AECOM Environment

Prepared for:
Superfund Standby Program
NYSDEC
625 Broadway
Albany, New York 12233

Prepared by:
AECOM
Latham, New York
September 2019

Three-Year Periodic Review Report
July 2016 – June 2019
Former NOW Corporation Facility
Site No. 3-14-008
Work Assignment No. D007626-25

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Engineering Certification

For each institutional or engineering control identified for the site, I, Daniel Servetas, 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 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;

(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.

Respectfully submitted,

AECOM Technical Services, Inc.

STATE OF NEW YORK
DANIEL T. SERVETAS
079068
LICENSED PROFESSIONAL ENGINEER

September 26, 2019

Daniel Servetas, PE

Date

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Executive Summary

The former NOW Corporation facility (Site) is located in the Town of Clinton, Dutchess County, New York (**Figure 1**). The Site (Site No. 3-14-008) is approximately 9 acres in size and is an active manufacturing facility (**Figure 2**).

The Site was added to the New York State Department of Environmental Conservation (NYSDEC) Registry of Hazardous Waste Sites in December 1983 as a Class 2a site, due to allegations of on-site disposal of tank rinsing solutions. A Record of Decision (ROD) was issued in March 1995 for impacted groundwater, denoted as Operable Unit (OU) 1, and in March 1996 for impacted soil, denoted as OU 2.

Due to the contamination of the overburden and underlying bedrock aquifer with volatile organic compounds (VOCs), the selected remedy consisted of: removal and on-site treatment of soil; installation of three groundwater/vapor recovery wells and a groundwater treatment system consisting of an air stripper, clarifier, sand filter and granular activated carbon (GAC) vessels, with most treated groundwater being discharged to Crum Elbow Creek, and the remaining groundwater being re-injected; two vapor extraction wells and a bedrock vapor extraction (VE) system consisting of a blower and GAC vessels; and implementation of site controls, including groundwater monitoring. The vapor recovery and groundwater re-infiltration systems were taken off-line circa 2005 and a replacement air stripper was installed in June 2012.

Regular monitoring is conducted on the groundwater treatment system, including daily remote system monitoring, monthly compliance sampling, and annual groundwater sampling. Residences with groundwater wells near the Site have been provided with bottled water or point-of-entry (POE) GAC treatment systems in order to eliminate the potential for the ingestion of contaminants of concern (COCs) from impacted groundwater. Based on AECOM's review of the existing historical data and information, the groundwater treatment system at the Site continues to function as designed (plume control and contaminant-mass recovery). Over the twenty one-year period of operation, the treatment system has removed approximately 1,227 pounds of total VOCs. The concentrations of VOCs have declined in recovery wells TW-1, TW-2A, and TW-3, with the greatest decline at TW-2A, where concentrations nevertheless remain in the vicinity of 1 milligram per liter (mg/L). During the 36-month review period, there was one exceedance of effluent limitations from the pump and treat (P&T) system.

A groundwater well supplies untreated water to building tenants. The water is reportedly not consumed, but dermal contact occurs. A sample was collected in September 2016 and analyzed for VOCs. The water contains VOCs exceeding groundwater standards.

POE carbon filters are maintained on three impacted homeowner wells, and long-term monitoring of groundwater treatment system effluent and the groundwater monitoring well network continue to be performed at the required intervals. The quality of *untreated* water at the three homes equipped with POE systems was below maximum contaminant levels (MCLs) throughout the review period.

The three-year cost for operation of the remedial pump and treat system and completion of all required monitoring and reporting was approximately $240,600 ($80,200 annually).

Recommendations for the Site include: Continuing to operate and maintain the on Site P&T system, consideration of injection of a chemical oxidant into groundwater and preparation of a three-year, field oversight Periodic Review Report.

1.0 Site Overview

This periodic review report (PRR) covers the period of July 1, 2016 through June 30, 2019 and has been prepared to evaluate the continuing effectiveness of the remedies selected, and their implementation at the Site. AECOM services the Site for the NYSDEC under Work Assignment D007626-25 of the Superfund Standby Contract. The NYSDEC reclassified the former NOW Corporation facility (ID No. 3-14-008) as a Class 4 Site in 1999. A Class 4 Site has been properly closed, but requires continued site management consisting of operation, maintenance and monitoring (OM&M).

The former NOW Corporation site is located at an active manufacturing facility at 2092 Route 9G in the Town of Clinton, Dutchess County, New York (see **Figure 1**). The Site consists of approximately 9 acres of a 94.5–acre parcel, and is located in a primarily residential area, near the intersection of Route 9G and South Creek Road (**Figure 2**). Crum Elbow Creek is present to the northwest of the Site, north of Route 9G.

On October 31st, 2017 ownership of the property was transferred from Linda Fraser and others to Andrea M. Patierno and John J. Patierno under 2092 Route 9G LLC.

The current tenants and their activities at the site include the following:

1. Sam Moyer -Woodworking
2. Rick Uista – RV Welding
3. Robert Wheeler - 21B Metal Workers
4. Tip Lady – Woodworking
5. MAC Art – Art/Metal Sculptures
6. Jason – Proseptic
7. Peter Rizzo – Equistat Builders
8. Bill Hyson – Hyson Towing / Storage
9. Dennis Donahue – Storage / Tree Work
10. Protective Power Systems
11. Deb Kuhn & David Kuhn – Stat Construction

The Site is located in a broad northeast-trending valley, with bedrock outcrops exposed along the eastern portion of the valley. Depth to bedrock ranges from 0 to approximately 35 feet below ground surface (bgs). The bedrock consists of dark gray phyllite and metamorphosed dark gray sandstone of the Austin Glen Formation. Published geologic maps and reports indicate that the rocks in the area have undergone extensive folding and faulting. Where observed, the phyllite appeared highly fractured with generally closely spaced fractures along bedding and cleavage planes (Engineering-Science, Inc. [ES] Draft Final Remedial Investigation and Feasibility Study [RI/FS] Report, 1995).

Locally, the unconsolidated materials are variable in thickness and composition. In the southern portion of the Site, a relatively thin brown silt and clay unit (5 to 10 feet thick) overlies approximately 20 feet of fine to coarse sand and gravel. Throughout the central and northern portions of the Site, a brown silt unit overlies a dense, gray till of variable thickness of 0 to 14 feet (ES RI/FS, 1995). According to the RI, all unconsolidated materials were observed to be unsaturated.

Groundwater flow at the Site occurs under semi-confined conditions along zones of secondary porosity in the fractured bedrock aquifer. The natural direction of groundwater flow is generally from the relatively high elevations and hillsides in the eastern portion of the Site to the lower western portion. Pumping test data indicated that the groundwater flow direction is strongly influenced by the occurrence and orientation of the fractures in the bedrock, especially under pumping/drawdown conditions.

A Conceptual Site Model (**Figure 3**) based on available data illustrates AECOM's understanding of current site conditions. The Conceptual Site Model indicates that the majority of groundwater contamination is present in the fractured bedrock beneath the Site. The horizontal and vertical extents of the VOC plume cannot be clearly defined.

The Site requires continued management including OM&M of the active groundwater P&T system, which has been in operation since early 1998, and the POE GAC treatment systems. The P&T system's configuration is provided on **Figure 2**. The OM&M Plan (Earth Tech, May 2006), Operation and Maintenance Manual (Earth Remediation Services), and a Site Management Plan (SMP) are available for the Site.

1.1 Remedial History

The Site was added to the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites in December 1983 as a Class 2a site, due to allegations of on-site disposal of tank rinsing solutions. A fire in a warehouse may have resulted in further contamination of the Site due to water runoff during firefighting efforts. Samples of runoff water and potable water from three nearby residences collected after the fire in February 1989 contained low levels of benzene, toluene, ethylbenzene, trichloroethene and 1,1,1-trichloroethane. Subsequent residential well sampling in April 1989 determined that VOCs were present in two wells. In October 1989, the NYSDEC began sending bottled water to House #1 and House #4, and in February 1990, GAC systems were installed on their water systems (refer to **Figure 2**). POE GAC systems were also installed for a residence on Route 9G farther southwest of the Site in the mid-1990s, for House #3 (located on South Creek Road) in 1996 and for House #2 in 2002.

In August 1990, the Site was reclassified to Class 2, signifying that the Site presents a significant threat to public health and/or the environment and action is required. A remedial investigation at the Site was conducted in two phases, beginning in July 1992. The first phase consisted of a review of historical documents, magnetic survey, site-wide soil gas survey, test pitting, soil boring program,

monitoring well installation and sampling, sediment and surface water sampling, and nearby homeowner well sampling. This phase identified the primary COCs related to the Site, as well as their approximate concentrations. The second phase of the remedial investigation was initiated in April 1994, for the purpose of gathering information for the development of remedial alternatives. This work consisted of a treatability study for groundwater via GAC, and a separate treatability study involving a vapor extraction system for treating contamination in dewatered bedrock.

The Draft Final RI/FS Report was completed by ES in January 1995 under the State Superfund Program. A ROD was issued in March 1995 for impacted groundwater, denoted as OU 1, and in March 1996 for impacted soil, denoted as OU 2.

The selected remedy for groundwater contamination per the ROD for OU 1 consisted of:

- Groundwater extraction and treatment, and vapor recovery and treatment from impacted bedrock;
- Re-infiltration of a portion of the treated groundwater in order to prevent over-pumping of the potable wells of nearby homes and businesses;
- Institutional controls and restrictions on groundwater use;
- Maintenance of existing POE carbon filters on impacted homeowner wells; and
- Long-term monitoring.

VOCs have been identified as the primary COCs for the Site. The contaminants of concern listed in the ROD for OU 1 include:

- Benzene
- Chloroethane
- 1,1-Dichloroethene (1,1-DCE)
- 1,2-Dichloroethene (1,2-DCE)
- Tetrachloroethene (PCE)
- 1,1,1-Trichloroethane (1,1,1-TCA)
- Trichloroethene (TCE)
- Vinyl chloride.

The selected remedy for soil contamination per the ROD for OU 2 consisted of:

- Excavation of soil containing more than 700 parts per billion (ppb) of TCE located near the northeast corner of the building (Area A on **Figure 4**), along the drainage ditch near the northern corner of the building (Area B), and the south corner of the concrete pad (Area C);
- Excavation of weathered bedrock containing more than 700 ppb of TCE in Areas A and B; and
- On-site treatment of excavated soils and weathered bedrock by low temperature thermal desorption or comparable technology.

The COCs listed in the ROD for OU 2 include chlorinated compounds, specifically TCE and DCE. The results of soil sampling performed at the Site prior to issuance of the ROD for OU 2 and the locations of the areas of interest are presented on **Figure 4**.

The remediation of both operable units was implemented concurrently under a single set of contract documents. Earth Remediation Services (ERS) began construction of the groundwater remediation system in August 1997. In accordance with the ROD, highly impacted soils and weathered bedrock were removed from several areas and treated on-site via low temperature thermal desorption between September 1997 and January 1998. According to the Final Remediation Report (Rust Environment and Infrastructure, March 1999), a total of 1,013 tons of contaminated soil was excavated and treated on-site, not including test burns. Post-excavation soil samples were collected from the excavation floors and walls. All of the treated soil was used on-site as backfill. Remediation efforts in the area located southwest of the manufacturing building (Area D) were not considered to be cost-effective, as discussed in the ROD for OU 2.

In February 1998, a VE system and a groundwater recovery, treatment and injection system became operational. In 1999, the Site was reclassified to Class 4.

1.1.1 Groundwater Treatment System

The groundwater treatment system at the Site began operation in February 1998. The treatment system has run without significant downtime except for a ten-month period in 2001, a one-month period in 2011, and a seven-month period in 2011 to 2012. A standby submersible well pump, effluent sump pump and float switch are maintained in the treatment building so that if the equipment fails the spare unit is installed, minimizing interruptions.

The groundwater recovery system consists of three groundwater recovery wells (TW-1, TW-2A, and TW-3), from which contaminated groundwater is pumped to a treatment building containing an air stripper for removal of VOCs (refer to **Figure 2**). In January 2000, the air stripper discharge treatment train was modified to eliminate the carbon-polish by directing exhaust through an 8-inch PVC stack on the roof of the building. The air stripper exhaust manifold is fitted with dual mist eliminators to prevent water from being drawn by vacuum into the exhaust system. The GAC adsorbers were taken off-line and the carbon was disposed off-site, leaving the empty carbon vessels in-place.

Treated groundwater is collected in a three-chamber precast concrete settling tank, which is located beneath metal grates in the floor of the treatment building. The pumping system utilizes a transfer pump, controlled by high and low level indicators in the third chamber of the settling tank. A sand filter was also utilized in the earlier years of system operation.

Prior to circa 2005, treated effluent was pumped to a distribution pit from which water flowed by gravity to two injection wells (IW-1 and IW-2). A portion of the treated groundwater was re-injected into the subsurface via the injection wells. When effluent flow exceeded the infiltration capacity of the two wells, water would rise to the distribution pit and overflow by gravity via subsurface piping to an outfall on Crum Elbow Creek (**Figure 2**). However, the reinjection system was shut down circa 2005 due to the accumulation of scale within the distribution pit and injection wells. The system was not repaired because homeowner wells were never drawn down significantly, and because the injection wells are within the approximate capture zone of the P&T system. There are no plans to repair or restart the reinjection system. Effluent from the groundwater treatment system currently flows through the distribution pit to the outfall at Crum Elbow Creek.

A summary of major system improvements during the review period include the following:

- Installation of a new effluent line from the air stripper system in a new trench. The old effluent line was abandoned in place.
- Old equipment that was no longer used at the site (including sand filters and vapor-phase carbon vessels) was removed for recycling or repurposing at a DEC equipment storage facility.

1.1.2 Bedrock Vapor Extraction System

The locations of the four vapor extraction wells (VE-1, VE-2, TW-1 and TW-2A) are shown on **Figure 2**. Following initial system start-up in 1998, VOC removal generally occurred at an asymptotic rate. Extraction wells VE-1 and VE-2 have not been operational since February 2004, when the well screens were inundated by a high water table. On November 2, 2005, the VE system was completely shut down when the vapor blower motor ceased operation. The system was taken off-line permanently with NYSDEC approval, because the system was not significantly reducing VOC concentrations in bedrock beneath the Site. The carbon vessels associated with the VE system were also removed from the process in November 2005.

The VE system removed approximately 48 pounds of total VOCs from the subsurface over the eight-year period of operation. Historical VE system sampling data and trend figures can be found in the November 2010 PRR.

While no longer used for vapor extraction, TW-1 and TW-2A continue to act as groundwater extraction wells.

1.1.3 System Monitoring

System monitoring activities include daily remote system monitoring via computer link, monthly visits to collect influent and effluent water samples, and necessary preventive maintenance and repairs.

The groundwater treatment system has been performing effectively to date. As of June 2019, the groundwater treatment system has treated approximately 116.5 million gallons of groundwater (**Table 1**). VOC concentrations in the influent are effectively treated by the system and are not detectable or are present at negligible concentrations in the system effluent. A steady decrease of VOC concentrations in groundwater has occurred from 1998 to the middle of 2008, with concentrations remaining relatively constant since (refer to **Figure 5** and **Appendix A**). Total mass removal via the groundwater treatment system was approximately 1,229 pounds of total VOCs over the twenty one-year period of operation (refer to **Table 1** and **Figure 6**). The groundwater treatment system continues to remove VOCs from the bedrock beneath the Site. VOC removal rates declined from over 200 pounds in 1998 to 50 pounds per year following the first three years of system operation. Thereafter, mass removal averaged greater than 30 pounds per year until about 2012. During the review period, removal rates have averaged about 15 pounds per year.

1.1.4 Groundwater Monitoring

Groundwater sampling is performed annually in the spring to monitor the effectiveness of the groundwater remedy. A groundwater data summary is presented in **Appendix B**.

Groundwater sampling has been conducted annually since 1998, except for 2001, 2002, 2006 and 2018. Monitoring wells MW-2, MW-3S/3D, MW-4D, MW-5, MW-8, MW-9, MW-10 and MW-11

demonstrated minimal or non-detect levels of VOCs since the late 1990s or earlier, and with NYSDEC concurrence were removed from the monitoring program. These wells were last sampled in May 2008. MW-12S and MW-12D were installed in May 2008, and MW-12D has been sampled annually since, with the exception of in 2018. VOCs have not been detected at MW-12S since installation, and the well was removed from the monitoring program following the May 2014 sampling event.

Total VOC concentrations from 2016 to 2019 ranged from 1.8 micrograms per liter (µg/l) to 239.08 µg/l. The highest concentrations over the three-year reporting period were detected in MW-7D each year.

1.1.5 Point-of-Entry Water Treatment Systems

Four nearby residential/commercial water supply wells have apparently been impacted by historic operations at the former NOW Corporation facility.

In 1992, the NYSDEC requested that a POE water treatment system be installed on the water supply well at the residence on South Creek Road located immediately north of the Site (House #1 on **Figure 2**). Culligan Water Conditioning (Culligan) of Poughkeepsie, New York installed and maintained the system that consisted of two GAC tanks. The NYSDEC rented the unit from Culligan until July 1994, at which time Earth Tech replaced the Culligan system with larger capacity GAC tanks. Earth Tech installed a GAC system at another South Creek Road residence north of the others (House #3 - not shown on **Figure 2**) in June 1996. The installation included an Ideal Horizon UV treatment unit. Earth Tech also installed a GAC system at House #2 in July 2002. The system consists of two GAC tanks connected in series and a Trojan model 708 UV unit for bacterial disinfection.

The three POE carbon filtration systems prevent exposure of occupants to the contaminated groundwater, and AECOM continues to maintain and monitor the systems under another work assignment with the NYSDEC. AECOM monitors groundwater quality at a fourth impacted well, located at a commercial property (Business #1) north of the Site on Route 9G. Power to the water supply well was shutoff sometime after the June 2013 monitoring event and has been occasionally available for sampling.

To date, all POE treatment systems are in satisfactory working condition. The last sampling event and system check within this reporting period took place on June 17, 2019. **Appendix C** shows raw water analytical results for the reporting period, whereas **Appendix D** presents results for untreated and treated water in December 2018. The results are typical of all semi-annual monitoring events.

1.1.6 Soil Vapor Intrusion (SVI)

No SVI studies were completed during this reporting period.

1.1.7 Sub-Slab Depressurization System

Based on the results of the 2008 and 2009 SVI studies, a sub-slab depressurization system (SSDS) was installed at House #4 on November 11, 2008 by GeoLogic NY, Inc. of Homer, New York in order to mitigate indoor VOC vapors. The system prevents vapors or gases from accumulating beneath the slab and possibly entering the home. The system is comprised of vapor collection piping connected to a small electric fan that directs exhaust outside of the building.

In June 2009, HDR, Inc. of Pearl River, New York was subcontracted by the NYSDEC to inspect and maintain the SSDS at House #4. A post-inspection letter from HDR to the residents of House #4 has

been included as **Appendix E.** The letter instructs the residents to notify the NYSDEC if they observe operational issues.

2.0 Evaluate Remedy Performance, Effectiveness and Protectiveness

Water levels were measured at 21 monitoring wells in May 2019 (**Table 2**). Depth-to-groundwater measurements and transducer readings from TW-1, TW-2A, and TW-3 were converted to water table elevations and contoured as shown on **Figure 7**. The figure depicts the nearly constant drawdown of the water table by the three groundwater recovery wells (TW-1, TW-2A, and TW-3). The overall direction of groundwater flow beneath the Site outside of the recovery well influence is predominantly to the southwest.

Based on the groundwater contour map (**Figure 7**), the groundwater extraction system has a capture zone that includes a majority of the impacted wells. The only well with exceedances of the June 1998 New York State Ambient Water Quality Standards (AWQS) and Guidance Values (GV) not presently within the capture zone is MW-12D, to the north of the Site (refer to **Figure 8**).

The groundwater treatment system has been performing effectively to date. As of June 2019, the groundwater treatment system has treated approximately 116.5 million gallons of groundwater (**Table 1**). VOC concentrations in the influent are effectively treated by the system and are not detectable or are present at negligible concentrations in the system effluent. A steady decrease of VOC concentrations in groundwater has occurred from 1998 to the middle of 2008, with concentrations remaining relatively constant since (refer to **Figure 5** and **Appendix A**). Total mass removal via the groundwater treatment system was approximately 1,227 pounds of total VOCs over the twenty-one-year period of operation (refer to **Table 1** and **Figure 6**). The groundwater treatment system continues to remove VOCs from the bedrock beneath the Site. VOC removal rates declined from over 200 pounds in 1998 to 50 pounds per year following the first three years of system operation. Thereafter, mass removal averaged greater than 30 pounds per year until about 2012. During the review period, removal rates have averaged 15 pounds per year.

To date, all POE treatment systems are in satisfactory working condition. The last sampling event and system check within this reporting period took place on June 17, 2019. Representative results of POE sampling conducted in 2016 to 2019 are located in **Appendix C** and **Appendix D**.

The following sections provide more detail on the monitoring requirements and results for the Site.

2.1 IC/EC Plan Compliance Report

The current engineering controls (ECs) at the Site and reported in this 2019 PRR include:

- Groundwater P&T system at the Site;
- An SSDS at House #4, located on Route 9G; and
- Three off-site residential POE GAC water treatment systems.

The ECs employed at the Site have been substantially unchanged since the date that the controls were implemented or approved by the NYSDEC. The ability of the controls to protect public health and the environment has not been impaired.

There are no institutional controls (ICs) in place at the Site, other than a monitoring plan and operation & maintenance plan as outlined in the Site Management Plan (SMP).

Although groundwater use restrictions are listed as part of the selected remedy in the March 1995 ROD, a deed search conducted by AECOM on November 19, 2010 and August 19, 2019 concluded that groundwater use restrictions were not referenced in the deed for the Site, nor were any other ICs restricting groundwater use in place at that time.

As requested by the NYSDEC AECOM identified a single “bathroom” (sink & toilet) in the building – a water sample was collected from the sink tap on September 20, 2016, and analyzed for VOCs by USEPA Method 524.2. Total VOCs of 243 µg/L was reported for the grab sample (**Appendix F**). The water supply well contains higher levels of VOCs than two of the three recovery wells for the groundwater treatment system. Evidence for a second supply well was found in the building (cut-off pump-discharge line protruding from a wall, and a disconnected pressure switch). The location(s) of the supply well(s) is (are) unknown. The site owner reported to AECOM that he had recently contacted NYSDEC to request installation of a POE water-treatment system on the existing well.

2.1.1 EC Requirements and Compliance

The following activities are completed to maintain compliance with EC requirements:

- Monthly inspection and maintenance of the groundwater P&T system.
- Monthly P&T system compliance samples are collected in conjunction with the inspection of the P&T system.
- Semi-annual inspection, maintenance and sampling of residential POE treatment systems.

Performance of ECs is evaluated at the Site as follows:

- Groundwater P&T system: monthly monitoring of groundwater treatment system effluent results and comparison to effluent limitations, monitoring of groundwater elevations to check for consistent draw down around groundwater extraction wells and effective containment of impacted groundwater to the site.
- SSDS at House #4: This system was designed and implemented to be monitored by the building residents.

- POE Treatment Systems: semiannual sampling of influent water, intermediate treated water between carbon tanks, and final effluent water at each system to ensure that no breakthrough of contaminants is occurring.

During this reporting period each EC for the Site was fully in place and effective as intended. There are no recommendations for changes at this time.

2.1.2 IC/EC Certification Forms

The Institutional and Engineering Controls Certification Form for the Site, is provided in **Appendix G**.

2.2 Monitoring Plan Compliance Report

2.2.1 Components of the Monitoring Plan

Activity	Required Frequency (X)				Compliance Dates
	Monthly	Quarterly	Semi-Annual	Annual	
P&T System Influent/Effluent Sampling	X				July 2016-June 2019
Groundwater Level Gauging		X			July 2016-June 2019
Groundwater Sampling				X (Spring)	2017, 2019
POE Treatment System Operation and Maintenance (O&M) Service Visits			X		Generally in June and December, and as needed

2.2.2 Confirm that Performance Standards are Being Met

2.2.2.1 Groundwater Elevations

Water levels were measured at 21 monitoring wells in May 2019 (**Table 2**). Depth-to-groundwater measurements and transducer readings from TW-1, TW-2A, and TW-3 were converted to water table elevations and contoured as shown on **Figure 7**. The figure depicts the nearly constant drawdown of the water table by the three groundwater recovery wells (TW-1, TW-2A, and TW-3). The overall direction of groundwater flow beneath the Site outside of the recovery well influence is predominantly to the southwest.

Based on the groundwater contour map (**Figure 7**), the groundwater extraction system has a capture zone that includes a majority of the impacted wells. The only monitoring well with exceedances of the June 1998 New York State Ambient Water Quality Standards (AWQS) and Guidance Values (GV) apparently located beyond the capture zone is MW-12D, to the north of the Site (refer to **Figure 8**).

2.2.2.2 Groundwater Analytical

Annual groundwater sampling was conducted during the reporting period on May 4, 2017, and May 2, 2019. Groundwater samples were collected from the following locations: MW-1, MW-4S, MW-6S,

MW-6D, MW-7S, MW-7D and MW-12D. With NYSDEC approval, MW-2, MW-3S/3D, MW-4D, MW-5, MW-8, MW-9, MW-10 and MW-11 were eliminated from the monitoring program after 2008 and MW-12D after 2014 since these locations had consistently contained minimal or non-detect levels of VOCs.

Groundwater analytical results for the monitoring wells sampled during this reporting period (2016 to 2019) and historical results for all of the wells are presented in **Appendix B**. The groundwater analytical results and VOC isoconcentration contours developed from the May 2019 monitoring event are presented on **Figure 8.** The figure also depicts the results of the influent (TW-1, TW-2A and TW-3) sampling of the groundwater treatment system on May 28, 2019.

