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Department of  
Environmental  
Conservation

**New York State Department of  
Environmental Conservation  
Division of Environmental Remediation**

**640 Trolley Boulevard  
Site Monitoring Program  
Site No. 828108**

**Periodic Review Report  
(August 2015 through December 2019)**



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Note:

Several “clickable” links, which direct the reader to supporting information, such as tables, figures, etc., are present within this report, and are denoted by blue text.

EXECUTIVE SUMMARY	
Category	Summary/Results
<b>Site Classification</b>	The site is currently classified as a Class 2.
<b>Site Management Plan</b>	The Draft Site Management Plan is dated June 2016.
<b>Site History</b>	<ul style="list-style-type: none"> <li>• Preliminary Site Assessment 2002</li> <li>• Remedial Investigation 2008</li> <li>• Feasibility Study 2009</li> <li>• Record of Decision 2009</li> <li>• Remedial Activities 2012</li> <li>• Final Engineering Report 2016 (Draft)</li> <li>• Site Management Plan 2016 (Draft)</li> </ul>
<b>Engineering Controls</b>	The Record of Decision does not require Engineering Controls to protect public health or the environment.
<b>Institutional Controls</b>	<p>Environmental Notice which includes:</p> <ul style="list-style-type: none"> <li>• Groundwater use restriction;</li> <li>• Land use restriction, and;</li> <li>• Site management plan.</li> </ul>
<b>Certification/Reporting Period</b>	This PRR covers from August 3, 2015 to December 3, 2019. The Certification Period going forward will be every five years. The next Periodic Review Report will cover January 2020 through January 2025. Site Management Reports (SMRs) will be prepared on an annual basis The next report is a SMR due January 2021.
<b>Prior PRR/SMR Recommendations</b>	This is the first PRR for this Site.
<b>Routine Site Management Activities</b>	<p>A single round of groundwater level measurements was collected during this reporting period.</p> <p>Groundwater monitoring was conducted in June 2019. Groundwater samples were collected from six (6) wells as specified in the Draft Site Management Plan (SMP). All samples were analyzed for volatile organic compounds (VOCs) using USEPA Method 8260C and Polychlorinated biphenyls (PCBs) by USEPA SW846 Method 8082A.</p> <p>A Site inspection was conducted on June 25, 2019</p>
<b>Non-Routine Site Management Activities</b>	Two monitoring wells were sampled for Emerging Contaminants 1,4-Dioxane and PFAs in June 2019.
<b>Significant Findings or Concerns</b>	The results of the June 2019 groundwater sampling event indicated that 1,1,1-TCA, 1,1-DCA, 1,1-DCE, 1,2-DCA, 2-Butanone, Acetone, Chloroethane, and Aroclor 1254 were detected at concentrations exceeding the NYSDEC Class GA Groundwater Standards in several monitoring wells. PFOA was detected in both



	<p>MW-04 and MW-09 at concentrations above NYSDEC's screening criteria of 10 ng/l at 1200 ng/l and 18 ng/l, respectively. PFOS was detected above NYSDEC's screening criteria of 10 ng/L in MW-09 at a concentration of 11 ng/L. PFBA was detected above NYSDEC's screening criteria of 100 ng/L in MW-04. In addition, total PFAS was detected above NYSDEC's screening criteria of 500 ng/L in MW-04 at a total concentration of 1,519 ng/L. 1,4-Dioxane was also detected above the 1 ug/l screening level at a concentration of 2,100 ug/L in MW-04 and 1.6 ug/L in MW-09.</p>
<p><b>Cost Evaluation</b></p>	<p>The total cost of the site management activities during this reporting period was \$10,886.08. This cost includes engineering and subcontractor costs (e.g., laboratory, equipment, rentals, etc.) expended by D&amp;B. It should be noted that this total does not include any costs incurred by the NYSDEC or previous consultant in support of the project.</p>
<p><b>Recommendations</b></p>	<ul style="list-style-type: none"> <li>• Analyze all six wells for emerging contaminants in the next round of sampling.</li> <li>• Perform soil vapor intrusion sampling in the occupied tenant space during the fall 2020 heating season.</li> <li>• Update the Site Management Plan</li> <li>• During the next Site inspection MW-2 should be assessed as to whether it can be repaired or if it should be decommissioned.</li> <li>• Site inspections should continue as specified in the SMP to ensure there are no future adverse impacts to public health and/or the environment.</li> <li>• Groundwater sampling should continue for VOCs and PCBs as specified in the SMP.</li> <li>• Additionally, 1,4-Dioxane and PFAs should be added to the SMP as a site COC and be included in the next round of sampling for further evaluation.</li> <li>• Based upon the increase in observed chlorinated VOC concentrations in Site groundwater, it is recommended that soil vapor intrusion sampling, including sub-slab soil vapor, indoor and outdoor air, be conducted for the tenant-occupied portion of the Site during the fall 2020 heating season.</li> <li>• It is recommended that the PRRs continue to be completed every five years to certify the ICs are in-place, effective and protective of human health and the environment.</li> </ul>

