

# PERIODIC REVIEW REPORT (APRIL 2020-DECEMBER 2020)

#### **Active Industrial Uniform Superfund Site**

63 West Merrick Road Lindenhurst, New York

NYSDEC Site Number: 152125

Prepared For:

New York State Department of Environmental Conservation 625 Broadway Albany, New York 12233 Contract #D009808

Prepared By:

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HRP #: DEC1004.OM

Issued On: April 30, 2021



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#### **General Information**

#### **Project/Site Information:**

Active Industrial Uniform Superfund Site 63 West Merrick Road Lindenhurst, New York

Report Date: April 30, 2021

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#### QEP Certification:

**Report Authors:** 

For each institutional or engineering control identified for the site, I certify that all of the following statements are true: (a) the institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Division of Environmental Remediation (DER); (b) nothing has occurred that would impair the ability of such control to protect public health and the environment; (c) nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control; and (d) access to the site will continue to be provided to DER to evaluate the remedy, including access to evaluate the continued maintenance of this control.

David Feinson – Project Manager



#### 1.0 EXECUTIVE SUMMARY

The Active Industrial Uniform Site (the "Site") located at 63 West Merrick Road in the Village of Lindenhurst, Town of Babylon, Suffolk County, New York is listed on the New York State Registry of Inactive Hazardous Waste Sites as a Class 2 (NYSDEC Site#152125).

Historically, the Site was occupied by a dry cleaner and laundry. The laundering operations were performed at the Site between 1945 and 1993; dry cleaning operations were conducted between 1970 and 1987. As a result of releases associated with the dry-cleaning operations on the Site, chlorinated solvents migrated from the Site's subsurface soils into the groundwater beneath the Site. Three former tetrachloroethylene (PCE) underground storage tanks (USTs) were identified as the source of contamination.

Active Industrial Uniform entered into an Order of Consent on September 22, 1993 with the NYSDEC to remediate the Site. On March 31, 1999, a Record of Decision (ROD) was issued by the NYSDEC, which outlined the remedial approach for the Site. Remedial activities included excavation of the polluted soil, underground storage tanks and drywells; operation of soil vapor extraction (SVE) system (constructed in 1991 and dismantled in 2000); operation of a groundwater extraction and treatment (GWE&T) remedial system; and installation of a sub-slab depressurization (SSD) system off-site at 608 Tompkins Lane to mitigate potential vapor intrusion concerns.

The GWE&T system, constructed at the Site in 2001, was shut off in 2018 per NYSDEC direction. The air stripping towers associated with the GWE&T system were decommissioned in 2020. Currently, onsite operations include building/fire safety inspections, general site maintenance, quarterly groundwater monitoring, and landscaping activities.

This Periodic Review Report (PRR) documents Site activities from April 2020 through December 2020. HRP Associates, Inc. (HRP) took over operation and maintenance (O&M) activities at the Site in April 2020, at the direction of NYSDEC and did not work on the Site in January, February, or March 2020. While it appears that there is no indication that Site activities were not carried out routinely in January, February, or March 2020, those three months are not part of this certification. The institutional and engineering controls are in place and remain protective of public health and the environment.



#### 2.0 <u>SITE OVERVIEW</u>

#### 2.1 Site Location and Description

The Active Industrial Uniform Site is located in the Village of Lindenhurst, Town of Babylon, Suffolk County, New York. The Site location is shown on **Figure 1**. The Site is comprised of three parcels, identified as District 103, Section 22, Block 1, and Lots 9.001, 9.002 and 25 on the Suffolk County Tax Map, with a total area of approximately 0.5 acres. The Site is bounded by West Montauk Highway (aka State Route 27A) to the north, Tompkins Lane and residences to the south, and commercial properties to the east, and west (these features are shown on **Figures 2 and 3**).

The Site is currently vacant. Historically, the Site was occupied by a dry cleaner and laundry. The laundering operations were performed at the Site between 1945 and 1993; dry cleaning operations were conducted between 1970 and 1987. In June 1993, the laundering operation ceased, and the facility began operating as a distribution center. In May 1994, all operations of the Site had ceased. In February 1995, the on-site buildings were demolished. The Site currently is improved with a 35'x35' treatment building with associated air stripping towers and carbon vessels. A fence with locked gate surrounds the property.

The properties adjoining the Site and, in the neighborhood, primarily include light commercial and residential properties. The properties immediately south of the Site include residential properties; the properties immediately north, east, and west of the Site include light commercial operations.

#### 2.2 Remedial Program

An initial soil and groundwater investigation of the Site was conducted in 1987. A release of chlorinated solvents was identified at the Site associated with the storage and use of dry-cleaning chemicals. Volatile organic compounds (VOCs) were detected in soil and groundwater samples. Three former USTs containing PCE were identified as the source of contamination. In 1991, an SVE system was installed at the Site.

Active Industrial Uniform entered into an Order of Consent on September 22, 1993 with the NYSDEC to remediate the Site. In March 1997, a ROD was issued by the NYSDEC, which outlined the remedial approach for the Site.

Remedial activities at the Site included excavation of the polluted soil, underground storage tanks, and drywells; operation of the SVE system (constructed in 1991 and dismantled in 2000); operation of a GWE&T remedial system; and installation of a sub-slab depressurization (SSD) system off-site at 608 Tompkins Lane.

The GWE&T system, constructed at the Site in 2001, was shut off in 2018 under the approval of the NYSDEC. Currently, on-site activities include quarterly groundwater monitoring, building inspections, and landscaping and snow removal as needed.



