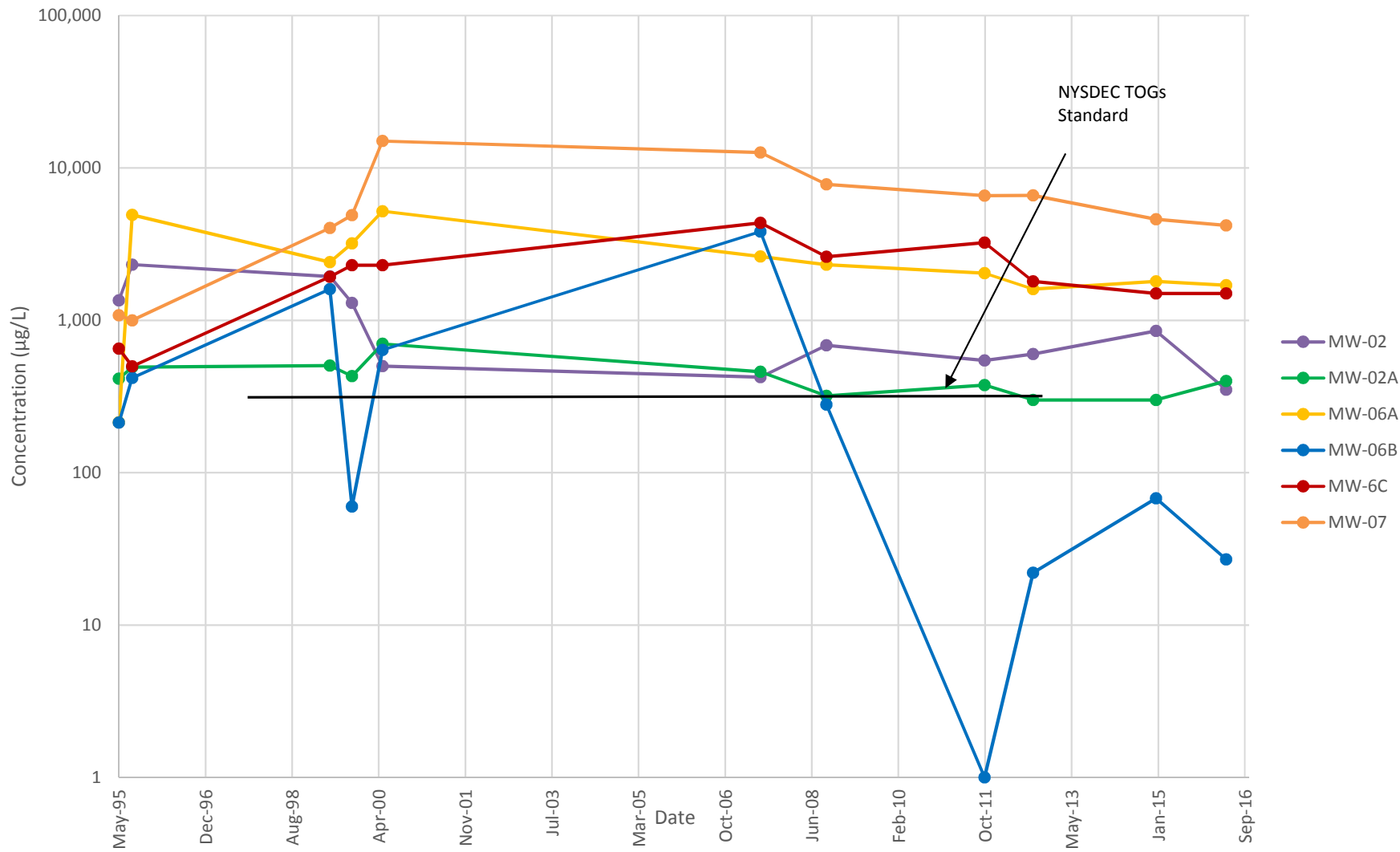
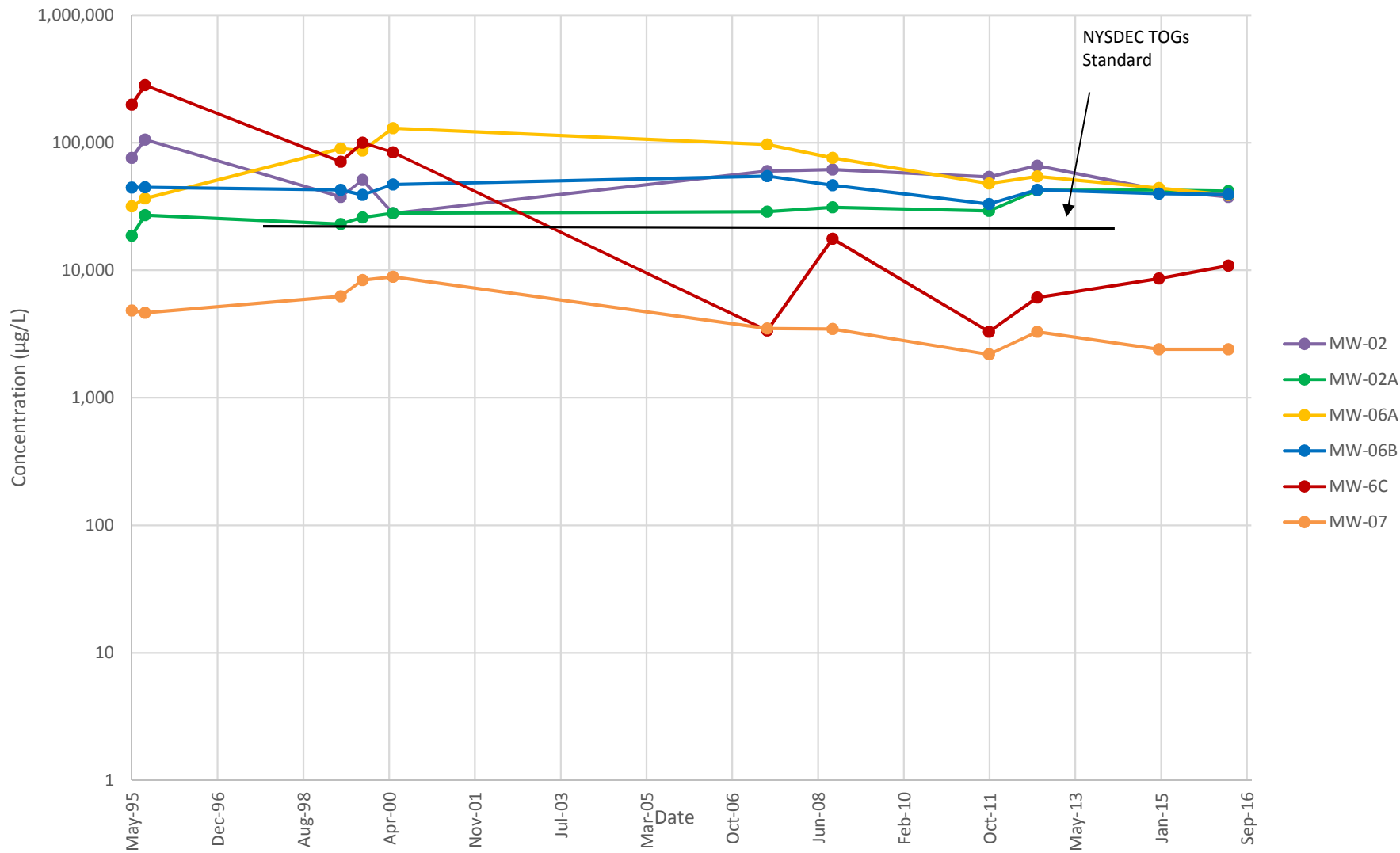


