



**CORRECTIVE MEASURES WORK PLAN**

**FOR**

**Spic and Span Cleaners  
79-81 Pondfield Road  
Bronxville, Westchester County, New York  
BCP Number: C360160**

**Prepared For:**

**79-81 Pondfield Road Company  
1311 Mamaroneck Avenue, Suite 340  
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**Prepared By:**

**SESI CONSULTING ENGINEERS**

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**OCTOBER 2021**

**REVISED JUNE 2022 & NOVEMBER 2022**

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ATTACHMENT A SUMMARY LETTER DATED APRIL 15, 2021

ATTACHMENT B SUMMARY LETTER DATED MAY 9, 2022

## LIST OF ACRONYMS

Acronym	Definition
ACT	Advanced Cleanup Technologies
AS	Air Sparge
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CMWP	Corrective Measures Work Plan
ECs	Engineering Controls
MW	Monitoring Well
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCE	Tetrachloroethene
RI	Remedial Investigation
SESI	SESI Consulting Engineers
SMP	Site Management Plan
SSD	Sub-Slab Depressurization
SVE	Soil Vapor Extraction
TCE	Trichloroethene

## **1.0 INTRODUCTION**

The subject property for this Corrective Measures Work Plan (CMWP) is located at 79-81 Pondfield Road, Bronxville, New York (hereafter referred to as the “Site”) known as the former Spic and Span Cleaners Site, which has participated in the New York State Brownfield Cleanup Program (BCP) administered by the New York State Department of Environmental Conservation (NYSDEC). The Site was investigated and remediated in accordance with the Brownfield Cleanup Agreement (BCA) Site #C360130, executed with the NYSDEC on September 19, 2013. The Certificate of Completion was issued on December 26, 2019 and recorded on January 22, 2020 in the Westchester County Clerk’s office as Control No. 600223387. Residual contamination remains on the Site, which must be managed according to the requirements in the NYSDEC approved “Site Management Plan (SMP), Spic and Span Cleaners, Westchester, New York,” dated September 2019, prepared by Andrew R. Levenbaum, P.E., and Advanced Cleanup Technologies, Inc. The environmental easement was recorded on July 26, 2019 in the Westchester County Clerk’s office as Control No. 581593529. This CWMP has been prepared to address the modifications to the Engineering Controls (ECs) at the Site since the completion of installation of the remedial systems.

## **2.0 SITE INFORMATION AND PROJECT BACKGROUND**

The Site is located in the Village of Bronxville, County of Westchester, New York and is identified as Section 4, Block 1 and Lots 5 and 8 on the Westchester County Tax Map. The Site is an approximately 0.29-acre Site bounded by commercial property (the Gramartin Building) to the north, a commercial property (Apple Savings Bank) to the south, Pondfield Road followed by various commercial properties (Village of Bronxville central shopping district) to the west, and a municipal parking area to the east.

The Remedial Investigation (RI) work was performed between May 6, 2011 and June 22, 2017. The RI activities were summarized and documented in the "Remedial Investigation Report, Spic and Span Cleaners, Bronxville, New York, NYSDEC BCP Site Number: C360130," dated September 2017, prepared by Advanced Cleanup Technologies, Inc. (ACT). This document described the nature and extent of contamination and provides sufficient information for establishment of remedial action objectives, evaluation of remedial action alternatives, and selection of a remedy that is protective of human health and the environment. The RI included the installation of both on-Site and off-Site monitoring wells. A figure showing the Site Plan and the groundwater monitoring wells is included as **Figure 2.1**.

### 3.0 COMPONENTS OF SELECTED REMEDY

As described in the “Final Engineering Report, Spic and Span Cleaners, Westchester County, New York, NYSDEC Site Number: C360130,” dated September 2019, prepared by Andrew R. Levenbaum, P.E., and ACT, the following were the components of the selected remedy:

1. A Site cover currently exists in areas not occupied by buildings and will be maintained to allow for commercial use of the Site. Any Site redevelopment will maintain the existing Site cover.

2. Construction and operation of a sub-slab depressurization (SSD) system, soil vapor extraction (SVE) system and air sparge (AS) system at the Site;

3. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the Site. Permitted future uses (commercial and industrial) must comply with 6 NYCRR 375-1.8(g)(iii) for commercial uses and 6 NYCRR 375-1.8(g)(iv) for industrial uses;

4. Development and implementation of an SMP for long-term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting; and

5. Periodic certification of the institutional and engineering controls listed above.

An additional description of the installation of the Site remedy and engineering controls is included below.

The remedy for this Site was largely performed as an interim remedial measure in accordance with the NYSDEC approved “Interim Remedial Measures Work Plan, Spic and Span Cleaners, 79-81 Pondfield Road, Bronxville, New York, 10708, Tax Map No.: Section 4, Block 1, Lots 5, 8,” dated February 25, 2013, prepared by ACT. The remedy included the installation of an SSD system, an SVE system and an AS system. A figure showing the AS/SVE system and SSD system is included as **Figure 3.1**. The SSD system maintained negative pressure in the area of concern under the building footprint. The SSD system was installed in September 2011.

The SVE system collected vapors released by the AS system for subsequent vapor-phase granular activated carbon treatment. The SVE system was installed in

March 2015 and an AS system was installed in April 2015. In May 2015, the combined AS/SVE/SSD system commenced operation. The remedial system had been operating continuously since startup, except for routine maintenance, repairs, and occasional electrical outages until sometime before January 2021.

#### **4.0 PURPOSE OF CORRECTIVE MEASURES WORK PLAN**

The purpose of this CMWP is to address the operation of the SSD/SVE/AS system that was observed during a Site visit by SESI Consulting Engineers, D.P.C. (SESI) and proposed modifications to the Engineering Controls to be implemented at the Site.



## 5.0 ENGINEERING CONTROL ASSESSMENT

SESI was retained in January 2021 to become the Engineer of Record for the ongoing SMP activities on the Site. As an initial task, SESI conducted a Site visit on January 26, 2021 and conducted a round of groundwater sampling in March 2021. A summary of the sampling data is included in the summary letter prepared for the project (**Attachment A**).

During the initial Site visit, SESI personnel observed that the blower for the SSD system and the SVE system and the compressor for the AS system had ceased functioning due to a mechanical failure, and the blower was later removed by the prior consultant. As part of SESI's evaluation of potential next steps for the Site, a review of the recent groundwater data was conducted to determine the necessity of future operations of the AS/SVE/SSD system.

The review of the groundwater data showed continuing significant reduction in concentrations for the contaminants of concern (tetrachloroethene [PCE], trichloroethene [TCE], and cis-1,2-dichloroethene) in the on-Site monitoring wells from 2014 to 2021. As noted in **Attachment A**, the concentrations of PCE in on-Site monitoring wells showed reductions as follows:

- MW-1S concentrations:
  - PCE (highest): 5,800 ug/l (5/14/14)
  - PCE (lowest): 1.6 ug/kg (9/27/17)
  - PCE (current): 13 ug/kg (3/15/21)
- MW-2S concentrations
  - PCE (highest): 670 ug/l (1/10/14)
  - PCE (lowest): 4.5 ug/kg (3/15/21)
  - PCE (current): 4.5 ug/kg (3/15/21)

In addition, the downgradient monitoring wells also showed significant reductions of these contaminants.