Figure 9 displays the total VOC concentrations in currently-monitored wells between 1993 and 2019. As shown on the figure, MW-1, MW-6D, MW-6S, MW-7D, and MW-7S have historically contained the highest concentrations of VOCs.

Exceedances of AWQS and GV for monitoring wells and recovery wells sampled in May 2019 are displayed on **Figure 8**. Excluding the groundwater recovery wells, six wells (MW-1, MW-6S, MW-6D, MW-7S, MW-7D and MW-12D) exhibited impacts at levels exceeding the AWQS and GV. The dominant contaminants in these of these wells are TCE, 1,1-dichloroethane (1,1-DCA), and 1,1,1-Trichloroethane (1,1,1-TCA) with the highest concentrations in MW-1, MW-6D, MW-7S and MW-7D. All monitoring wells and recovery wells are screened in the bedrock. Recovery wells TW-1, TW-2A, and TW-3 also contain elevated concentrations of several VOCs, as shown on **Figure 8**. Generally, TCE, 1,1,1-TCA and 1,1-DCA are present at the highest concentrations in TW-2A.

2.2.2.3 Influent and Effluent

As of June 18, 2019, approximately 116.5 million gallons of groundwater has been recovered and treated by the remediation system since it became operational in February 1998.

Approximately 11.18 million gallons of water were treated during the current review period. As of June 18, 2019, 2.75 million gallons of water were treated this year to date, which equates to 16,368 gallons per day (gpd) or 11.36 gallons per minute (gpm). These rates are reasonably consistent with past rates. During 2012, for example, the average discharge was 16,500 gpd or 11.4 gpm.

Table 3 summarizes influent and effluent analytical data for water samples collected on May 28, 2019. Influent samples were collected from four locations: one from each recovery well (TW-1, TW-2A, and TW-3), and one combined influent sample. Additionally, a treatment system effluent sample was collected. No VOCs were detected in the effluent sample other than tetrahydrofuran (a compound for which there is no effluent limitation).

Table 4 summarizes selected operational data recorded on the sampling date. VOC influent data collected during the current review period are presented in **Appendix A.** Combined influent results since system startup are shown on **Figure 5**.

Total VOC removal quantities were calculated for each sampling event during the lifetime of the P&T system (1998 through 2019, and are presented in **Table 1**. **Figure 6** displays the total annual and cumulative VOC removal from Site groundwater by the P&T system. The system has removed approximately 1,229 pounds of VOCs from groundwater since February 1998. The fact that the cumulative curve in Figure 6 has not reached asymptotic levels due to elevated levels of CVOCs in TW-2A suggests that source material may remain within the capture volume of recovery well TW-2A.

2.2.2.4 Monitoring of Surrounding Properties

POE Systems

Periodic sampling and maintenance is conducted on the residential POE water treatment systems for House #1, House #2, and House #3, which are all located on South Creek Road.

Sampling points at the residential POE water treatment systems include raw, intermediate (between the carbon vessels), and final (treated) sample ports. All final samples are collected at kitchen taps. Typically, a raw sample is collected at Business #1, where there is no GAC system in the building. However, power to the water supply well pump was available only for the June 2017 and June 2018 sample events. No sample was collected from this location during other events due to lack of power at the facility.

Bacterial sampling of the treated water is conducted after VOC sampling. Sampling protocol requires decontamination of the water sampling port by heating with an open flame for one minute prior to sampling. Bacterial sample results are reported in the semi-annual POE treatment system reports and are consistently free of bacteria. Summaries of the VOC analytical results for water samples collected from these residences during the current period are presented in **Appendix C** and **Appendix D**.

The carbon in the vessels is changed out when Site contaminants are reported at 1 µg/L or higher in the intermediate water samples. No Site contaminants were reported at 1 µg/L or higher in the intermediate water samples; therefore, the carbon was not replaced in any of the POE vessels during the review period.

When the raw well water at Business #1 was first sampled in June 1994, total VOC concentration was 565 µg/L. In June 2013 and June 2018, the concentration had fallen to 4 µg/L and 22.8 µg/L respectively. Similarly, the most contaminated residential well now equipped with at POE system tested at 481 µg/L in June 1994; the raw water met MCLs in the June 2019 sample (results are not tabulated herein). These results demonstrate the effectiveness of the site remedy and the plume-control maintained by the groundwater P&T system.

Soil Vapor Intrusion (SVI) Sampling

No SVI samples were collected during this reporting period (July 1, 2016 to June 30, 2019).

Refer to the November 2010 and March 2015 PRRs for historical data related to SVI sampling initially conducted under IIWA D004436-16.

SSDS Monitoring

There is one SSDS system located at an off-Site residence, referred to as House #4. Monitoring of the SSDS system is self-performed by the residents and any issues are reported to the NYSDEC.

2.2.3 Monitoring Deficiencies

All components of the monitoring plan were completed as required with the following exceptions:

- AECOM was unable to complete the annual groundwater sampling event in 2018. All other annual groundwater monitoring events were completed as required.
- The Groundwater P&T system was not sampled in November 2018. All other monthly system monitoring events were completed as required.

2.2.4 Emerging Contaminants Sampling

In addition to the required components of the monitoring plan for this reporting period, at the request of the NYSDEC during the May 2019 groundwater sampling event MW-1, MW-7D, MW-6S and MW-12D were sampled for emerging contaminants including Per- and Polyfluoroalkyl Substances (PFAS) (Method 537) and 1,4-Dioxane (Method SW-846 8270SIM). Validated laboratory results were received on August 8th, 2019 and the data usability summary report was prepared and included in the July 2019 monthly operation and maintenance report. There are not yet specified maximum contaminant levels (MCLs) for PFAS compounds or 1,4-Dioxane in New York State. However, the United States Environmental Protection Agency (USEPA) has set a health advisory level (HAL) for Perfluorooctanoic acid (PFOA) Perfluorooctanesulfonic acid (PFOS), individual and combined, for 70 parts per trillion (ng/L). There is not yet an MCL specified for 1,4-Dioxane, however there is an MCL for the generic class of organic compounds known as unspecified organics (UOCs) of 50 parts per billion (ug/L).

Table 5 presents the emerging contaminant sample data compared to the USEPA HAL for PFOA and PFOS and the MCL for UOCs for 1,4-Dioxane. PFAS and 1,4-Dioxane were detected at levels above the method detection limit for all sampled locations. PFOS and PFOA were detected in concentrations above the USEPA HAL at MW-1 and MW-7D. 1,4 Dioxane was not detected above the MCL for UOCs.

2.2.5 Conclusions and Recommendations for Changes

At this time AECOM, recommends that the monitoring schedule remains unchanged.

2.3 Operation and Maintenance Plan Compliance Report

The current O&M program involves operation and maintenance of the groundwater treatment system, specifically:

- Remote system monitoring via computer link;
- Performing system maintenance; and
- Collection of influent and effluent VOC samples.

2.3.1 O&M Plan Compliance Report

Activity	Required Frequency (X)			Compliance Dates
	Daily	Monthly	Quarterly	
Remote System Monitoring	X			July 2016 – June 2019
System Maintenance	As Necessary			July 2016 – June 2019
System Inspection & Influent and Effluent Sampling		X		July 2016 – June 2019

2.3.2 Evaluation of O&M Activities

2.3.2.1 Evaluation of Treatment Units

Based on AECOM's review of the existing historical data and information, the groundwater treatment system at the Site continues to function as designed. During the 36-month review period, there were two exceedances of effluent limitations from the P&T system. In May 2019 the iron level in the effluent flow was measured to be 979 µg/L, which is higher than the effluent limitation of 600 µg/L, and the combined iron and manganese level in the effluent flow was measured to be 2,289 µg/L, which is higher than the effluent limitation of 1,000 µg/L. The NYSDEC was notified of the exceedances on June 17th, 2019 upon receipt of the laboratory results. As exceedances are a rare occurrence for this site, AECOM recommended waiting to see what the June 2019 effluent results were to see if the exceedance is repeated before determining what the appropriate response should be. The June 2019 effluent results were back to normal historical levels; therefore AECOM recommends that no further action is taken.

Monthly influent VOC concentrations are plotted versus time in **Figure 5** and **Figures 10 through 12**. Note the variable vertical scales on each figure. **Figure 5** presents concentrations in the total influent, whereas **Figures 10, 11** and **12** depict concentrations specific to recovery wells TW-1, TW-2A, and TW-3, respectively. From February through September 1998, total influent was sampled at a frequency of three to five times per month. To simplify the display in **Figure 5** (and to make it easily comparable to **Figures 10 through 12**), a single value representing the average concentration is plotted for each of those heavily sampled, early months of system operation. Several features of these figures are noteworthy:

- Absence of a data point indicates that either a sampling event was missed, or that sampling was not performed because the groundwater P&T system was inoperative. Only successive data points (i.e., at monthly intervals) are joined by a line segment on the charts.

- The concentrations of VOCs have declined in recovery wells TW-1, TW-2A and TW-3 since 1998. This data is presented in **Figures 10**, **11** and **12**, respectively, with a linear regression through each set of data points.
- The greatest decline in VOC concentrations has been at TW-2A; however, the groundwater remains impacted within portions of the capture zone of the well (**Figure 11**).

Table 1 presents the mass removal of total VOCs by the P&T system since treatment began in 1998. Approximately 1,227 pounds of VOCs were removed from groundwater beneath the Site between 1998 and 2019. Mass removal rates during the period covered by this PRR are:

- 6.45 pounds in 2016 (6 months of operation)
- 7.8 pounds in 2017 (12 months of operation)
- 18.3 pounds in 2018 (12 months of operation)
- 19.0 pounds in 2019 (6 months of operation through Jun 2019)

2.3.2.2 Treatment System Maintenance

During this reporting period, the system did not experience any significant downtime (i.e., greater than five business days). There were a few shorter periods of downtime including:

- 1/16/17- The system was shut down to clean the air stripper, and restarted that same day.
- 1/24/17- There was a two-day period of downtime for a low blower alarm on January 24. The alarm was likely initiated by power loss during a winter storm that day.
- 2/25/17- The system shut down from a low blower alarm, likely due to a power interruption and was remotely restarted on February 27.
- 3/22/17- The system shut down from a low blower alarm, likely due to a power interruption and was restarted on March 23 during the scheduled O&M visit.
- 4/1/17- The system shut down on April 1, and was remotely restarted on April 4, for a total downtime of three days.
- 11/17/17- In order to connect the new effluent line the system was shut down on the morning of November 17, and was restarted that afternoon, for a total downtime of 6 hours. Pumps in recovery wells were otherwise operational during the reporting period.
- 3/7/19- The system was shut down during the monthly O&M visit for maintenance and restarted on the same day.

Routine maintenance is conducted as necessary. All system maintenance activities since 2002 have been provided to the NYSDEC in AECOM's Monthly Operation, Maintenance and Monitoring Reports (2002 - 2019) and will not be fully reiterated herein. Representative repairs and/or enhancements to the treatment system between 2016 and 2019 include:

- 9/20/16 - Collected a sample for VOC analysis from the well providing untreated water to the onsite building.
- 11/21/16 - Increased stripper blower pressure from 15 in.H2O to 16.5 in.H2O. The VFD regulating the stripper blower was increased from 55 Hz to 60 Hz. Verified proper

operation of building heater. Closed building exhaust fan for winter months. Checked fire extinguisher

- 12/27/16 - Measured quarterly water levels in many site monitoring wells. The VFD regulating the stripper blower remained at 60 Hz.
- 1/26/17 - System was briefly shutdown to remove booster blower from effluent line. Effluent line was reconnected and system restarted. Equipment was delivered to American Thermostat site, where DEC staff assisted with offloading. Shutdown stripper upon arrival for cleaning. Cleaned and organized the treatment system building. Put air stripper back online and restarted system.
- 2/22/17 - Effluent pump malfunctioned while on site, triggering a high level alarm. The effluent pump was pulled and replaced with the spare pump on site.
- 3/23/17 -The pump in TW-2A was pulled for a short time on March 2 to be cleaned, and then returned to normal operation. Cleared snow from around the treatment building entrance.
- 7/24/17 - Inspected TW-2A flow meter to see why it reported no influent flow early in the reporting period. The meter looked fine. Cleaned inside the treatment building as well as weed whacked around the perimeter of the building.
- 8/22/17 - Mowed pathways to all monitoring and recovery wells, as well as weed whacked around all of the wells to access for the quarterly water levels the following week. Gathered pictures and information regarding the potential replacement of the effluent discharge line. Cleaned inside the treatment building.
- 9/25/17 - Weed whacked around the building and parking area. Steve Phelps (PES) on site to scope out work to replace the effluent pipe from the building to the distribution pit. The VFD regulating the stripper blower remained at 60 Hz.
- 10/30/17 - Confirmed operation of thermostat and heaters within the building.
- 11/13/17 - Begin installation of a new effluent line in a new trench. The existing line had become excessively mineralized; NYSDEC preferred replacement of the line rather than cleaning it for continued use. Cleaned the TW-2A flow meter and the spare effluent pump.
- 12/21/17 - Tidied up the treatment building. Checked heat tape running along newly installed effluent line to confirm operation.
- 2/21/18 - Pulled and cleaned pump in TW-2A. Rydlyme softened the deposits on the impellers. Pump discharge was markedly improved upon reactivation.
- 3/27/18 - Technicians cleaned air stripper and noted excessive scale buildup in the pipe between the stripper sump and the first settling tank. Techs removed old effluent pipe, which was roughly half-filled with solid scale. The existing sight tube was replaced with flexible, clear plastic tubing. Upon stripper restart, the panel showed a sensor error associated with the effluent flow meter. The power was cut to the flow meter, which was then disassembled. The sensor was cleaned with Simple Green and a scrub brush. The stripper was restarted and observed to operate properly.
- 4/19/18 - Checked heat tape running along outdoor effluent line to confirm operation.
- 5/22/18 - Turned down building thermostat. Seasonally turned off heat tape running along outdoor effluent line.

- 8/28/18 - Measured quarterly water levels in the monitoring well network.
- 9/20/18 - Reattached the cell antenna to the roof bracket – wind had apparently blown it off the bracket (attachment by a magnetic base only).
- 10/24/18 - Cleaned TW-2A flow meter with Rydlyme. Confirmed proper operation of building heater. Plugged in heat tape on effluent line; confirmed operation.
- 12/7/18 - Disassembled TW-2A flow meter; removed black pieces of scale that had been jamming the impeller. Confirmed proper operation of heat tape on exposed portion of outdoor effluent line.
- 2/21/19 - Removed snow to gain access to building interior. Confirmed proper operation of heat tape on exposed portion of outdoor effluent line.
- 3/7/19 - Technicians mobilized to the site to disassemble and clean the air stripper. The recovery well pumps and then the stripper were shut off. The front glass was removed and cleaned with Rydlyme. The trays were removed and soaked in Rydlyme to remove scale. Finally, the interior of the stripper was cleaned with the same product. Following stripper reassembly, the treatment system was put back on line.
- 4/17/19 - Turned off heat tape on exposed portion of outdoor effluent line. Turned off building heater.
- 5/28/19 - Cleaned inside the treatment building.

3.0 Evaluate Costs

3.1 Summary of Costs

The total cost for operation and maintenance of the groundwater pump and treat system and POE treatment systems, and completion of all required monitoring and reporting, was approximately $240,600 during the three-year review period, or $80,200 annually. Major cost components are allocated as follows:

Description	July 2016 - June 2019 Cost ($)	Average Annual Cost ($)
P&T System Operation Maintenance and Monitoring:		
AECOM Labor & Travel	$78,924	$26,308
Subcontractors	$21,110	$7,037
Laboratory Fees	$30,405	$10,135
Equipment, Repairs, Supplies & Shipping	$4,204	$1,401
Subtotal:	**$134,643**	**$44,881**
Project Management, Program Management and OM&M Reporting:		
AECOM Labor	$60,859	$20,286
Subtotal:	**$60,859**	**$20,286**
Periodic Review Report and Site Management Plan:		
AECOM Labor	$16,024	$5,341
Subtotal:	**$16,024**	**$5,341**
Total:	**$211,526**	**$70,509**

Description	July 2016 - June 2019 Cost ($)	Average Annual Cost ($)
POE GAC Treatment System O&M		
AECOM Labor & Travel	$24,752	$8,251
Bottled Water (Business #1)	$701	$234
Laboratory Fees	$3,315	$1,105
Parts, Supplies and Shipping	$306	$102
Total:	**$29,074**	**$9,691**

The figures include all costs associated with the completion of each individual task. Utility costs, which are direct-billed to NYSDEC, are not included.

4.0 Overall Conclusions and Recommendations

The periodic review process is used for determining if the selected remedy continues to be properly managed (as set forth in the ROD, OM&M Plan, Operation and Maintenance Manual, and SMP), and if the remedy continues to be protective of human health and the environment.

4.1 Conclusions

Several elements of the Site remedy have been completed in the past, including: (1) excavation of soil containing more than 700 ppb of TCE located near the northeast corner of the building (Area A on **Figure 4**), along the drainage ditch near the northern corner of the building (Area B), and the south corner of the concrete pad (Area C); (2) excavation of weathered bedrock containing more than 700 ppb of TCE in Areas A and B; and (3) on-site treatment of excavated soils and weathered bedrock by low temperature thermal desorption. These activities took place between September 1997 and January 1998.

Conversely, technologies such as vapor recovery and treatment from impacted bedrock proved to have little impact on bedrock VOC concentrations. The VE system operated from 1998 through 2005. Additionally, the groundwater reinjection system was shut down circa 2005 due to the accumulation of scale within the distribution pit and injection wells, and remained off because excessive drawdown of homeowner wells was not an issue.

The following conclusions discuss the effectiveness of the remaining elements of the Site remedy in comparison to the applicable Site remedial goals derived from the RODs for OU 1 and OU 2:

1. **Groundwater extraction and treatment from impacted bedrock.**

   The groundwater P&T system has generally been operating continuously since 1998. Groundwater treatment removes essentially all VOC contamination in recovered groundwater, resulting in values less than the method detection limit or negligible concentrations of VOCs in the treated water, which is discharged to Crum Elbow Creek to the northwest of the Site. Approximately 1,229 pounds of VOCs were removed from groundwater by the P&T system between 1998 and 2019.

   Operation of the groundwater P&T system results in a zone of influence within which groundwater flow is directed toward the recovery wells. The P&T system capture zone includes most of the impacted monitoring wells, with the apparent exception of one well to the north (MW-12D). Refer to **Figure 7** and **Figure 8**. However, the amount of contamination that may have entered bedrock prior to treatment system start-up is unknown. As a result, portions of site bedrock may be continuing sources of contamination.

2. **Institutional controls and restrictions on groundwater use.**

   On November 19, 2010 and August 19, 2019, AECOM conducted a deed search at the Office of the Dutchess County Clerk in order to determine whether institutional controls exist for each of the properties. Available public records did not reference restrictions on

groundwater use or any other environmental constraints for either property. Therefore, AECOM cannot confirm the presence of institutional controls.

3. **Maintenance of existing POE carbon filters on impacted homeowner wells.**

   The well water of House #1, House #2, and House #3 continues to be monitored regularly. Potable water which had exhibited elevated VOC concentrations is treated with a POE GAC system. This prevents the ingestion of impacted groundwater from private wells.

   Groundwater impacts continue to be evaluated annually via the sampling of monitoring wells in the vicinity of the Site.

4. **Long-term groundwater monitoring.**

   Historical annual groundwater sampling results indicate that, in general, VOC concentrations in groundwater beneath the Site are decreasing. The AWQS have not yet been achieved at wells MW-1, MW-6S, MW-6D, MW-7S, MW-7D, or MW-12D (refer to **Appendix B** and **Figure 8**). The wells located at the periphery of the Site (MW-2, MW-3S, MW-3D, MW-4D, MW-8, MW-9, MW-10, MW-11, and MW-12S) are no longer sampled. These wells demonstrated minimal or non-detect levels of VOCs since the late 1990s or earlier, and were last sampled in May 2008, except for MW-12S, which was last sampled in May 2014. Annual groundwater monitoring will continue until such a time as the NYSDEC determines that adequate treatment of contamination has been achieved at the Site and in surrounding areas.

5. **Prevent contact with or inhalation of volatiles from contaminated sub-slab vapor.**

   In 2008 and 2009, a vapor intrusion study was performed for several homes and businesses in the area, as part of the Immediate Investigation Work Assignment (IIWA) for the former NOW Corporation facility. A SSDS was installed at House #4 in November 2008 as a result of the detection of elevated levels of TCE and other VOCs beneath the residence during the IIWA. The SSDS removes impacted vapors from beneath the building, minimizing the potential for inhalation of and contact with impacted vapors in the home. This system is self-monitored by the residents.

4.2 Recommendations

The following recommendations are made for the former NOW Corporation facility:

1. Continue to operate and maintain the groundwater treatment system. Scale buildup in piping and other groundwater treatment system components should continue to be evaluated and removed as needed to maintain a high level of system operational capacity.

2. Consider the injection of a chemical oxidant into some of the monitoring wells while the groundwater P&T system is operating to treat VOCs in the fractured bedrock either through chemical oxidation or enhanced biodegradation.

3. A three-year, field oversight PRR is recommended for this Site.

Tables

Table 1
Mass Removal of VOCs from Groundwater (1998 - 2019)
Former NOW Corporation Facility
Town of Clinton, New York

Date	1/8/98	2/8/98	3/98*	4/98*	5/98*	6/98*	7/98*	8/98*	9/98*	10/16/98	11/13/98	12/11/98	Yearly Removal
Influent VOC Concentration (µg/l)	-	-	1703	3507	2378	4138	4575	5059	2834	4619	2540	2172	
Quantity Treated (gallons)	-	-	2,385,618	1,258,782	815,600	723,458	616,842	728,000	711,900	536,000	522,600	411,300	8,710,100
VOCs Removed in the Period (lbs)	-	-	33.88	36.83	16.18	24.97	23.54	30.73	16.83	20.65	11.07	7.45	222
Total VOCs Removed (lbs)	-	-	33.9	70.7	86.9	112	135	166	183	204	215	222	
Cumulative Water Treated (gallons)	-	-	2,385,618	3,644,400	4,460,000	5,183,458	5,800,300	6,528,300	7,240,200	7,776,200	8,298,800	8,710,100	

Date	1/8/99	2/5/99	3/5/99	4/2/99	4/30/99	5/28/99	7/2/99	7/30/99	8/27/99	10/1/99	10/28/99	12/6/99	Yearly Removal
Influent VOC Concentration (µg/l)	3,713	2,576	1,930	1,778	3,096	2,640	4,936	4,287	1,606	3,691	5,050	3,310	
Quantity Treated (gallons)	496,100	523,400	550,700	855,700	760,900	644,600	531,200	402,000	396,000	457,600	541,340	320,660	6,480,200
VOCs Removed in the Period (lbs)	15.37	11.25	8.87	12.69	19.65	14.20	21.87	14.38	5.31	14.09	22.81	8.85	169
Total VOCs Removed (lbs)	238	249	258	270	290	304	326	340	346	360	383	391	
Cumulative Water Treated (gallons)	9,206,200	9,729,600	10,280,300	11,136,000	11,896,900	12,541,500	13,072,700	13,474,700	13,870,700	14,328,300	14,869,640	15,190,300	

Date	1/3/00	2/7/00	3/6/00	3/31/00	4/28/00	5/30/00	7/14/00	8/4/00	9/4/00	10/4/00	11/4/00	12/4/00	Yearly Removal
Influent VOC Concentration (µg/l)	6008	3721	1540	1367	1101	2080	2370	2100	-	-	-	-	
Quantity Treated (gallons)	735,100	777,200	772,600	773,900	885,100	1,092,494	1,536,319	580,387	-	-	-	-	7,153,100
VOCs Removed in the Period (lbs)	36.84	24.13	9.93	8.83	8.13	18.96	30.37	10.17	-	-	-	-	147
Total VOCs Removed (lbs)	428	452	462	471	479	498	529	539	-	-	-	-	
Cumulative Water Treated (gallons)	15,925,700	16,702,900	17,475,500	18,249,400	19,134,500	20,226,994	21,763,313	22,343,700	-	-	-	-	

Date	1/20/01	2/17/01	3/14/01	4/5/01	5/15/01	6/18/01	7/18/01	8/15/01	10/1/01	10/31/01	11/28/01	12/26/01	Yearly Removal
Influent VOC Concentration (µg/l)	-	-	-	-	-	-	2503	1678	496	1146	1570	415	
Quantity Treated (gallons)	-	-	-	-	-	-	366,600	532,600	353,500	280,000	366,600	229,400	2,128,700
VOCs Removed in the Period (lbs)	-	-	-	-	-	-	7.65	7.46	1.46	2.68	4.80	0.79	25
Total VOCs Removed (lbs)	-	-	-	-	-	-	546	554	555	558	563	564	
Cumulative Water Treated (gallons)	-	-	-	-	-	-	22,710,300	23,242,900	23,596,400	23,876,400	24,243,000	24,472,400	

Date	1/20/02	2/17/02	3/14/02	4/5/02	5/15/02	6/18/02	7/26/02	8/19/02	9/17/02	10/3/02	11/22/02	12/20/02	Yearly Removal
Influent VOC Concentration (µg/l)	-	-	-	3697	2301	2529	3733	-	-	4165	1060	1010	
Quantity Treated (gallons)	-	-	-	382,000	267,599	141,100	242,700	-	-	186,400	521,300	465,100	2,206,199
VOCs Removed in the Period (lbs)	-	-	-	11.78	5.14	2.98	7.56	-	-	6.48	4.61	3.92	42
Total VOCs Removed (lbs)	-	-	-	575	581	584	591	-	-	598	602	606	
Cumulative Water Treated (gallons)	-	-	-	24,854,400	25,236,400	25,377,500	25,620,200	-	-	25,806,600	26,327,900	26,793,000	