Figure 10  
 Total Sodium in Groundwater  
 Fort Edward Landfill  
 Site No. 558001



# APPENDIX A

Well Inspection Forms



SITE NAME: Ft. Edwards LF

SITE ID:

INSPECTOR: RS/BS

DATE/TIME: 5/12/16

WELL ID: MW-01

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....	YES	NO
	<input checked="" type="checkbox"/>	

WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_  
 PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satelites: \_\_\_\_\_  
 GPS Method (circle) Trimble And/Or Magellan

WELL I.D. VISIBLE? .....	YES	NO
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....		<input checked="" type="checkbox"/>
SURFACE SEAL PRESENT? .....	<input checked="" type="checkbox"/>	
SURFACE SEAL COMPETENT? (if cracked, heaved etc., describe below) .....	<input checked="" type="checkbox"/>	
PROTECTIVE CASING IN GOOD CONDITION? (if damaged, describe below) .....	<input checked="" type="checkbox"/>	

HEADSPACE READING (ppm) AND INSTRUMENT USED.....  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) Steel, 4'  
 PROTECTIVE CASING MATERIAL TYPE: .....

LOCK PRESENT? .....	YES	NO
LOCK FUNCTIONAL? .....	<input checked="" type="checkbox"/>	
DID YOU REPLACE THE LOCK? .....	<input checked="" type="checkbox"/>	
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)		<input checked="" type="checkbox"/>
WELL MEASURING POINT VISIBLE? .....		<input checked="" type="checkbox"/>

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): ..... 48.59  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): ..... ~~39.84~~ 41.03  
 MEASURE WELL DIAMETER (Inches): ..... 2"  
 WELL CASING MATERIAL: ..... PVC  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: ..... OK  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
 PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
In field - half way up hill, near fence line

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
on Hill, near property main gate.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
Land fill

REMARKS:



SITE NAME: Ft Edward Land Fill

SITE ID.:  
INSPECTOR: R2/66  
DATE/TIME: 5/16/16  
WELL ID.: MW-01A

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) ..... 

YES	NO
X	

WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_  
PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satelites: \_\_\_\_\_  
GPS Method (circle) Trimble And/Or Magellan

WELL I.D. VISIBLE? ..... 

YES	NO
X	

  
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)..... 

X	
---	--

  
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: ..... 

X	
---	--

SURFACE SEAL PRESENT? ..... 