Based on this data, it is apparent that the SVE and AS have been effective in reducing the concentrations of contaminants in the subgrade to either drinking water standards or close to the drinking water standards in an urban environment. The SVE and AS systems consisted of two (2) vertical vapor extraction wells screened from one

(1) foot above the water table to the bottom of the parking lot asphalt layer, and two (2) air sparge wells screened at 30 ft. below grade. These remedial measures addressed the soil and groundwater impacts by treating the contaminants. The reduction of contaminant concentrations was also enhanced by the design and construction of the SSD system, which included three (3) vertical vapor extraction wells under the building (within the building footprint). This type of vertical extraction system essentially functions as an SVE system and is more effective at reducing contaminant mass in the subgrade than typical SSD systems, which include horizontal venting piping directly under the building floor slabs. Therefore, the SSD had also been effective at reducing the concentrations in the subgrade.

In order to further evaluate Site conditions, SESI then collected sub-slab soil vapor samples from the existing soil vapor sampling locations in the basement area of the building. (The vapor pin at one [1] location was damaged, so it was replaced prior to sampling.) During this event, SESI also collected three (3) indoor air samples that were co-located with the sub-slab vapor sample locations. The results of the sub-slab and indoor air sampling are summarized in the Summary Letter dated April 15, 2021 in **Attachment A**.

Sub-slab soil vapor and indoor air sampling results were compared to New York State Department of Health (NYSDOH) Indoor Air Concentrations Sub-slab Vapor Concentrations Matrix A for TCE, cis-1,2-dichloroethene and carbon tetrachloride, and the results were favorable. For sub-slab concentrations less than 6 ug/m<sup>3</sup> and indoor air concentrations less than 1.0 ug/m<sup>3</sup>, no further action is required, which is applicable to this Site.

For PCE, the results were compared to Matrix B and the results were favorable. For sub-slab concentrations less than 100 ug/m<sup>3</sup> and indoor air concentrations less than 10 ug/m<sup>3</sup>, no further action is required, which is applicable for this Site.

After review of the data from March 2021, a teleconference was attended by representatives from the NYSDEC (John Miller), the NYSDOH (Jacquelyn Nealon) and SESI (Fuad Dahan and Patricia Petrino) on April 16, 2021. The discussion focused on the current groundwater and sub-slab soil gas data trends and the recent indoor air data. Since both groundwater and sub-slab soil gas are showing consistent reductions and a downward trend, and indoor air concentrations were below NYSDOH action levels, it

was agreed that additional rounds of sampling would be conducted to confirm these trends and the SVE/AS and SSD systems would not be restarted at this time.

SESI performed environmental sampling and testing in accordance with the CMWP dated May 2021 and revised in October 2021. Specifically, the field activities included one (1) round of the semi-annual sampling that consists of two (2) groundwater monitoring wells, three (3) sub-slab soil vapor points, and co-deployed indoor air locations, and six (6) indoor air points at the Site located at 79-81 Pondfield Road in Bronxville, New York. The sampling was conducted on November 17-18, 2021. In addition, an annual sampling event was conducted on March 3 and 28, 2022 which consisted of sampling five (5) groundwater monitoring wells and three (3) sub-slab vapor sampling points co-deployed indoor air locations and six (6) indoor air sampling points.

In summary, a total of two (2) groundwater samples were collected from existing monitoring wells in November 2021 as part of the semiannual sampling and five (5) groundwater samples in March 2022 as part of the annual sampling, two (2) rounds of three (3) soil vapor samples were collected from two (2) existing and one (1) new soil vapor sampling ports (six [6] total), and two (2) rounds of three (3) indoor air samples (six [6] total) were collected in the basement near the soil vapor sampling port locations. Two (2) rounds of an additional six (6) indoor air samples (12 total) were collected from tenant spaces. Field sampling was performed in substantial conformance with applicable NYSDEC regulations.

Soil vapor and indoor air sampling results were compared to NYSDOH Indoor Air Concentrations Sub-slab Vapor Concentrations Matrix A for TCE, cis-1,2-dichloroethene and carbon tetrachloride. For methylene chloride and PCE, the results were compared to Matrix B. A summary of this data is included in a Summary Letter dated May 9, 2022 in **Attachment B**. A brief summary of the data is included below.

### **Analytical Results Groundwater and Indoor Air Sampling November 17 and 18, 2021**

The VP-3 sample concentration for TCE ( $190 \text{ ug/m}^3$ ) is above the standard of  $60 \text{ ug/m}^3$  for sub-slab concentrations, indicating mitigation is required based on Matrix A. TCE was also detected in the indoor air sample IA-3 above the  $0.2 \text{ ug/m}^3$  standard but below the  $1.0 \text{ ug/m}^3$  standard requiring mitigation. For Matrix B, PCE concentrations were detected at 1,710 and  $2,160 \text{ ug/m}^3$  in VP-1 and VP-3, respectively, above the

standard of 1000 ug/m<sup>3</sup> for mitigation. In addition, PCE was detected in indoor air sample IA-105 located on the second floor of the building. It is possible there is matrix interference from the on-Site clothes steaming operations from delivered dry cleaned clothes. It is believed the PCE contamination on the second floor that is not present on the first floor of the building may also be due to dry cleaned clothes utilized by the tenant.

### **Analytical Results Groundwater and Indoor Air Sampling March 15, 2022, and March 28, 2022**

The carbon tetrachloride exceedance in sample IA-103 (0.75 ug/m<sup>3</sup>) requires no further action as no exceedances to the sub-slab vapor points for this compound were detected. The methylene chloride exceedance in sample IA-103 (11 ug/m<sup>3</sup>) is above 10 ug/m<sup>3</sup> and triggers the Matrix A to identify and resample or mitigate. The exceedance to cis-1,2-dichloroethene in IA-3 (0.44 ug/m<sup>3</sup>) and VP-3 (23 ug/m<sup>3</sup>) indicates continued monitoring is required. PCE exceedances were noted in indoor air samples IA-106 (7.5ug/m<sup>3</sup>), IA-1 (4.6 ug/m<sup>3</sup>), IA-2 (5.8 ug/m<sup>3</sup>), IA-3 (19 ug/m<sup>3</sup>), and sub-slab sample VP-3 (814 ug/m<sup>3</sup>). Based on the NYSDOH Matrix B, mitigation is required. TCE exceedances were noted in indoor air sample IA-3 (2 ug/m<sup>3</sup>), and sub-slab samples VP-1 (7 ug/m<sup>3</sup>), and VP-3 (155 ug/m<sup>3</sup>), and based on the NYSDOH Matrix A, mitigation is required. It is possible there is matrix interference from the on-Site clothes steaming operations from delivered dry cleaned clothes. It is believed the PCE contamination on the second floor that is not present on the first floor of the building may also be due to dry cleaned clothes utilized by the tenant.