#### 2.3 Site Cleanup Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the ROD dated March 26, 1997 are as follows:

- Continued operation of the existing SVE system to remediate shallow soil contamination in the source area and expansion of the system to treat contaminated soil in the area of the dry wells/cesspools on the north side of the Site and under portions of the former building;
- Removal of VOCs from the SVE system emissions by activated carbon;
- Installation of an air-sparging system to remediate shallow on-site groundwater;
- Installation of a GWE&T system downgradient of the Site to capture, remove, and treat dry cleaning compounds detected in the shallow groundwater in the downgradient surrounding area, and treatment of the groundwater by air stripping; and discharge of the treated effluent to the storm sewer;
- Environmental monitoring of groundwater existing upgradient, on-site and downgradient of the Site and periodic reviews of clean up goals; and
- Implementation of a deed restriction, including restrictions on soil excavation and other disturbance of on-site soil, and implementation of a groundwater use restriction for the property.

In a letter dated February 5, 2001, the NYSDEC determined that the on-site sources of soil contamination have been sufficiently remediated during the November 2000 Interim Remedial Measure soil excavation and, as a result, the planned air sparging system would not be installed. The NYSDEC further concluded that if any residual contamination remained on-site, installation of an on-site extraction well (RW-1) pumping at a rate of 100 gallons per minute, would create a sufficient "capture zone" to capture any contamination that would have otherwise been addressed by the air sparging system.

The GWE&T remedial system was constructed at the Site in the Fall of 2001. The groundwater remediation system utilized two recovery wells: the on-site recovery well (RW-1) and an off-site recovery well (RW-2) to extract groundwater from the subsurface. Eleven groundwater monitoring wells were installed to monitor the groundwater quality. The monitoring well and recovery well locations are shown on Figures 2 and 3.

The GWE&T system was shut down on November 30, 2018 (as discussed above) and remained off in 2020. Additionally, the associated air stripping towers were decommissioned in 2020. The extraction well RW-2 was shut down in April 2010 due to historically low VOC concentrations per NYSDEC direction. Issues were encountered with the use of RW-2. Attempts to redevelop the well made by the previous consultants were not successful and it was concluded that the screen at RW-2 had collapsed. RW-2 remains in the quarterly groundwater monitoring program. The GWE&T system remains off-line.



#### 3.0 INSTITUTIONAL CONTROLS AND ENGINEERING CONTROLS COMPLIANCE

#### 3.1 Institutional and Engineering Controls Requirements and Compliance

The institutional controls (ICs) in the form of a groundwater use restriction and land-use restriction are mandatory controls required for the Site as per the March 1997 ROD. ICs consisting of a Declaration of Covenant and Restrictions, including groundwater and land-use restrictions, was recorded on April 28, 2014 in the Deed records of the Suffolk County Clerk's office and the Village of Lindenhurst. There is no on-site use of groundwater for potable purposes and the use of the property has been and will continue to be restricted to operation of the GWE&T system only.

Engineering controls (ECs) existing at the Site include the GWE&T system (currently shut down and partially decommissioned) and the off-site SSD system located at 608 Tompkins Lane (which is monitored by the site occupant in accordance with the SMP).



#### 4.0 MONITORING PLAN COMPLIANCE

#### 4.1 Components of the Monitoring Plan

For the purpose of monitoring of the groundwater quality and to ensure the selected remedy was effective, the following groundwater sampling program is implemented at the Site:

- Quarterly sampling (January, April, July, October) of groundwater monitoring wells MW-2S, MW-4D, MW-5S, MW-103, MW-104, MW-105, MW-106, MW-107, RW-1, and RW-2;
- Semi-annual sampling (January and July) of additional groundwater monitor wells MW-101, MW-102, MW-108, MW-109 and MW-111.

Groundwater samples are analyzed for VOCs via EPA Method 8260. All groundwater samples are collected in accordance with low-flow groundwater sampling procedures and submitted to Eurofins TestAmerica, an NYSDOH ELAP-certified laboratory, for analysis. Two duplicate samples and two trip blanks are collected and submitted to the laboratory for analysis.

Depth to water measurements are collected from all of the site monitoring wells prior to sampling. Water-quality parameters, specifically pH, conductivity, dissolved oxygen and/or oxidation/reduction potential, temperature, and turbidity (at a minimum) are measured to provide general groundwater quality information. These parameters are also monitored for stability during purging of groundwater monitoring wells. HRP's standard operating procedures (SOP) for field screening is followed during field screening activities. The locations of each well are presented on **Figures 2 and 3**.

#### 4.2 Monitoring Completed During Reporting Period

The following table summarizes sampling activities completed at the Site between April 2020 and December 2020. Quarterly sampling conducted in January 2020 is not within the monitoring period of this report.

MONITORING COMPLETED DURING APRIL 2020 TO DECEMBER 2020 PERIOD									
Sampling Location	April 2020	July 2020	October 2020						
MW-101	Х		Х						
MW-102	Х		Х						
MW-103		Х							
MW-104		Х							
MW-105		Х							
MW-106		Х							
MW-107		Х							
MW-108	Х		Х						
MW-109	Х		Х						
MW-111	Х		Х						
MW-2S		X							



MONITORING COMPLETED DURING APRIL 2020 TO DECEMBER 2020 PERIOD								
Sampling Location	April 2020	July 2020	October 2020					
MW-4D		Х						
MW-5S		Х						
RW-1		Х						
RW-2		Х						

#### 4.3 Comparison with Remedial Objectives

#### 4.3.1 Groundwater

A summary of the site-specific VOCs (PCE, trichloroethylene [TCE], cis-1,2-dichloroethylene [cis-1,2-DCE] and vinyl chloride) detected during this reporting period is provided below. The Class GA Standard for PCE, TCE and cis-1,2-DCE is 5 micrograms per liter ( $\mu$ g/l) and the Class GA Standard for vinyl chloride is 2  $\mu$ g/l.