X	
---	--

  
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) ..... 

X	
---	--

  
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) ..... 

X	
---	--

HEADSPACE READING (ppm) AND INSTRUMENT USED.....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) Steel 4'  
PROTECTIVE CASING MATERIAL TYPE: Steel 4"  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):

LOCK PRESENT? ..... 

YES	NO
X	

  
LOCK FUNCTIONAL? ..... 

X	
---	--

  
DID YOU REPLACE THE LOCK? ..... 

	X
--	---

  
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) 

	X
--	---

  
WELL MEASURING POINT VISIBLE? ..... 

X	
---	--

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): ..... 65.10  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): ..... 40.65  
MEASURE WELL DIAMETER (Inches): ..... 2"  
WELL CASING MATERIAL: ..... PVC  
PHYSICAL CONDITION OF VISIBLE WELL CASING: ..... ok  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
adequate access - near gate - on hill.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
located in field, half way up hill, near entry gate

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
Kingsbury Land fill

REMARKS:

SITE NAME: Kingston, Ft. Edward Landfill

SITE ID.:  
INSPECTOR: CR/BS  
DATE/TIME: 5/16/12 12:00 pm  
WELL ID.: MW-01D

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....  
WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_  
PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satellites: \_\_\_\_\_  
GPS Method (circle) Trimble And/Or Magellan

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

WELL I.D. VISIBLE? .....  
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....  
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: MW-01D

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

SURFACE SEAL PRESENT? .....  
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....  
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

HEADSPACE READING (ppm) AND INSTRUMENT USED .....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)  
PROTECTIVE CASING MATERIAL TYPE: .....  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

1  
19' stick up  
Steel  
6.5"

LOCK PRESENT? .....  
LOCK FUNCTIONAL? .....  
DID YOU REPLACE THE LOCK? .....  
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)  
WELL MEASURING POINT VISIBLE? .....

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
MEASURE WELL DIAMETER (Inches): .....  
WELL CASING MATERIAL: .....  
PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

174 ft  
38.9 ft  
2"  
PVC  
OK  
White PVC - SA  
None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Clear path across grass field

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

in field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

land fill

REMARKS:

SITE NAME: E7 Edward Land Fill

SITE ID.:

INSPECTOR:

RS/HL

### MONITORING WELL FIELD INSPECTION LOG

DATE/TIME:

5/17/16

WELL ID.:

MW-2

WELL VISIBLE? (If not, provide directions below) .....

YES	NO
X	

WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_

PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satellites: \_\_\_\_\_  
GPS Method (circle) Trimble And/Or Magellan

WELL I.D. VISIBLE? .....

YES	NO
X	

WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....

X	
---	--

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: MW-2.....

X	
---	--

SURFACE SEAL PRESENT? .....

X	
---	--

SURFACE SEAL COMPETENT? (if cracked, heaved etc., describe below) .....

X	
---	--

PROTECTIVE CASING IN GOOD CONDITION? (if damaged, describe below) .....

X	
---	--

HEADSPACE READING (ppm) AND INSTRUMENT USED.....

0.7 ppm

TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (if applicable)

PROTECTIVE CASING MATERIAL TYPE: .....

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

LOCK PRESENT? .....

YES	NO
X	

LOCK FUNCTIONAL? .....

X	
---	--

DID YOU REPLACE THE LOCK? .....

	X
--	---

IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (if yes, describe below)

	X
--	---

WELL MEASURING POINT VISIBLE? .....

X	
---	--

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....

18.29

MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....

7.29

MEASURE WELL DIAMETER (Inches): .....

2"

WELL CASING MATERIAL: .....

PVC

PHYSICAL CONDITION OF VISIBLE WELL CASING: .....

OK

ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....

None

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

along drive way path and fence line - through man-door

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

on hill - behind man-door in fence - next to creek

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT

(e.g. Gas station, salt pile, etc.):

Kingsbury Land Fill

REMARKS:

SITE NAME: Ft Edward Land Fill

SITE ID.:  
INSPECTOR: RJ L  
DATE/TIME: 5/17/16  
WELL ID.: MW-QA

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....	YES	NO
WELL COORDINATES? NYTM X _____ NYTM Y _____ PDOP Reading from Trimble Pathfinder: _____ Satelites: _____ GPS Method (circle)      Trimble    And/Or    Magellan	<input checked="" type="checkbox"/>	

WELL I.D. VISIBLE? .....	YES	NO
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	<input checked="" type="checkbox"/>	
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: <u>MW-QA</u> .....	<input checked="" type="checkbox"/>	
SURFACE SEAL PRESENT? .....	<input checked="" type="checkbox"/>	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....	<input checked="" type="checkbox"/>	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....	<input checked="" type="checkbox"/>	

HEADSPACE READING (ppm) AND INSTRUMENT USED..... 0.7 ppm

TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) 4" Steel

PROTECTIVE CASING MATERIAL TYPE: 6" Steel

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

LOCK PRESENT? .....	YES	NO
LOCK FUNCTIONAL? .....	<input checked="" type="checkbox"/>	
DID YOU REPLACE THE LOCK? .....	<input checked="" type="checkbox"/>	
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)		<input checked="" type="checkbox"/>
WELL MEASURING POINT VISIBLE? .....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....

MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 26.83

MEASURE WELL DIAMETER (Inches): 8.42

WELL CASING MATERIAL: 2" PVC

PHYSICAL CONDITION OF VISIBLE WELL CASING: ok

ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Along old fire way path - behind main - check in fence line.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

on hill behind fence line

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

Kingsburg Land Fill

REMARKS:

SITE NAME:

SITE ID:

INSPECTOR:

RS

DATE/TIME:

5/17/16

WELL ID:

Mw-4

# MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....

YES	NO
X	

WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_

PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satellites: \_\_\_\_\_  
GPS Method (circle) Trimble And/Or Magellan

WELL I.D. VISIBLE? .....

YES	NO
	X

WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....

X	
---	--

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

	X
--	---

SURFACE SEAL PRESENT? .....

X	
---	--

SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....

X	
---	--

PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

X	
---	--

HEADSPACE READING (ppm) AND INSTRUMENT USED.....

0.4 ppm  
Steel 1.5 ft  
6"

TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)

PROTECTIVE CASING MATERIAL TYPE: .....

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

YES	NO
	X

LOCK PRESENT? .....

-	-
---	---

LOCK FUNCTIONAL? .....

	X
--	---

DID YOU REPLACE THE LOCK? .....

IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)

X	
---	--

WELL MEASURING POINT VISIBLE? .....

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....

7.5

MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....

6.33  
6.0

MEASURE WELL DIAMETER (Inches): .....

PVC

WELL CASING MATERIAL: .....

OK  
None

PHYSICAL CONDITION OF VISIBLE WELL CASING: .....

ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE Mw-4

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Access from road - in fragments - below EW-4

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

In fragments

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT

(e.g. Gas station, salt pile, etc.):

Kingsburg Land Fill

REMARKS:

SITE NAME: H Edward Land Fill

SITE ID: \_\_\_\_\_  
INSPECTOR: RS/BS  
DATE/TIME: 5/19/16  
WELL ID: NW-5

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....  
WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_  
PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satelites: \_\_\_\_\_  
GPS Method (circle)      Trimble    And/Or    Magellan

YES	NO
X	

WELL I.D. VISIBLE? .....  
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....  
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

YES	NO
X	X
	X
X	
X	

SURFACE SEAL PRESENT? .....  
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....  
PROTECTIVE CASING IN GOOD CONDITION? (if damaged, describe below) .....

HEADSPACE READING (ppm) AND INSTRUMENT USED.....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)  
PROTECTIVE CASING MATERIAL TYPE: .....  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

3f steel  
Steel  
6"

LOCK PRESENT? .....  
LOCK FUNCTIONAL? .....  
DID YOU REPLACE THE LOCK? .....  
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)  
WELL MEASURING POINT VISIBLE? .....

YES	NO
X	
X	
	X
X	X

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
MEASURE WELL DIAMETER (Inches): .....  
WELL CASING MATERIAL: .....  
PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

10.29  
PVC  
2"  
OK  
None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
Grass field - down hill from E-1 towards E-2

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.)  
AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
next to paved road slurry wall

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT  
(e.g. Gas station, salt pile, etc.):  
Kingsburg Land Fill

REMARKS:  
\_\_\_\_\_  
\_\_\_\_\_

SITE NAME: Ft Edward Lead F:1)

SITE ID.:  
INSPECTOR: PS  
DATE/TIME: 5/20/16  
WELL ID.: MWC6

MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....  
WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_  
PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satellites: \_\_\_\_\_  
GPS Method (circle) Trimble And/Or Magellan

YES	NO
X	

WELL I.D. VISIBLE? .....  
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....

YES	NO
X	
Y	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

SURFACE SEAL PRESENT? .....  
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....  
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

YES	NO
X	
X	
X	

HEADSPACE READING (ppm) AND INSTRUMENT USED.....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)  
PROTECTIVE CASING MATERIAL TYPE: .....  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

0.00 ppm  
Steel  
Steel  
4"

LOCK PRESENT? .....  
LOCK FUNCTIONAL? .....  
DID YOU REPLACE THE LOCK? .....  
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)  
WELL MEASURING POINT VISIBLE? .....

YES	NO
X	
X	
	X
	X
X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
MEASURE WELL DIAMETER (Inches): .....  
WELL CASING MATERIAL: .....  
PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

17.64  
8.00  
2"  
PVC  
OK  
None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Access by foot - across rock/slurry wall.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Wooded area - next to fence line - near big tree.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT

(e.g. Gas station, salt pile, etc.):  
Kingsburg Lead F:1)

REMARKS:

SITE NAME: Ft Edward

SITE ID.:  
INSPECTOR: BBS  
DATE/TIME: 5/29/16  
WELL ID.: MW-6A

MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....  
WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_  
PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satellites: \_\_\_\_\_  
GPS Method (circle) Trimble And/Or Magellan

YES	NO
X	

WELL I.D. VISIBLE? .....  
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....