## 6.0 CORRECTIVE MEASURES

Additional sub-slab vapor and indoor air sampling were conducted for two (2) additional rounds during the previous heating season (November and March). Based on this data, it is recommended that the SSD portion of the system be repaired and restarted. Upon SESI's engagement on the project, the SSD system was not functioning and several components of the system were missing (including piping, blowers, controls, gauges, etc.) SESI will conduct an assessment of the equipment that is remaining and will re-install the missing components in accordance with the design parameters from the original SSD system described in the SMP.

Since the groundwater data shows that concentrations at the Site have been decreasing since the installation of the AS/SVE systems and have continued to show a decreasing trend since SESI's involvement, the re-starting of this portion of the system is not warranted at this time. The AS and SVE wells would be properly abandoned in place.

Continuation of the current groundwater monitoring schedule, as required in the SMP, will be conducted until it is deemed not necessary. This includes the following:

<u>GW Monitoring Wells</u>	<u>Sampling</u>
MW-1S, 2S, 4S, 4I and 5S	Annually
MW- 5I and 6 (Off-Site)	Semi-Annually

SESI will submit a letter work plan to the NYSDEC and NYSDOH once the SSD assessment has been completed which will include in more detail the steps that will be taken to properly abandon the AS/SVE system and refurbish and restart the SSD system.

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## Figures

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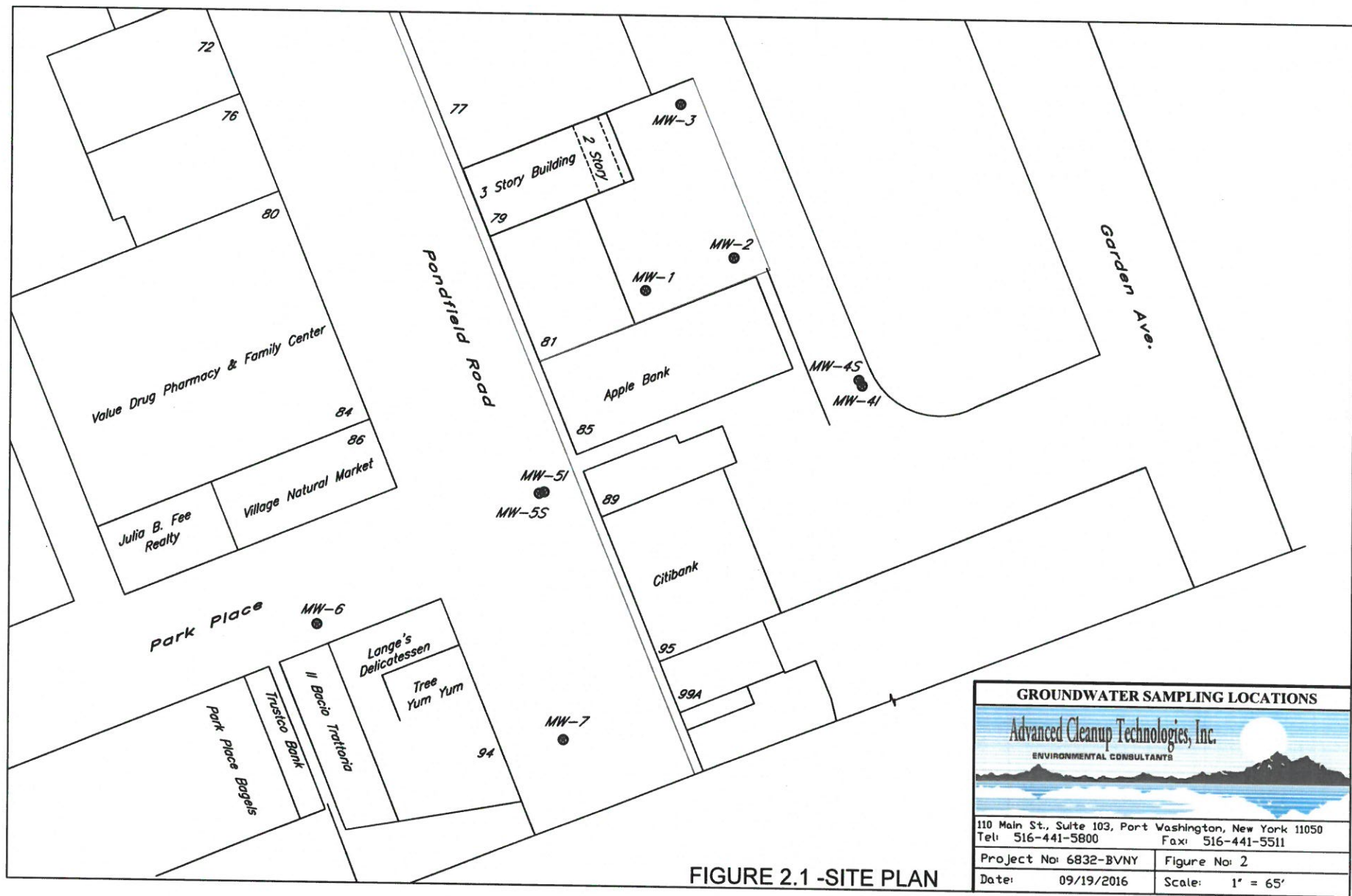
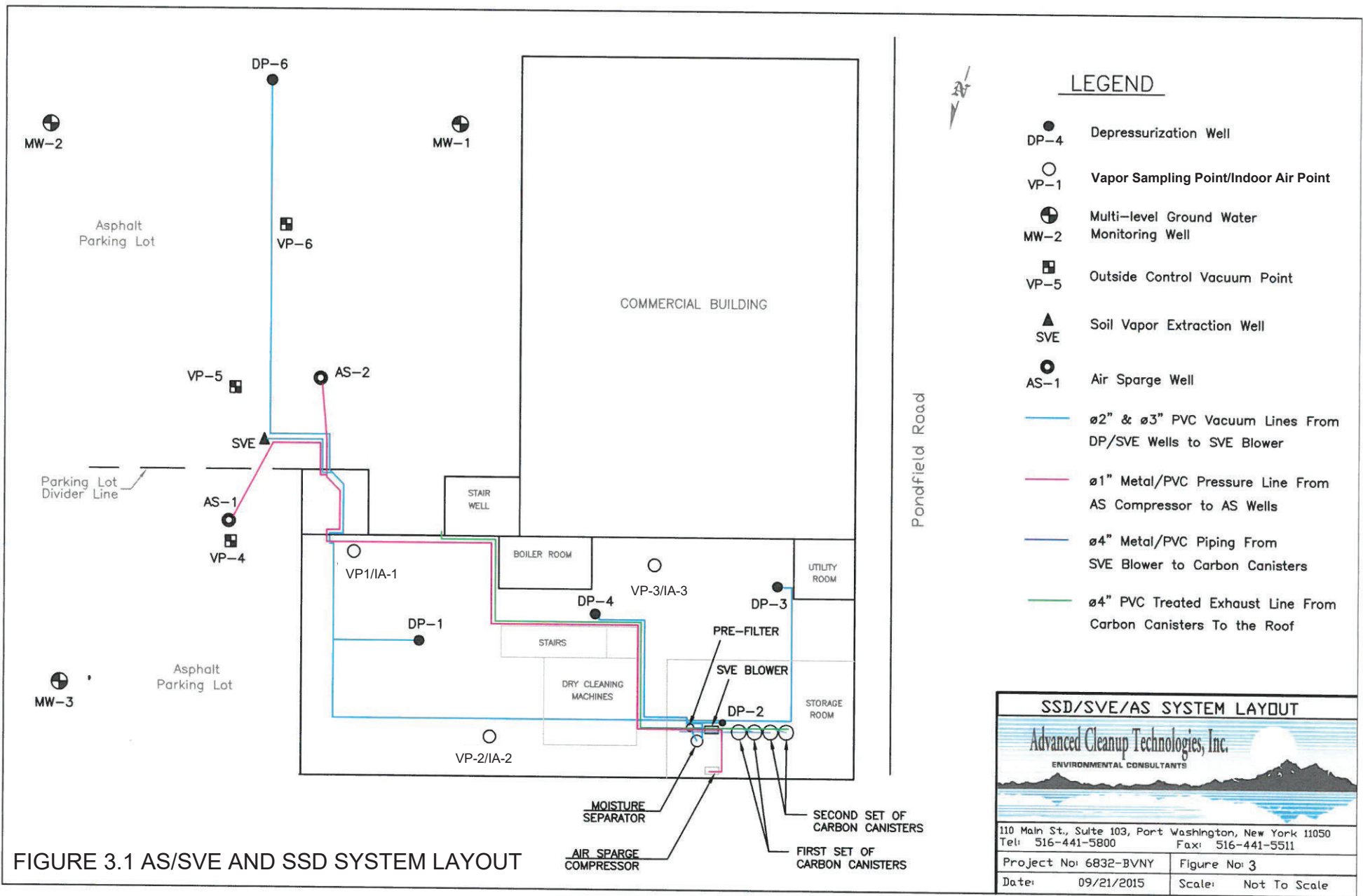