Monitoring Well ID	TABLE 1: Summary of 2020 Groundwater Sampling Results											
and Location	PCE			TCE		Cis-1,2-DCE			Vinyl Chloride			
Sampling Period	Q2	Q3	Q4	Q2	Q3	Q4	Q2	Q3	Q4	Q2	Q3	Q4
MW-4D (on-site)	37	54	95	8.7	7.8	13	280	2.4	2	0.96	<1	<1
MW-5S (on-site)	0.57	0.41	0.34	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW-101 (on-site)	NS	0.85	NS	NS	0.43	NS	NS	<1	NS	NS	<1	NS
MW-102 (on-site)	NS	<1	NS	NS	<1	NS	NS	<1	NS	NS	<1	NS
MW-103 (on-site)	2.7	3	5.3	0.66	0.64	0.65	0.57	<1	<1	<1	<1	<1
MW-104 (on-site)	24	50	50	3.4	4.5	5.8	0.79	8.1	1.6	<1	<1	<1
MW-105 (on-site)	5.3	1.3	0.5	0.37	<1	0.43	150	16	0.25	12	1	<1
MW-106 (on-site)	11	15	11	5.3	3.2	2.8	9.8	13	13	0.67	1.6	2.4
MW-107 (on-site)	2.8	1.3	1.2	0.42	0.61	0.53	<1	<1	<1	<1	<1	<1
MW-108 (on-site)	NS	3.4	NS	NS	0.32	NS	NS	<1	NS	NS	<1	NS
RW-1 (on-site)	0.47	0.83	<1	NS	<1	<1	<1	0.52	<1	<1	<1	<1
MW-2S (off-site)	0.8	29	1.8	<1	7.9	0.34	1.2	100	3.2	<1	11	<1
MW-109 (off-site)	NS	0.84	NS	NS	1.6	NS	NS	1.9	NS	NS	<1	NS
MW-111 (off-site)	NS	<1	NS	NS	<1	NS	NS	<1	NS	NS	<1	NS
RW-2 (off-site)	<1	<1	<1	<1	<1	<1	1.6	0.5	<1	<1	<1	<1
Class GA Groundwater Standard, μg/L		5		5		5			2			

**Notes: 1** Parameter reported at a concentration greater than applicable regulatory standard/criterion ND = not detected; NS = not sampled; concentrations are in  $\mu$ g/L

Laboratory reports were provided directly to NYSDEC by the contracted laboratory. **Table 1** summarizes groundwater sample results during this reporting period. Charts showing concentrations of VOCs in monitoring wells consistently containing contaminants of concern following shut-down of



the GWE&T system in 2018 are included as **Appendix A**. The findings of the sampling are discussed below.

The findings of the sampling are discussed below.

- <u>MW-4D</u>: The monitoring well is located in the southwestern portion of the Site and downgradient of the historical dry-cleaning activities. The well is screened at 60 to 70 feet below grade (fbg). PCE, TCE, and/or cis-1,2-DCE were detected in this monitoring well at concentrations exceeding the Class GA Groundwater Standards during the monitoring period. Overall, VOC concentrations have decreased since the GWE&T system was shut down in 2018.
- <u>MW-5S</u>: The monitoring well is located in the western portion of the Site and screened at 14 to 24 fbg. PCE was the only contaminant of concern detected in this well during the three sampling quarters; no exceedances of the applicable regulatory standards were identified. TCE, cis-1,2-DCE, and vinyl chloride were not detected in this well during the three quarters of 2020.
- <u>MW-101</u>: The monitoring well is located in the northeastern portion of the Site and screened at 5-15 feet bgs. This monitoring well is sampled on a semi-annual basis. PCE and TCE were detected at concentrations below the Class GA Standards in 2020. Cis-1,2-DCE and vinyl chloride were not detected above the laboratory detection limits.
- <u>MW-102</u>: The monitoring well is located in the north-central portion of the Site and screened at 5-15 feet bgs. This monitoring well is sampled on a semi-annual basis. None of the contaminants of concern were detected above the laboratory detection limits in 2020.
- <u>MW-103</u>: The monitoring well is located in the northern portion of the Site and screened at 5 to 15 fbg. Concentrations of PCE slightly exceeded the Class GA Groundwater Standards during the fourth quarter of 2020. TCE was detected at concentrations below the applicable Class GA Standards during all three quarters of 2020. Cis-1,2-DCE and vinyl chloride were not detected above the laboratory detection limit. Concentrations of VOCs have generally remained stable in this monitoring well since 2018.
- <u>MW-104</u>: The monitoring well is located in the western portion of the Site and screened at 5 to 15 fbg. PCE consistently exceeded the Class GA Standards during 2020 in samples collected from this monitoring well. TCE and cis-1,2-DCE exceeded the Class GA Standards during one of the three sampling quarters. Vinyl chloride was not detected above the laboratory detection limit. Concentrations of VOCs have generally remained stable in this monitoring well since 2018.
- <u>MW-105</u>: The monitoring well is located near the southwestern corner of the treatment building and screened at 5 to 15 fbg. PCE exceeded the Class GA Standards during one of the sampling quarters. TCE did not exceed the applicable standards. Cis-1,2-DCE and vinyl chloride exceeded Class GA Standards during the second quarter of 2020.
- <u>MW-106</u>: The monitoring well is located in the southeastern corner of the Site and screened at 5 to 15 fbg. All four contaminants of concern exceeded the Class GA Standards during at least one of the three sampling quarters. Concentrations of VOCs have generally remained stable in this monitoring well since 2018.