YES	NO
X	
X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

SURFACE SEAL PRESENT? .....  
SURFACE SEAL COMPETENT? (if cracked, heaved etc., describe below) .....  
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

YES	NO
X	
X	
X	

HEADSPACE READING (ppm) AND INSTRUMENT USED.....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)  
PROTECTIVE CASING MATERIAL TYPE: .....  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

0.0010m  
Steel 2ft  
Steel  
4"

LOCK PRESENT? .....  
LOCK FUNCTIONAL? .....  
DID YOU REPLACE THE LOCK? .....  
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (if yes, describe below)  
WELL MEASURING POINT VISIBLE? .....

YES	NO
X	
X	
	X
X	X

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
MEASURE WELL DIAMETER (Inches): .....  
WELL CASING MATERIAL: .....  
PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

61.28  
10.71  
2"  
PVC  
ok  
None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
Access by foot - across rock/slopy wall.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.)  
AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
Wooded area - next to property fence line Near big tree.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT  
(e.g. Gas station, salt pile, etc.):  
Kingstony land fill

REMARKS:



SITE NAME: F7 Edwared Land Fill

SITE ID:  
INSPECTOR: DB/BS  
DATE/TIME: 5/20/16  
WELL ID.: MW-6B

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) ..... 

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_

PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satellites: \_\_\_\_\_

GPS Method (circle)      Trimble    And/Or    Magellan

WELL I.D. VISIBLE? ..... 

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)..... 

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

SURFACE SEAL PRESENT? ..... 

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

SURFACE SEAL COMPETENT? (if cracked, heaved etc., describe below) .....

PROTECTIVE CASING IN GOOD CONDITION? (if damaged, describe below) ..... 

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

HEADSPACE READING (ppm) AND INSTRUMENT USED..... 0.0 ppm

TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (if applicable) Steel 2ft

PROTECTIVE CASING MATERIAL TYPE: ..... Steel

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): ..... 4"

LOCK PRESENT? ..... 

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

LOCK FUNCTIONAL? ..... 

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

DID YOU REPLACE THE LOCK? ..... 

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>

IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (if yes, describe below)

WELL MEASURING POINT VISIBLE? ..... 

YES	NO
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): ..... 61.47

MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): ..... 16.32

MEASURE WELL DIAMETER (Inches): ..... 2"

WELL CASING MATERIAL: ..... PVC

PHYSICAL CONDITION OF VISIBLE WELL CASING: ..... OK

ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Access by foot - access rock/slurry wall.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Wooded area - next to property fence line, near big tree.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

Kingsbury Land fill

REMARKS:

SITE NAME: Ft Edwards Land Fill

SITE ID.:  
INSPECTOR: RS/ls  
DATE/TIME: 5/16/16  
WELL ID.: MW-1

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) ..... 

YES	NO
X	

WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_

PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satelites: \_\_\_\_\_

GPS Method (circle) Trimble And/Or Magellan

YES	NO
X	
X	
X	
X	
X	
X	

WELL I.D. VISIBLE? .....

WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

SURFACE SEAL PRESENT? .....

SURFACE SEAL COMPETENT? (if cracked, heaved etc., describe below) .....

PROTECTIVE CASING IN GOOD CONDITION? (if damaged, describe below) .....

HEADSPACE READING (ppm) AND INSTRUMENT USED.....

TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)

PROTECTIVE CASING MATERIAL TYPE: .....

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

3" - 4"  
5" - 4"

YES	NO
X	X
	X
	X
X	

LOCK PRESENT? .....

LOCK FUNCTIONAL? .....

DID YOU REPLACE THE LOCK? .....

IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (if yes, describe below)

WELL MEASURING POINT VISIBLE? .....

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....

MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....

MEASURE WELL DIAMETER (Inches): .....

WELL CASING MATERIAL: .....

PHYSICAL CONDITION OF VISIBLE WELL CASING: .....

ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

27.40  
17.61  
8"  
PVC  
ok  
None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Follow slurry wall from front gate - well along fence line.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

between fence and slurry wall - grass field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

Kingsburg Land F-1

REMARKS:

SITE NAME: Fort Edward Landfill

SITE ID.: Fort Edward  
INSPECTOR: KC  
DATE/TIME: 5/17/16 / 1000  
WELL ID.: MW-8

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....  
WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_  
PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satellites: \_\_\_\_\_  
GPS Method (circle)      Trimble    And/Or    Magellan

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

WELL I.D. VISIBLE? .....  
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....  
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

SURFACE SEAL PRESENT? .....  
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) ..... *couldn't really tell grass around*  
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

HEADSPACE READING (ppm) AND INSTRUMENT USED .....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) .....  
PROTECTIVE CASING MATERIAL TYPE: .....  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

0.0ppm  
Steel  
Steel  
3 inches - square

LOCK PRESENT? .....  
LOCK FUNCTIONAL? .....  
DID YOU REPLACE THE LOCK? .....  
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) .....  
WELL MEASURING POINT VISIBLE? .....