FIGURE 2.1 -SITE PLAN





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**Attachment A:**  
Summary Letter, April 15, 2021

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Geotechnical  
Foundations  
Land Planning  
Geo-Structural  
Environmental  
Water Resources

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Principals:

Anthony Castillo, PE  
Fuad Dahan, PhD, PE, LSRP  
John M. Nederfield, PE  
Justin M. Protasiewicz, PE  
Michael St. Pierre, PE

April 15, 2021

Mr. Thomas Liptak  
81 Pondfield Road Company  
1311 Mamaroneck Avenue  
Suite 340  
White Plains, New York 10605

RE: **Groundwater, Soil Vapor and Indoor Air Sampling**  
**79-81 Pondfield Road**  
**Bronxville, New York 10708**  
**SESI Project No. 116663**

Dear Mr. Liptak:

SESI Consulting Engineers (SESI) performed recent environmental sampling and testing in accordance with our Professional Services Agreement (PSA) dated February 16, 2021 and other recent discussions. Specifically, the field activities included sampling of several groundwater monitoring wells, sub-slab soil vapor points and indoor air at the Site located at 79-81 Pondfield Road in Bronxville, New York. The groundwater monitoring well location plan, subslab and indoor air sampling locations are included as Figure 1 and Figure 2, respectively.

In summary, a total of seven (7) groundwater samples were collected from existing monitoring wells at the Site for laboratory analysis, three (3) soil vapor samples were collected from two (2) existing and one (1) new soil vapor sampling ports, and three (3) indoor air samples were collected in the basement near the soil vapor sampling port locations. Field sampling was performed in substantial conformance with applicable New York State Department of Environmental Conservation (NYSDEC) regulations.

Groundwater samples were submitted under chain-of-custody to Alpha Analytical Laboratories, a NELAP-certified laboratory (NY Certification MA0086), for analyses of the TCL VOC+30 (Target Compound List Volatile Organic Compounds + 30).

Similarly, soil vapor and indoor air samples were submitted under chain-of-custody to Alpha Analytical Laboratories for analysis. Soil vapor samples were analyzed for TO-15 (Toxic Organics - 15) and indoor air samples were analyzed for TO-15 and TO-15 SIM (Selective Ion Monitoring).

## Analytical Results

Groundwater sampling results were compared to the New York State Department of Environmental Conservation (NYSDEC) TOGS GA (Technical and Operational Guidance Series, 1.1.1 Groundwater Effluent Limitations). Based on our review, MW-1S, MW-5S, MW-5I, and MW-6 exhibited tetrachloroethene (PCE) exceedances. A summary of exceedances to the NYDEC TOGS GA is shown in Table 1 below.

**Table 1 – Groundwater Exceedances to the NYDEC TOGS GA**

LOCATION			MW-1S		MW-5S		MW-5I		MW-6		DUP-1	
SAMPLING DATE			3/15/2021		3/15/2021		3/15/2021		3/15/2021		3/15/2021	
LAB SAMPLE ID			L2112852-01		L2112852-05		L2112852-06		L2112852-07		L2112852-08	
SAMPLE TYPE			WATER		WATER		WATER		WATER		WATER	
	NY-TOGS-GA	Units	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
<b>Volatile Organics by GC/MS</b>												
Tetrachloroethene		5 ug/l	13		7.1		1800		200		170	

NY-TOGS-GA: New York TOGS 111 Groundwater Effluent Limitations criteria reflects all addendum to criteria through June 2004

For comparison, the results of this groundwater sampling were included on the ACT Groundwater Monitoring Status Report (Attachment 1) and SESI data is included on Table 1 of that report (outlined in boxes).

Soil vapor and indoor air sampling results were compared to New York State Department of Health (NYSDOH) Indoor Air Concentrations (IAC-A) Sub-slab Vapor Concentrations (SSC-A) Matrix A for trichloroethene (TCE), cis-1,2-dichloroethene and carbon tetrachloride. For PCE, the results were compared to Matrix B. A summary of the data is shown below on Table 2.

**Table 2 – Subslab Soil Vapor and Indoor Air Data**

LOCATION				VP-1		VP-2		VP-3		AA-1		AA-2		AA-3	
SAMPLING DATE				3/10/2021		3/10/2021		3/15/2021		3/15/2021		3/15/2021		3/15/2021	
LAB SAMPLE ID				L2111970-02		L2111970-01		L2112883-01		L2112883-02		L2112883-03		L2112883-04	
SAMPLE TYPE				SOIL VAPOR		SOIL VAPOR		SOIL VAPOR		AIR		AIR		AIR	
	NY-IAC-A	NY-SSC-A	Units	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
<b>Volatile Organics in Air</b>															
cis-1,2-Dichloroethene	0.2	6 ug/m3		0.793	U	0.793	U	0.971		-	-	-	-	-	-
Trichloroethene	0.2	6 ug/m3		1.68		1.41		2.08		-	-	-	-	-	-
<b>Volatile Organics in Air by SIM</b>															
Carbon tetrachloride	0.2	6 ug/m3		-	-	-	-	-	-	0.491		0.478		0.465	
Trichloroethene	0.2	6 ug/m3		-	-	-	-	-	-	0.382		0.14		0.801	

NY-IAC-A: New York DOH Matrix A Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

These initial results appear favorable based on a review of the Matrix A. For subslab concentrations less than 6 mcg/m3 and indoor air concentrations less than 1.0 mcg/m3, no further action is required. For Matrix B, for subslab concentrations less than 100 mcg/m3 and indoor air concentrations less than 10 mcg/m3, no further action is required.