- <u>MW-107</u>: The monitoring well is located in the southern portion of the Site and screened at 5 to 15 fbg. PCE and TCE were detected at concentrations below the Class GA Standards during the three sampling quarters. Cis-1,2-DCE and vinyl chloride were not detected above the laboratory detection limits. Concentrations of VOCs have generally remained stable in this monitoring well since 2018.
- <u>MW-108</u>: The monitoring well is located in the southwestern corner of the Site and screened at 5 to 15 fbg. This monitoring well is sampled on a semi-annual basis. PCE and TCE were detected at concentrations below the Class GA Standards. Cis-1,2-DCE and vinyl chloride were not detected above the laboratory detection limits in 2020.
- <u>MW-109</u>: The monitoring well is located on Orchard Street, approximately 1,700 feet to the southwest of the Site and screened at 25-35 feet bgs. This monitoring well is sampled on a semi-annual basis. PCE, TCE, and cis-1,2-DCE were detected below the Class GA Standards. Vinyl chloride was not detected above the laboratory detection limits in 2020.
- <u>MW-111</u>: The monitoring well is located on Lane Street, approximately 500 feet to the southwest of the Site, and screened at 25-35 feet bgs. This monitoring well is sampled on a semi-annual basis. None of the contaminants of concern were detected above the laboratory detection limits in 2020.
- <u>RW-1</u>: The 4-inch extraction well is located in the southwestern portion of the Site and screened at 10-35 feet bgs. PCE and cis-1,2-DCE were detected below the Class GA Standards. TCE and vinyl chloride were not detected above the laboratory detection limits in 2020. Concentrations of VOCs have generally decreased at this recovery well since the GWE&T system was shut down in 2018.
- <u>RW-2</u>: The 4-inch extraction well is located on Orchard Street, approximately 1,500 feet to the southwest of the Site, and screened at 12-37 feet bgs. PCE, TCE, and vinyl chloride were not detected above the laboratory detection limits in 2020. Cis-1,2-DCE was detected below the applicable numeric standards during two sampling quarters in 2020.
- <u>MW-2S</u>: The monitoring well is located on Tompkins Street, approximately 200 feet to the south of the Site and screened at 12 to 22 fbg. All four contaminants of concern (i.e., PCE, TCE, cis-1,2-DCE, and vinyl chloride) were detected in exceedance of the Class GA Standards during the third quarter of 2020. Concentrations of VOCs have generally remained stable in this monitoring well since 2018.

In addition to the constituents listed in the table, the following contaminants were detected in the groundwater samples at concentrations exceeding the Class GA Standards:

• Chloroform was detected in monitoring well MW-4D at concentrations exceeding the Class GA Standards of 7  $\mu$ g/L (100  $\mu$ g/L during the third quarter and 12  $\mu$ g/L during the fourth quarter).

#### 4.4 Monitoring Deficiencies

During the review and certification period associated with this report no deficiencies in the Monitoring Program were encountered.



#### 4.5 Conclusions and Recommendations for Changes

The data obtained during the three quarters of groundwater sampling suggests a presence of residual groundwater contamination with chlorinated solvents in the southwestern portion of the Site. VOC concentrations in groundwater on-site appear to have a stable to decreasing trend. The highest concentrations of PCE were consistently detected in the on-site monitoring wells MW-4D and MW-104, and the off-site monitoring well MW-2S. Future monitoring is necessary to determine if the identified levels are indicative of long-term trends.

The monitoring plan is effective and provides for an adequate amount of data collection to evaluate the groundwater conditions; therefore, no changes are recommended.



#### 5.0 OPERATIONS AND MAINTENANCE PLAN COMPLIANCE

The GWE&T system was shut down in November 2018 under NYSDEC approval and remained off during 2020. The air stripping towers were decommissioned in late 2020. Recent inspection of RW-2 indicated that the screen has collapsed. The previous consultants' attempts at redevelopment of RW-2 were not successful.

There is no active remediation system operating at the Site. Current O&M activities include the following:

- Building maintenance, including monthly routine fire safety inspection of the treatment building and
- Site maintenance, including (but not limited to) groundskeeping, snow removal, and repairs to site features following severe weather events.



#### 6.0 CONCLUSIONS AND RECOMMENDATIONS

#### 6.1 Compliance with Site Management Plan

Based on the activities conducted in 2020, the major elements of the 2012 SMP were met during the reporting period. Engineering controls existing at the Site include the GWE&T system and the routine monitoring of the groundwater monitoring well network, as required by the March 1997 ROD.

The GWE&T system was shut down in 2018, and partially decommissioned in late 2020 under the approval of the NYSDEC. Groundwater sampling was conducted quarterly to monitor the groundwater conditions both on- and off-Site.

#### 6.2 Effectiveness of the Remedy

Data collected during the reporting period indicates that the concentrations of the site-specific contaminants of concern are generally stable to decreasing. Groundwater sampling should continue in order to monitor VOC concentration trends.