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
MEASURE WELL DIAMETER (Inches): .....  
WELL CASING MATERIAL: .....  
PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

12.42 ftog  
7.74  
2 inches  
PVC  
good  
marker on PVC  
None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
grass area outside landfill fence - access  
off Leary Hollow Road.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
grass area

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
landfill

REMARKS:

SITE NAME: Ft Edwards Lead fill

SITE ID.:  
INSPECTOR: RS/BS  
DATE/TIME: 5/19/16  
WELL ID.: MW-NEW

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....	YES	NO
WELL COORDINATES? NYTM X _____ NYTM Y _____ PDOP Reading from Trimble Pathfinder: _____ Satelites: _____ GPS Method (circle) Trimble And/Or Magellan	<input checked="" type="checkbox"/>	

WELL I.D. VISIBLE? .....	YES	NO
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....	<input checked="" type="checkbox"/>	
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: <u>MW-NEW</u> .....	<input checked="" type="checkbox"/>	
SURFACE SEAL PRESENT? .....	<input checked="" type="checkbox"/>	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....	<input checked="" type="checkbox"/>	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....	<input checked="" type="checkbox"/>	

HEADSPACE READING (ppm) AND INSTRUMENT USED..... 0.00 ppm  
 TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) 3ft  
 PROTECTIVE CASING MATERIAL TYPE: Steel  
 MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): 4.5"

LOCK PRESENT? .....	YES	NO
LOCK FUNCTIONAL? .....	<input checked="" type="checkbox"/>	
DID YOU REPLACE THE LOCK? .....	<input checked="" type="checkbox"/>	
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) .....		<input checked="" type="checkbox"/>
WELL MEASURING POINT VISIBLE? .....	<input checked="" type="checkbox"/>	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 22.85'  
 MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 0.30'  
 MEASURE WELL DIAMETER (Inches): 2"  
 WELL CASING MATERIAL: Pvc  
 PHYSICAL CONDITION OF VISIBLE WELL CASING: OK  
 ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES..... None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
access through gate along drive path

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
Needed near next pond

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
Kingsburg Lead fill

REMARKS:

SITE NAME: Ft Edward Land Fill

SITE ID.:  
INSPECTOR: RS  
DATE/TIME: 5/18/16  
WELL ID.: E-1

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....  
WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_  
PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satellites: \_\_\_\_\_  
GPS Method (circle) Trimble And/Or Magellan

YES	NO
X	

WELL I.D. VISIBLE? .....  
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....  
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....

YES	NO
X	
X	
X	
	X
	X

SURFACE SEAL PRESENT? .....  
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....  
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

HEADSPACE READING (ppm) AND INSTRUMENT USED.....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)  
PROTECTIVE CASING MATERIAL TYPE: .....  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

In metal/cast  
Steel

LOCK PRESENT? .....  
LOCK FUNCTIONAL? .....  
DID YOU REPLACE THE LOCK? .....  
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)  
WELL MEASURING POINT VISIBLE? .....

YES	NO
X	
X	
	X
	X
	X

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
MEASURE WELL DIAMETER (Inches): .....  
WELL CASING MATERIAL: .....  
PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

42.65  
6"  
PVC  
OK  
None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.  
located along drive path on top of LF

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.  
gravel area along drive path

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):  
Kingsburg LF

REMARKS:

SITE NAME: F7 Edward

SITE ID.:  
INSPECTOR: RS  
DATE/TIME: 5/18/16  
WELL ID.: E-2

### MONITORING WELL FIELD INSPECTION LOG

WELL VISIBLE? (If not, provide directions below) .....  
WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_  
PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satellites: \_\_\_\_\_  
GPS Method (circle)      Trimble    And/Or    Magellan

YES	NO
X	

WELL I.D. VISIBLE? .....  
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....  
WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: E-2 - Control box

YES	NO
X	
X	
X	
	X
X	

SURFACE SEAL PRESENT? .....  
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....  
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

HEADSPACE READING (ppm) AND INSTRUMENT USED.....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)  
PROTECTIVE CASING MATERIAL TYPE: .....  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

Vault / manhole  
manhole / vault

LOCK PRESENT? .....  
LOCK FUNCTIONAL? .....  
DID YOU REPLACE THE LOCK? .....  
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below)  
WELL MEASURING POINT VISIBLE? .....

YES	NO
	X
	X
	X
	X

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
MEASURE WELL DIAMETER (Inches): .....  
WELL CASING MATERIAL: .....  
PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

49.82  
23.90  
6"  
PVC  
ok  
on control box  
None

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

along road way path

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Near pond - grassy field

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

Waysbury Land fill

REMARKS:

SITE NAME: Ft Edwards Land Fill

SITE ID:

INSPECTOR: RG/KC

# MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 5/18/16

WELL ID: E-3

WELL VISIBLE? (If not, provide directions below) .....

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

WELL COORDINATES? NYTM X \_\_\_\_\_ NYTM Y \_\_\_\_\_

PDOP Reading from Trimble Pathfinder: \_\_\_\_\_ Satellites: \_\_\_\_\_  
GPS Method (circle) Trimble And/Or Magellan

WELL I.D. VISIBLE? .....