The tables showing the compounds detected are also included herein (Table 3 -Groundwater Data and Table 4 Soil Vapor and Indoor Air Data).

If you have any questions, please feel free to call.

Sincerely,

**SESI CONSULTING ENGINEERS**

Patricia Petrino, P.E. P.P., LSRP  
Senior Project Engineer

***Enclosed:***

***Table 3 – Groundwater Sampling Data***

***Table 4 – Subslab and Indoor Air Data***

***Figure 1 - Groundwater Sampling Locations***

***Figure 2- SSDS Layout***

***Attachment A – Analytical Result Tables***

Table 3 - Groundwater Data

		On-Site		On-Site		MW-4S		MW-4I		MW-5S		MW-5I		MW-6		DUP-1 (MW-6)		FIELD BLANK		TRIP BLANK	
Spic and Span Cleaners		MW-1S		MW-2S		3/15/2021		3/15/2021		3/15/2021		3/15/2021		3/15/2021		3/15/2021		3/15/2021		3/10/2021	
79-81 Pondfield Road		L2112852-01		L2112852-02		L2112852-03		L2112852-04		L2112852-05		L2112852-06		L2112852-07		L2112852-08		L2112852-09		L2112852-10	
Bronxville, New York		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
March 10, 2021 Environmental Sampling																					
by SESI																					
	CasNum	NY-TOGS	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organics by GC/MS																					
Tetrachloroethene	127-18-4	5	ug/l	13		4.5		0.75		0.31	J	7.1		1800		200		170		0.5	U
Trichloroethene	79-01-6	5	ug/l	0.58		0.35	J	0.5	U	0.5	U	0.24	J	2.6	J	0.52		0.36	J	0.5	U
p/m-Xylene	179601-23-1	5	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	0.7	J	25	U	2.5	U	2.5	U	2.5	U
Xylenes, Total	1330-20-7		ug/l	2.5	U	2.5	U	2.5	U	2.5	U	0.7	J	25	U	2.5	U	2.5	U	2.5	U

\* Comparison is not performed on parameters with non-numeric criteria.

NY-TOGS-GA: New York TOGS 111 Groundwater Effluent Limitations criteria reflects all addendum to criteria through June 2004.

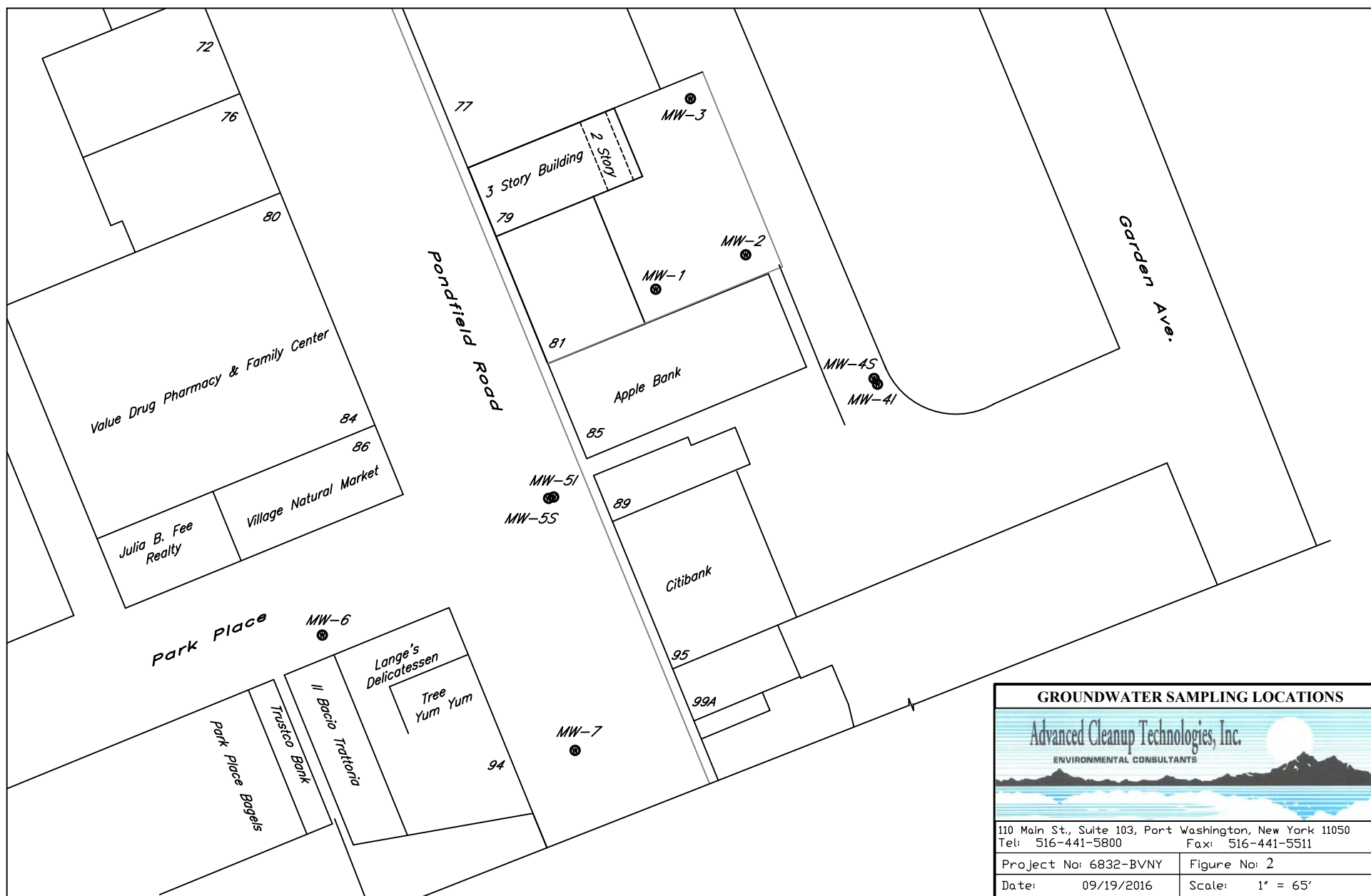
Table 4 - Subslab Soil Vapor and Indoor Air Data