Date	1/20/03	2/17/03	3/14/03	4/11/03	5/13/03	6/5/03	7/19/03	8/19/03	9/17/03	10/14/03	11/11/03	12/11/03	Yearly Removal
Influent VOC Concentration (µg/l)	913	1339.9	420	676.9	1110	1364.6	-	744	1420	731	921	468	
Quantity Treated (gallons)	923,600	662,200	752,000	778,000	665,000	1,064,600	-	1,151,900	635,000	715,000	691,000	1,021,000	9,059,300
VOCs Removed in the Period (lbs)	7.03	7.40	2.63	4.39	6.16	12.12	-	7.15	7.52	4.36	5.31	3.99	68
Total VOCs Removed (lbs)	613	621	623	628	634	646	-	653	661	665	670	674	
Cumulative Water Treated (gallons)	27,716,600	28,379,000	29,131,000	29,909,000	30,574,000	31,638,000	-	32,790,000	33,425,000	34,140,000	34,831,000	35,852,000	

Date	1/15/04	2/11/04	3/10/04	4/7/04	5/20/04	6/17/04	7/19/04	8/19/04	9/16/04	10/14/04	11/22/04	12/20/04	Yearly Removal
Influent VOC Concentration (µg/l)	528	2770	1386	887	755	1510	1808	2070	1191	699	915	640	
Quantity Treated (gallons)	906,000	452,000	570,000	1,004,000	631,300	455,700	382,000	338,200	524,000	632,100	678,700	771,000	7,345,000
VOCs Removed in the Period (lbs)	3.99	10.44	6.59	7.43	3.98	5.74	5.76	5.84	5.21	3.69	5.18	4.12	68
Total VOCs Removed (lbs)	678	689	695	703	707	712	718	724	729	733	738	742	
Cumulative Water Treated (gallons)	36,758,000	37,210,000	37,780,000	38,784,000	39,415,300	39,871,000	40,253,000	40,591,000	41,115,000	41,747,300	42,426,000	43,197,000	

Table 1
Mass Removal of VOCs from Groundwater (1998 - 2019)
Former NOW Corporation Facility
Town of Clinton, New York

Date	1/26/05	2/23/05	3/23/05	4/20/05	5/18/05	6/15/05	7/27/05	8/22/05	9/20/05	10/19/05	11/15/05	12/13/05	Yearly Removal
Influent VOC Concentration (µg/l)	602	534	540	554	1287	1799	2342	2315	1838	643	1107	516	
Quantity Treated (gallons)	906,000	600,100	597,500	773,900	506,300	348,900	291,400	325,300	205,500	462,800	615,600	659,000	6,292,300
VOCs Removed in the Period (lbs)	4.55	2.67	2.69	3.58	5.44	5.24	5.69	6.28	3.15	2.48	5.68	2.84	50
Total VOCs Removed (lbs)	747	749	752	756	761	766	772	778	781	784	790	792	
Cumulative Water Treated (gallons)	44,103,000	44,703,100	45,300,600	46,074,500	46,580,800	46,929,700	47,221,100	47,546,000	47,751,900	48,214,700	48,830,300	49,489,300	
Date	**1/23/06**	**2/21/06**	**3/21/06**	**4/18/06**	**5/7/06**	**6/21/06**	**7/27/06**	**8/22/06**	**9/19/06**	**10/24/06**	**11/16/06**	**12/14/06**	**Yearly Removal**
Influent VOC Concentration (µg/l)	532	852	1537	1235	-	726	970	1721	790	1263	753	698	
Quantity Treated (gallons)	596,000	691,500	518,100	401,700	-	1,128,300	780,100	190,000	452,000	769,700	405,400	627,800	6,560,600
VOCs Removed in the Period (lbs)	2.65	4.91	6.64	4.14	-	6.84	6.31	2.73	2.98	8.11	2.55	3.66	52
Total VOCs Removed (lbs)	795	800	807	811	-	818	824	827	830	838	840	844	
Cumulative Water Treated (gallons)	50,085,300	50,776,700	51,294,800	51,696,500	-	52,824,800	53,604,900	53,794,900	54,246,900	55,016,600	55,422,000	56,049,800	
Date	**1/17/07**	**2/13/07**	**3/13/07**	**4/9/07**	**5/7/07**	**6/7/07**	**7/12/07**	**8/14/07**	**9/11/07**	**10/9/07**	**11/15/07**	**12/13/07**	**Yearly Removal**
Influent VOC Concentration (µg/l)	915	961	836	529	517	1450	1233	1067	1393	1832	2243	1018	
Quantity Treated (gallons)	580,300	605,800	499,300	856,500	652,000	555,700	360,000	308,200	314,000	281,000	260,000	404,600	5,677,400
VOCs Removed in the Period (lbs)	4.43	4.85	3.48	3.78	2.81	6.72	3.70	2.74	3.65	4.29	4.86	3.44	49
Total VOCs Removed (lbs)	848	853	857	860	863	870	874	876	880	884	889	893	
Cumulative Water Treated (gallons)	56,630,100	57,235,900	57,735,200	58,591,700	59,243,700	59,799,400	60,159,400	60,467,600	60,781,600	61,062,600	61,322,600	61,727,200	
Date	**1/17/08**	**2/14/08**	**3/13/08**	**4/21/08**	**5/28/08**	**6/24/08**	**7/22/08**	**8/19/08**	**9/28/08**	**10/22/08**	**11/20/08**	**12/22/08**	**Yearly Removal**
Influent VOC Concentration (µg/l)	887	517	531	776	858	1129	941	1701	-	-	665	523	
Quantity Treated (gallons)	720,000	714,000	786,400	823,900	902,000	440,000	213,000	530,000	-	-	503,000	573,000	6,205,300
VOCs Removed in the Period (lbs)	5.33	3.08	3.48	5.33	6.46	4.14	1.67	7.52	-	-	2.79	2.50	42
Total VOCs Removed (lbs)	898	901	905	910	916	921	922	930	-	-	933	935	
Cumulative Water Treated (gallons)	62,447,200	63,161,200	63,947,600	64,771,500	65,673,500	66,113,500	66,326,500	66,856,500	-	-	67,359,500	67,932,500	
Date	**1/19/09**	**2/23/09**	**3/23/09**	**4/20/09**	**5/19/09**	**6/17/09**	**7/16/09**	**8/17/09**	**9/28/09**	**10/22/09**	**11/20/09**	**12/22/09**	**Yearly Removal**
Influent VOC Concentration (µg/l)	659	591	767	626	568	1,014	539	89	2,163	2,456	2,069	1,621	
Quantity Treated (gallons)	656,000	830,000	758,000	798,000	773,000	798,400	840,000	258,000	598,000	319,100	531,000	505,000	7,664,500
VOCs Removed in the Period (lbs)	3.61	4.09	4.85	4.17	3.66	6.75	3.77	0.19	10.79	6.54	9.17	6.83	64.4
Total VOCs Removed (lbs)	939	943	948	952	955	962	966	966	977	983	993	999	
Cumulative Water Treated (gallons)	68,588,500	69,418,500	70,176,500	70,974,500	71,747,500	72,545,900	73,385,900	73,643,900	74,241,900	74,561,000	75,092,000	75,597,000	
Date	**1/26/10**	**2/25/10**	**3/24/10**	**4/20/10**	**5/24/10**	**6/22/10**	**7/26/10**	**8/26/10**	**9/24/10**	**10/20/10**	**11/18/10**	**12/28/10**	**Yearly Removal**
Influent VOC Concentration (µg/l)	748	730	485	495	567	1,066	634	746	1,594	989	1,670	774	
Quantity Treated (gallons)	1,034,000	895,100	844,800	838,300	918,900	342,900	434,500	241,000	233,400	259,500	266,600	627,000	6,936,000
VOCs Removed in the Period (lbs)	6.45	5.45	3.42	3.46	4.35	3.05	2.30	1.50	3.10	2.14	3.71	4.05	43.0
Total VOCs Removed (lbs)	1,006	1,011	1,015	1,018	1,023	1,026	1,028	1,029	1,033	1,035	1,038	1,042	
Cumulative Water Treated (gallons)	76,631,000	76,890,450	77,149,900	77,988,200	78,907,100	79,250,000	79,684,500	79,925,500	80,158,900	80,418,400	80,685,000	81,312,000	
Date	**1/26/11**	**2/25/11**	**3/29/11**	**4/20/11**	**5/27/11**	**6/28/11**	**7/28/11**	**8/26/11**	**9/29/11**	**10/21/11**	**11/18/11**	**12/28/11**	**Yearly Removal**
Influent VOC Concentration (µg/l)	730	667	510	636	490	600	51	739	272	590	-	-	
Quantity Treated (gallons)	567,300	598,900	836,900	373,300	570,300	702,200	632,100	268,300	632,800	265,500	-	-	5,447,600
VOCs Removed in the Period (lbs)	3.45	3.33	3.56	1.98	2.33	3.51	0.27	1.65	1.44	1.31	-	-	22.8
Total VOCs Removed (lbs)	1,046	1,049	1,053	1,055	1,057	1,061	1,061	1,063	1,064	1,065	-	-	
Cumulative Water Treated (gallons)	81,879,300	82,478,200	83,315,100	83,688,400	84,258,700	84,960,900	85,593,000	85,861,300	86,494,100	86,759,600	-	-	

Table 1
Mass Removal of VOCs from Groundwater (1998 - 2019)
Former NOW Corporation Facility
Town of Clinton, New York

Date	1/26/12	2/25/12	3/29/12	4/20/12	5/27/12	6/12/12	7/18/12	8/22/12	9/20/12	10/26/12	11/28/12	12/27/12	Yearly Removal
Influent VOC Concentration (µg/l)	-	-	-	-	-	747	1,208	2,162	120	1,058	1,296	766	
Quantity Treated (gallons)	-	-	-	-	-	216,300	560,800	442,400	278,100	604,400	607,900	550,500	3,260,400
VOCs Removed in the Period (lbs)	-	-	-	-	-	1.35	5.65	7.98	0.28	5.33	6.57	3.52	30.7
Total VOCs Removed (lbs)	-	-	-	-	-	1,067	1,072	1,080	1,081	1,086	1,092	1,096	
Cumulative Water Treated (gallons)	-	-	-	-	-	86,975,900	87,536,700	87,979,100	88,257,200	88,861,600	89,469,500	90,020,000	

Date	1/30/13	2/27/13	3/27/13	4/23/13	5/28/13	6/26/13	7/24/13	8/12/13	9/30/13	10/30/13	11/25/13	12/23/13	Yearly Removal
Influent VOC Concentration (µg/l)	605	540	531	538	694	526	586	637	690^	744	1,088	607	
Quantity Treated (gallons)	877,400	691,700	544,600	182,570	267,830	490,300	423,100	408,200	516,000	264,400	203,600	316,200	5,185,900
VOCs Removed in the Period (lbs)	4.43	3.12	2.41	0.82	1.55	2.15	2.07	2.17	2.97	1.64	1.85	1.60	26.8
Total VOCs Removed (lbs)	1,100	1,103	1,106	1,107	1,108	1,110	1,112	1,115	1,118	1,119	1,121	1,123	
Cumulative Water Treated (gallons)	90,897,400	91,589,100	92,133,700	92,316,270	92,584,100	93,074,400	93,497,500	93,905,700	94,421,700	94,686,100	94,889,700	95,205,900	

Date	1/23/14	2/24/14	3/27/14	4/17/14	5/27/14	6/23/14	7/28/14	8/28/14	9/30/14	10/21/14	11/25/14	12/22/14	Yearly Removal
Influent VOC Concentration (µg/l)	486	643	389	423	410	606	603	1,463	1,038	1,347	727	897	
Quantity Treated (gallons)	477,600	361,200	503,200	239,500	918,200	415,900	321,900	433,600	258,770	165,600	296,500	231,376	4,623,346
VOCs Removed in the Period (lbs)	1.93	1.94	1.63	0.85	3.14	2.10	1.62	5.29	2.24	1.86	1.80	1.73	26.1
Total VOCs Removed (lbs)	1,125	1,127	1,128	1,129	1,132	1,134	1,136	1,141	1,143	1,145	1,147	1,149	
Cumulative Water Treated (gallons)	95,683,500	96,044,700	96,547,900	96,787,400	97,705,600	98,121,500	98,443,400	98,877,000	99,135,770	99,301,370	99,597,870	99,829,246	

Date	1/29/15	2/26/15	3/19/15	4/22/15	5/26/15	6/25/15	7/22/15	8/26/15	9/23/15	10/22/15	11/19/15	12/21/15	Yearly Removal
Influent VOC Concentration (µg/l)	585	815	488	633	1,085	506	677	1,448	565	507	373	594	
Quantity Treated (gallons)	416,830	289,542	253,590	341,275	411,642	340,191	317,758	236,443	150,420	155,382	145,580	265,866	3,324,519
VOCs Removed in the Period (lbs)	2.03	1.97	1.03	1.80	3.73	1.44	1.79	2.86	0.71	0.66	0.45	1.32	19.8
Total VOCs Removed (lbs)	1,151	1,153	1,154	1,156	1,159	1,161	1,163	1,165	1,166	1,167	1,167	1,169	
Cumulative Water Treated (gallons)	100,246,076	100,535,618	100,789,208	101,130,483	101,542,125	101,882,316	102,200,074	102,436,517	102,586,937	102,742,319	102,887,899	103,153,765	

Date	1/27/16	2/23/16	3/22/16	4/26/16	5/25/16	6/21/16	7/26/16	8/23/16	9/20/16	10/27/16	11/21/16	12/27/16	Yearly Removal
Influent VOC Concentration (µg/l)	677	274	451	277	460	944	732	342.7	1,760	1,339	560	452	
Quantity Treated (gallons)	438,744	342,287	336,979	419,275	361,820	276,580	209,331	161,216	126,374	135,383	102,239	230,405	3,140,633
VOCs Removed in the Period (lbs)	2.48	0.78	1.27	0.97	1.39	2.18	1.28	0.46	1.86	1.51	0.48	0.87	15.5
Total VOCs Removed (lbs)	1,171	1,172	1,173	1,174	1,176	1,178	1,179	1,179	1,181	1,183	1,183	1,184	
Cumulative Water Treated (gallons)	103,592,509	103,934,796	104,271,775	104,691,050	105,052,870	105,329,450	105,538,781	105,699,997	105,826,371	105,961,754	106,063,993	106,294,398	

Date	1/26/17	2/22/17	3/23/17	4/25/17	5/30/17	6/27/17	7/24/17	8/28/17	9/25/17	10/30/17	11/29/17	12/21/17	Yearly Removal
Influent VOC Concentration (µg/l)	695	278	265.5	55.9	248	307	406	399	437	406	1,125	1,366	
Quantity Treated (gallons)	228,151	246,323	260,345	314,189	331,446	245,037	163,678	152,042	103,662	101,106	117,466	84,908	2,348,353
VOCs Removed in the Period (lbs)	1.32	0.57	0.58	0.15	0.69	0.63	0.55	0.51	0.38	0.34	1.10	0.97	7.8
Total VOCs Removed (lbs)	1,185	1,186	1,187	1,187	1,187	1,188	1,189	1,189	1,190	1,190	1,191	1,192	
Cumulative Water Treated (gallons)	106,522,549	106,768,872	107,029,217	107,343,406	107,674,852	107,919,889	108,083,567	108,235,609	108,339,271	108,440,377	108,557,843	108,642,751	

Table 1
Mass Removal of VOCs from Groundwater (1998 - 2019)
Former NOW Corporation Facility
Town of Clinton, New York

Date	1/22/18	2/26/18	3/27/18	4/19/18	5/22/18	6/22/18	7/30/18	8/28/18	9/20/18	10/24/18	NS	12/7/18	Yearly Removal
Influent VOC Concentration (µg/l)	889	280	601	229	410	343	483	300	466	299		768	
Quantity Treated (gallons)	159,982	282,021	520,758	478,945	673,622	533,479	458,486	420,979	310,901	580,417		695,868	5,115,458
VOCs Removed in the Period (lbs)	0.31	0.66	2.61	0.91	2.31	1.52	1.85	1.05	1.21	1.45	0.00	4.46	18.3
Total VOCs Removed (lbs)	1,192	1,193	1,196	1,196	1,199	1,200	1,202	1,203	1,204	1,206	1,206	1,210	
Cumulative Water Treated (gallons)	108,802,733	109,084,754	109,605,512	110,084,457	110,758,079	111,291,558	111,750,044	112,171,023	112,481,924	113,062,341	113,062,341	113,758,209	
Date	**1/17/19**	**2/21/19**	**3/14/19**	**4/17/19**	**5/28/19**	**6/19/19**							**Yearly Removal**
Influent VOC Concentration (µg/l)	862	880	959	879	613	889							
Quantity Treated (gallons)	638,925	512,862	297,079	470,568	567,810	262,709							2,749,953
VOCs Removed in the Period (lbs)	4.59	3.76	2.38	3.45	2.91	1.95							19.0
Total VOCs Removed (lbs)	1,215	1,219	1,221	1,224	1,227	1,229							
Cumulative Water Treated (gallons)	114,397,134	114,909,996	115,207,075	115,677,643	116,245,453	116,508,162							

Total Water Treated to June 19, 2019	**116,508,162**	**gallons**
Total VOCs Removed to June 19, 2019	**1,229**	**lbs**

Note:
^ - Influent VOC concentration in September 2013 is the average of the August & October concentrations.

Table 2
Groundwater Levels
NOW Corporation Site
NYSDEC Site No. 3-14-008
Town of Clinton, New York

Well ID	MP Elevation	5/2/19 Depth to Water (Ft below MP)	5/2/19 GW Elevation
MW-1	289.50	11.1	278.40
MW-2	332.51	25.18	307.33
MW-3S	312.51	22.61	289.90
MW-3D	312.83	20.4	NA
MW-4S	298.29	21.9	276.39
MW-4D	298.16	20.4	277.76
MW-5	285.48	17.67	267.81
MW-6S	287.90	3.8	284.10
MW-6D	287.25	5.9	281.35
MW-7S	292.12	12.92	279.20
MW-7D	292.54	34.15	258.39
OW-1	307.75	41.4	266.35
OW-2	305.96	65.86	240.10
OW-3	NA	75.1	NA
OW-4	NA	36.1	NA
OW-5	NA	41.9	NA
OW-6	294.81	4.25	290.56
IW-1	312.46	25	287.46
IW-2	304.56	35.39	269.17
MW-8	283.65	--	NA
MW-9	275.37	--	NA
MW-10	280.92	--	NA
MW-11	283.72	--	NA
MW-12S	NA	13.64	NA
MW-12D	NA	13.64	NA

Note: NA indicates data are not available.
MP denotes measuring point.
-- denotes that measurements were not collected. Location was inaccessible or unable to be located

Table 3
Summary of Influent and Effluent Data
Sampling Date: June 19, 2019
NOW Corporation Site
NYSDEC Site No. 3-14-008
Town of Clinton, New York

Analytes/ Parameters	Total Influent	Effluent	Recovery Wells			Effluent Limitations	(units)
			TW-1	TW-2A	TW-3		
Quantity treated, avg per day		11,941				Monitor	gallons
pH	<2	<2				6.5 to 8.5	standard units
Oil and Grease	<0.832 U,OG	<0.832 U,OG	NA	NA	NA	15	mg/L
Total Cyanide	<0.0050	<0.0050	NA	NA	NA	0.01	mg/L
TDS	**229**	**231**	NA	NA	NA	1000	mg/L
TSS	<1.00	<1.00	NA	NA	NA	50	mg/L
Aluminum, Total	<19.7	<19.7	NA	NA	NA	Monitor	ug/L
Arsenic, Total	<0.68	<0.68	NA	NA	NA	100	ug/L
Barium, Total	**54.5**	**72.4**	NA	NA	NA	Monitor	ug/L
Chromium	**0.75 J**	<0.70 K2	NA	NA	NA	400	ug/L
Copper	<9.9	<9.9	NA	NA	NA	24	ug/L
Iron	**173**	**33.4 J**	NA	NA	NA	600	ug/L
Mercury	<0.050	<0.050	NA	NA	NA	0.8	ug/L
Manganese	**294**	**48.5**	NA	NA	NA	Monitor	ug/L
Nickel	**1.4**	<0.60	NA	NA	NA	200	ug/L
Zinc	<6.2	**33.9**	NA	NA	NA	150	ug/L
1,1,1-Trichloroethane	**510**	<0.3	**1**	**1,000**	**2**	10	ug/L
1,1,2-Trichloroethane	<0.2	<0.2	<0.2	**0.5 J**	<0.2	1.2	ug/L
1,1-Dichloroethane	**140**	<0.2	**25**	**270**	**5**	10	ug/L
1,1-Dichloroethene	**12**	<0.2	**9**	**20**	**0.8 J**	0.5	ug/L
1,2-Dichloroethane	**0.3 J**	<0.3	<0.3	<0.3	**5**	1.6	ug/L
2-Butanone	<0.3	<0.3	<0.3	<0.3	<0.3	NL	ug/L
Benzene	<0.2	<0.2	<0.2	<0.2	<0.2	1.4	ug/L
Chlorobenzene	<0.2	<0.2	<0.2	<0.2	<0.2	10	ug/L
Chloroethane	<0.2	<0.2	<0.2	**0.7 J**	**0.2 J**	10	ug/L
cis -1,2-Dichloroethene	**6**	<0.2	**4**	**11**	**0.4 J**	5	ug/L
Ethylbenzene	<0.4	<0.4	<0.4	<0.4	<0.4	10	ug/L
o-Xylene	<0.4	<0.4	<0.4	<0.4	<0.4	5	ug/L
m,p-Xylene	<1	<1	<1	<1	<1	10	ug/L
Tetrachloroethene	<0.2	<0.2	<0.2	<0.2	<0.2	1.4	ug/L
Tertrahydrofuran	<0.7	**3 J**	<0.7	<0.7	<0.7	NL	ug/L
Toluene	<0.2	<0.2	<0.2	<0.2	<0.2	10	ug/L
Trichloroethene	**220**	<0.2	**43**	**360**	**13**	6	ug/L
Vinyl Chloride	**0.3 J**	<0.2	<0.2	**0.4 J**	<0.2	0.6	ug/L

Notes:

1) Detected concentrations are presented in ***bold*** *typeface, and are expressed in the units shown in far right column.*

2) Effluent concentration boxed in ***bold*** *denotes exceedance of effluent limitations.*

3) NA indicates not analyzed.

*4) "**J**" indicates an estimated concentration below the reporting limit (RL).*

*5) "**B**" denotes metal detected in method blank at concentration below the RL, but above the method detection limit.*

*6) "**D**" indicates result from a diluted sample.*

7) NL indicates no effluent limitations specified.

