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New York State Department of Environmental Conservation (NYSDEC)  
Division of Environmental Remediation  
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Subject:  
January 2018 Monthly Report  
Fort Edward Landfill  
NYSDEC Site No. 558001  
Contract No. D007618-39

Date:  
March 1, 2018

Contact:  
Andy Vitolins

Dear Mr. Long:

Arcadis CE, Inc. (Arcadis) has prepared this letter report to summarize the leachate collection and treatment system operation, maintenance, and monitoring (OM&M) activities completed during the January 2018 reporting period.

Phone:  
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### **Leachate Collection and Treatment System Operation and Maintenance**

The leachate collection system operated with no downtime during the January 2018 operating period. A total of 995,849 gallons of leachate were collected and treated through the system during January 2018. The corresponding average leachate recovery rate for the month was approximately 22 gallons per minute (gpm).

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Our ref:  
00266434.0000

The following O&M activities were completed during the January 2018 operating period:

- On January 3, 2018, Arcadis rented a track loader and plowed the access roads to the Treatment Building in advance of a chemical delivery for the treatment system. Snow was also cleared to provide access to the constructed wetland treatment system (CWTS) and Polishing Pond sampling locations.
- Iron and solids sludge processing was performed throughout the month. In total, two 55-gallon drums of sludge were generated during January 2018.

- On January 31, 2018, eleven drums of filter sludge were transported for off-site disposal by Veolia Environmental Solutions, Inc. The disposal documents are attached to this report.

### **System Sampling**

The monthly samples were collected on January 29, 2018 from the following treatment system locations:

- Influent (i.e. combined flow from extraction wells EW-1, EW-2, EW-3, and EW-4);
- Clarifier Catch Tank discharge;
- Cell 3 Bypass (i.e. treatment Cell 3 discharge into the Cell 2/3 bypass pipe);
- Cell 2 Chamber (i.e. treatment Cell 2 discharge into the effluent collection chamber); and
- Polishing Pond Effluent.

No samples were collected from extraction wells EW-1, EW-2, EW-3 or leachate collection well EW-4. Samples from these locations are collected on a quarterly basis and will be sampled again in the first quarter of 2018.

The monthly samples were submitted to Con-Test Analytical for analysis of volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), metals, total dissolved solids (TDS), and total suspended solids (TSS).

The analytical results are discussed in the sections below and have been summarized in Table 1. The laboratory analytical data will be submitted to NYSDEC's EIMS Administrator in the required EQUIS EDD format.

### **Analytical Results**

#### **VOCs**

As shown in Table 1, VOCs were detected in the Influent and Clarifier Catch Tank samples at concentrations that exceeded the corresponding NYSDEC Class GA Standards. The treatment system Influent and Clarifier Catch Tank samples contained vinyl chloride at 8.0 micrograms per liter ( $\mu\text{g/L}$ ) and 3.8  $\mu\text{g/L}$ , respectively. As shown in Table 1, the Influent and Clarifier Catch samples also contained cis-1,2-dichloroethene (cDCE) at a concentration of 7.8  $\mu\text{g/L}$ . Table 1 shows that VOCs were detected in the Cell 3 Bypass sample, Cell 2 Effluent sample, and the Effluent sample from the Polishing Pond, but did not exceed the corresponding NYSDEC Class GA Standards.

Based on these data, Arcadis recommends turning off extraction well EW-1 (the primary contributor of VOCs and PCBs to the treatment plant) until the recommendations presented in the January 31, 2018 Remedial System Optimization Report (RSO) can be implemented and evaluated.

#### **PCBs**

PCB Aroclor 1016 was detected in the Influent, Clarifier Catch Tank, Cell 3 bypass, and Cell 2 effluent samples at concentrations greater than the respective NYSDEC GA Standards. PCBs were not detected in the Polishing Pond Effluent sample during the January 2018 sampling event (Table 1).

#### **Metals**

Iron and manganese were detected at one or more of the treatment system samples at concentrations greater than the corresponding NYSDEC Standards of 0.3 milligrams per liter (mg/L) and 0.6 mg/L, respectively. Iron concentration ranged from a maximum 13 mg/L (Influent) to 1.1 mg/L (Polishing Pond

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Effluent). This corresponds to a 92 percent reduction in iron through the treatment system. Manganese concentrations ranged from a maximum of 1.5 mg/L (Influent) to 0.18 mg/L (Cell 2 effluent).

### **TDS and TSS**

The concentrations of TDS and TSS continue to fluctuate between sampling events. During the January sampling event, TDS concentrations ranged between 380 mg/L and 550 mg/L; TSS concentrations ranged from non-detect and 43 mg/L. These data are consistent with the results from previous sampling events. Since September 2016, TDS and TSS have ranged from 210 to 1,300 mg/L and non-detect (ND) to 120 mg/L, respectively.

### **Next Reporting Period Planned Activities**

The following activities are anticipated for February 2018:

- Continuation of iron and solids treatment and processing;

If you have any questions, please do not hesitate to contact me or Jeremy Wyckoff.

Sincerely,

Arcadis CE, Inc.



Andy Vitolins, P.G.  
Associate Vice President

Copies:

Jeremy Wyckoff, Arcadis  
File

Enclosures:

**Table 1** – January 2018 Treatment System Analytical Data  
Waste Disposal Documents