## 1.0 INTRODUCTION

This report is the first PRR for the 640 Trolley Boulevard Site since the completion of the remedy in February 2012 and covers the period from August 3, 2015 through December 3, 2019. Since submission of the SMP for approval in June 2016, one groundwater monitoring event has been conducted. Portions of this report incorporate pertinent historical background information and monitoring data from the following reports:

- ❖ Preliminary Site Assessment Report (March 2002)
- ❖ Immediate Investigation Work Assignment Report (August 2007)

- ❖ Remedial Investigation Report (September 2008)
- ❖ Feasibility Study (January 2009)
- ❖ Record of Decision (March 2009)
- ❖ Final Engineering Report (FER)(June 2016) - Draft
- ❖ Site Management Plan (June 2016) - Draft
- ❖ June 2019 Analytical Data Package (**Appendix A**)

The objectives of this PRR include:

- ❖ Presenting a summary of pertinent background information;
- ❖ Identifying the cleanup goals established for the Site;
- ❖ Presenting a brief description of the Site remedy and remaining contamination;
- ❖ Identifying, reviewing and evaluating:
  - Site monitoring protocols, procedures and documentation;
  - Condition of the remedy;
  - Compliance with the ROD and the SMP;
  - Current institutional and engineering controls;
  - Site management costs; and,
  - Remedy performance, effectiveness and protectiveness.
- ❖ Supporting decisions/providing justification to modify or end Site management activities, reclassify the Site or delist the Site;
- ❖ Determining the frequency and type of subsequent periodic reviews; and,
- ❖ Providing an Institutional Control and Engineering Control (IC/EC) certification.

## 1.1 Site Description and Project Background

The 640 Trolley Boulevard Site is located on the north side of Trolley Boulevard, in the Town of Gates, Monroe County, New York (**Figure 1 and Figure 2**) and is identified as Section, Block, and Lot 104.11-1-2.2 on the Monroe County Tax Map. The property is approximately 1.12 acres in size and includes an approximate 12,300 square-foot block-building constructed slab-on-grade. The Site building is currently being used for commercial purposes by a repair company. Historically, the building has been divided and operated as separate businesses. The 640 Trolley Boulevard property and the adjacent properties (630 Trolley Boulevard and 31 Trolley Circle) are owned by Emerson Enterprises, LLC and are zoned by the Town of Gates as General Industrial. Land use to the immediate north, west, and east of the 640 Trolley Boulevard property is mixed commercial and industrial. Further to the west on Trolley Boulevard (approximately 1,000-feet), the property use becomes residential. South of the Site and Trolley Boulevard, the property use is predominantly residential with some commercial properties. Underground utilities are located along the front of the property near Trolley Boulevard. A former rail line owned by CSX is located between Trolley Boulevard and the residential area to the south. The New York State Barge Canal is located approximately 700 feet north of the Site. The property is relatively flat, but generally slopes northward towards the New York State Barge Canal.