Table 4
Summary of June 2019 O&M Data

NOW Corporation Site
Town of Clinton, New York

Instrumentation/Readings:		**6/19/19**	**Units**
TW-1			
	Pumping Rate	0	GPM
	Water Level Above Transducer	14.88	feet
	Flow Meter Reading	9,331,100	gallons
	Pump Pressure	0	psi
TW-2A			
	Pumping Rate	11	GPM
	Water Level Above Transducer	25.49	feet
	Flow Meter Reading	19,757,200	gallons
	Pump Pressure	0	psi
TW-3			
	Pumping Rate	3	GPM
	Water Level Above Transducer	25.51	feet
	Flow Meter Reading	16,652,800	gallons
	Pump Pressure	0	psi
VFD Setting	Arrival	55	Hz
	Departure	55	Hz
Air Stripper			
	Stripper Blower Pressure	12	inches H_2O
	Air Temperature in Stripper	52	°F
Effluent Flow			
	Effluent Flow this period	262,709	gallons
	Total Effluent Flow	116,508,162	gallons

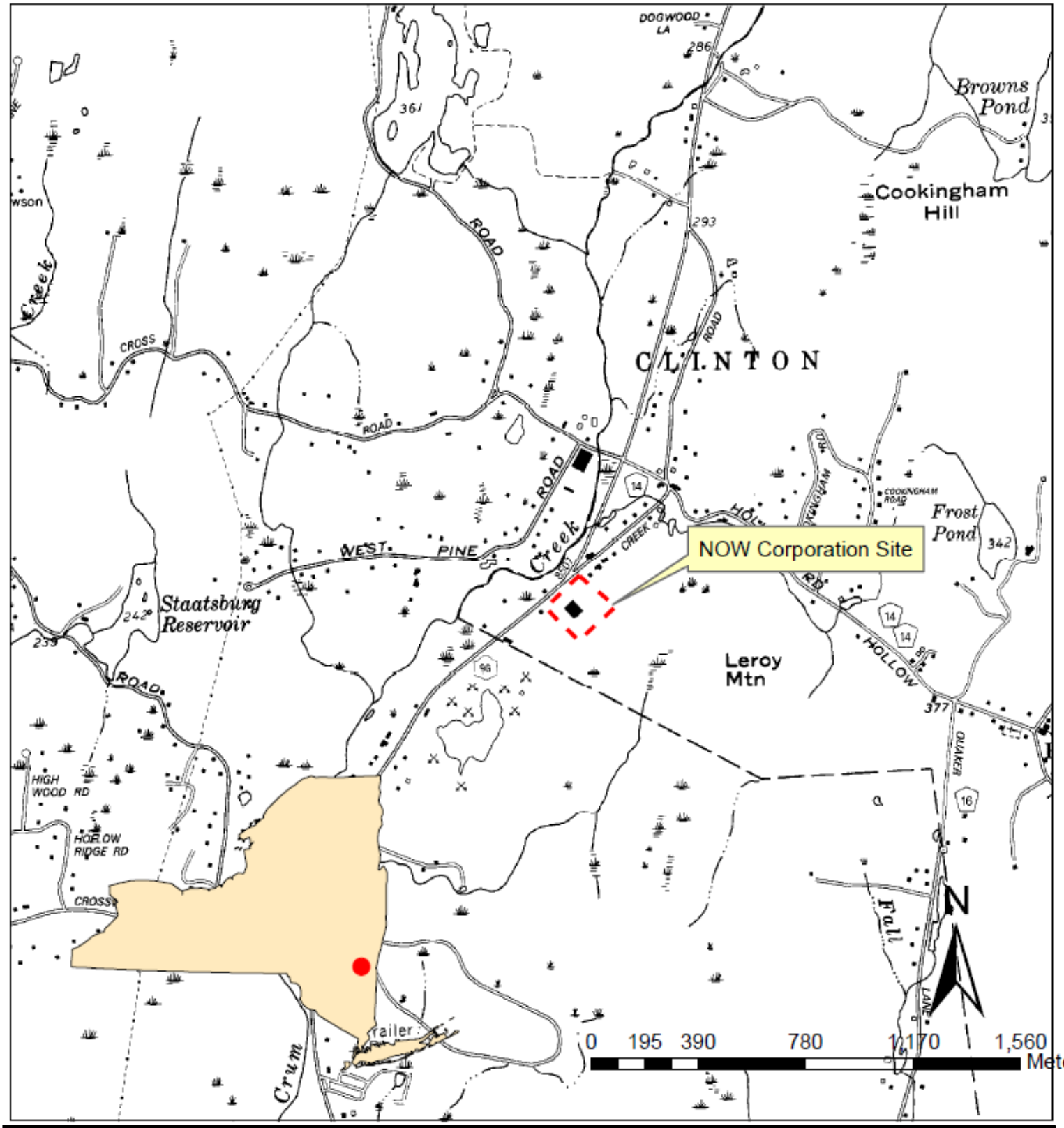
Table 5
PFAS Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

PFAS - Perfluorinated Alkyl Substances (ng/L) - EPA 537	MW-1 5/1/2019	MW-7D* 5/1/2019	MW-6S 5/1/2019	MW-12D 5/1/2019	Equip Blank 5/1/2019	Dup 5/1/2019
6:2-Fluorotelomersulfonic acid	<1.8	<1.8	<1.7	<1.8	<1.8	<1.7
8:2-Fluorotelomersulfonic acid	<5.3	<5.3	<5.1	<5.3	<5.3	<5.2
NEtFOSAA	<2.6	<2.6	<2.6	<2.7	<2.6	<2.6
NMeFOSAA	<2.6	<2.6	<2.6	<2.7	<2.6	<2.6
Perfluorobutanesulfonic acid	**0.81 J**	**0.37 J**	<0.85	**1.1**	<0.88	**0.36 J**
Perfluorobutanoic acid	**2.2 J**	<5.3	<5.1	**1.9 J**	<5.3	<5.2
Perfluorodecanesulfonic acid	<1.8	<1.8	<1.7	<1.8	<1.8	<1.7
Perfluorodecanoic acid	<1.8	**0.84 J**	<1.7	<1.8	<1.8	**0.98 J**
Perfluorododecanoic acid	<1.8	<1.8	<1.7	<1.8	<1.8	<1.7
Perfluoroheptanesulfonic acid	<1.8	<1.8	<1.7	<1.8	<1.8	<1.7
Perfluoroheptanoic acid	**1.3**	**1.3**	**0.42 J**	**0.63 J**	<0.88	**1.4**
Perfluorohexanesulfonic acid	**0.74 J**	<1.8	<1.7	<1.8	<1.8	<1.7
Perfluorohexanoic acid	**1.4 J**	**0.81 J**	**0.43 J**	**1.6 J**	<1.8	**0.82 J**
Perfluorononanoic acid	**0.37 J**	<1.8	<1.7	<1.8	<1.8	<1.7
Perfluorooctanesulfonamide	<2.6	<2.6	<2.6	<2.7	<2.6	<2.6
Perfluorooctanesulfonic acid	**1.8**	**1.0 J**	**1.3 J**	**0.58 J**	<1.8	**1.1 J**
Perfluorooctanoic acid	**95**	**89**	**15**	**10**	<0.88	**87**
Perfluoropentanoic acid	<5.3	<5.3	<5.1	<5.3	<5.3	<5.2
Perfluorotetradecanoic acid	<0.88	<0.88	<0.85	<0.89	<0.88	<0.87
Perfluorotridecanoic acid	<0.88	<0.88	<0.85	<0.89	<0.88	<0.87
Perfluoroundecanoic acid	<1.8	<1.8	<1.7	<1.8	<1.8	<1.7

1,4 Dioxane, SW-846 8270D SIM (ug/L)	MW-1 5/1/2019	MW-7D 5/1/2019	MW-6S 5/1/2019	MW-12D 5/1/2019	Equip Blank 5/1/2019	Dup 5/1/2019
1,4-Dioxane	**2**	**0.3**	**0.2 J**	**3**	--	**0.3**

Notes:
1) PFAS results compared to the USEPA Health Advisory Limits of 70 parts per trillion (ng/L) for PFOA and PFOS, individually and combined.
2) 1,4 Dioxane results compared to the MCL for unspecified organics of 50 ug/L
3) Shaded cells indicate exceedance of Health Advisory Limits
4) Detected concentrations are shown in bold typeface, in units of µg/L.
5) J denotes analytical result is an estimate.
6) < denotes compound not detected above the indicated method detection limit.
7) * Denotes duplicate parent sample.

Figures



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Source: NYSGIS Clearinghouse

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FIGURE 1
SITE LOCATION MAP

Former NOW Corporation Facility
Site No. 3-14-008

JULY 2019

60276639

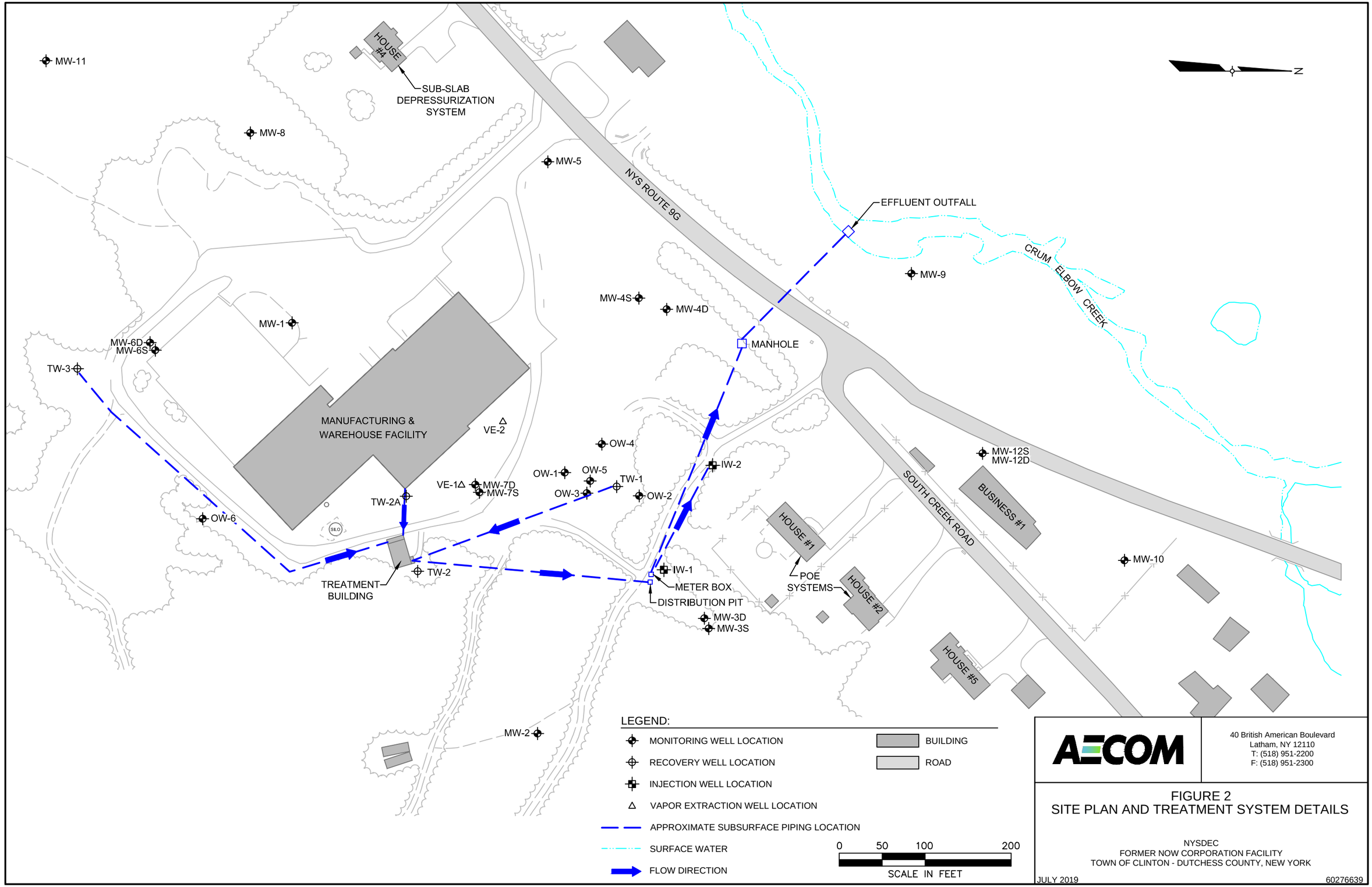

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FIGURE 2
SITE PLAN AND TREATMENT SYSTEM DETAILS

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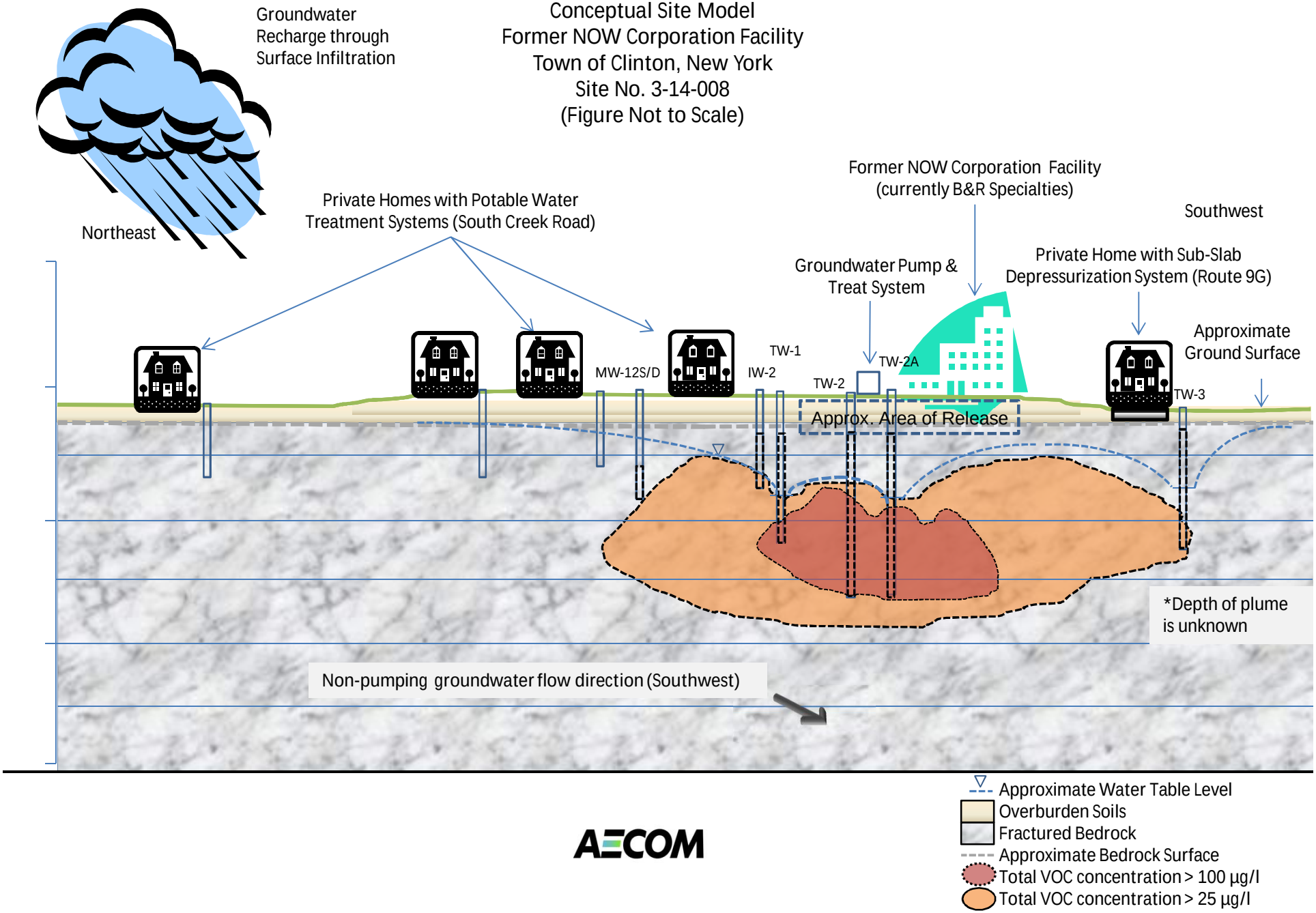
TOWN OF CLINTON - DUTCHESS COUNTY, NEW YORK

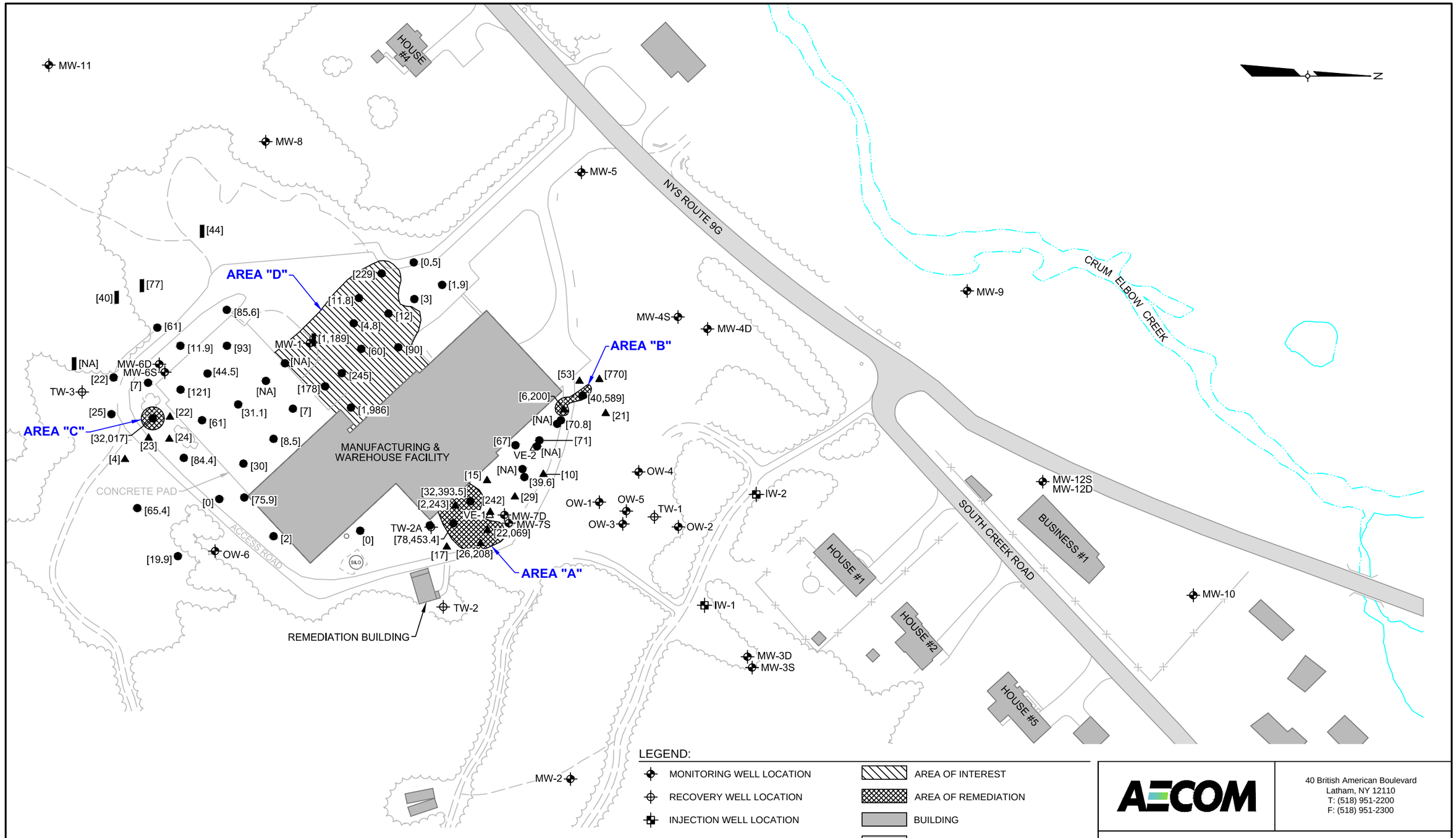
JULY 2019 60276639

L:\Group\earth\Latham NY Work\NOW Corporation\94017_004 Site Plan and Treatment System Details.dwg, 7/28/2016 3:20:07 PM, Splawnm

Figure 3
Conceptual Site Model
Former NOW Corporation Facility
Town of Clinton, New York
Site No. 3-14-008
(Figure Not to Scale)



AECOM



NOTES:

1. SOIL SAMPLE RESULTS BASED ON ENGINEERING-SCIENCE FIGURE "SUBSURFACE SOIL ANALYTICAL DATA TOTAL VOC CONCENTRATIONS (ppb)".
2. REMEDIATION EFFORTS IN AREA "D" WERE NOT CONSIDERED TO BE COST-EFFECTIVE AND WAS NOT EXCAVATED.

LEGEND:

- MONITORING WELL LOCATION
- RECOVERY WELL LOCATION
- INJECTION WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- SOIL BORING LOCATION
- SOIL BORING LOCATION (JUNE 1995)
- TEST PIT LOCATION
- AREA OF INTEREST
- AREA OF REMEDIATION
- BUILDING
- ROAD
- SURFACE WATER
- [0.5] VOC CONCENTRATION (ppb)
- NA NOT ANALYZED

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FIGURE 4
SUBSURFACE SOIL ANALYTICAL DATA TOTAL VOC CONCENTRATIONS (1998)

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JULY 2019 60276639

L:\Group\earth\Latham NY Work\NOW Corporation\60276639_002 Subsurface Soil Analytical Data Total VOC Conc 1998.dwg, 7/28/2016 3:18:14 PM, Splawnm

Figure 5
Combined Influent Sampling Results (1998-2019)

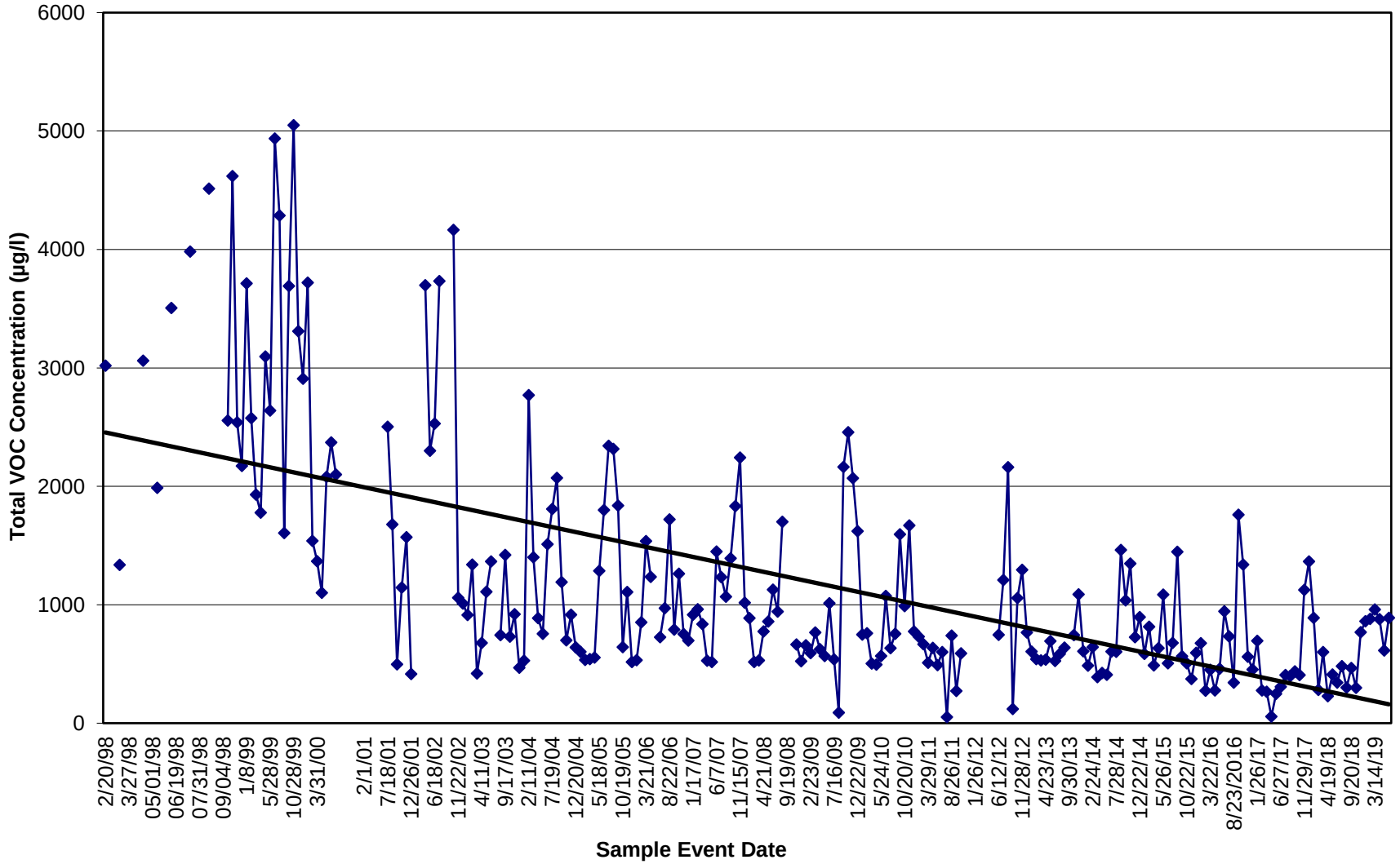
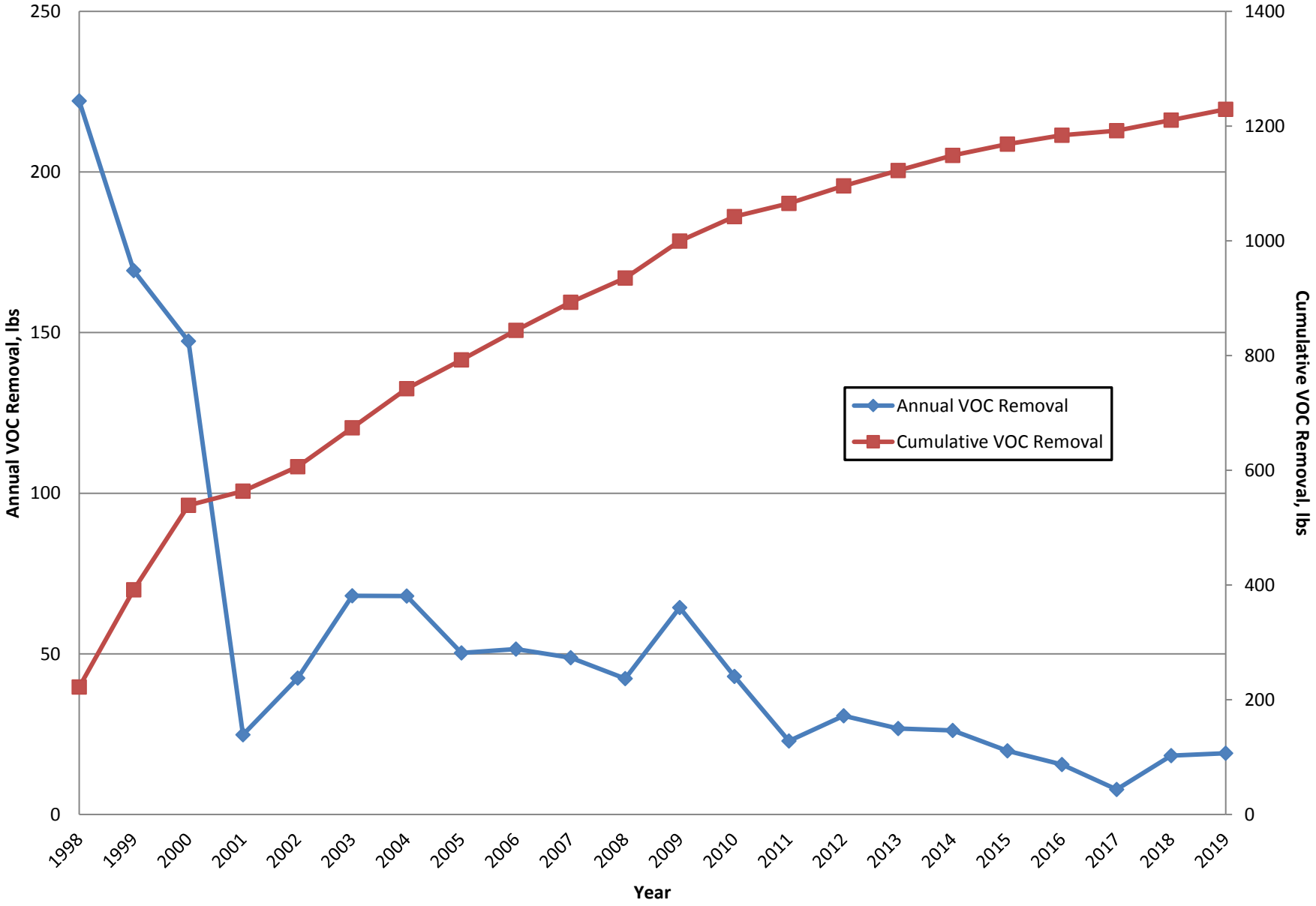
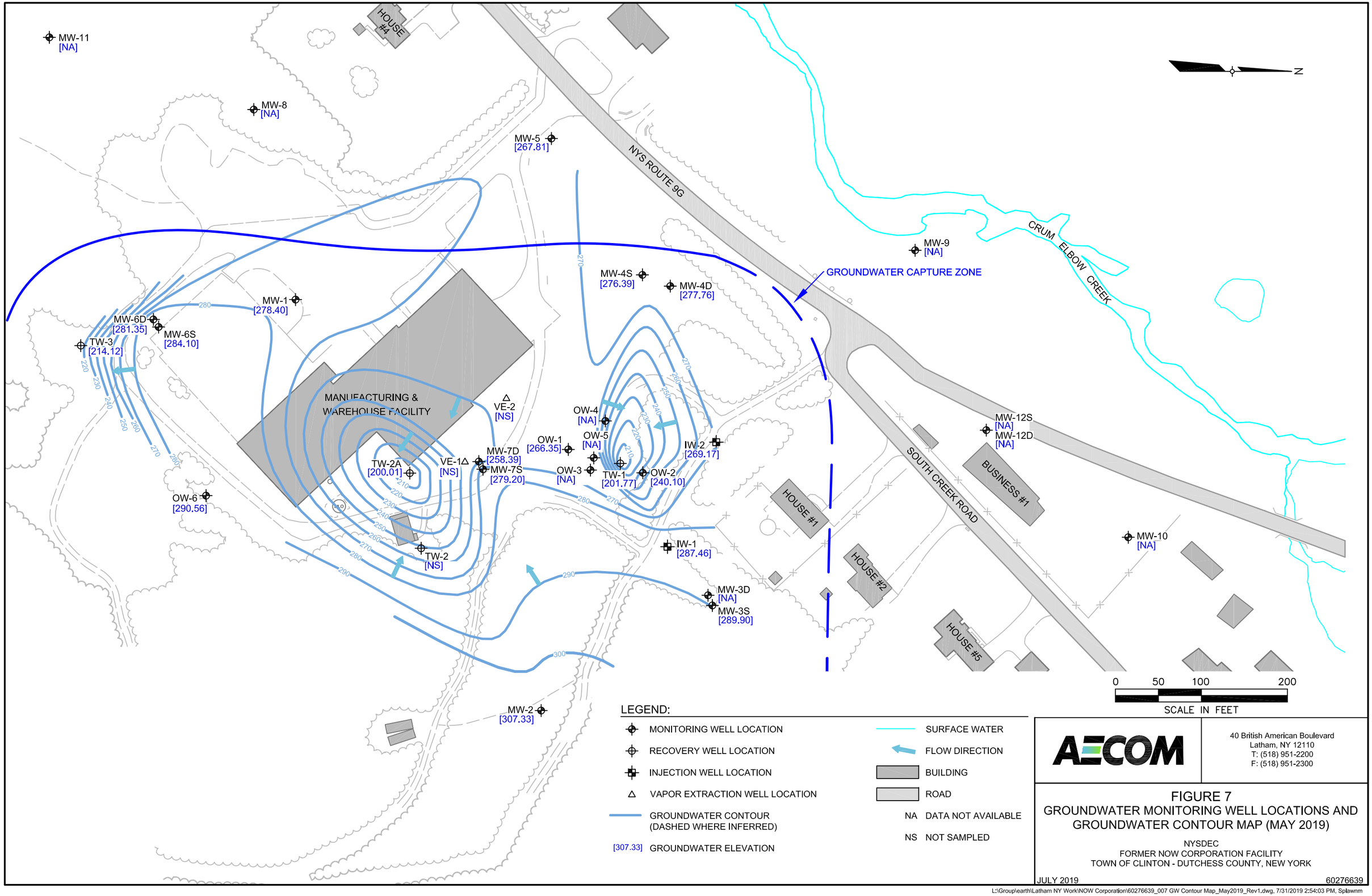