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back).....

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: E-3 on control panel

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

SURFACE SEAL PRESENT? .....

SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) .....

PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) .....

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

HEADSPACE READING (ppm) AND INSTRUMENT USED.....

TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable) .....

PROTECTIVE CASING MATERIAL TYPE: .....

MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>

LOCK PRESENT? .....

LOCK FUNCTIONAL? .....

DID YOU REPLACE THE LOCK? .....

IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes, describe below) .....

WELL MEASURING POINT VISIBLE? .....

YES	NO
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....

MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....

MEASURE WELL DIAMETER (Inches): .....

WELL CASING MATERIAL: .....

PHYSICAL CONDITION OF VISIBLE WELL CASING: .....

ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....

PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

32.05  
6"  
PVC  
ok  
on control panel  
none

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

at the end of drive path.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

next to slurry - end of drive path - gravel/grass area.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

Kingsburg Land Fill

REMARKS:

# APPENDIX B

## Groundwater Sampling Purge Logs









Site Name	Ft. Edinburg
Site Location	Ft. Edinburg, NY
Well ID	MW-010
Sampled By	AS/BS

Well Information	
Flush Mount or Riser	cover
Measuring Point	top
Measuring Point Elevation	
Depth to Water	<del>48.91</del> 38.91
Depth to Bottom of Well	174.09

Stabilization is achieved when the following changes are noted over three consecutive 3-5 minute readings:

- ± 0.1 change in pH
- ± 3% change in conductivity
- ± 10 millivolt change in ORP
- ± 10% change in DO and Turbidity

Sample time  
1155

Dia. Well	Well Volume Multiplier
1	0.0408
1.5	0.0918
2	0.1631
3	0.3670
4	0.6525
5	1.0195
6	1.4681
8	2.6100
10	4.0782
12	5.8726

Well Volume Gallons = Multiplier x Length of Water Column

Date	5/12/16
Weather	sun
Purging Equipment	peristaltic pump
Sampling Equipment	monsoon
Decon Method	Alconox
Riser Diameter	6.5" <sup>6.5"</sup>
Well Volume Calculation	6.6 gal

Time	Volume Removed (Gallons)	Turbidity (NTU)	pH	Temperature (°C)	Dissolved O2 (mg/L)	Conductivity (mS/cm)	ORP (mV)	Depth to Water	Pumping Rate
10:45	start								
10:55	1.0	0.0	7.63	13.34	1.95	0.216	59	43.68	11.3
11:00	1.5	0.0	7.76	13.04	1.25	0.213	-11	43.81	
11:05	2.0	0	7.9	12.72	1.66	0.210	-76	45.61	
11:10	2.25	0.0	7.94	12.44	0.36	0.208	-108	48.79	
11:15	2.5	0.0	7.93	12.33	0.69	0.209	-111	49.72	
11:20	3.0	0.0	8.04	12.55	1.46	0.209	-121	50.30	
11:25	3.5	0.0	8.13	12.83	2.15	0.209	-127	50.97	11.5
11:30	4.0	0.0	8.14	12.40	2.10	0.210	-129	50.81	
11:35	5.00	0.0	8.15	12.39	0.00	0.210	-123	50.46	12.0
11:40	5.5	0.0	8.20	13.52	0.00	0.209	-131	53.55	
11:45	6.0	0.0	8.21	13.13	0.00	0.209	-139	54.02	
11:50	6.5	0.0	8.19	13.08	0.00	0.208	-140	54.15	12.0
		— sampled —							

Site Name	FT Edwards LF
Site Location	FT Edwards
Well ID	MW-2
Sampled By	BS/LG

Well Information	
Flush Mount or Riser	Riser
Measuring Point	TCC
Measuring Point Elevation	
Depth to Water	7.24
Depth to Bottom of Well	18.24

Stabilization is achieved when the following changes are noted over three consecutive 3-5 minute readings:

- ± 0.1 change in pH
- ± 3% change in conductivity
- ± 10 millivolt change in ORP
- ± 10% change in DO and Turbidity

Dia. Well	Well Volume Multiplier
1	0.0408
1.5	0.0918
2	0.1631
3	0.3670
4	0.6525
5	1.0195
6	1.4681
8	2.6100
10	4.0782
12	5.8726

Well Volume Gallons = Multiplier x Length of Water Column

Date	5/17/16
Weather	Sunny
Purging Equipment	Morseon
Sampling Equipment	Morseon
Decon Method	Alconox
Riser Diameter	2"
Well Volume Calculation	5.25 gallons