Several commercial businesses have operated at the 640 Trolley Boulevard Site since the building was constructed in approximately 1964. The Clarke Witbeck Company operated at the Site from the 1960s

until 1992 and reportedly distributed abrasives, cutting tools, fasteners, and other products. The Clarke Witbeck Company declared bankruptcy in 1992. Kenneth Crosby, Inc. reportedly purchased the Clarke Witbeck Company and also reportedly owned other businesses that operated at the Site including T.T. Bearing Co., Inc., and Rochester Tool Corp.

In 1994, while Kenneth Crosby, Inc. operated at the Site, a spill was reported to the NYSDEC due to a leaking dumpster that contained cutting oils, waste latex, oil-based paints, and possible solvents. The spill was contained and later closed. A drywell/disposal pit was discovered in October 2000 while a tenant (AAA Environmental, Inc.) was removing trees in order to expand the parking area behind the building. The drywell/disposal pit was located approximately ten (10) feet from the northwest corner of the 640 Trolley Boulevard building.

As a result of the drywell discovery, a Preliminary Site Assessment (PSA) was completed in February 2002 by the NYSDEC to investigate the drywell area and is summarized in the PSA report (March 2002). The drywell was inspected and was found to contain a brown oily liquid. The drywell was an approximate four foot by four-foot disposal pit that was constructed of cinder blocks and/or stone. Approximately 20 gallons of the brown oily liquid were removed from the drywell, pumped into drums, and tested. Analytical results of the liquid identified high concentrations of PCBs, 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA), and other chlorinated solvents. Based on the results of the PSA, the Site was listed as a Class 2 Inactive Hazardous Waste Disposal Site in June 2002.

A Remedial Investigation and Feasibility Study (RI/FS) were conducted between 2008 and 2009 to understand the nature and extent of contamination at the Site and to identify remedial methods that would address the contamination while being protective of human health and the environment. The RI concluded that site soils were impacted with PCBs, VOCs and to a small degree, SVOCs, metals and pesticides, and that groundwater was impacted with VOCs. Soil vapor intrusion sampling concluded that VOCs in groundwater were not causing a soil vapor concern in the Site building. It was further concluded that during parking lot expansion and re-grading activities, the surface soils north of 640 Trolley Boulevard were reworked with some contaminated soil being moved and created a "bermed" area north of the current parking lot. Data collected during the RI did not identify the time or duration of PCB and solvent disposal actually occurred at the Site. The data does generally show that PCB and solvent handling practices over a period of more than 35 years has contributed to the on-Site PCB and solvent contamination.

Based on the suggestions presented in the FS report, a Record of Decision (ROD) was issued in March 2009 for the Site. The ROD selected the excavation and off-site disposal of PCB and VOC-impacted soils and plume management monitoring to address the VOCs in groundwater. The Remedial Action Work Plan (RAWP)(January 2012) was prepared to outline the remediation completed at the Site in accordance with the ROD and as described in the section below.

## 1.2 Summary of Remedial Activities

Remedial activities were conducted at the Site as part of Interim Remedial Measures (IRMs) in February 2002 and from April to May 2006. Additional remedial activities were conducted between January and

February 2012 in accordance with the March 2009 ROD. The remediation plan involved excavation of non-hazardous and hazardous soil to achieve removal of all surface soil (to a depth of 1-foot below grade) exceeding 1 ppm PCBs and all subsurface soil (soil deeper than 1-foot below grade) exceeding 10 ppm. According to the ROD, the remediation plan also resulted in the removal of soil containing VOCs exceeding protection of groundwater standards. The following is a summary of the Remedial Actions performed at the Site:

- ❖ During the PSA, an IRM was performed and consisted of the excavation of a trench approximately 14 feet in length near the drywell. This trench extended approximately four feet below ground surface to bedrock and encountered soil grossly contaminated with PCBs and chlorinated VOCs. Approximately 19.5 tons of contaminated soil was removed from the trench and disposed of at a licensed disposal facility.
- ❖ In preparation for paving planned at the Site, in April and May 2006 soil sampling and excavation was performed to identify and remove PCB and VOC-impacted soils. This work is summarized in the Immediate Investigation Work Assignment (IIWA) report (August 2007). Approximately 278 tons soil was disposed of as non-hazardous at an approved facility.
- ❖ **Initial Excavation of Non-Hazardous Soil:** Non-hazardous soil was excavated between January 18 and 25, 2012 in excavation Areas 2A, 2B, 2C, and 2D (see [Figure 3](#)). The excavation depths ranged from 1 to 2 feet below grade (fbg). A total of 18 confirmation soil samples (E1 through E18) were collected (see [Figure 3](#)). Based on the analytical results provide by Test America, it was determined that soil samples identified as E1, E2, E3, E11, and E16 collected at a depth of 0-1 fbg exhibited the presence of PCBs above the surface soil action level of 1 ppm. Analytical results of all other soil samples collected from areas 2A, 2B, and 2C did not indicate the presence of PCBs above the surface soil action level of 1 ppm for the 0-1 fbg excavation area.
  - **Over-Excavation of Non-Hazardous Soil:** Between January 26 and February 2, 2012, over-excavation was completed at areas 2A, 2B, and 2C where soil samples exhibited the presence of PCBs above the surface soil action level of 1 ppm. Sample locations E1, E2, E3, and E11 were re-sampled upon completion of over-excavation to a greater depth of 2 fbg in the same areas. The 2C excavation was expanded to the south of soil sample E16 and a new confirmation soil sample, E35, was collected at 0-1 fbg. Analytical results of the five (5) soil samples collected did not indicate the presence of PCBs above the surface soil action level of 1 ppm. As a result, no additional over-excavation was deemed necessary in the non-hazardous areas identified as 2A, 2B, 2C and 2D.
  - All non-hazardous soil (809.88 tons) was transported to Mill Seat Landfill (Waste Management Facility) in Bergen, New York.
- ❖ **Initial Excavation of Hazardous Soil:** Hazardous soil was excavated between January 27 and February 2, 2012 in excavation Areas 1A, 1B, and 1C (see [Figure 3](#)). The excavation

depths ranged from 1 to 6 fbg. A total of 16 confirmation soil samples (E19 through E34) were collected from the hazardous excavation areas (see **Figure 3**). Analytical results of soil samples E32, E33 and E34, collected at a depth of 1 fbg from area 1B exhibited the presence of PCBs above the surface soil action level of 1 ppm. The remainder of the soil samples collected from 1A, 1B, and 1C did not indicate the presence of PCBs above the regulatory action levels.

- **Over-Excavation of Hazardous Soil:** Between February 6 and 7, 2012, over excavation was completed at Area 1B where the soil samples exhibited the presence of PCBs above the action level. Sample location E34 was re-sampled upon over-excavating to 2 fbg in the same area. Additionally, the Area 1B excavation was expanded to the west of soil sample E32 and to the north of soil sample E33 and new compliance soil samples, E36 and E37, were collected at 2 fbg. Three additional soil samples were collected for the over-excavation. Analytical results of the three soil samples did not indicate the presence of PCBs above the action levels. As such, no additional over-excavation was deemed necessary in the hazardous areas 1A, 1B, and 1C.
- All hazardous soil (772.58 tons) was transported to the Chemical Waste Management Landfill in Model City, New York.
- ❖ **Soil or Cap:** Following the removal of soils, completion of over-excavation, collection of confirmatory samples, and receipt of favorable laboratory analytical results, backfilling and site restoration activities occurred between February 3 and 13, 2012. Prior to placement of backfill material, an orange filter fabric was placed on all of the excavation sidewalls and bottoms to demarcate the excavation limits. Compaction of the imported clean backfill was accomplished in 1-foot lifts with a placement tolerance of +/- 0.2-feet. Each lift was placed with a slight grade to enhance runoff and to minimize infiltration of storm water or rainfall. Gravel was replaced in areas of the site that were previously graveled. A vegetative cover was added where needed.
- ❖ **Environmental Notice:** - Execution and recording of an Environmental Notice (2015) to restrict land use and prevent future exposure to any contamination remaining at the Site.
- ❖ **Institutional Controls and Monitoring** - Implementation of a Site Management Plan (2016) for long term management of remaining contamination as required by the Environmental Notice, which includes plans for: (1) Institutional control; (2) monitoring, and (3) reporting.