Figure 6 - Annual and Cumulative VOC Removal from Groundwater (1998-2019)





LEGEND:

- MONITORING WELL LOCATION
- RECOVERY WELL LOCATION
- INJECTION WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- [307.33] GROUNDWATER ELEVATION
- SURFACE WATER
- FLOW DIRECTION
- BUILDING
- ROAD
- NA DATA NOT AVAILABLE
- NS NOT SAMPLED

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FIGURE 7
GROUNDWATER MONITORING WELL LOCATIONS AND GROUNDWATER CONTOUR MAP (MAY 2019)

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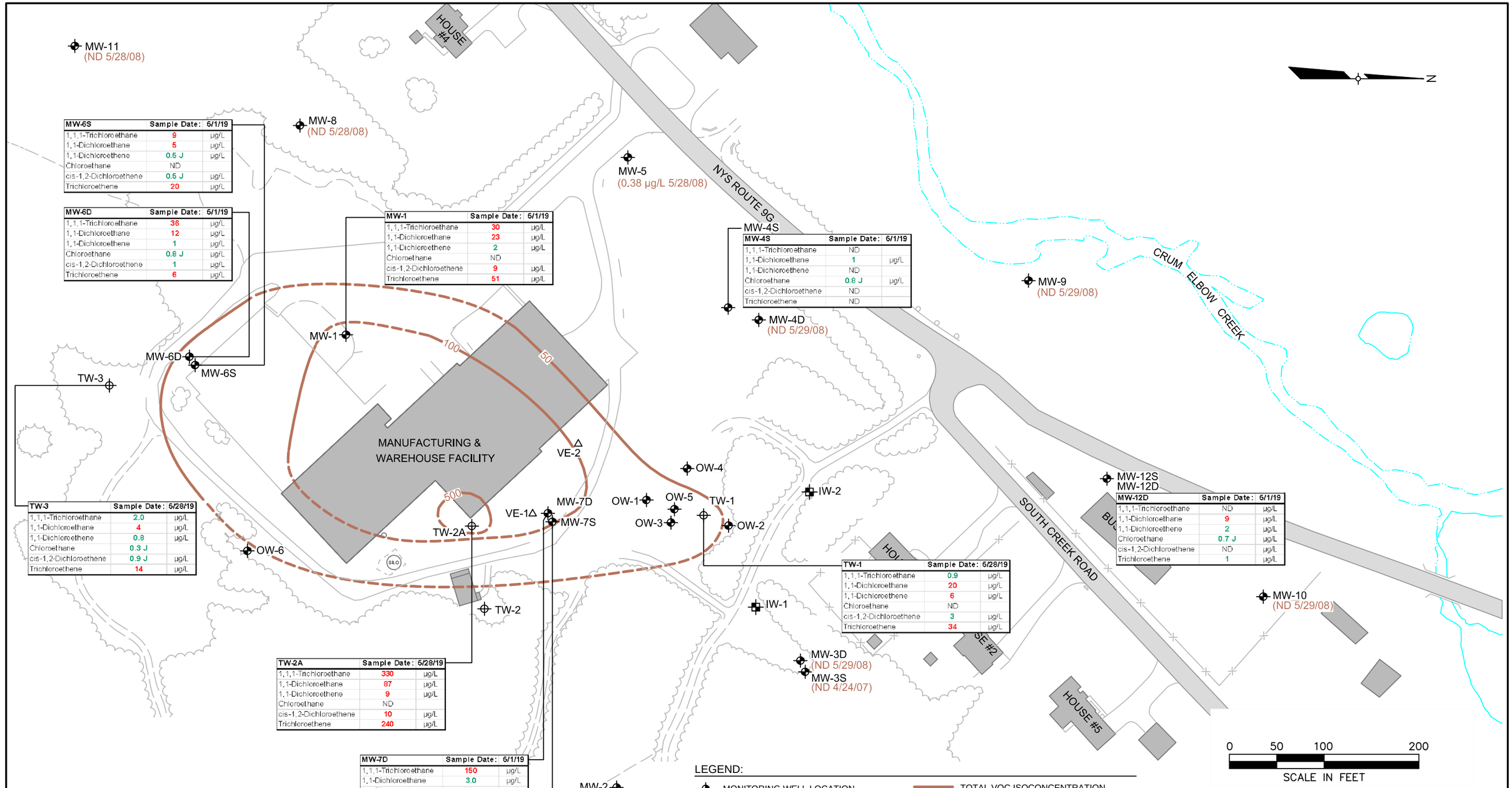
TOWN OF CLINTON - DUTCHESS COUNTY, NEW YORK

JULY 2019 60276639



MW-6S	Sample Date: 6/1/19	
1,1,1-Trichloroethane	9	µg/L
1,1-Dichloroethane	5	µg/L
1,1-Dichloroethene	0.5 J	µg/L
Chloroethane	ND	
cis-1,2-Dichloroethene	0.5 J	µg/L
Trichloroethene	20	µg/L

MW-6D	Sample Date: 6/1/19	
1,1,1-Trichloroethane	36	µg/L
1,1-Dichloroethane	12	µg/L
1,1-Dichloroethene	1	µg/L
Chloroethane	0.8 J	µg/L
cis-1,2-Dichloroethene	1	µg/L
Trichloroethene	6	µg/L

MW-1	Sample Date: 6/1/19	
1,1,1-Trichloroethane	30	µg/L
1,1-Dichloroethane	23	µg/L
1,1-Dichloroethene	2	µg/L
Chloroethane	ND	
cis-1,2-Dichloroethene	9	µg/L
Trichloroethene	51	µg/L

MW-4S	Sample Date: 6/1/19	
1,1,1-Trichloroethane	ND	
1,1-Dichloroethane	1	µg/L
1,1-Dichloroethene	ND	
Chloroethane	0.8 J	µg/L
cis-1,2-Dichloroethene	ND	
Trichloroethene	ND	

TW-3	Sample Date: 5/28/19	
1,1,1-Trichloroethane	2.0	µg/L
1,1-Dichloroethane	4	µg/L
1,1-Dichloroethene	0.8	µg/L
Chloroethane	0.3 J	
cis-1,2-Dichloroethene	0.9 J	µg/L
Trichloroethene	14	µg/L

TW-1	Sample Date: 5/28/19	
1,1,1-Trichloroethane	0.9	µg/L
1,1-Dichloroethane	20	µg/L
1,1-Dichloroethene	6	µg/L
Chloroethane	ND	
cis-1,2-Dichloroethene	3	µg/L
Trichloroethene	34	µg/L

MW-12D	Sample Date: 6/1/19	
1,1,1-Trichloroethane	ND	µg/L
1,1-Dichloroethane	9	µg/L
1,1-Dichloroethene	2	µg/L
Chloroethane	0.7 J	µg/L
cis-1,2-Dichloroethene	ND	µg/L
Trichloroethene	1	µg/L

TW-2A	Sample Date: 5/28/19	
1,1,1-Trichloroethane	330	µg/L
1,1-Dichloroethane	87	µg/L
1,1-Dichloroethene	9	µg/L
Chloroethane	ND	
cis-1,2-Dichloroethene	10	µg/L
Trichloroethene	240	µg/L

MW-7D	Sample Date: 5/1/19	
1,1,1-Trichloroethane	150	µg/L
1,1-Dichloroethane	3.0	µg/L
1,1-Dichloroethene	0.6 J	µg/L
Chloroethane	ND	
cis-1,2-Dichloroethene	4	µg/L
Trichloroethene	82	µg/L

MW-7S	Sample Date: 5/1/19	
1,1,1-Trichloroethane	2	µg/L
1,1-Dichloroethane	0.4 J	µg/L
1,1-Dichloroethene	ND	
Chloroethane	ND	
cis-1,2-Dichloroethene	7	µg/L
Trichloroethene	72.0	µg/L

LEGEND:

- MONITORING WELL LOCATION
- RECOVERY WELL LOCATION
- INJECTION WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- TOTAL VOC ISOCONCENTRATION CONTOUR (DASHED WHERE INFERRED)
- SURFACE WATER
- BUILDING
- ROAD

VOC EXCEEDANCES IN GROUNDWATER
RED - EXCEEDANCE OF THE AMBIENT WATER QUALITY STANDARDS (AWQS)
GREEN - VOLATILE ORGANIC COMPOUNDS (VOCs) ARE DETECTED BUT DO NOT EXCEED THE AWQS
ND - VOCs WERE NOT DETECTED
J - DENOTES ANALYTICAL RESULT IS AN ESTIMATE

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FIGURE 8
GROUNDWATER RESULTS BY WELL

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TOWN OF CLINTON - DUTCHESS COUNTY, NEW YORK

JULY 2018 60276639

L:\Group\earth\Latham NY Work\NOW Corporation\60276639_008 Total VOC Results Map_May2019.dwg, 8/1/2019 11:43:17 AM, Splawnm

Figure 9
Total VOC Concentrations by Well (1993-2019)

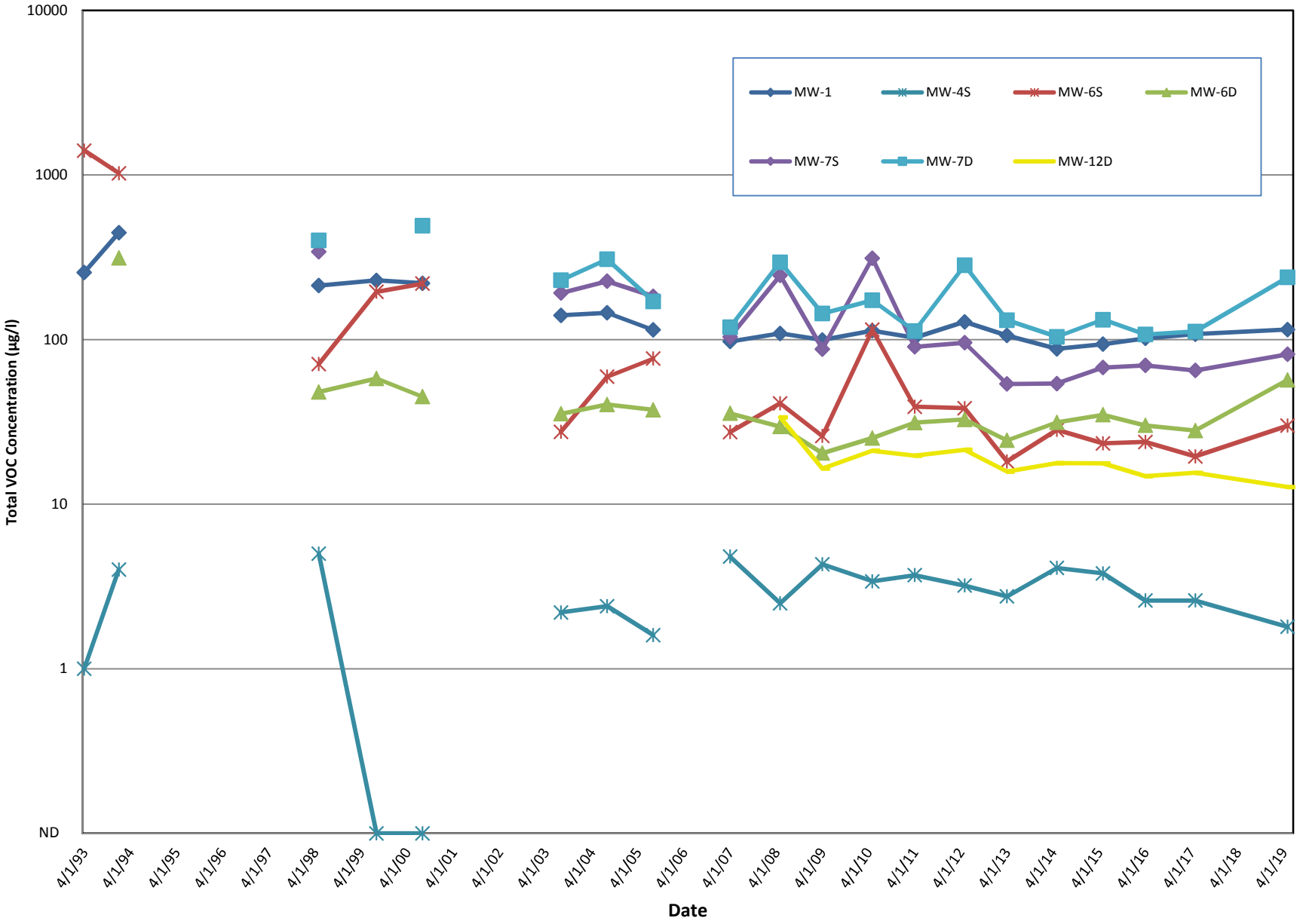


Figure 10
TW-1 Influent Sampling Results (1998-2019)

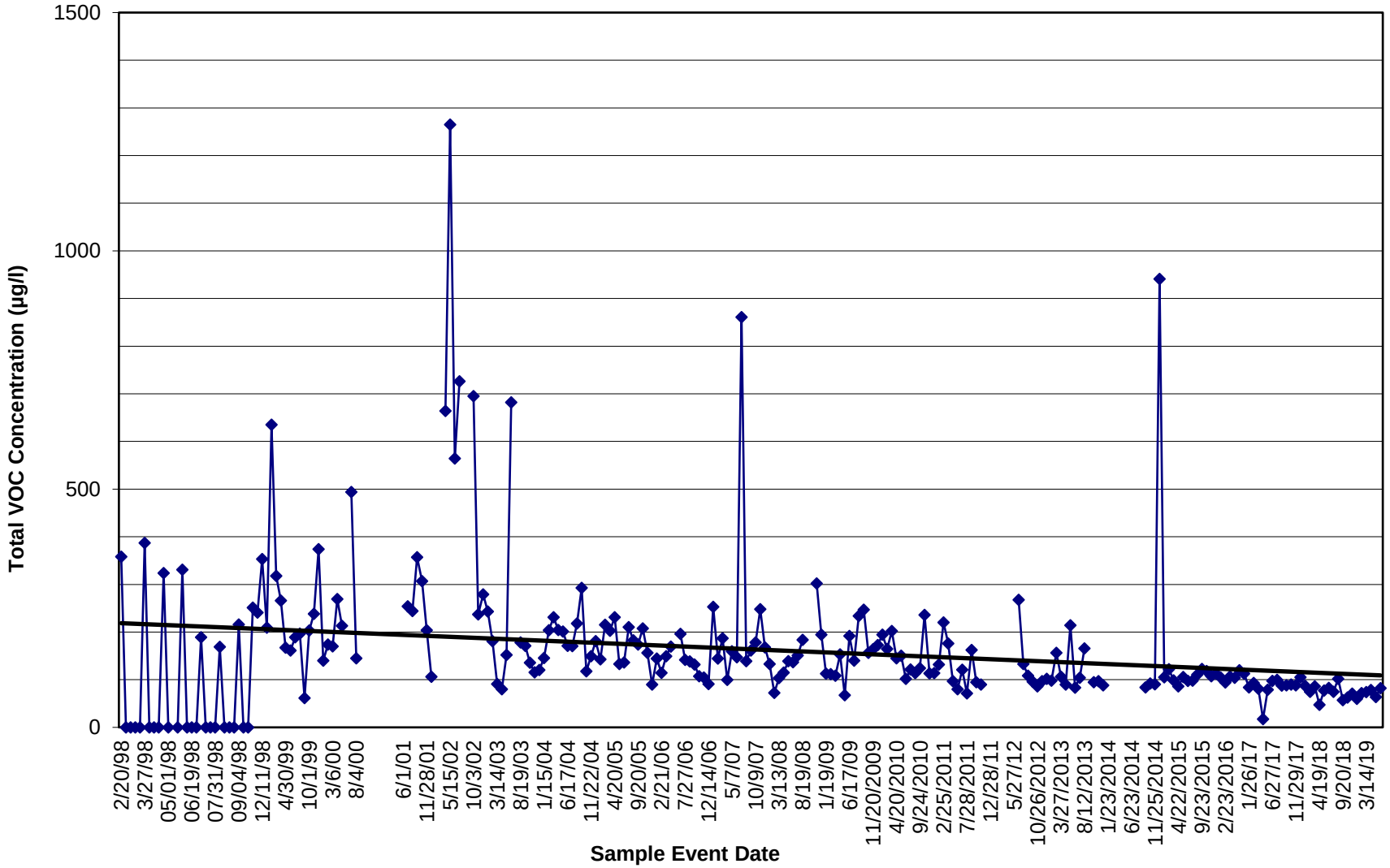


Figure 11
TW-2A Influent Sampling Results (1998-2019)

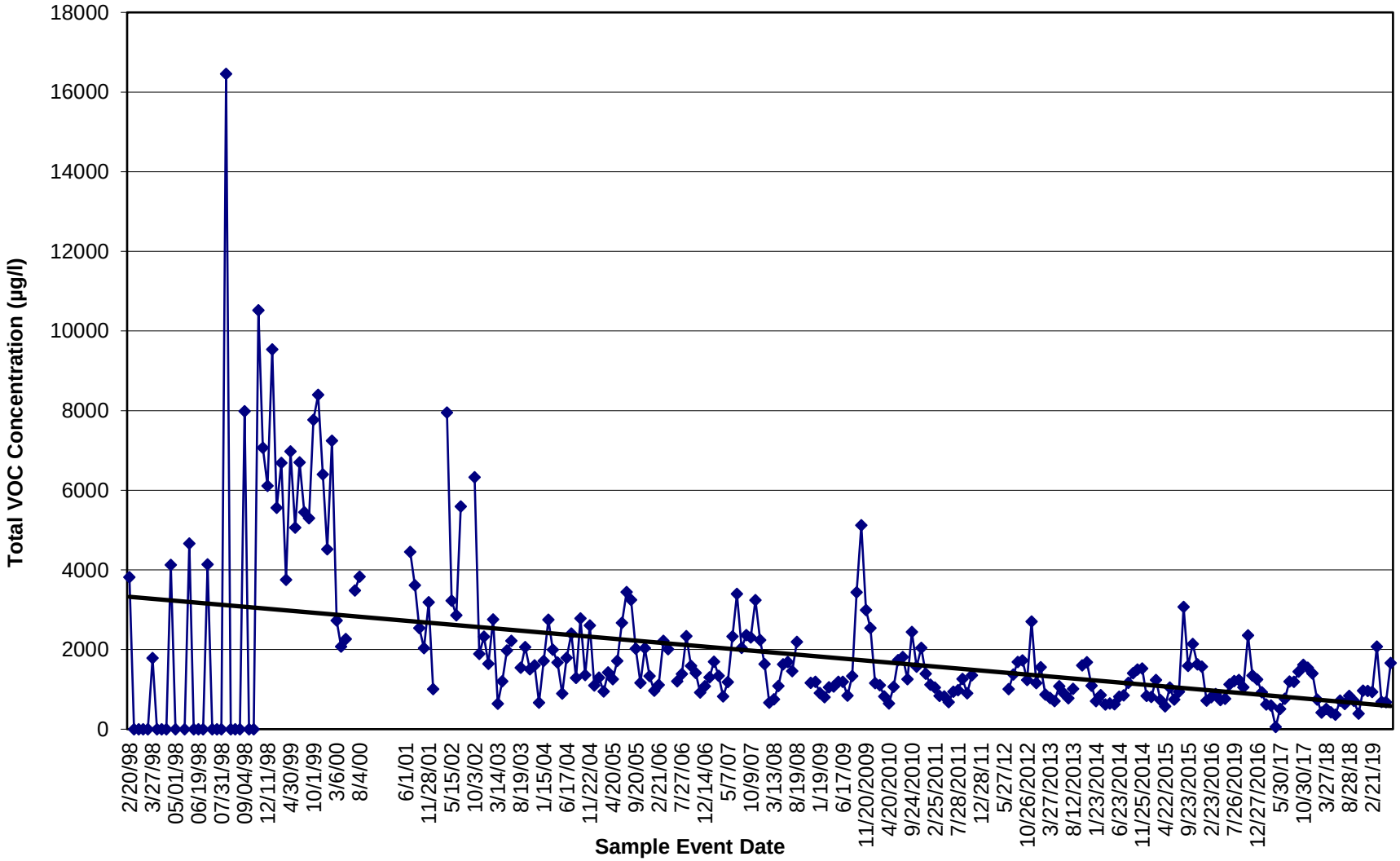
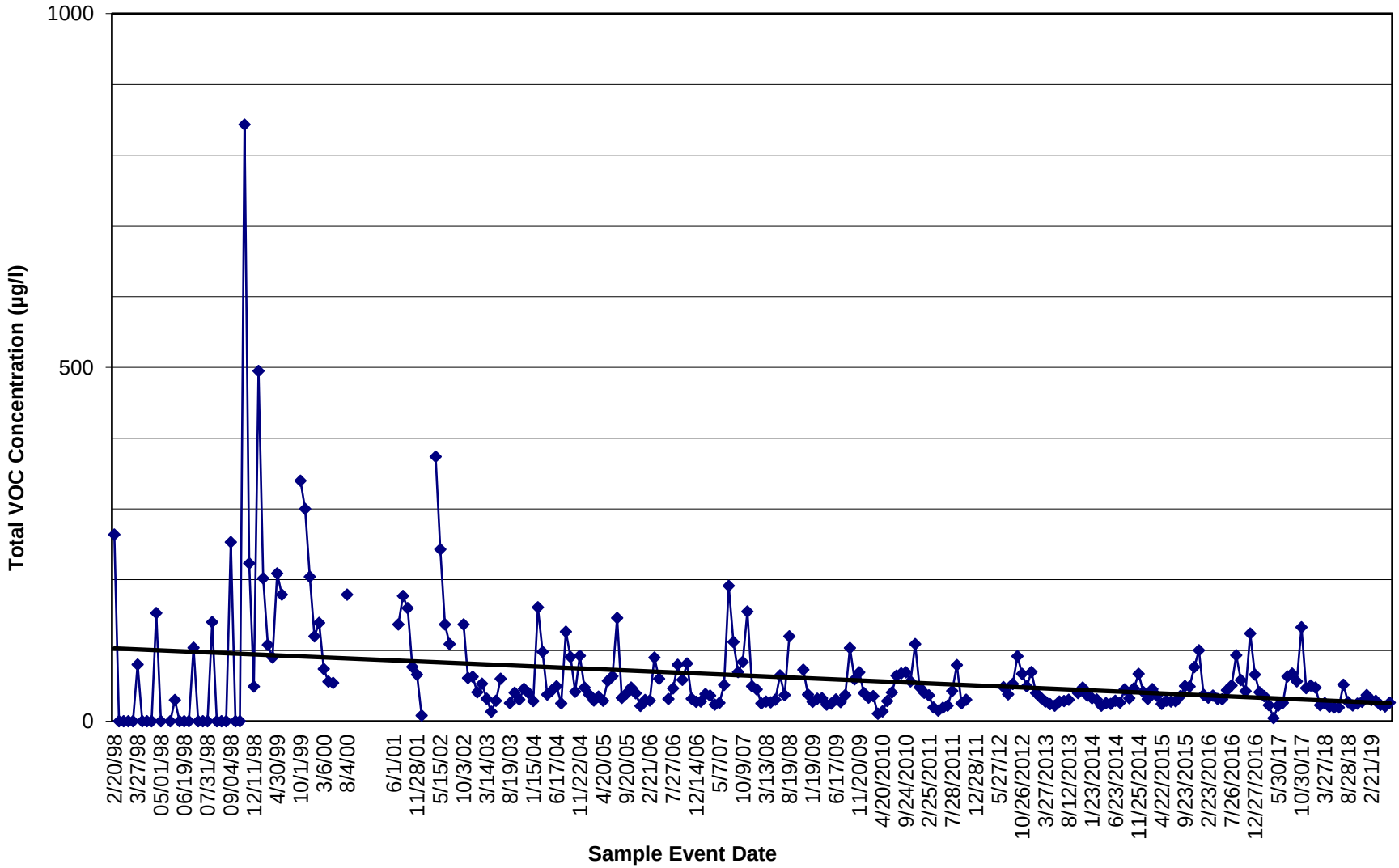