#### 6.3 Future Periodic Review Report Submittals

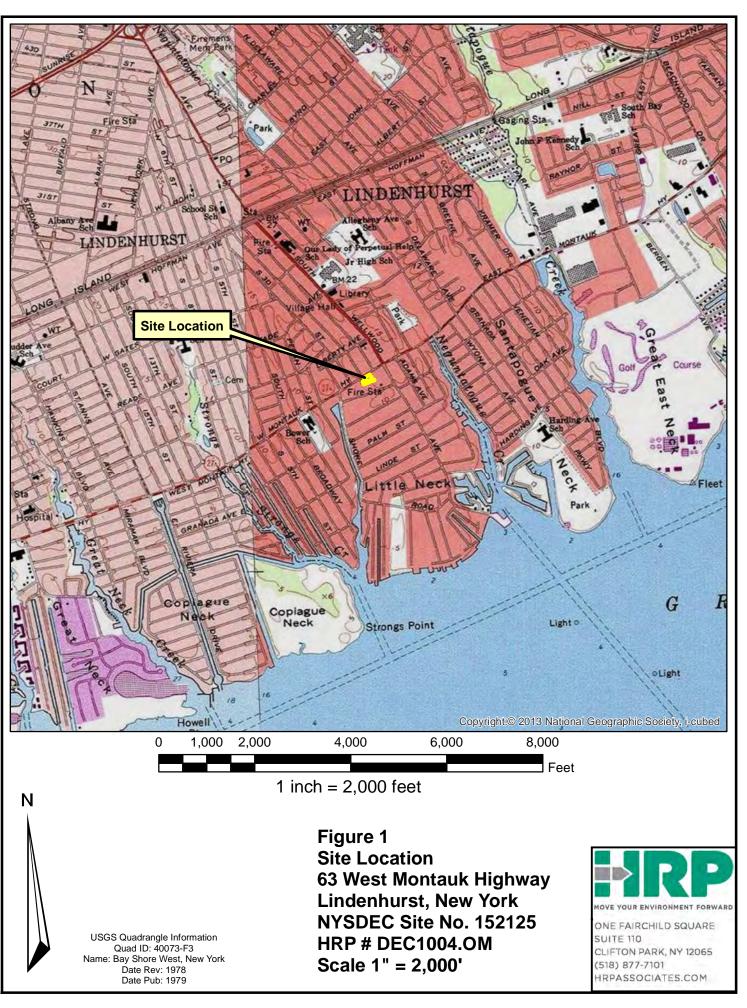
The next Periodic Review Report will cover the reporting period from January 1, 2021 to December 31, 2021 and will be submitted in the first quarter of 2022.