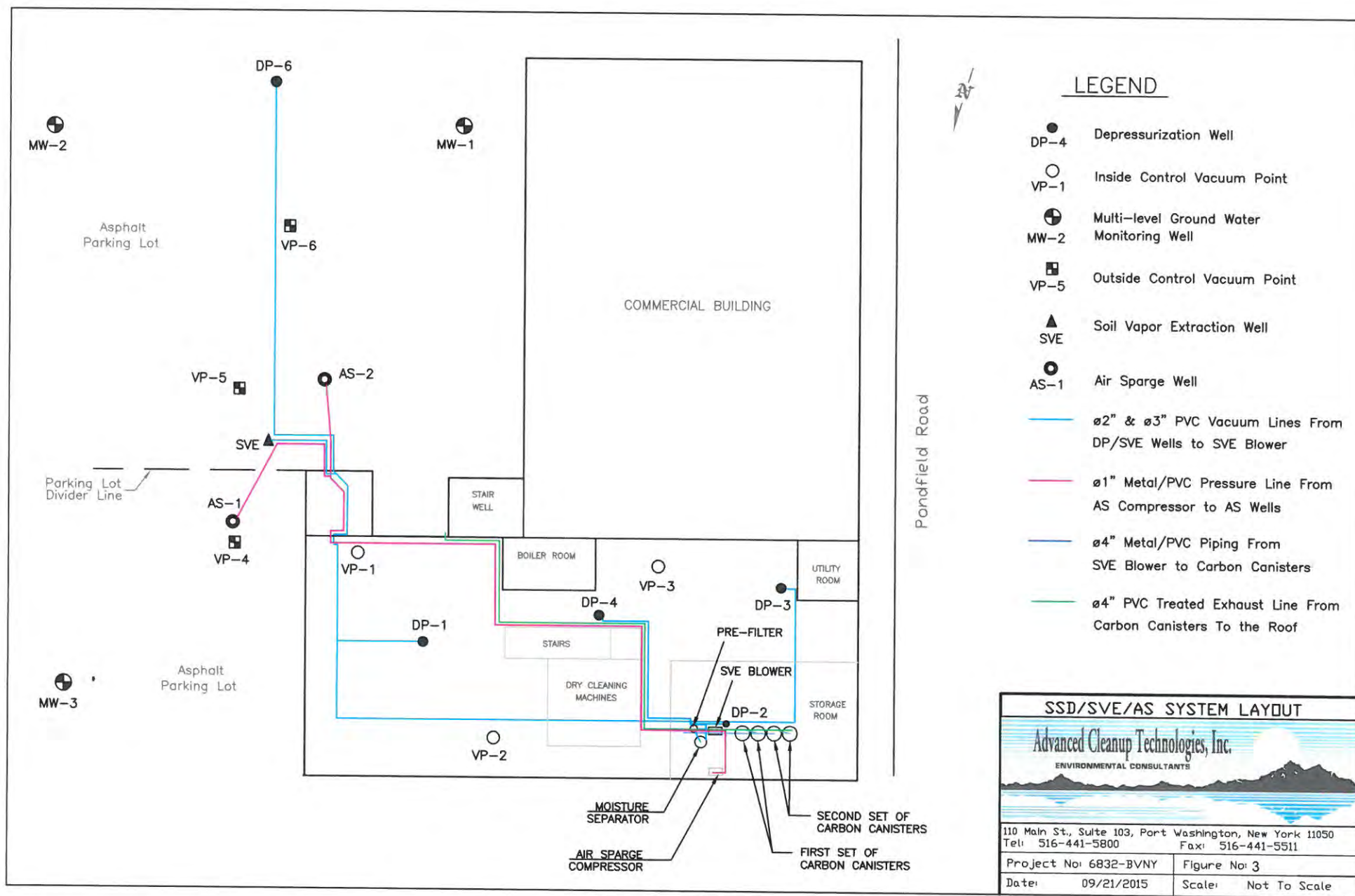
Spic and Span Cleaners					VP-1		VP-2		VP-3		AA-1		AA-2		AA-3	
79-81 Pondfield Road					3/10/2021		3/10/2021		3/15/2021		3/15/2021		3/15/2021		3/15/2021	
Bronxville, New York					Lab Sample ID		L2111970-02		L2111970-01		L2112883-01		L2112883-02		L2112883-04	
March 10, 2021 Environmental Sampling					Sample Type		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		INDOOR AIR		INDOOR AIR	
by SESI																
	CasNum	NY-IAC-A	NY-SSC-A	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organics in Air																
Dichlorodifluoromethane	75-71-8			ug/m3	2.18		2.23		2.22		2.27		2.32		2.34	
Chloromethane	74-87-3			ug/m3	0.413	U	0.737		0.745		1.24		1.28		1.29	
Ethanol	64-17-5			ug/m3	180		202		108		18.6		15.1		18.6	
Acetone	67-64-1			ug/m3	60.6		83.9		14		4.89		4.49		5.75	
Trichlorofluoromethane	75-69-4			ug/m3	1.37		1.29		1.29		1.35		1.31		1.37	
Isopropanol	67-63-0			ug/m3	61.5		66.6		24.8		42.8		16.2		35.9	
Tertiary butyl Alcohol	75-65-0			ug/m3	2.5		6.31		1.52	U	1.52	U	1.52	U	1.52	U
2-Butanone	78-93-3			ug/m3	18.9		22		1.8		1.47	U	1.47	U	1.47	U
cis-1,2-Dichloroethene	156-59-2	0.2	6	ug/m3	0.793	U	0.793	U	0.971		-	-	-	-	-	-
Ethyl Acetate	141-78-6			ug/m3	158		176		23.7		1.8	U	1.8	U	1.8	U
Tetrahydrofuran	109-99-9			ug/m3	1.47	U	2.54		1.47	U	1.47	U	1.47	U	1.47	U
Benzene	71-43-2			ug/m3	0.843		0.818		0.875		0.639	U	0.639	U	0.639	U
Trichloroethene	79-01-6	0.2	6	ug/m3	1.68		1.41		2.08		-	-	-	-	-	-
2,2,4-Trimethylpentane	540-84-1			ug/m3	0.934	U	1.19		0.934	U	0.934	U	0.934	U	0.934	U
Heptane	142-82-5			ug/m3	0.82	U	1.02		0.82	U	0.82	U	0.82	U	0.82	U
Toluene	108-88-3			ug/m3	80.3		79.9		2.88		0.754	U	0.754	U	0.754	U
2-Hexanone	591-78-6			ug/m3	1.17		1.26		0.82	U	0.82	U	0.82	U	0.82	U
Tetrachloroethene	127-18-4			ug/m3	27.1		48		10.8		-	-	-	-	-	-
p/m-Xylene	179601-23-1			ug/m3	3.21		3.26		1.79		1.74	U	1.74	U	1.74	U
o-Xylene	95-47-6			ug/m3	1.32		1.39		0.869	U	0.869	U	0.869	U	0.869	U
1,3,5-Trimethylbenzene	108-67-8			ug/m3	1.16		1.25		0.983	U	0.983	U	0.983	U	0.983	U
1,2,4-Trimethylbenzene	95-63-6			ug/m3	4.16		4.39		1.29		0.983	U	0.983	U	0.983	U
1,3-Dichlorobenzene	541-73-1			ug/m3	2.11		2.01		1.2	U	1.2	U	1.2	U	1.2	U
Volatile Organics in Air by SIM																
cis-1,2-Dichloroethene	156-59-2	0.2	6	ug/m3	-	-	-	-	-	-	0.079	U	0.079	U	0.107	
1,1,1-Trichloroethane	71-55-6			ug/m3	-	-	-	-	-	-	0.573		0.415		0.502	
Carbon tetrachloride	56-23-5	0.2	6	ug/m3	-	-	-	-	-	-	0.491		0.478		0.465	
Trichloroethene	79-01-6	0.2	6	ug/m3	-	-	-	-	-	-	0.382		0.14		0.801	
Tetrachloroethene	127-18-4			ug/m3	-	-	-	-	-	-	3.85		2.45		7.12	

\* Comparison is not performed on parameters with non-numeric criteria.