Figure 12
TW-3 Influent Sampling Results (1998-2019)



Appendix A

Summary of Total Influent Data (2016-2019)

Appendix A
Summary of Total Influent Data (2016-2019)
Former NOW Corporation Facility
Town of Clinton, New York

Sample ID Date	Influent 6/21/16	Influent 7/26/16	Influent 8/23/16	Influent 9/20/16	Influent 10/27/16	Influent 11/21/16	Influent 12/27/16	Influent 1/26/17	Influent 2/22/17	Influent 3/23/17	Influent 4/25/17	Influent 5/30/17	Influent 6/27/17	Influent 7/24/17	Influent 8/28/17	Influent 9/25/17	Influent 10/30/17	Influent 11/29/17	Influent 12/21/17
Analyte																			
1,1,1-Trichloroethane	**410**	**280**	**120**	**860**	**801**	**240**	**170**	**17**	**77 ***	**69**	**17**	**88.4**	**84.1**	**143**	**151**	**174**	**144**	**559**	**592**
1,1,2-Trichloroethane	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	**0.37 J**
1,1-Dichloroethane	**210**	**160**	**100**	**430**	**255**	**140**	**91**	**250**	**57 ***	**52**	**11**	**46.6**	**59.0**	**80.6**	**80.3**	**83.5**	**88.3**	**212**	**328**
1,1-Dichloroethene	**23**	**52**	**16**	<25	**19.2**	<5.0	**11**	**43**	**7.6 ***	**8.4**	**1.7**	**6.14**	**8.40**	**10.0**	**8.25**	**9.25**	**15.7**	**17.0**	**21.9**
1,2-Dichloroethane	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	**0.32 J**	<1.00
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**18.1 J**	<20	**22.1**	NA
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.00	<2.00
Benzene	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorobenzene	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloroethane	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<2.00	<10.0	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
cis-1,2-Dichloroethene	**11**	**10**	**6.7**	<25	**9.8**	<5.0	**4.8 J**	**35**	**6.0 ***	**6.1**	**1.2**	**5.68**	**6.85**	**6.34**	**5.07**	**5.13**	**6.89**	**8.49**	**11.9**
Ethylbenzene	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
o-Xylene	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p&m-Xylene	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<2.00	<10.0	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Tetrachloroethene	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tertrahydrofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.00	<2.00
Toluene	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	NA
trans-1,4-Dichloro-2-Butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.00
Trichloroethene	**290**	**230**	**100**	**470**	**254**	**180**	**180**	**350**	**130 ***	**130**	**25**	**101**	**149**	**166**	**154**	**147**	**150**	**306**	**411**
Vinyl Chloride	<8	<8	<0.50	<25	<2.5	<5.0	<5.0	<5.0	<5.0 *	<5.0	<0.50	<1.00	<5.00	<0.50	<0.50	<0.50	**0.67**	<0.50	**0.53**

Sample ID Date	Influent 1/22/18	Influent 2/26/18	Influent 3/27/18	Influent 4/19/18	Influent 5/22/18	Influent 6/22/18	Influent 7/30/18	Influent 8/28/18	Influent 9/20/18	Influent 10/24/18	Influent 11/18	Influent 12/7/18	Influent 1/17/19	Influent 2/21/19	Influent 3/14/19	Influent 4/17/19	Influent 5/28/19	Influent 6/19/19
Analyte																		
1,1,1-Trichloroethane	**404 D**	**78.6 D**	**276 D**	**66.9**	**141 D**	**105 D**	**170**	**82**	**170**	**90**	NS	**540**	**560**	**530**	**600**	**480**	**340**	**510**
1,1,2-Trichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NS	<1.00	<1	**0.3 J**	**0.2 J**	**0.2 J**	<1	<0.2
1,1-Dichloroethane	**174 D**	**61.5**	**98.7**	**46.3**	**96.7 D**	**78.1**	**95**	**54**	**100**	**57**	NS	**65**	**95**	**120**	**120**	**150**	**87**	**140**
1,1-Dichloroethene	**14.2**	**7.30**	**10.2**	**6.07**	**11.2**	**9.70**	**10**	**7.3**	**9.1**	**6.1**	NS	**7**	**9**	**12**	**11**	**12**	**9**	**12.0**
1,2-Dichloroethane	**0.28 J**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NS	**0.3 J**	<1	**0.4 J**	**0.4 J**	**0.4 J**	<1	**0.3 J**
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA	NA	NA	NA
2-Butanone	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	NS	<10	<10	<10	<10	<10	<10	<0.3
Benzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NS	<1.00	<1	<1	<1	<1	<1	<0.2
Chlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NS	<1.00	<1	<1	<1	<1	<1	<0.2
Chloroethane	<2.00	<2.00	**0.65 J**	<2.00	<2.00	<2.00	**0.45 J**	<2.00	**0.58 J**	<1.00	NS	<1.00	**0.3 J**	**0.3 J**	**0.3 J**	**0.3 J**	<1	<0.2
cis-1,2-Dichloroethene	**7.79**	**4.81**	**6.39**	**5.67**	**6.34**	**5.71**	**6.6**	**6.7**	**6.2**	**5.6**	NS	**6**	**7**	**7**	**7**	**6**	**7**	**6**
Ethylbenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NS	<1.00	<1	<1	<1	<1	<1	<0.4
o-Xylene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NS	<1	<1	<1	<1	<1	<1	<0.4
p&m-Xylene	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	NS	<5	<5	<5	<5	<5	<5	<1
Tetrachloroethene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	NS	<1.00	<1	<1	<1	<1	<1	<0.2
Tertrahydrofuran	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	NS	<2.00	<10	<10	<10	<10	<10	<0.7
Toluene	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	NS	<1.00	<1	<1	<1	<1	<1	<0.2
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-Butene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	**289 D**	**128 D**	**209 D**	**104 D**	**155 D**	**144 D**	**200**	**150**	**180**	**140**	NS	**150**	**190**	**210**	**220**	**230**	**170**	**220**
Vinyl Chloride	<0.50	<0.50	**0.47 J**	<0.50	<0.50	<0.50	**0.48 J**	<0.50	**0.39 J**	**0.39 J**	NS	<1	**0.4 J**	<1	**0.3 J**	<1	**0.4**	**0.3 J**

Notes:
1) Detected Concentrations are in **bold**, in units of micrograms per liter (µg/L).
2) ND = Not Detected
3) NA = Not analyzed
4) "**J**" indicates an estimated concentration.
5) NS = Not Sampled
6) " * " indicates sample was analyzed outside of the EPA recommended holding time.
7) " **D** " indicates result froma diluted sample.

Appendix B

Groundwater Analytical Data Summary (1993-2019)

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-1																		
Analytes/Standards**	**4/27/93**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/28/08**	**4/27/09**	**5/27/10**	**4/19/11**	**5/8/12**	**4/23/13**	**5/16/14**	**5/8/15**	**4/19/16**	**5/4/17**	**5/1/19**
1,1,1-Trichloroethane/5	**75**	**150**	**57**	**33**	**40**	**24**	**19**	**8.3**	**11**	**9**	**8.1**	**8.5**	**8.2**	**28/25 ***	**8.2**	**4.8**	**5.2**	**5.3**	**2.4**	**30**
1,1,2-Trichloroethane/1	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	**50**	**50**	**30**	**66**	**31**	**17**	**22**	**25**	**13**	**16**	**10**	**16**	**13**	**16/15 ***	**15**	**9.7**	**11**	**13.0**	**2.0**	**23.0**
1,1-Dichloroethene/5	**6**	**6**	**5**	ND	ND	**3**	**4.5**	**6.1**	**2.9**	**2.8**	**1.4 J**	**2.9**	**2.4**	**3.1/2.8 ***	**3.8**	**2.3**	**2.6**	**2.5**	**0.58**	**2**
1,2-Dichloroethane/0.6	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
Benzene/1	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
Chloroethane/5	**8**	**6**	ND	ND	ND	**1.3**	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	**27**	**32**	**20**	ND	**29**	**15**	**20**	**18**	**13**	**14**	**12**	**12**	**11**	**9.0/8.9 ***	**12**	**10**	**11**	**11.4**	**4.8**	**9.0**
Ethylbenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
o-Xylene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
Toluene/5	**2**	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	**0.22 J**	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND
Trichloroethene/5	**88**	**200**	**100**	**130**	**120**	**80**	**79**	**56**	**56 D**	**67**	**68**	**74 D**	**68**	**72/67 ***	**67 D**	**61**	**64**	**69.6**	**98 D**	**51**
Vinyl Chloride/2	*N/A*	**2**	**1**	ND	ND	ND	**1**	**1.1**	**1.4**	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	**0.2**
TOTAL VOCs	256	446	213	229	220	140	146	115	97.3	109	99.5	113	103	128/119 *	106	87.8	93.8	102	108	115

Notes:
1) Detected concentrations are shown in bold typeface, in units of µg/L.
2) ND = Not Detected
3) *N/A* = Not Analyzed (either well was effectively dry on date shown, or indicated analyte was not reported
4) * = Duplicate sample result.
5) D = denotes analytical result for a diluted sample.
6) J = denotes analytical result is an estimate.
7) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), µg/L
8) Shaded cell indicates exceedance of Ambient Water Quality Standard
9) May 2012 Sampling Event - groundwater recovery wells had been inactive since October 2011.

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-2									
Analytes/Standards**	**4/27/93**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/29/08**
1,1,1-Trichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane/1	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane/0.6	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	**3**	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	**3**	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	ND	**2**	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride/2	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	6	2	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
1) Detected concentrations are shown in bold typeface, in units of µg/L.
2) ND = Not Detected
3) *N/A* = Not Analyzed (either well was effectively dry on date shown, or indicated analyte was not reporte
4) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOG

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-3D										MW-3S									
Analytes/Standards**	**4/27/93**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/28/08**	**1/12/94**	**5/8/98**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/28/08**
1,1,1-Trichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane/1	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND/ND*	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane/0.6	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND/ND*	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND/ND*	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND/ND*	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND/ND*	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND/ND*	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND/ND*	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	**1**	*N/A*	ND	ND	ND	ND	ND	ND	ND/ND*	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND/ND*	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	**0.7**	**3**	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride/2	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	1.7	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
1) Detected concentrations are shown in bold typeface, in units of µg/L.
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3) *N/A* = Not Analyzed (either well was effectively dry on date shown, or indicated analyte was not reported
4) * = Duplicate sample result.
5) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), µg/L
6) Shaded cell indicates exceedance of Ambient Water Quality Standard

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-4S																			
Analytes/Standards**	**4/27/93**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/29/08**	**4/27/09**	**5/27/10**	**4/19/11**	**5/8/12**	**4/23/13**	**5/16/14**	**5/8/15**	**4/19/16**	**5/4/17**	**5/1/19**
1,1,1-Trichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
1,1,2-Trichloroethane/1	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
1,1-Dichloroethane/5	ND	**4**	**5**	ND	ND	**2.2**	**1.6**	**1**	**2.3**	**2.5**	**2.5/2.4***	**2**	**2.2**	**2.0**	**1.9**	**2.0**	**1.9/1.9***	**1.4/1.4***	**1.5/1.5***	**1.0**
1,1-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
1,2-Dichloroethane/0.6	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
Benzene/1	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
Chlorobenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
Chloroethane/5	ND	ND	ND	ND	ND	ND	**0.8**	**0.6**	**2.5**	ND	**1.5/1.4***	**1.4**	**1.5**	**1.2**	**0.85**	**2.1**	**1.9/2.0***	**1.2 J/1.0 J***	**1.1/1.1***	**0.8 J**
cis-1,2-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
Ethylbenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
m&p-Xylene/5	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
o-Xylene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
Toluene/5	**1**	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
trans-1,2-Dichloroethene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
Trichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.31 J**/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
Vinyl Chloride/2	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND/ND*	ND/ND*	ND/ND*	ND
TOTAL VOCs	1	4	5	ND	ND	2.2	2.4	1.6	4.8	2.5	4.1	3.4	3.7	3.2	2.8	4.1	3.8	2.6	2.6	1.8

Notes:
1) Detected concentrations are shown in bold typeface, in units of µg/L.
2) ND = Not Detected
3) *N/A* = Not Analyzed (either well was effectively dry on date shown, or indicated analyte was not reported
4) * = Duplicate sample result.
5) J = denotes analytical result is an estimate.
6) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), µg/L
7) May 2012 Sampling Event - groundwater recovery wells had been inactive since October 2011.

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

Analytes/Standards**	MW-4D								
	1/12/94	5/8/98	8/1/99	8/18/00	8/27/03	8/24/04	8/25/05	4/24/07	5/29/08
1,1,1-Trichloroethane/5	ND	ND	**27**	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane/1	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	ND	ND	**68**	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane/0.6	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	ND	ND	**100**	ND	ND	ND	ND	ND	ND
Vinyl Chloride/2	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	ND	ND	195	ND	ND	ND	ND	ND	ND

Notes:
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4) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limita
5) Shaded cell indicates exceedance of Ambient Water Quality Standard

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-5									
Analytes/Standards**	**4/27/93**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/29/08**
1,1,1-Trichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane/1	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.38 J**
1,1-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane/0.6	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	**2**	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	**2**	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	ND	**2**	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride/2	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	4	2	ND	ND	ND	ND	ND	ND	ND	0.38

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4) J = denotes analytical result is an estimate.
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Appendix B
Groundwater Analytical Data Summary
NOW Corporation
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Town of Clinton, New York

	MW-6S																			
Analytes/Standards**	**4/27/93**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**10/19/05**	**4/24/07**	**5/28/08**	**4/27/09**	**5/27/10**	**4/19/11**	**5/8/12**	**4/23/13**	**5/16/14**	**5/8/15**	**4/19/16**	**5/4/17**	**5/1/19**
1,1,1-Trichloroethane/5	**710**	**510**	**23**	ND	**45**	**2.5**	**7.6**	**12**	**4**	**3.7**	**2.3**	**11**	**3.8**	**8.5**	ND	**2.5**	**2.2**	**1.3**	**1.2 H**	**9**
1,1,2-Trichloroethane/1	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	**57**	**39**	**3**	ND	**14**	ND	**2.7**	**4.3**	**1.3**	**1.9**	**0.93**	**18**	**2.9**	**3**	**0.85**	**1.8**	**1.2**	**1.2**	**1.3 H**	**2**
1,1-Dichloroethene/5	**11**	**3**	ND	ND	ND	ND	**1.3**	**1.1**	**0.38 J**	**0.91**	**0.33 J**	**2.8**	**0.73**	ND	ND	**0.36 J**	ND	**0.5 J**	ND	**0.5 J**
1,2-Dichloroethane/0.6	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	**3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	**17**	**12**	**2**	ND	ND	ND	**0.9**	**2.2**	**0.69**	**0.49 J**	**0.38 J**	**1.1**	**0.64**	**1.8**	**0.32 J**	**0.61**	ND	**0.3 J**	ND	**0.5 J**
Ethylbenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	**610**	**460**	**43**	ND	**160**	**25**	**47**	**57**	**21**	**34**	**22**	**82 D**	**31**	**25**	**17**	**23**	**20**	**20.6**	**17**	**20**
Vinyl Chloride/2	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	1,408	1,024	71	ND	219	27.5	59.5	76.6	27.4	41	25.9	115	39.1	38.3	18.2	28.3	23.4	23.9	19.5	30.0

Notes:
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4) MW-6S, 7S & 7D were dry on 8/25/05. They were sampled on the date shown at the top of the columns.
5) J = denotes analytical result is an estimate.
6) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), µg/L
7) Shaded cell indicates exceedance of Ambient Water Quality Standard
8) May 2012 Sampling Event - groundwater recovery wells had been inactive since October 2011.
9) H = Sample analyzed outside of method specified holding time.

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-6D																		
Analytes/Standards**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/28/08**	**4/27/09**	**5/27/10**	**4/19/11**	**5/8/12**	**4/23/13**	**5/16/14**	**5/8/15**	**4/19/16**	**5/4/17**	**5/1/19**
1,1,1-Trichloroethane/5	**160**	**13**	ND	**7**	**5.8**	**3**	**1.2**	**4.1**	**1.8**	**1.1**	**2.3**	**3.3**	**3.1**	**1.9**	**2.2**	**3.0**	**1.0**	ND	**36**
1,1,2-Trichloroethane/1	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	**140**	**20**	**52**	ND	**16**	**26**	**26**	**17**	**18**	**11**	**13**	**15**	**19**	**12**	**16**	**18**	**16.8**	**16**	**12**
1,1-Dichloroethene/5	**1**	ND	ND	**30**	**1.1**	**1.9**	**1.6**	**1.7**	**1.6**	**0.64**	**1.4**	**1.6**	**1.8**	**0.90**	**2.0**	**2.1**	**3.2**	**1.8**	**1**
1,2-Dichloroethane/0.6	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	ND	ND	ND	ND	ND	**0.6**	**0.8**	**3.4**	ND	**0.94**	ND	**1.6**	**1.8**	**0.61**	**3.2**	**2.3**	**2.7**	**0.73**	**0.8 J**
cis-1,2-Dichloroethene/5	**0.7**	**2**	ND	ND	**1.5**	**1.4**	**1.2**	**1.2**	**1.1**	**0.95**	**1**	**1.2**	**1.0**	**1.2**	**1.2**	**1.4**	**1.1**	**1.4**	**1.0**
Ethylbenzene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	**11**	**13**	**6**	**8**	**11**	**7.4**	**6.6**	**8.2**	**7.1**	**5.8**	**7.5**	**8.6**	**6**	**7.8**	**6.4**	**8.1**	**5.3**	**8.1**	**6**
Vinyl Chloride/2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.40 J**	ND	ND	ND	ND
TOTAL VOCs	313	48	58	45	35.4	40.3	37.4	35.6	29.6	20.4	25.2	31.3	32.7	24.4	31.4	34.9	30.1	28.0	56.8

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6) Shaded cell indicates exceedance of Ambient Water Quality Standard
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Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-7S																
Analytes/Standards**	**5/8/98**	**8/1/99**	**8/27/03**	**8/24/04**	**10/19/05**	**4/24/07**	**5/29/08**	**4/27/09**	**5/27/10**	**4/19/11**	**5/8/12**	**4/23/13**	**5/16/14**	**5/8/15**	**4/19/16**	**5/4/17**	**5/1/19**
1,1,1-Trichloroethane/5	**34**	*N/A*	**8.5/8.6***	**13**	**12**	**5.4**	**2.9**	ND	**12**	**3**	ND	ND	**0.97 J**	ND	**0.9 J**	**1.1**	**2**
1,1,2-Trichloroethane/1	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	**11**	*N/A*	**3.2/3***	**6.4**	**2.4**	**1.7**	**2.2**	ND	**7.3**	ND	ND	**0.38 J**	ND	ND	**0.4 J**	**0.51**	**0.4 J**
1,1-Dichloroethene/5	ND	*N/A*	ND/ND*	**0.9**	ND	ND	**0.51**	ND	**0.95**	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane/0.6	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	**17**	*N/A*	**20/20***	**16**	**9**	**5.9**	**9.7**	**5.6**	**31**	**5.4**	**4.7**	**3.4**	**3.1**	**4.6**	**5.4**	**4.4**	**7**
Ethylbenzene/5	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	*N/A*	ND/ND*	ND	ND	ND	**0.26J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	**280**	*N/A*	**160/160***	**190**	**160**	**91 D**	**230**	**82**	**260 D**	**82**	**91**	**50 D**	**50**	**63**	**63.0**	**59 HD**	**72.0**
Vinyl Chloride/2	ND	*N/A*	ND/ND*	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	342	*N/A*	192	226	183	104	246	87.6	313	90.4	95.7	53.8	54.1	67.6	69.7	65.0	81.4

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9) Shaded cell indicates exceedance of Ambient Water Quality Standard
10) May 2012 Sampling Event - groundwater recovery wells had been inactive since October 2011.
11) H = Sample analyzed outside of method specified holding time.

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Groundwater Analytical Data Summary
NOW Corporation
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Town of Clinton, New York

	MW-7D																	
Analytes/Standards**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**10/19/05**	**4/24/07**	**5/29/08**	**4/27/09**	**5/27/10**	**4/19/11**	**5/8/12**	**4/23/13**	**5/16/14**	**5/8/15**	**4/19/16**	**5/4/17**	**5/1/19**
1,1,1-Trichloroethane/5	**15**	*N/A*	**85**	**12**	**21/22***	**5.6**	**2**	**22/22***	ND	**5.4/5.3***	ND/ND*	ND	**2.5/2.4***	**1.8 J/2.3**	**4.2**	**1.4**	**4.3**	**150**
1,1,2-Trichloroethane/1	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
1,1-Dichloroethane/5	**34**	*N/A*	ND	**17**	**21/21***	**7.5**	**2.5**	**38/37***	ND	**5.9/5.7***	ND/ND*	**23**	**2.7/2.4***	ND/**2.4**	**3.0**	**2.0**	**12**	**3**
1,1-Dichloroethene/5	**4**	*N/A*	**28**	**2.4**	**4.7/4.7***	**1.3**	**0.73**	**4.6/5.2***	ND	**0.93/1.2***	ND/ND*	ND	ND/ND*	ND/ND*	ND	**0.6 J**	**2.5**	**0.6 J**
1,2-Dichloroethane/0.6	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
Benzene/1	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
Chlorobenzene/5	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
Chloroethane/5	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	**8**	*N/A*	ND	**8.1**	**11/11***	**6.3**	**3.5**	**10/9.7***	**4.1 J**	**6.4/5.9***	**3.5/2.7***	ND	**5.7/5.3***	**3.6/4.7**	**5.0**	**4.7**	**12**	**4**
Ethylbenzene/5	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
m&p-Xylene/5	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
o-Xylene/5	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
Tetrachloroethene/5	ND	*N/A*	ND	ND	ND/ND*	ND	ND	**0.25J/0.22J**	ND	ND/ND*	ND/ND*	ND	**0.25 J/ND**	ND/ND*	ND	ND	ND	**0.2 J**
Toluene/5	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	**9.3/8***	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
Trichloroethene/5	**340**	*N/A*	**380**	**190**	**250/260***	**150**	**110 D**	**220/220***	**140**	**150/160 D***	**110/92***	**260**	**120 D/120 D**	**99/110**	**120**	**98.6 D**	**81 HD**	**82**
Vinyl Chloride/2	ND	*N/A*	ND	ND	ND/ND*	ND	ND	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND/ND*	ND/ND*	ND	ND	ND	ND
TOTAL VOCs	401	*N/A*	493	230	313	171	119	294	144	173	113	283	131	104	132	107	112	239.08

Notes:
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4) * = Duplicate sample result.
5) MW-6S, 7S & 7D were dry on 8/25/05. They were sampled on the date shown at the top of the columns.
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8) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), µg/L
9) Shaded cell indicates exceedance of Ambient Water Quality Standard
10) May 2012 Sampling Event - groundwater recovery wells had been inactive since October 2011.
11) H = Sample analyzed outside of method specified holding time.