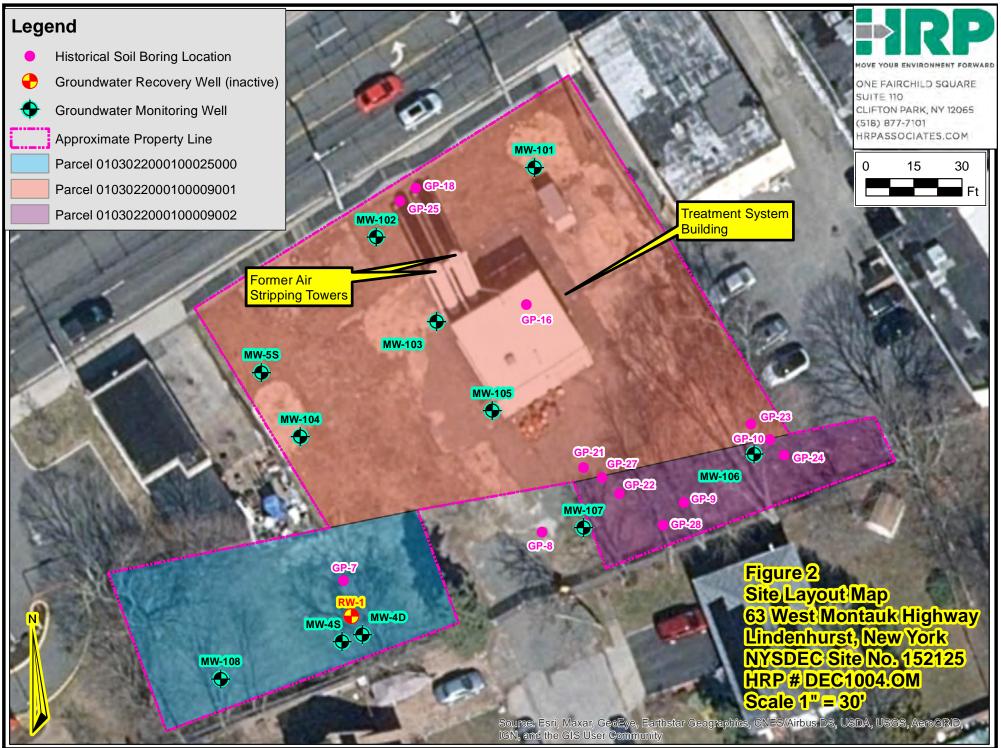


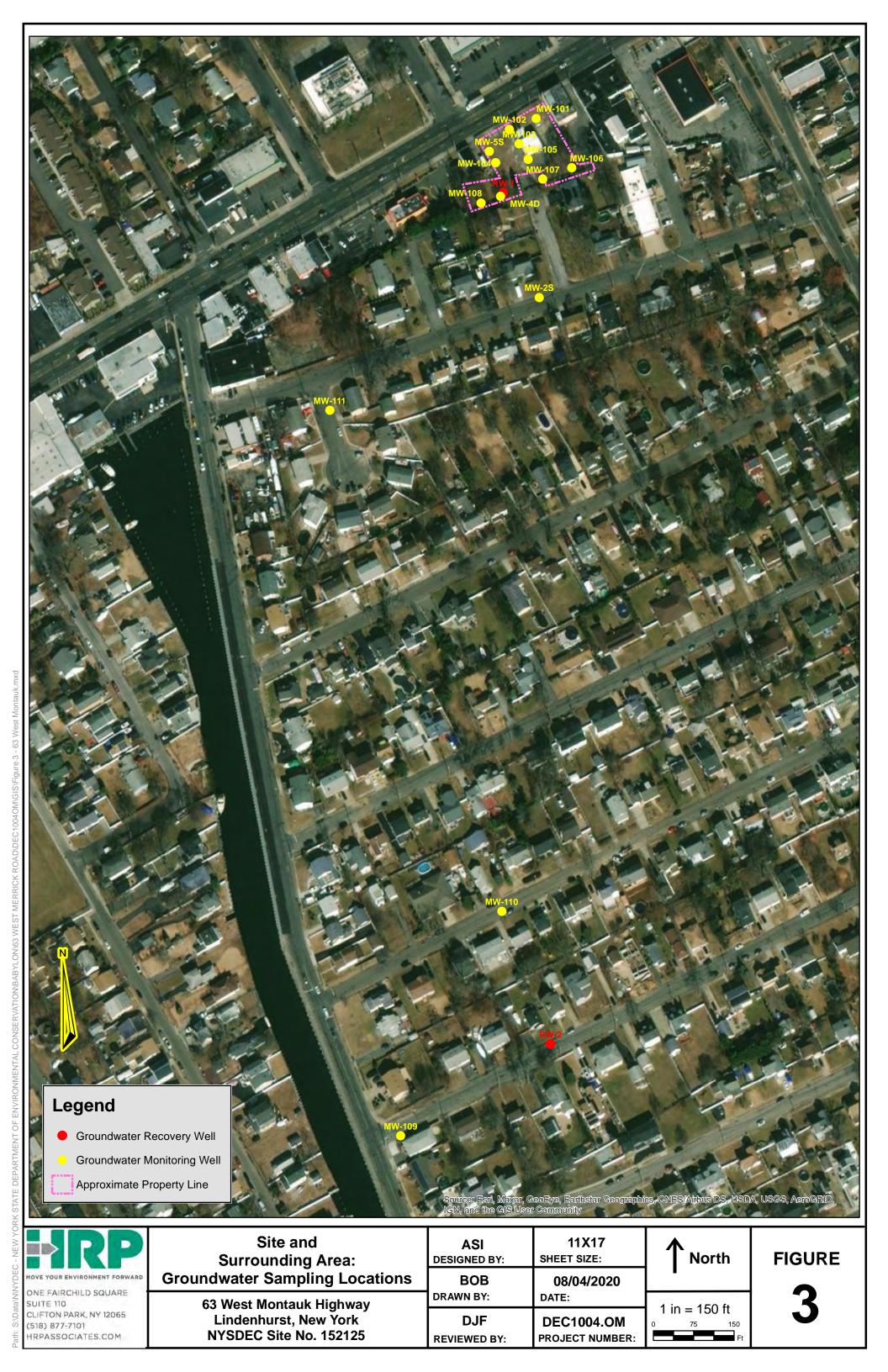
Periodic Review Report (March 2020 – December 2020) Active Industrial Uniform Superfund Site #152125 63 West Merrick Road, Lindenhurst, New York

# FIGURES







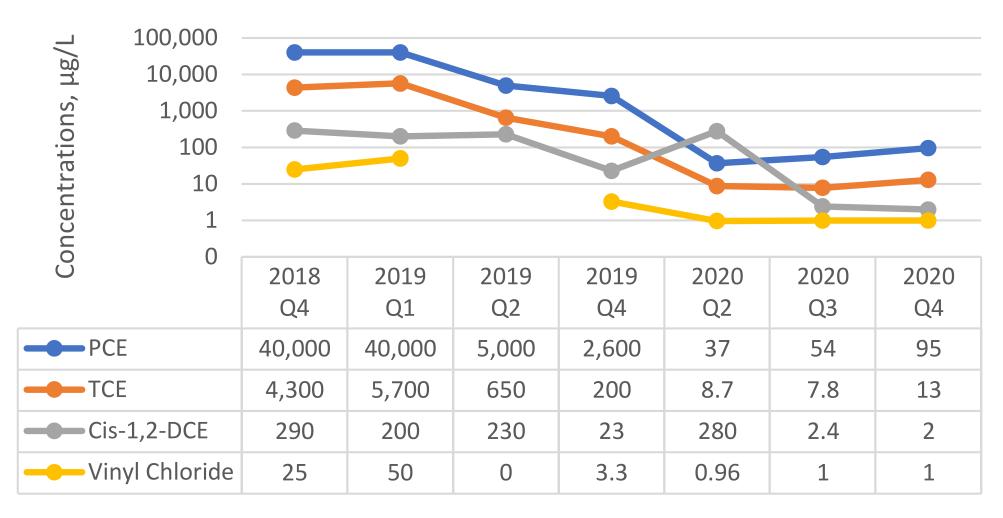


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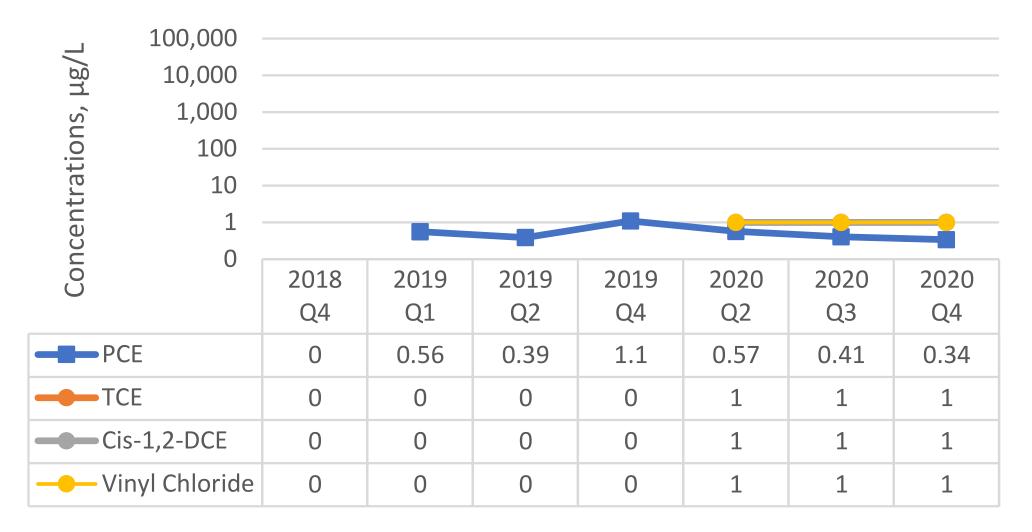
# Appendix A Variations of Measured Parameters