As indicated above, the remedial actions were performed at the Site between January and February 2012 in accordance with the March 2009 ROD and the SMP was subsequently submitted for approval in June 2016.

### 1.3 Regulatory Requirements/Cleanup Goals

As per the ROD and referenced in the SMP, the remediation goals for this Site are to eliminate or reduce to the extent practicable:

- ❖ Exposures of persons at or around the site to PCBs and VOCs in soil and groundwater;
- ❖ Environmental exposures of flora or fauna to PCBs in drainage ditch soil and surface water;
- ❖ The release of contaminants from soil into groundwater that may cause exceedances of groundwater quality standards;
- ❖ The release of contaminants from site soil into surface water through storm water erosion:  
and

Further, the remediation goals for this Site include attaining to the extent practicable:

- ❖ Ambient groundwater and surface water quality standards and;
- ❖ The NYSDEC Soil Cleanup Objectives (SCO) included in 6 NYCRR Subpar 375-6 – Remedial Program Soil Cleanup Objectives and the Technical and Administrative Guidance Memorandum [TAGM] 4046.

### 1.4 Residual Contamination

After completion of the remedial work previously described, some contamination was left in the subsurface at this site. The Draft Site Management Plan (SMP) was prepared to manage remaining contamination at the site until the environmental notice is extinguished in accordance with ECL Article 71, Title 36. Since contaminated soil and groundwater remain beneath the site after completion of the remediation, Institutional Controls are required to protect human health and the environment. These Institutional Controls (ICs) are described in the SMP and include: groundwater use restriction and land use restriction. Long-term management of these ICs and residual contamination will be performed under the SMP approved by the NYSDEC. Based on the data obtained from the RI and groundwater monitoring conducted in June 2019 ([Table 1](#)), residual chlorinated VOC contamination remains at concentrations greater than applicable NYSDEC Class GA Groundwater Standards. In addition, 1,4-Dioxane, PFAs, and PCBs are present in groundwater at the Site.

## 2.0 MONITORING PLAN COMPLIANCE

The monitoring scope for the 640 Trolley Boulevard Site as presented in the SMP for this reporting period included annual Site inspections and annual groundwater sampling and analysis for the first three years following the SMP. Documents reviewed in preparation of this PRR indicated that one groundwater monitoring event has been conducted. As a result, the monitoring plan was not being



followed until 2019 when D&B assumed site management responsibilities for the site on behalf of NYSDEC.

Presented below is a summary of the monitoring and maintenance activities performed throughout this reporting period, as well as an evaluation of Site-related data relative to remedy performance, effectiveness and protectiveness, as appropriate.

## 2.1 Site Inspection

A site inspection was conducted by D&B during the June 2019 groundwater sampling event in accordance with the SMP (see [Appendix B](#)). During this inspection, MW-2 was observed to have been damaged to the point it could not be used and MW-11 could not be located. These are both off-site wells that were not part of the wells recommended to be sampled in the SMP. Additionally, groundwater contours generated from the June 2019 data and as presented in ([Figure 4](#)), indicate the Site groundwater flows to the south, and away from MW-2 and MW-11. As such, these wells are not deemed necessary at this time.

***Since residual chlorinated VOC contamination remains within the Site at concentrations greater than applicable NYSDEC Class GA Groundwater Standards, Site inspections should continue as specified in the SMP to ensure there are no future adverse impacts to public health and/or the environment. At the time of the last Site inspection, MW-2 was partially blocked. During the next Site inspection MW-2 should be assessed as to whether it can be repaired or if it should be decommissioned.***

## 2.2 Groundwater Sampling and Analysis

A single groundwater sampling event occurred at the Site during this reporting period. Analytical results from this sampling event are discussed in the sections below and are presented in [Table 1](#).