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-8									
Analytes/Standards**	**4/27/93**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/28/08**
1,1,1-Trichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane/1	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane/0.6	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	**0.8**	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride/2	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
1) Detected concentrations are shown in bold typeface, in units of µg/L.
2) ND = Not Detected
3) *N/A* = Not Analyzed (either well was effectively dry on date shown, or indicated analyte was not reporte
4) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOG

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-9										MW-10									
Analytes/Standards**	**4/27/93**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/29/08**	**4/27/93**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/29/08**
1,1,1-Trichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2**	**2**	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane/1	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**17**	**9**	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane/0.6	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	**1**	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	**2**	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	**1**	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	*N/A*	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride/2	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND	*N/A*	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	11	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
1) Detected concentrations are shown in bold typeface, in units of µg/L.
2) ND = Not Detected
3) *N/A* = Not Analyzed (either well was effectively dry on date shown, or indicated analyte was not reported
4) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), µg/L
5) Shaded cell indicates exceedance of Ambient Water Quality Standard

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-11									MW-12S						
Analytes/Standards**	**1/12/94**	**5/8/98**	**8/1/99**	**8/18/00**	**8/27/03**	**8/24/04**	**8/25/05**	**4/24/07**	**5/28/08**	**5/29/08**	**4/27/09**	**5/27/10**	**4/19/11**	**5/8/12**	**4/23/13**	**5/16/14**
1,1,1-Trichloroethane/5	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane/1	*N/A*	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane/0.6	*N/A*	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	*N/A*	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	*N/A*	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene/5	*N/A*	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	*N/A*	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	*N/A*	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	*N/A*	ND	ND	ND	ND	ND	ND/ND*	ND	ND	**0.31 J**	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	*N/A*	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride/2	ND	ND	ND	ND	ND	ND	ND/ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.31	ND	ND	ND	ND	ND	ND

Notes:
1) Detected concentrations are shown in bold typeface, in units of µg/L.
2) ND = Not Detected
3) *N/A* = Not Analyzed (either well was effectively dry on date shown, or indicated analyte was not reported
4) * = Duplicate sample result.
5) J = denotes analytical result is an estimate.
6) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), µg/L
7) May 2012 Sampling Event - groundwater recovery wells had been inactive since October 2011.

Appendix B
Groundwater Analytical Data Summary
NOW Corporation
NYSDEC Site No. 3-14-008
Town of Clinton, New York

	MW-12D										
Analytes/Standards**	**5/29/08**	**4/27/09**	**5/27/10**	**4/19/11**	**5/8/12**	**4/23/13**	**5/16/14**	**5/8/15**	**4/19/16**	**5/4/17**	**5/1/19**
1,1,1-Trichloroethane/5	**0.24 J**	ND	ND	ND	**0.99**	ND	ND	ND	**0.5 J**	**0.25 J**	ND
1,1,2-Trichloroethane/1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane/5	**25**	**11**	**13**	**14**	**15**	**12**	**12**	**12**	**9.5**	**11**	**9**
1,1-Dichloroethene/5	**2**	**1.5**	**1.8**	**1.4**	**1.6**	**0.72**	**1.7**	**2.1**	**1.8**	**1.9**	**2**
1,2-Dichloroethane/0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene/1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane/5	**4.6**	**2**	**4.5**	**2.9**	**2.0**	**1.4**	**2.2**	**2.0**	**1.2 J**	**1.0**	**0.7 J**
cis-1,2-Dichloroethene/5	**0.25 J**	**0.25 J**	**0.30 J**	ND	ND	**0.24 J**	**0.26 J**	ND	**0.3 J**	ND	ND
Ethylbenzene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene/5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene/5	**1.6**	**1.7**	**1.5**	**1.4**	**1.8**	**1.4**	**1.6**	**1.6**	**1.5**	**1.3**	**1**
Vinyl Chloride/2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs	33.7	16.5	21.1	19.7	21.4	15.8	17.8	17.7	14.8	15.5	12.7

Notes:
1) Detected concentrations are shown in bold typeface, in units of µg/L.
2) ND = Not Detected
3) J = denotes analytical result is an estimate.
4) ** = Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (TOGS 1.1.1), µg/L
5) Shaded cell indicates exceedance of Ambient Water Quality Standard
6) May 2012 Sampling Event - groundwater recovery wells had been inactive since October 2011.

Appendix C

Recent Point-of-Entry Raw Water Analytical Summary (2016-2019)

Appendix C
Recent Point-of-Entry Raw Water Analytical Summary (2016 - 2019)
Former NOW Corporation Facility
Town of Clinton, New York

Location/ COC	12/21/16	06/12/17	12/13/17	06/13/18	12/18/18	6/17/19
House #1: 6 South Creek Road						
Flow Reading	988,270	1,006,270	N/A	1,054,050	1,079,200	1,102,740
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
Trichloroethene	1.8	1.5	1.8	1.4	3.2 / 3.1*	1.6 / 1.6 *
Business #1: 2100 Route 9G						
No Flow Meter						
1,1-Dichloroethane	NS;	12	NS;	12	NS;	NS;
1,1- Dichloroethene	no power to	3.5	no power to	3.6	no power to	no power to
cis1,2-dichloroethene	facility.	0.6	facility.	0.59	facility.	facility.
Trichloroethene		6.4		6.6		
House #3: 33 South Creek Road						
Flow Reading	N/A	N/A	601,420	N/A	N/A	601,420
1,1-Dichloroethane	0.83	ND	0.64	0.62	0.59	0.64
House #2: 8 South Creek Road						
Flow Reading	475,670	488,180	N/A	514,430	527,820	538,770
Trichloroethene	ND/ND*	ND/ND*	ND/ND*	ND	ND	ND

Notes:
1) Concentrations in micrograms per liter (µg/L).
2) ND indicates below method detection limit.
3) Results are shown only for detected analytes.
4) *Indicates Field Duplicate Result
5) NS indicates no sample taken
6) N/A indicates reading not available

Appendix D

Summary of Point-of-Entry Treatment System Data (2018)

Appendix D

Summary of Point-Of Entry Treatment System Data
Site Code # 3-14-008
Now Corporation
Sample Date 12/18/2018

Compound	House #1: 6 South Creek Road			House #2: 8 South Creek Road			House #3: 33 South Creek Road		
	R	I	F	R	I	F	R	I	F
1,1- Dichloroethane	ND	ND	ND	ND	ND	ND	0.59	ND	ND
Trichloroethene	3.2/3.1*	ND	ND	ND	ND	ND	ND	ND	ND

* indicates field duplicate result.
R = raw water sample
I = intermediate water sample
F = final water sample
ND indicates below detection limit (0.50 ug/L)
Only detected analytes are shown in this table. All concentrations are in micrograms per liter (ug/L)
Refer to Table 4 for a comprehensive list of analytes include in EPA Method 524.2.

Appendix E

House #4 – Routine Operations of Soil Vapor Mitigation System

June 11, 2009

Current occupant of
House #4

RE: Routine Operations of Soil Vapor Mitigation System
Introductory Letter for 2009 – 2011 Inspection & Maintenance
House #4 ; System ID: 314008-NOW-001
Site Name: NOW Corporation; Site Code: 314008

Dear Property Owner:

This letter is being sent to provide you with important information regarding the ventilation system that the New York State Department of Environmental Conservation (NYSDEC) is responsible for maintaining at the property referenced above. The NYSDEC is maintaining the system as part of the ongoing remediation of the NOW Corporation site.

HDR, Inc. has been retained by the NYSDEC to conduct routine inspection and maintenance (I&M) activities at hundreds of ventilation systems across the state, including the system installed on your property. HDR is an engineering and consulting firm with offices located across the country, ten in New York alone. Contact information is provided below.

HDR, Inc.
Attn: Michael P. Musso, P.E.
One Blue Hill Plaza
Pearl River, NY 10965
Phone: 845-735-8300
Email: michael.musso@hdrinc.com

In order to familiarize our technical staff with the operational details of your system and make sure it is performing as expected, an inspection of the system will be performed by HDR (or one of our subcontractors) sometime between September 2009 and April 2010. HDR will attempt to coordinate **interior access** for the upcoming inspection for purposes of observing the system fan and other equipment that may be contained within the building's basement or attic. Interior inspections are anticipated to be brief (15 – 30 minutes). You will be receiving another letter providing the anticipated inspection date approximately two weeks prior to the inspection. In addition, HDR will attempt to contact you by telephone a few days prior to the scheduled inspection for confirmation.

In the meantime, please contact the NYSDEC at the toll-free number 1-888-459-8667 if any of the following situations arise:

- If the exhaust fan is not operating or is making excessive, unusual noise;
- If the liquid levels in any U-tube are even (no difference in levels);
- If any new construction or structural changes occur that affect the footprint of the building or the basement or crawl space including penetrations through the slab;
- If there is standing water or flooding observed in the basement;
- If any new combustion appliance or exhaust system is installed; or
- If the property is sold.

If you are not a resident or occupant of the building, please pass along this information to your tenant(s). Thank you again for your cooperation.

Respectfully submitted on behalf of NYSDEC,

Henningson, Durham & Richardson
Architecture and Engineering, P.C.
In association with HDR Engineering, Inc.

Michael P. Musso, P.E.

Michael P. Musso, P.E.
Project Manager

October 19, 2009

Current occupant of
House #4

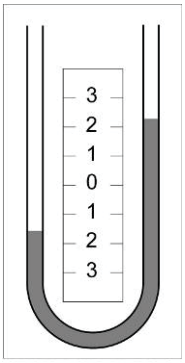
RE: Routine Operations of Soil Vapor Mitigation System
Annual Inspection Notification
House #4 ; System ID#: 314008-NOW-001
Site Name: NOW Corporation; Site Code: 314008

Dear Property Owner:

This letter is being sent to provide you with important information regarding the ventilation system that the New York State Department of Environmental Conservation (DEC) installed, or is responsible for maintaining, at the property referenced above. The DEC is maintaining the system as part of the ongoing remediation of the NOW Corporation site. If you have any questions regarding the information contained in this letter, please call Mr. Eric Hausamann at the DEC's toll-free number: 888-459-8667.

The ventilation system installed on your property draws air from beneath the building and vents it to the outdoor air above the roofline to prevent subslab vapors from potentially entering your building (see the attached schematic diagram at the end of this letter). The primary system components include:

- An electrically-powered exhaust fan mounted on the outside of your home/building. The exhaust fan should operate on a continuous basis.
- Vacuum gauges ("U-tubes") attached at one or more suction points (pipe entering the basement floor). The levels of the liquid in the U-tube(s) should be uneven as shown to the right.
- Labels identifying the system and providing contact information.



UNEVEN LEVELS INDICATE SYSTEM IS OPERATING

While the system is designed to operate continuously, there may be instances when the system needs to be repaired or modified. In any of the following situations, please contact the DEC at the toll-free number listed above and on the system label:

- If the exhaust fan is not operating or is making excessive, unusual noise;
- If the liquid levels in any U-tube are even (no difference in levels);
- If any new construction or structural changes occur that affect the footprint of the building or the basement or crawl space including penetrations through the slab;
- If there is standing water or flooding observed in the basement;
- If any new combustion appliance or exhaust system is installed; or
- If the property is sold.

HDR has been retained by the DEC to conduct inspection and maintenance activities associated with your ventilation system. A periodic inspection of the ventilation system installed on your property is required and will be performed by HDR or one of our subcontractors. Please be advised that HDR has scheduled an interior and exterior inspection of the soil vapor mitigation system on **November 18th, 2009**. HDR will attempt to contact you by telephone a few days prior to the scheduled inspection as a reminder. My contact information is provided below.

HDR, Inc.
Attn: Michael P. Musso, P.E.
One Blue Hill Plaza
Pearl River, NY 10965
Phone: 845-735-8300
Email: michael.musso@hdrinc.com

HDR will attempt to coordinate **interior access** for the inspection, for purposes of observing the system fan and other equipment that may be contained within the building's basement or attic. Interior inspections are anticipated to be brief (15 – 30 minutes).

If you are not a resident or occupant of the building, please pass along this information to your tenant(s) or kindly let me know who we should contact. Thank you again for your cooperation.

Respectfully submitted on behalf of the DEC,

Henningson, Durham & Richardson
Architecture and Engineering, P.C.
In association with HDR Engineering, Inc.

Michael P. Musso, P.E.
Project Manager

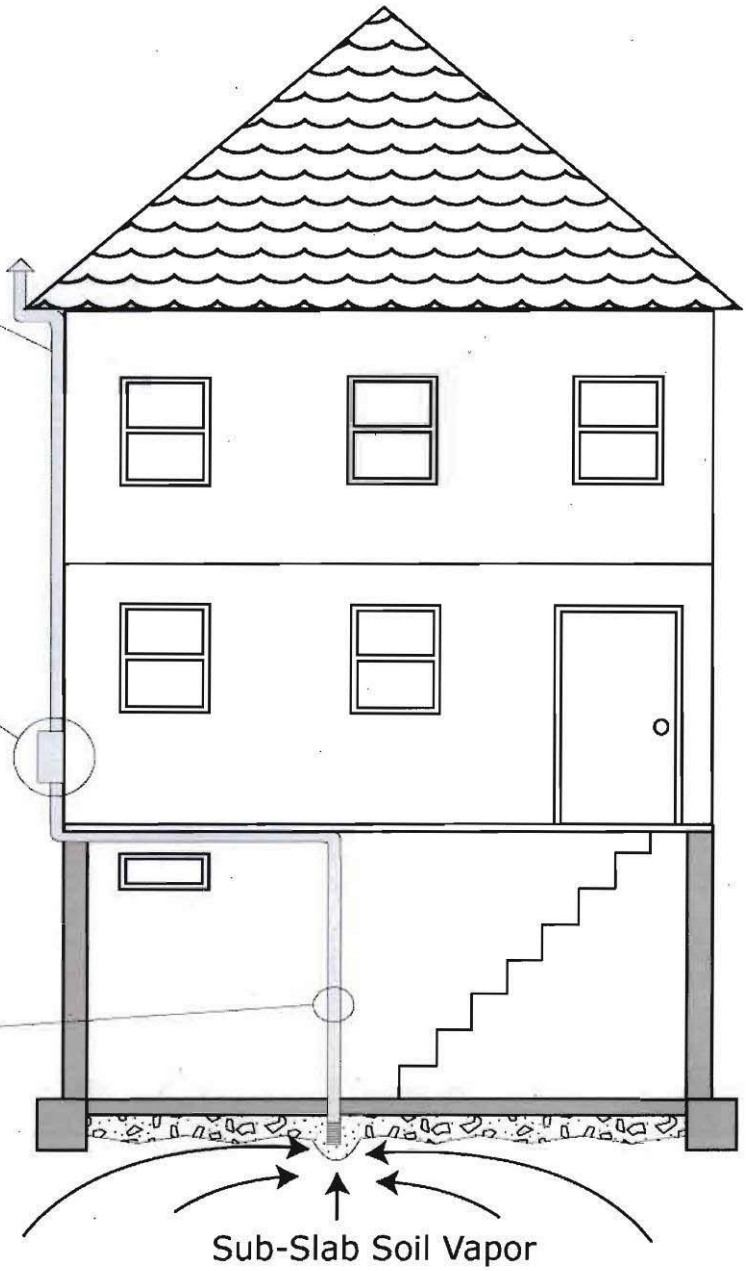
Sub-Slab Depressurization System

(commonly called a radon mitigation system)

The vent pipe is routed up the side of the structure to a location above the roof line.

A fan is used to draw soil vapor from beneath the slab.

A liquid gauge, or manometer is used to verify that the system is operating properly



A sub-slab depressurization system vents contaminated soil vapor before it enters a structure. The fan draws vapor from beneath the building outside to the roof line where it is released to the outside air.

Export Data

Import Sys Data

Periodic Operations Visit Form

☐ Check box if new sys info

System ID: **314008-NOW-001**

Date of Visit: **Nov 18, 2009**

Owner Name: Current occupant of House #4

Date Installed: Nov 11, 2008

System Address:

Telephone:

City:

Zip:

Alt. Telephone:

Performed By: Paul Lenarczyk

Site No: 314008

Company: Yu & Associates

Site Name: NOW Corporation

EXTERIOR

Fan Operation Confirmation

	Fan #1	Fan #2	Fan #3
Fan Model No(s).	RP145		
Is Fan Operating (arrival)?	◉ Yes ○ No	○ Yes ○ No	○ Yes ○ No
Confirmation Method	Sound		
Is Fan Operating (departure)?	◉ Yes ○ No	○ Yes ○ No	○ Yes ○ No

Requested to inspect interior system components? ○ Yes ○ No

If yes, when and by whom? Date:

INTERIOR

Structural Review

			Notes
Change in building footprint since last inspection?	○ Yes	◉ No	
Basement occupied (>4 hrs per day)?	○ Yes	◉ No	
Heating/ventilation system modifications?	○ Yes	◉ No	
Crawlspace inspected?	○ Yes	◉ No	
Large cracks in floor or near sumps?	○ Yes	◉ No	
Wall penetrations or cracks noted?	○ Yes	◉ No	

Piping, Slab & Wall

Are system suction points sealed?	◉ Yes	○ No	
Is piping system in need of repair?	○ Yes	◉ No	

Miscellaneous

Are manometer levels equal?	○ Yes	◉ No	2.1
Are system labels accurate and applied correctly?	◉ Yes	○ No	

Maintenance completed (check all that apply): ☐ Replace fan ☐ Seal pipe ☐ Electrical ☒ Other

Describe repairs made and any proposed actions requiring a subsequent visit (if necessary):

Secured metal clamps above and under the fan. No further action required.

Print Form

Submit by Email

September 13, 2010

Current occupant of
House #4

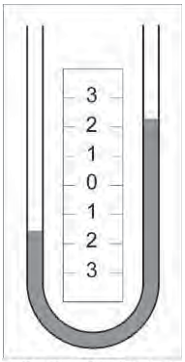
RE: Routine Operations of Soil Vapor Mitigation System
Annual Letter
House #4 ; System ID: 314008-NOW-001
Site Name: NOW Corporation Site Code: 314008

Dear Property Owner:

This letter is being sent to provide you with information regarding the ventilation system that the New York State Department of Environmental Conservation (DEC) installed, or is responsible for maintaining, at the property referenced above. The DEC is maintaining the system as part of the ongoing remediation of the NOW Corporation site. If you have any questions regarding the information contained in this letter, please refer to the Vapor Intrusion Mitigation System Owner's Manual (Manual) that was left at the address during the last system inspection visit, or call Mr. Eric Hausamann at the DEC's toll-free number: 888-459-8667.

The ventilation system installed on your property draws air from beneath the building and vents it to the outdoor air above the roofline to prevent subslab vapors from potentially entering your building (see the attached schematic diagram at the end of this letter). The primary system components include:

- An electrically-powered exhaust fan mounted on the outside of your home/building. The exhaust fan should operate on a continuous basis.
- Vacuum gauges ("U-tubes") attached at one or more suction points (pipe entering the basement floor). The levels of the liquid in the U-tube(s) should be uneven as shown to the right.
- Labels identifying the system and providing contact information.



UNEVEN LEVELS INDICATE SYSTEM IS OPERATING

While the system is designed to operate continuously, it is important that it be inspected periodically by the building owner or occupant. There may be instances when the system needs to be repaired or modified. If the exhaust fan is not operating, the occupant should refer to the Manual for tips to troubleshoot the issue. In any of the following situations, please contact the DEC at the toll-free number listed above and on the system label:

- If the exhaust fan is not operating or is making excessive, unusual noise;
- If the liquid levels in any U-tube are even (no difference in levels);
- If any new construction or structural changes occur that affect the footprint of the building or the basement or crawl space including penetrations through the slab;
- If there is standing water or flooding observed in the basement;
- If any new combustion appliance or exhaust system is installed; or

- If the property is sold.

HDR has been retained by the DEC to coordinate maintenance activities associated with ventilation systems like the one at your property. You are responsible for periodically checking to see that the system is operating and informing the DEC or HDR if it is not running properly. In the mean time, should you have any questions about the system or the information included in the Manual, please feel free to contact me. My contact information is provided below.

HDR, Inc.
Attn: Michael P. Musso, P.E.
One Blue Hill Plaza
Pearl River, NY 10965
Phone: 845-735-8300
Email: michael.musso@hdrinc.com

If you are not a resident or occupant of the building, please pass along this information to your tenant(s) or kindly let me know who we should contact. Thank you again for your cooperation.

Respectfully submitted on behalf of the DEC,

Henningson, Durham & Richardson
Architecture and Engineering, P.C.
In association with HDR Engineering, Inc.

Michael P. Musso, P.E.
Project Manager

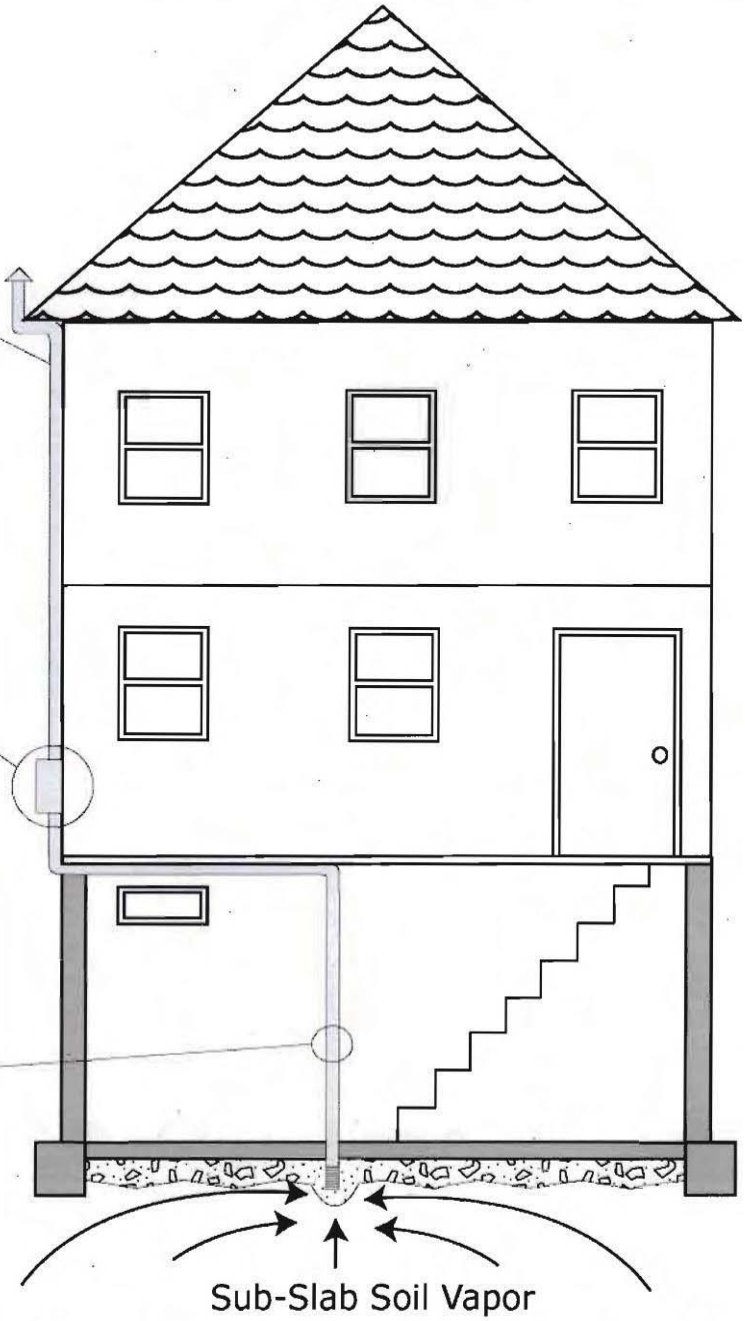
Sub-Slab Depressurization System

(commonly called a radon mitigation system)

The vent pipe is routed up the side of the structure to a location above the roof line.

A fan is used to draw soil vapor from beneath the slab.

A liquid gauge, or manometer is used to verify that the system is operating properly



A sub-slab depressurization system vents contaminated soil vapor before it enters a structure. The fan draws vapor from beneath the building outside to the roof line where it is released to the outside air.

Appendix F

Untreated Supply Well Analytical Data

eurofins | Spectrum Analytical

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Report Date:
03-Oct-16 16:52

Laboratory Report

Eurofins Spectrum Analytical, Inc.
646 Camp Ave.
North Kingstown, RI 02852
Attn: Agnes Huntley

Project: NOW Corp. Site
Project #: R0874

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC26314-01	PPSC092016	Aqueous	20-Sep-16 12:00	23-Sep-16 15:47

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393

Authorized by:

June O'Connor
Laboratory Director

Eurofins Spectrum Analytical holds primary NELAC certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 12 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Spectrum Analytical, Inc. is currently accredited for the specific method or analyte indicated. Please refer to our 'Quality' web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Eurofins Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the RDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the detection limit are reported as "<" (less than) the detection limit in this report.

The samples were received 0.5 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

EPA 524.2

Calibration:

1609036

Analyte quantified by quadratic equation type calibration.

1,2,4-Trimethylbenzene
4-Isopropyltoluene
Bromomethane
Naphthalene
n-Butylbenzene
Styrene
trans-1,3-Dichloropropene
Vinyl chloride

This affected the following samples:

1616841-BLK1
1616841-BS1
PPSC092016
S607865-ICV1
S608320-CCV1

S607865-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

1,1-Dichloroethene (126%)

This affected the following samples:

1616841-BLK1
1616841-BS1
1616841-MS1
1616841-MSD1
PPSC092016
S608320-CCV1

Laboratory Control Samples:

1616841 BS

1,1-Dichloropropene percent recovery 121 (80-120) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

PPSC092016

EPA 524.2

Laboratory Control Samples:

1616841 BS

1,2-Dibromo-3-chloropropane percent recovery 73 (80-120) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

PPSC092016

Tetrachloroethene percent recovery 124 (80-120) is outside individual acceptance criteria, but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

PPSC092016

Spikes:

1616841-MS1 *Source: SC26314-01*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,1-Dichloroethene
Benzene

1616841-MSD1 *Source: SC26314-01*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,1-Dichloroethene

Samples:

S608320-CCV1

Analyte percent difference is outside individual acceptance criteria (30), but within overall method allowances.