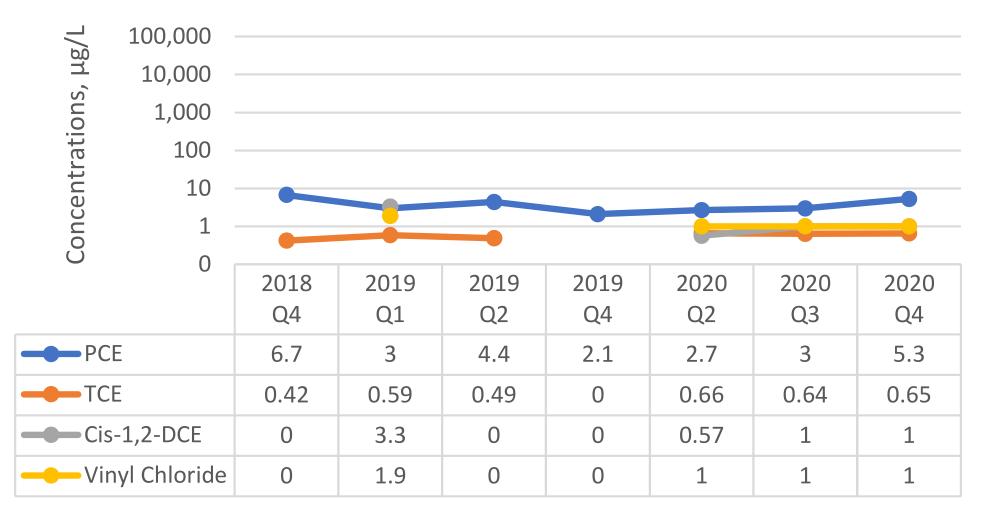
# MW-4D



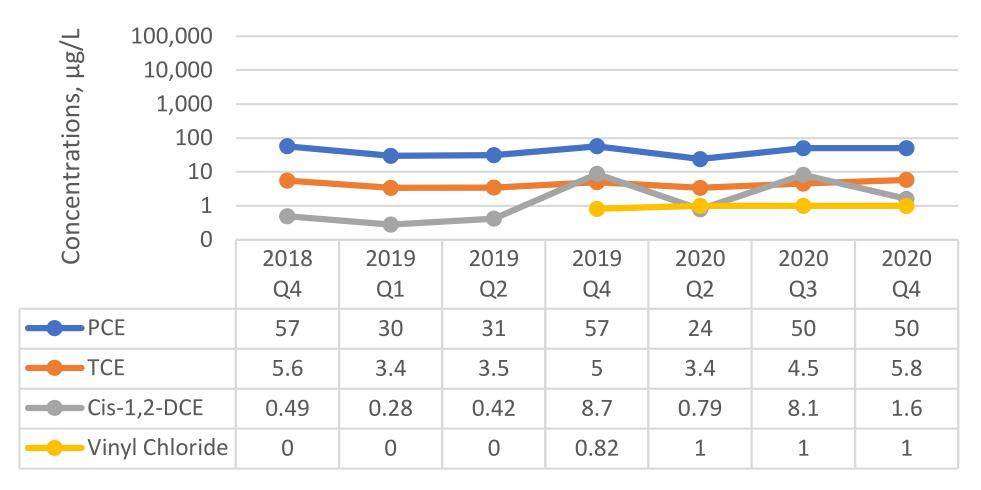
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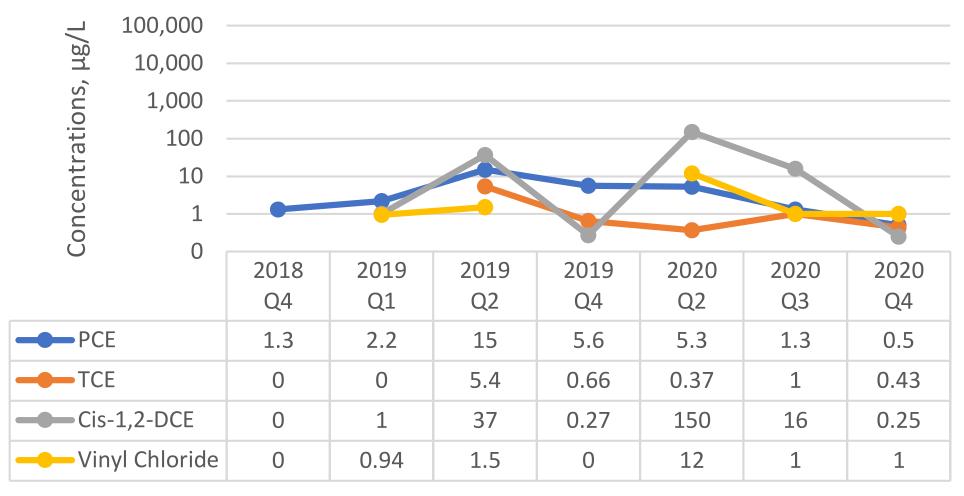
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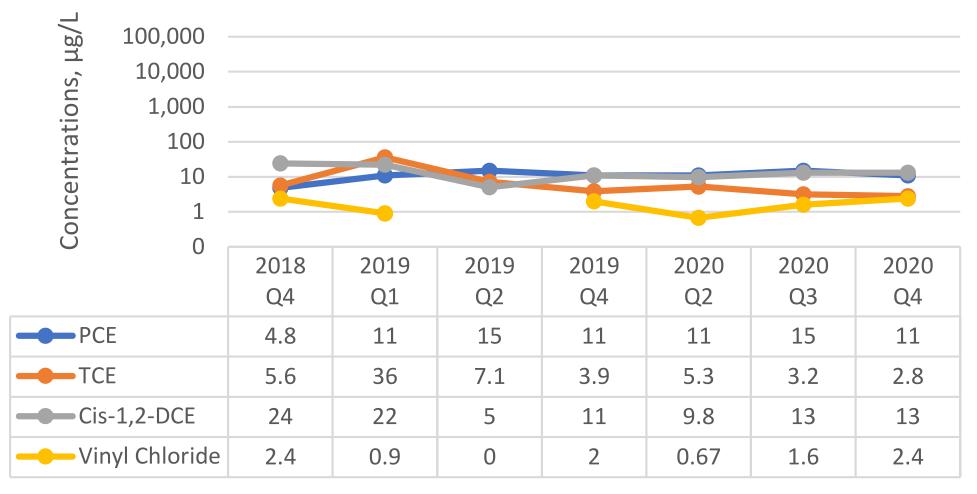