The June 2019 groundwater sampling event included collection of samples from all six (6) existing Site monitoring wells between June 25 through 26, 2019 (see [Figure 2](#)) using a peristaltic pump and in accordance with the Work Assignment and USEPA Low Flow-Low Purge Sampling Protocol. Prior to sampling, water levels in all wells were recorded on a water level gauging form (see [Table 2](#)). A groundwater contour map is presented as [Figure 4](#). Presumed groundwater flow is to the south-southeast. Field parameters including pH, specific conductivity, temperature, turbidity, oxidation-reduction potential (ORP), and dissolved oxygen were measured during well purging using a flow-through cell system and a water quality meter. Groundwater stabilization parameters were recorded on the individual field purge logs until the parameters had stabilized.

Per the SMP, the collected groundwater samples were sent to Test America, a NYSDEC-approved analytical laboratory, under standard chain-of-custody protocols for analysis of: TCL VOCs using USEPA Method 8260B and Polychlorinated biphenyls (PCBs) by USEPA SW846 Method 8082A. In addition, and at the request of the NYSDEC, groundwater samples from monitoring wells MW-04 and

MW-09 were analyzed for emerging contaminants: PFAs by USEPA Method 537 (modified) and 1,4-Dioxane by USEPA Method 8270 SIM.

### 2.2.1 VOC Results in Groundwater

The VOC results for the sampling included in this PRR are summarized [Table 1](#).

The identified VOC contaminants of concern for the Site (1,1,1-TCA, 1,1-DCA, 1,1-DCE, 1,2-DCA, 2-Butanone, Acetone, and Chloroethane) were detected in several samples collected at concentrations above the NYSDEC Class GA Standard as summarized in [Table 1](#). The detected VOCs were highest in MW-4. The concentrations of VOCs detected in the sample collected from MW-4 in 2019 were much higher than those detected in the groundwater samples collect in 2007 as part of the RI. It should be noted, however, that Vos detected in the remainder of the Site wells were lower in 2019 as compared to 2007 when samples were collected during the RI.

### 2.2.2 Emerging Contaminants Results in Groundwater

PFOA was detected in both MW-04 and MW-09 at concentrations above NYSDEC's screening criteria of 10 ng/L at 1,200 ng/L and 18 ng/L, respectively. PFOS was detected above NYSDEC's screening criteria of 10 ng/L in MW-09 at a concentration of 11 ng/L. PFBA was detected above NYSDEC's screening criteria of 100 ng/L in MW-04. In addition, total PFAS was detected above NYSDEC's screening criteria of 500 ng/L in MW-04 at a total concentration of 1,519 ng/L. (see [Table 1](#)).

1,4-Dioxane was detected above NYSDEC's screening criteria of 1 ug/L in monitoring wells MW-04, and MW-09 from samples collected during this reporting period at concentrations of 2,100 ug/l and 1.6 ug/l, respectively (see [Table 1](#)).

### 2.2.3 PCB Results in Groundwater

The PCB results for the sampling included in this PRR is summarized [Table 1](#).

The identified PCB contaminant of concern for the Site (Aroclor-1254) was detected in MW-04 at a concentration of 2.6 ug/l which exceeds the SCG of 0.09 ug/l (see [Table 1](#)). Aroclor-1254 was not detected in the groundwater sample collected from MW-04 in 2007 as part of the RI.

***Based on the groundwater data collected to date, residual chlorinated VOC and PCB contamination remains within the Site at concentrations greater than applicable NYSDEC Class GA Groundwater Standards. Groundwater sampling should continue for VOCs and PCBs as specified in the SMP. It is also recommended that Emerging Contaminants be added to the suite of analysis and further evaluated.***



### 3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN COMPLIANCE

The SMP was submitted to the NYSDEC for approval in June 2016 and includes an environmental notice and institutional controls to mitigate potential exposure pathways (i.e., direct contact, ingestion, or inhalation of VOCs from subsurface groundwater) during future construction work and/or ground intrusive activities. Engineering controls and/or mechanical systems were not components of the Site remedy; therefore, operation and maintenance plans are not applicable to this Site. In addition, Site management activities specified in the SMP include annual Site inspections, annual groundwater monitoring, and non-routine inspections and/or maintenance, as needed.