1,2-Dibromo-3-chloropropane (-31.9%)
Tert-Butanol / butyl alcohol (-31.8%)

This affected the following samples:

1616841-BLK1
1616841-BS1
PPSC092016

SC26314-01 *PPSC092016*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Sample Acceptance Check Form

Client:	Eurofins Spectrum Analytical, Inc. - RI
Project:	NOW Corp. Site / R0874
Work Order:	SC26314
Sample(s) received on:	9/23/2016

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	☐	☑	☐
Were custody seals intact?	☐	☐	☑
Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
Were samples refrigerated upon transfer to laboratory representative?	☑	☐	☐
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☐	☑	☐
Did sample container labels agree with Chain of Custody document?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC26314-01 **Client ID:** PPSC092016

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1-Dichloroethane	122	D	2.50	µg/l	EPA 524.2
1,1-Dichloroethene	3.65	D	2.50	µg/l	EPA 524.2
Chloroethane	4.05	D	2.50	µg/l	EPA 524.2
cis-1,2-Dichloroethene	77.0	D	2.50	µg/l	EPA 524.2
trans-1,2-Dichloroethene	4.40	D	2.50	µg/l	EPA 524.2
Trichloroethene	32.0	D	2.50	µg/l	EPA 524.2

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
PPSC092016	R0874	Aqueous	20-Sep-16 12:00	23-Sep-16
SC26314-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Purgeable Organic Compounds			GS1										
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 2.50	U, D	µg/l	2.50	1.97	5	EPA 524.2	30-Sep-16	30-Sep-16	TS	1616841	
67-64-1	Acetone	< 50.0	U, D	µg/l	50.0	4.33	5	"	"	"	"	"	
107-13-1	Acrylonitrile	< 2.50	U, D	µg/l	2.50	1.25	5	"	"	"	"	"	
71-43-2	Benzene	< 2.50	U, D	µg/l	2.50	0.86	5	"	"	"	"	"	
108-86-1	Bromobenzene	< 2.50	U, D	µg/l	2.50	0.71	5	"	"	"	"	"	
74-97-5	Bromochloromethane	< 2.50	U, D	µg/l	2.50	1.17	5	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 2.50	U, D	µg/l	2.50	0.90	5	"	"	"	"	"	
75-25-2	Bromoform	< 2.50	U, D	µg/l	2.50	1.49	5	"	"	"	"	"	
74-83-9	Bromomethane	< 2.50	U, D	µg/l	2.50	1.81	5	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 10.0	U, D	µg/l	10.0	5.04	5	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 2.50	U, D	µg/l	2.50	1.32	5	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 2.50	U, D	µg/l	2.50	0.82	5	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 2.50	U, D	µg/l	2.50	0.91	5	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.50	U, D	µg/l	2.50	1.32	5	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 2.50	U, D	µg/l	2.50	1.64	5	"	"	"	"	"	
108-90-7	Chlorobenzene	< 2.50	U, D	µg/l	2.50	0.98	5	"	"	"	"	"	
75-00-3	Chloroethane	**4.05**	D	µg/l	2.50	1.66	5	"	"	"	"	"	
67-66-3	Chloroform	< 2.50	U, D	µg/l	2.50	0.96	5	"	"	"	"	"	
74-87-3	Chloromethane	< 2.50	U, D	µg/l	2.50	2.02	5	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 2.50	U, D	µg/l	2.50	1.26	5	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 2.50	U, D	µg/l	2.50	1.02	5	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.50	U, D	µg/l	2.50	2.38	5	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 2.50	U, D	µg/l	2.50	0.84	5	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 2.50	U, D	µg/l	2.50	0.82	5	"	"	"	"	"	
74-95-3	Dibromomethane	< 2.50	U, D	µg/l	2.50	0.94	5	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 2.50	U, D	µg/l	2.50	0.96	5	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 2.50	U, D	µg/l	2.50	1.10	5	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 2.50	U, D	µg/l	2.50	1.23	5	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.50	U, D	µg/l	2.50	2.47	5	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	**122**	D	µg/l	2.50	0.93	5	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 2.50	U, D	µg/l	2.50	0.69	5	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	**3.65**	D	µg/l	2.50	1.39	5	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**77.0**	D	µg/l	2.50	0.98	5	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	**4.40**	D	µg/l	2.50	1.32	5	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 2.50	U, D	µg/l	2.50	0.75	5	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 2.50	U, D	µg/l	2.50	1.07	5	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 2.50	U, D	µg/l	2.50	1.79	5	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 2.50	U, D	µg/l	2.50	1.40	5	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 2.50	U, D	µg/l	2.50	0.91	5	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 2.50	U, D	µg/l	2.50	1.02	5	"	"	"	"	"	
100-41-4	Ethylbenzene	< 2.50	U, D	µg/l	2.50	0.92	5	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 2.50	U, D	µg/l	2.50	2.01	5	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0	U, D	µg/l	10.0	1.74	5	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
PPSC092016	R0874	Aqueous	20-Sep-16 12:00	23-Sep-16
SC26314-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Purgeable Organic Compounds			GS1										
98-82-8	Isopropylbenzene	< 2.50	U, D	µg/l	2.50	1.17	5	EPA 524.2	30-Sep-16	30-Sep-16	TS	1616841	
99-87-6	4-Isopropyltoluene	< 2.50	U, D	µg/l	2.50	1.09	5	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 2.50	U, D	µg/l	2.50	0.67	5	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0	U, D	µg/l	10.0	1.31	5	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.50	U, D	µg/l	2.50	1.38	5	"	"	"	"	"	
91-20-3	Naphthalene	< 2.50	U, D	µg/l	2.50	2.00	5	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 2.50	U, D	µg/l	2.50	1.08	5	"	"	"	"	"	
100-42-5	Styrene	< 2.50	U, D	µg/l	2.50	0.90	5	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 2.50	U, D	µg/l	2.50	1.18	5	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 2.50	U, D	µg/l	2.50	1.59	5	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 2.50	U, D	µg/l	2.50	1.94	5	"	"	"	"	"	
108-88-3	Toluene	< 2.50	U, D	µg/l	2.50	1.63	5	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 2.50	U, D	µg/l	2.50	0.71	5	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 2.50	U, D	µg/l	2.50	1.89	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 2.50	U, D	µg/l	2.50	1.30	5	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 2.50	U, D	µg/l	2.50	0.92	5	"	"	"	"	"	
79-01-6	Trichloroethene	**32.0**	D	µg/l	2.50	1.90	5	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 2.50	U, D	µg/l	2.50	2.44	5	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 2.50	U, D	µg/l	2.50	0.88	5	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 2.50	U, D	µg/l	2.50	1.34	5	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 2.50	U, D	µg/l	2.50	1.06	5	"	"	"	"	"	
75-01-4	Vinyl chloride	< 2.50	U, D	µg/l	2.50	2.04	5	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.50	U, D	µg/l	2.50	1.90	5	"	"	"	"	"	
95-47-6	o-Xylene	< 2.50	U, D	µg/l	2.50	1.04	5	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 10.0	U, D	µg/l	10.0	4.46	5	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 2.50	U, D	µg/l	2.50	0.90	5	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 2.50	U, D	µg/l	2.50	0.72	5	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 2.50	U, D	µg/l	2.50	0.81	5	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 50.0	U, D	µg/l	50.0	16.4	5	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*80-120 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*107*			*80-120 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*98*			*80-120 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*107*			*80-120 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1616841 - SW846 5030 Water MS										
Blank (1616841-BLK1)						Prepared & Analyzed: 30-Sep-16				
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 0.50	U	µg/l	0.50						
Acetone	< 10.0	U	µg/l	10.0						
Acrylonitrile	< 0.50	U	µg/l	0.50						
Benzene	< 0.50	U	µg/l	0.50						
Bromobenzene	< 0.50	U	µg/l	0.50						
Bromochloromethane	< 0.50	U	µg/l	0.50						
Bromodichloromethane	< 0.50	U	µg/l	0.50						
Bromoform	< 0.50	U	µg/l	0.50						
Bromomethane	< 0.50	U	µg/l	0.50						
2-Butanone (MEK)	< 2.00	U	µg/l	2.00						
n-Butylbenzene	< 0.50	U	µg/l	0.50						
sec-Butylbenzene	< 0.50	U	µg/l	0.50						
tert-Butylbenzene	< 0.50	U	µg/l	0.50						
Carbon disulfide	< 0.50	U	µg/l	0.50						
Carbon tetrachloride	< 0.50	U	µg/l	0.50						
Chlorobenzene	< 0.50	U	µg/l	0.50						
Chloroethane	< 0.50	U	µg/l	0.50						
Chloroform	< 0.50	U	µg/l	0.50						
Chloromethane	< 0.50	U	µg/l	0.50						
2-Chlorotoluene	< 0.50	U	µg/l	0.50						
4-Chlorotoluene	< 0.50	U	µg/l	0.50						
1,2-Dibromo-3-chloropropane	< 0.50	U	µg/l	0.50						
Dibromochloromethane	< 0.50	U	µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50	U	µg/l	0.50						
Dibromomethane	< 0.50	U	µg/l	0.50						
1,2-Dichlorobenzene	< 0.50	U	µg/l	0.50						
1,3-Dichlorobenzene	< 0.50	U	µg/l	0.50						
1,4-Dichlorobenzene	< 0.50	U	µg/l	0.50						
Dichlorodifluoromethane (Freon12)	< 0.50	U	µg/l	0.50						
1,1-Dichloroethane	< 0.50	U	µg/l	0.50						
1,2-Dichloroethane	< 0.50	U	µg/l	0.50						
1,1-Dichloroethene	< 0.50	U	µg/l	0.50						
cis-1,2-Dichloroethene	< 0.50	U	µg/l	0.50						
trans-1,2-Dichloroethene	< 0.50	U	µg/l	0.50						
1,2-Dichloropropane	< 0.50	U	µg/l	0.50						
1,3-Dichloropropane	< 0.50	U	µg/l	0.50						
2,2-Dichloropropane	< 0.50	U	µg/l	0.50						
1,1-Dichloropropene	< 0.50	U	µg/l	0.50						
cis-1,3-Dichloropropene	< 0.50	U	µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50	U	µg/l	0.50						
Ethylbenzene	< 0.50	U	µg/l	0.50						
Hexachlorobutadiene	< 0.50	U	µg/l	0.50						
2-Hexanone (MBK)	< 2.00	U	µg/l	2.00						
Isopropylbenzene	< 0.50	U	µg/l	0.50						
4-Isopropyltoluene	< 0.50	U	µg/l	0.50						
Methyl tert-butyl ether	< 0.50	U	µg/l	0.50						
4-Methyl-2-pentanone (MIBK)	< 2.00	U	µg/l	2.00						
Methylene chloride	< 0.50	U	µg/l	0.50						
Naphthalene	< 0.50	U	µg/l	0.50						
n-Propylbenzene	< 0.50	U	µg/l	0.50						
Styrene	< 0.50	U	µg/l	0.50						
1,1,1,2-Tetrachloroethane	< 0.50	U	µg/l	0.50						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1616841 - SW846 5030 Water MS										
Blank (1616841-BLK1)					Prepared & Analyzed: 30-Sep-16					
1,1,2,2-Tetrachloroethane	< 0.50	U	µg/l	0.50						
Tetrachloroethene	< 0.50	U	µg/l	0.50						
Toluene	< 0.50	U	µg/l	0.50						
1,2,3-Trichlorobenzene	< 0.50	U	µg/l	0.50						
1,2,4-Trichlorobenzene	< 0.50	U	µg/l	0.50						
1,1,1-Trichloroethane	< 0.50	U	µg/l	0.50						
1,1,2-Trichloroethane	< 0.50	U	µg/l	0.50						
Trichloroethene	< 0.50	U	µg/l	0.50						
Trichlorofluoromethane (Freon 11)	< 0.50	U	µg/l	0.50						
1,2,3-Trichloropropane	< 0.50	U	µg/l	0.50						
1,2,4-Trimethylbenzene	< 0.50	U	µg/l	0.50						
1,3,5-Trimethylbenzene	< 0.50	U	µg/l	0.50						
Vinyl chloride	< 0.50	U	µg/l	0.50						
m,p-Xylene	< 0.50	U	µg/l	0.50						
o-Xylene	< 0.50	U	µg/l	0.50						
Tetrahydrofuran	< 2.00	U	µg/l	2.00						
Tert-amyl methyl ether	< 0.50	U	µg/l	0.50						
Ethyl tert-butyl ether	< 0.50	U	µg/l	0.50						
Di-isopropyl ether	< 0.50	U	µg/l	0.50						
Tert-Butanol / butyl alcohol	< 10.0	U	µg/l	10.0						
Surrogate: 4-Bromofluorobenzene	*47.2*		µg/l		*50.0*		*94*	*80-120*		
Surrogate: Toluene-d8	*53.8*		µg/l		*50.0*		*108*	*80-120*		
Surrogate: 1,2-Dichloroethane-d4	*48.8*		µg/l		*50.0*		*98*	*80-120*		
Surrogate: Dibromofluoromethane	*55.3*		µg/l		*50.0*		*111*	*80-120*		
LCS (1616841-BS1)					Prepared & Analyzed: 30-Sep-16					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**23.5**		µg/l		20.0		118	80-120		
Acetone	**21.6**		µg/l		20.0		108	70-130		
Acrylonitrile	**21.5**		µg/l		20.0		107	70-130		
Benzene	**23.2**		µg/l		20.0		116	80-120		
Bromobenzene	**21.2**		µg/l		20.0		106	80-120		
Bromochloromethane	**23.6**		µg/l		20.0		118	80-120		
Bromodichloromethane	**21.4**		µg/l		20.0		107	80-120		
Bromoform	**20.3**		µg/l		20.0		101	80-120		
Bromomethane	**16.0**		µg/l		20.0		80	80-120		
2-Butanone (MEK)	**18.8**		µg/l		20.0		94	70-130		
n-Butylbenzene	**19.3**		µg/l		20.0		97	80-120		
sec-Butylbenzene	**21.3**		µg/l		20.0		107	80-120		
tert-Butylbenzene	**20.4**		µg/l		20.0		102	80-120		
Carbon disulfide	**21.5**		µg/l		20.0		107	70-130		
Carbon tetrachloride	**23.2**		µg/l		20.0		116	80-120		
Chlorobenzene	**20.9**		µg/l		20.0		104	80-120		
Chloroethane	**20.9**		µg/l		20.0		105	80-120		
Chloroform	**21.1**		µg/l		20.0		105	80-120		
Chloromethane	**18.0**		µg/l		20.0		90	80-120		
2-Chlorotoluene	**22.1**		µg/l		20.0		111	80-120		
4-Chlorotoluene	**21.7**		µg/l		20.0		108	80-120		
1,2-Dibromo-3-chloropropane	**14.6**	QC2	µg/l		20.0		73	80-120		
Dibromochloromethane	**22.7**		µg/l		20.0		114	80-120		
1,2-Dibromoethane (EDB)	**22.7**		µg/l		20.0		113	80-120		
Dibromomethane	**22.6**		µg/l		20.0		113	80-120		
1,2-Dichlorobenzene	**20.3**		µg/l		20.0		102	80-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1616841 - SW846 5030 Water MS										
LCS (1616841-BS1)					Prepared & Analyzed: 30-Sep-16					
1,3-Dichlorobenzene	**22.1**		µg/l		20.0		110	80-120		
1,4-Dichlorobenzene	**19.5**		µg/l		20.0		98	80-120		
Dichlorodifluoromethane (Freon12)	**21.7**		µg/l		20.0		109	80-120		
1,1-Dichloroethane	**20.7**		µg/l		20.0		104	80-120		
1,2-Dichloroethane	**20.4**		µg/l		20.0		102	80-120		
1,1-Dichloroethene	**23.9**		µg/l		20.0		119	80-120		
cis-1,2-Dichloroethene	**23.2**		µg/l		20.0		116	80-120		
trans-1,2-Dichloroethene	**22.0**		µg/l		20.0		110	80-120		
1,2-Dichloropropane	**21.4**		µg/l		20.0		107	80-120		
1,3-Dichloropropane	**21.4**		µg/l		20.0		107	80-120		
2,2-Dichloropropane	**17.7**		µg/l		20.0		88	80-120		
1,1-Dichloropropene	**24.1**	QC2	µg/l		20.0		121	80-120		
cis-1,3-Dichloropropene	**20.2**		µg/l		20.0		101	80-120		
trans-1,3-Dichloropropene	**18.6**		µg/l		20.0		93	80-120		
Ethylbenzene	**21.6**		µg/l		20.0		108	80-120		
Hexachlorobutadiene	**20.9**		µg/l		20.0		105	80-120		
2-Hexanone (MBK)	**21.1**		µg/l		20.0		106	70-130		
Isopropylbenzene	**20.8**		µg/l		20.0		104	80-120		
4-Isopropyltoluene	**19.4**		µg/l		20.0		97	80-120		
Methyl tert-butyl ether	**17.6**		µg/l		20.0		88	80-120		
4-Methyl-2-pentanone (MIBK)	**21.2**		µg/l		20.0		106	70-130		
Methylene chloride	**24.0**		µg/l		20.0		120	80-120		
Naphthalene	**19.4**		µg/l		20.0		97	80-120		
n-Propylbenzene	**22.4**		µg/l		20.0		112	80-120		
Styrene	**20.2**		µg/l		20.0		101	80-120		
1,1,1,2-Tetrachloroethane	**21.0**		µg/l		20.0		105	80-120		
1,1,2,2-Tetrachloroethane	**19.3**		µg/l		20.0		96	80-120		
Tetrachloroethene	**24.9**	QC2	µg/l		20.0		124	80-120		
Toluene	**23.0**		µg/l		20.0		115	80-120		
1,2,3-Trichlorobenzene	**21.2**		µg/l		20.0		106	80-120		
1,2,4-Trichlorobenzene	**20.8**		µg/l		20.0		104	80-120		
1,1,1-Trichloroethane	**21.5**		µg/l		20.0		108	80-120		
1,1,2-Trichloroethane	**22.4**		µg/l		20.0		112	80-120		
Trichloroethene	**23.0**		µg/l		20.0		115	80-120		
Trichlorofluoromethane (Freon 11)	**23.6**		µg/l		20.0		118	80-120		
1,2,3-Trichloropropane	**19.0**		µg/l		20.0		95	80-120		
1,2,4-Trimethylbenzene	**20.7**		µg/l		20.0		104	80-120		
1,3,5-Trimethylbenzene	**20.4**		µg/l		20.0		102	80-120		
Vinyl chloride	**19.1**		µg/l		20.0		96	80-120		
m,p-Xylene	**22.8**		µg/l		20.0		114	80-120		
o-Xylene	**21.2**		µg/l		20.0		106	80-120		
Tetrahydrofuran	**19.0**		µg/l		20.0		95	70-130		
Tert-amyl methyl ether	**21.9**		µg/l		20.0		110	70-130		
Ethyl tert-butyl ether	**17.6**		µg/l		20.0		88	70-130		
Di-isopropyl ether	**22.9**		µg/l		20.0		115	70-130		
Tert-Butanol / butyl alcohol	**148**		µg/l		200		74	70-130		
Surrogate: 4-Bromofluorobenzene	*51.5*		µg/l		*50.0*		*103*	*80-120*		
Surrogate: Toluene-d8	*53.6*		µg/l		*50.0*		*107*	*80-120*		
Surrogate: 1,2-Dichloroethane-d4	*46.4*		µg/l		*50.0*		*93*	*80-120*		
Surrogate: Dibromofluoromethane	*53.6*		µg/l		*50.0*		*107*	*80-120*		
Matrix Spike (1616841-MS1)			**Source: SC26314-01**		Prepared & Analyzed: 30-Sep-16					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1616841 - SW846 5030 Water MS										
Matrix Spike (1616841-MS1)			**Source: SC26314-01**		Prepared & Analyzed: 30-Sep-16					
Benzene	**24.4**	QM7, D	µg/l		20.0	BRL	122	80-120		
Chlorobenzene	**21.6**	D	µg/l		20.0	BRL	108	80-120		
1,1-Dichloroethene	**26.4**	QM7, D	µg/l		20.0	0.73	128	80-120		
Toluene	**24.0**	D	µg/l		20.0	BRL	120	80-120		
Trichloroethene	**30.4**	D	µg/l		20.0	6.40	120	80-120		
Surrogate: 4-Bromofluorobenzene	*52.7*		µg/l		*50.0*		*105*	*80-120*		
Surrogate: Toluene-d8	*54.2*		µg/l		*50.0*		*108*	*80-120*		
Surrogate: 1,2-Dichloroethane-d4	*46.1*		µg/l		*50.0*		*92*	*80-120*		
Surrogate: Dibromofluoromethane	*55.0*		µg/l		*50.0*		*110*	*80-120*		
Matrix Spike Dup (1616841-MSD1)			**Source: SC26314-01**		Prepared & Analyzed: 30-Sep-16					
Benzene	**23.3**	D	µg/l		20.0	BRL	117	80-120	4	20
Chlorobenzene	**20.6**	D	µg/l		20.0	BRL	103	80-120	5	20
1,1-Dichloroethene	**24.8**	QM7, D	µg/l		20.0	0.73	121	80-120	6	20
Toluene	**23.4**	D	µg/l		20.0	BRL	117	80-120	3	20
Trichloroethene	**29.9**	D	µg/l		20.0	6.40	118	80-120	2	20
Surrogate: 4-Bromofluorobenzene	*51.9*		µg/l		*50.0*		*104*	*80-120*		
Surrogate: Toluene-d8	*54.2*		µg/l		*50.0*		*108*	*80-120*		
Surrogate: 1,2-Dichloroethane-d4	*46.8*		µg/l		*50.0*		*94*	*80-120*		
Surrogate: Dibromofluoromethane	*55.0*		µg/l		*50.0*		*110*	*80-120*		

Notes and Definitions

D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

SC26314 JLH

SPECTRUM ANALYTICAL, INC
Featuring
HANIBAL TECHNOLOGY

CHAIN-OF-CUSTODY RECORD

WorkOrder : R0874
Project: NOW Corp. Site
Report Type : LEVEL 2
Due Date : 10/03/2016
FAX Due Date :
Report To : Agnes R Huntley
Purchase Order : R0874
EDD Types : **Please generate a Little PEL EDD**

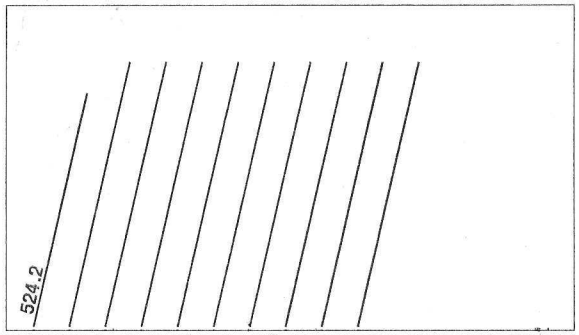
Subcontractor:
Eurofins Spectrum Analytical, Inc. - MA
11 Almgren Drive
Agawam, Massachusetts 01001

Phone: (413) 789-9018

EQuISFacilityCode: N/A

= number of containers

Requested Test



Client Sample ID	Collection Date	#	Matrix	DUP/MS/MSD	Mitkem Sample ID	
PPSC092016 SC26314-01	09/20/2016 12:00	2	Aqueous		R0874-01A	X

1) 524.2, VOC 524.2 BY GC-MS

Use 'Client Sample IDs' when reporting data. If needed, truncate 'Client Sample IDs' to fit on reports. Use full 'Client Sample ID' when generating EDD.

Comments:

1.5/-1/0.5 1201

		Date/Time			Date/Time
Relinquished by:	[signature]	09/23/16 09:17	**Received by:**	[signature]	9/23/16 11:10
Relinquished by:	[signature]	9/23/16 11:13	**Received by:**	JLH	9/23/16 1317

09/23/2016

646 Camp Ave * North Kingstown * RI * 028524008 * 401-732-3400 * 401-732-3499
www.EurofinsUS.com/Spectrum

X RCF

Appendix G

Institutional and Engineering Controls Certification Form

Enclosure 1
Engineering Controls - Standby Consultant/Contractor Certification Form

Site Details **Box 1**

Site No. **314008**

Site Name NOW Corporation

Site Address: Route 9-G Zip Code: ~~12514~~ 12580
City/Town: Clinton
County: Dutchess
Site Acreage: 9.0

Reporting Period: ~~June 30, 2016~~ July 1, 2016 to June 30, 2019

	YES	NO
1. Is the information above correct?	☐	X
If NO, include handwritten above or on a separate sheet.		
2. To your knowledge has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	X	☐
3. To your knowledge has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. To your knowledge have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. To your knowledge is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Residential, Restricted-Residential, Commercial, and Industrial	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

N/A
Signature of Standby Consultant/Contractor

Date

SITE NO. 314008 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
6267-00-272452-0000	~~Linda Fraser~~ Andrea M. Patierno and John J. Patierno, 2092 Route 9G LLC	Monitoring Plan O&M Plan Site Management Plan

Institutional Controls for the site include a Site Management Plan (2014).

Box 4

Description of Engineering Controls

Parcel	Engineering Control
6267-00-272452-0000	Groundwater Treatment System ~~Vapor Mitigation~~ Not Applicable

Engineering controls include a groundwater pump and treatment system, vapor mitigation system and Granulated Activated Carbon filtration at 3 off-site properties.

Parcel IDs for ECs Off-Site Properties
6267-00-130500-0000 Vapor Mitigation
6267-00-182542-0000 POET
6267-00-187549-0000 POET
6267-00-220609-0000 POET

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification, including data and material prepared by previous contractors for the current certifying period, if any;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (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 failure to comply with the Site Management Plan, or equivalent if no Site Management Plan exists.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

N/A

Signature of Standby Consultant/Contractor

Date

Box 6

IC/EC CERTIFICATIONS

Professional Engineer Signature

I certify that all information in Boxes 2 through 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Daniel Servetas at 40 British American Blvd.
print name
Latham, New York

(print business address)

am certifying as a Professional Engineer.

STATE OF NEW YORK
DANIEL T. SERVETAS
079065
LICENSED PROFESSIONAL ENGINEER
Stamp
(Required for PE)

Signature of Professional Engineer

September 26, 19
Date