NY-IAC-A: New York DOH Matrix A Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.







# Advanced Cleanup Technologies, Inc.

ENVIRONMENTAL CONSULTANTS

April 20, 2020

John B. Miller, P.E.  
NYS Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway, 11<sup>th</sup> Floor  
Albany, NY 12233-7014

Re: Groundwater Monitoring Status Report  
Spic and Span Cleaners, 79 Pondfield Road, Bronxville, NY  
NYSDEC Site No. C360130

Dear Mr. Miller,

The first post-Certificate of Completion groundwater monitoring event took place on February 18<sup>th</sup> and 19<sup>th</sup>, 2020. In accordance with the approved Site Management Plan, groundwater samples were collected from 2 on-site monitoring wells (MW-1S and MW-2S) and 5 off-site monitoring wells (MW-4S, MW-4I, MW-5S, MW-5I and MW-6).

Prior to purging, depth to water was determined using a conductivity meter. Before sample collection, groundwater was purged utilizing a low flow peristaltic pump, a Horiba in-line water quality meter and dedicated polyethylene and neoprene tubing. Sampling was performed when indicator parameters had stabilized. A total of nine water samples including seven groundwater samples and two equipment blanks were submitted to York Analytical Laboratories, Inc. (NYSDOH #10854) for analysis in accordance with EPA Method 8260. The current and historical laboratory analytical results are summarized in Table 1.

It can be seen from Table 1 and the accompanying figures that samples collected from on-site shallow monitoring wells MW-1 and MW-2 contained lower concentrations of PCE than the previous monitoring event in March 2019. Monitoring well MW-1S, located in the southwestern portion of the parking lot, contained 7.2 µg/L of Tetrachloroethene compared with 37 µg/L in March 2019. MW-2, located in the southeastern portion of the parking lot, contained 6.2 µg/L of Tetrachloroethene compared to 9.7 µg/L in March 2019.

Off-site wells MW-4S and MW-4I, located to the southeast of the site, contained CVOCs at or below water quality standards or detection limits. Similarly, off-site well MW-5S contained CVOCs at or below water quality standards or detection limits. In MW-5I, Tetrachloroethene levels decreased from 1,800 µg/L in March 2019 to 370 µg/L in February 2020. However,



Tetrachloroethene concentrations in off-site monitoring well MW-6, located southwest of the site, increased slightly from 150 µg/L in March 2019 to 210 µg/L in February 2020.

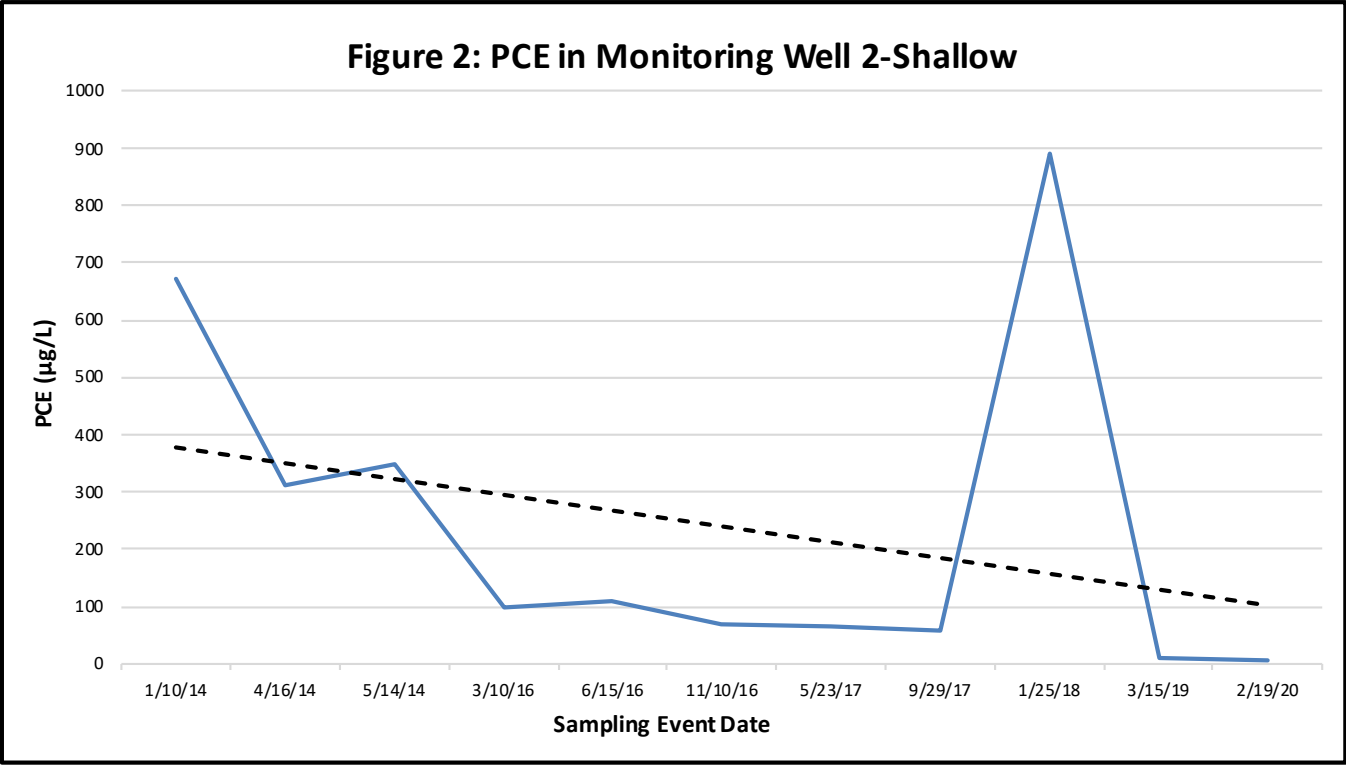
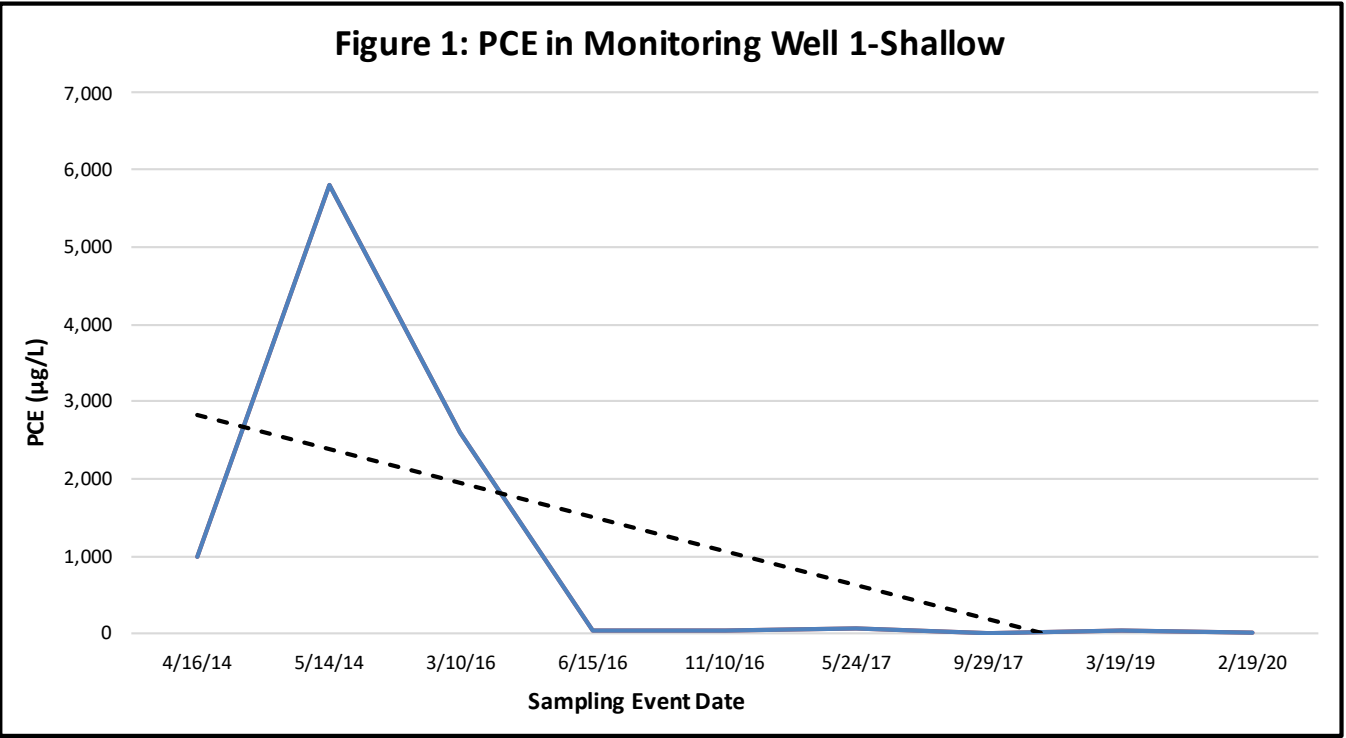
## **Conclusions**