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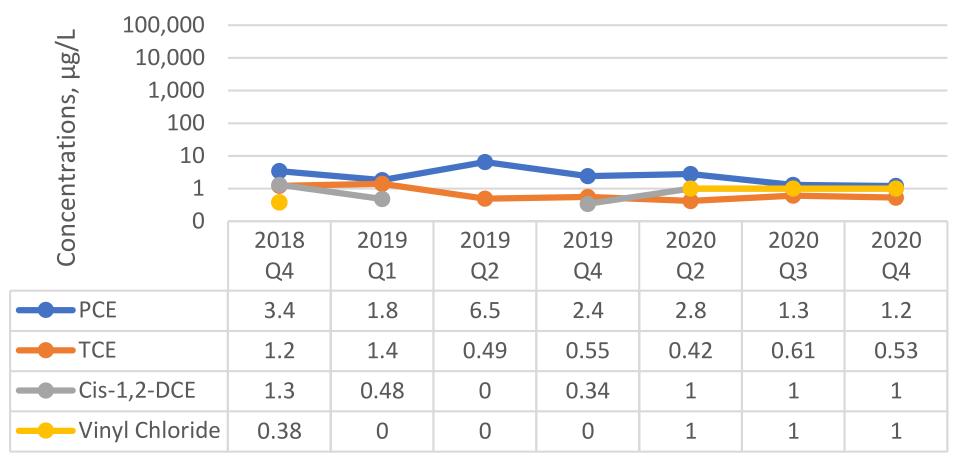
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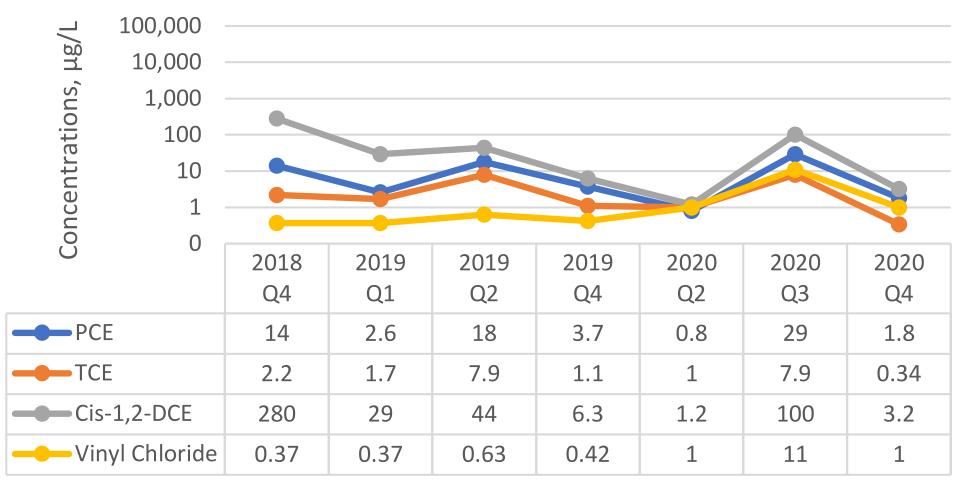
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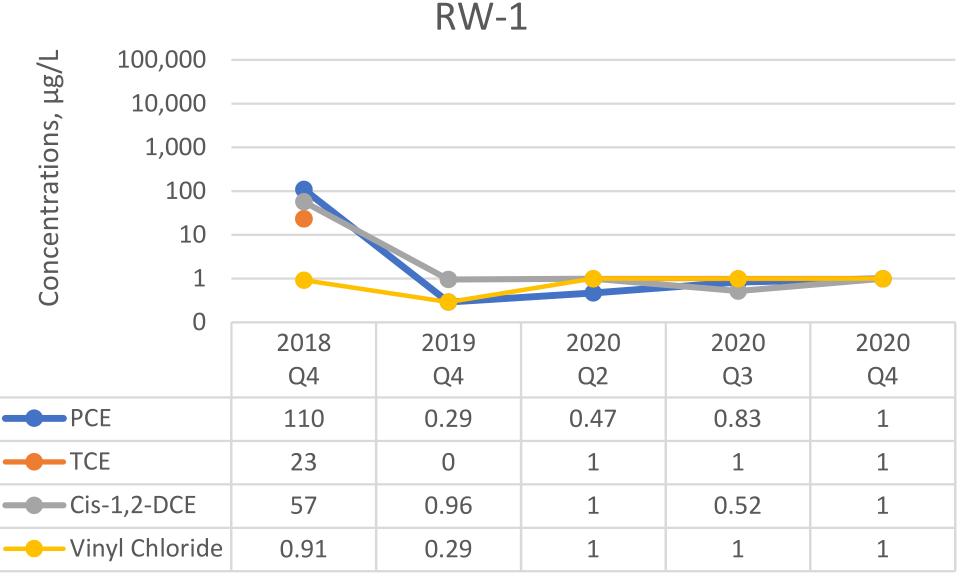


### MW-107



# MW-2S





### **RW-2**