Time	Volume Removed (Gallons)	Turbidity (NTU)	pH	Temperature (F)	Dissolved O2 (mg/L)	Conductivity (mS/cm)	ORP (mV)	Depth to Water	Pumping Rate
1015	Start							7.22	
1020	.5	<del>0.0 Max</del>	7.04	9.69c	0.00	.491	-70	8.66	
1025	1	<del>0.0 Max</del>	6.94	10.68c	0.00	.484	-69	8.53	
1030	1.5	924	6.97	11.08c	0.00	.490	-79	8.50	
1035	2	Battery	Died						
1040	2.5	387	7.04	12.19	0.70	.460	-76	8.14	
1045	3	378	7.04	11.84c	0.00	.452	-72	8.54	
1050	3.5	70	7.19	11.88c	0.00	.443	-71	8.50	
1055	4	45	7.12	12.10c	0.00	.439	-73	8.44	
1100	4.5	23.5	7.11	12.01c	0.00	.433	-73	8.55	
1105	5	22	7.10	12.01c	0.00	.430	-75	8.53	
1110	5.5	17.2	7.11	12.09c	0.00	.427	-76	8.51	
1115	Sampled								

Horiba powered off

















Site Name	Fort Edwards Landfill
Site Location	MNI-8
Well ID	MNI-8
Sampled By	K.C.

Well Information	
Flush Mount or Riser	Riser
Measuring Point	Marked
Measuring Point Elevation	
Depth to Water	7.74
Depth to Bottom of Well	12.42

Stabilization is achieved when the following changes are noted over three consecutive 3-5 minute readings:

- ± 0.1 change in pH
- ± 3% change in conductivity
- ± 10 millivolt change in ORP
- ± 10% change in DO and Turbidity

Dia. Well	Well Volume Multiplier
1	0.0408
1.5	0.0918
2	0.1631
3	0.3670
4	0.6525
5	1.0195
6	1.4681
8	2.6100
10	4.0782
12	5.8726

Well Volume Gallons = Multiplier x Length of Water Column

Date	5/17/2016
Weather	Sunny @ 65°F
Purging Equipment	manifold
Sampling Equipment	stansco
Decon Method	ALCENEX
Riser Diameter	2"
Well Volume Calculation	2.33

with equipment in well it was 7.63 fbg

Time	Volume Removed (Gallons)	Turbidity (NTU)	pH	Temperature (°F)	Dissolved O2 (mg/L)	Conductivity (mS/cm)	ORP (mV)	Depth to Water	Pumping Rate
0940								8.26	
0944								8.29	
0945	0.5 gal	21.8	7.24	10.70	12.90	0.447	101	8.37	
0950	0.75 gal	12.5	7.18	11.11	11.90	0.439	105	8.54	
0955	1 gal	1.6	7.16	10.91	15.58	0.435	113	8.67	
1000	1.2 gal	0.8	7.13	11.55	10.69	0.429	118	8.73	
1005	1.5 gal	0.0	7.13	11.91	10.52	0.425	119	8.82	
1010	1.75 gal	0.0	7.14	11.64	10.14	0.432	120	8.94	
Sampled									
sample time labeled 1016									

Site Name	Fort Edward Landfill
Site Location	
Well ID	MW-NEW
Sampled By	BS/KS

Well Information	
Flush Mount or Riser	Riser
Measuring Point	Top of Riser
Measuring Point Elevation	NA
Depth to Water	6.30
Depth to Bottom of Well	22.85

Stabilization is achieved when the following changes are noted over three consecutive 3-5 minute readings:

- ± 0.1 change in pH
- ± 3% change in conductivity
- ± 10 millivolt change in ORP
- ± 10% change in DO and Turbidity

Dia. Well	Well Volume Multiplier
1	0.0408
1.5	0.0918
2	0.1631
3	0.3670
4	0.6525
5	1.0165
6	1.4681
8	2.6100
10	4.0762
12	5.8726

Well Volume Gallons = Multiplier x Length of Water Column

Date	5/19/16
Weather	Sun
Purging Equipment	Peristaltic Pump
Sampling Equipment	Peristaltic pump
Decon Method	Alconox
Riser Diameter	1
Well Volume Calculation	8.1 gal

Time	Volume Removed (Gallons)	Turbidity (NTU)	pH	Temperature (°C)	Dissolved O2 (mg/L)	Conductivity (mS/cm)	ORP (mV)	Depth to Water	Pumping Rate
8:20	Start								
8:25	0.5 gal	17.4	7.37	11.23°	1.21	1.11	-35	8.73	
8:30	1.0 gal	18.2	7.36	11.27°	0.54	1.12	-40	9.19	
8:35	1.5 gal	21.4	7.35	11.11°	0.16	1.12	-42	9.36	
8:40	2 gal	19.8	7.35	10.83°	0.51	1.13	-44	9.84	
8:45	2.5 gal	18.2	7.42	11.15°	0.00	0.98	-38	10.38	Powerd off
8:50	3 gal	0.9	7.38	11.25	0.00	0.94	-32	10.98	
8:55	3.5 gal	19.4	7.36	11.22	0.00	0.95	-29	11.74	
9:00	4.0	21.0	7.36	11.19	6.06	0.97	-30	12.16	
9:05	4.5	19.8	7.37	11.15	0.32	1.04	-33	12.97	
9:10	5.0 gal	19.1	7.38	11.10	0.57	1.08	-37	13.44	
9:15	5.5 gal	18.9	7.34	11.12	0.49	1.10	-36	14.07	
			Sampled						









# APPENDIX C

Analytical Data Packages