#### 3.1 Institutional Controls

The 640 Trolley Boulevard Site is managed as part of New York State's Superfund Program. The Site's inclusion in the Registry as a Class 2 Inactive Hazardous Waste Site acts as an Institutional Control (IC) for the Site.

An additional IC for the Site in the form of an Environmental Notice was accepted and recorded with the Monroe County Clerk's office and places restriction on the Site. The restrictions as summarized in the SMP include the following:

- ❖ The property may only be used for commercial use which will also allow industrial use provided that the long-term Institutional Controls included in the SMP are employed;
- ❖ The property may not be used for a higher level of use, such as unrestricted residential or restricted residential use without additional remediation and amendment of the Environmental Notice, as approved by the NYSDEC;
- ❖ All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- ❖ The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- ❖ Vegetable gardens and farming on the property are prohibited; and
- ❖ The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

### 3.2 Engineering Control

The ROD does not require Engineering Controls to protect public health and the environment. Therefore, no Engineering Controls are included in the SMP. With no Engineering Controls, a Site Monitoring Plan and an Operation and Maintenance Plan are not necessary and are not included in the SMP.

### 4.0 COST EVALUATION

The total cost of the site management activities during the 2015-2019 reporting period was \$10,886.08. This total includes engineering and Site management costs associated with the project. It should be noted that this total does not include any administrative costs incurred by the NYSDEC or prior consultants in support of the project. A review of the Site management costs for this reporting period is provided below.

COST SUMMARY		
Cost Item	Expended	Percent of Total
Engineering Support	\$7,470.16	68.62%
Site management		
Laboratory	\$2,673.70	24.56%
Expenses	\$742.22	6.82%
<b>TOTALS</b>	<b>\$10,886.08</b>	<b>100.0%</b>

### 5.0 CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Conclusions

- ❖ The SMP was in effect for the period August 3, 2015 through December 3, 2019. The IC operated as intended this reporting period. However, the first inspection and sampling event was not conducted until June 2019 when D&B assumed site management responsibilities on behalf of NYSDEC.
- ❖ Site and groundwater use are consistent with the restrictions set forth in the SMP.
- ❖ The remedy is protective of human health and the environment.
- ❖ Per the SMP, sampling events are to be conducted annually for the first 3 years. Therefore, the next groundwater sampling and analysis event should be conducted in the second quarter of 2020.
- ❖ Remediation goals, which pertains attaining to the extent practicable ambient groundwater quality standards, has not been achieved.

## 5.2 Recommendations

- ❖ During the next Site inspection MW-2 should be assessed as to whether it can be repaired or if it should be decommissioned.
- ❖ Site inspections should continue as specified in the SMP to ensure there are no future adverse impacts to public health and/or the environment.
- ❖ Groundwater sampling should continue for VOCs and PCBs as specified in the SMP.
- ❖ Additionally, 1,4-Dioxane and PFAs should be added to the SMP as a site COC and be included in the next round of sampling for further evaluation.
- ❖ Based upon the increase in observed chlorinated VOC concentrations in Site groundwater, it is recommended that soil vapor intrusion sampling, including sub-slab soil vapor, indoor and outdoor air, be conducted for the tenant-occupied portion of the Site during the fall 2020 heating season.
- ❖ It is recommended that the PRRs continue to be completed every five years to certify the ICs are in-place, effective and protective of human health and the environment.

## 6.0 RECLASSIFICATION/DELISTING EVALUATION

The Site's inclusion in the Registry as a Class 2 Inactive Hazardous Waste Site acts as an Institutional Control for the Site. Reclassification is not feasible at this time.

## 7.0 CERTIFICATION

The Standby Consultant IC/EC certification is provided as [Appendix C](#).