As depicted in Figures 1 and 2, groundwater quality in on-site shallow monitoring wells MW-1 and MW-2 have shown continuous improvement in groundwater quality since monitoring commenced in 2014 and have now reached asymptotic levels. As depicted in Figure 3, groundwater quality in off-site monitoring well MW-5I has shown significant improvement since the previous monitoring event. In contrast, groundwater quality in off-site monitoring well MW-6 has shown a continuous increase in contaminant levels since 2018, which is consistent with an offsite source of contamination.

## **Recommendations**

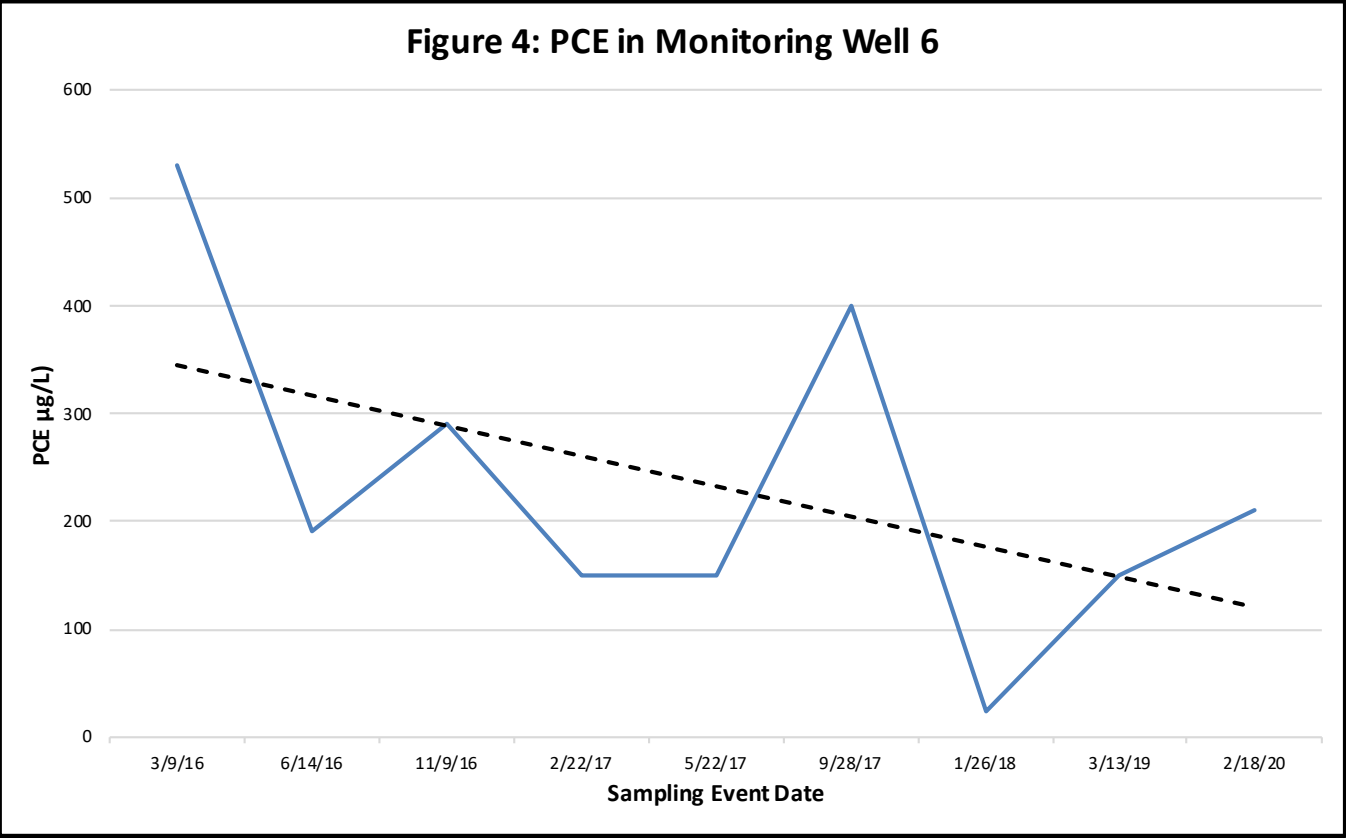
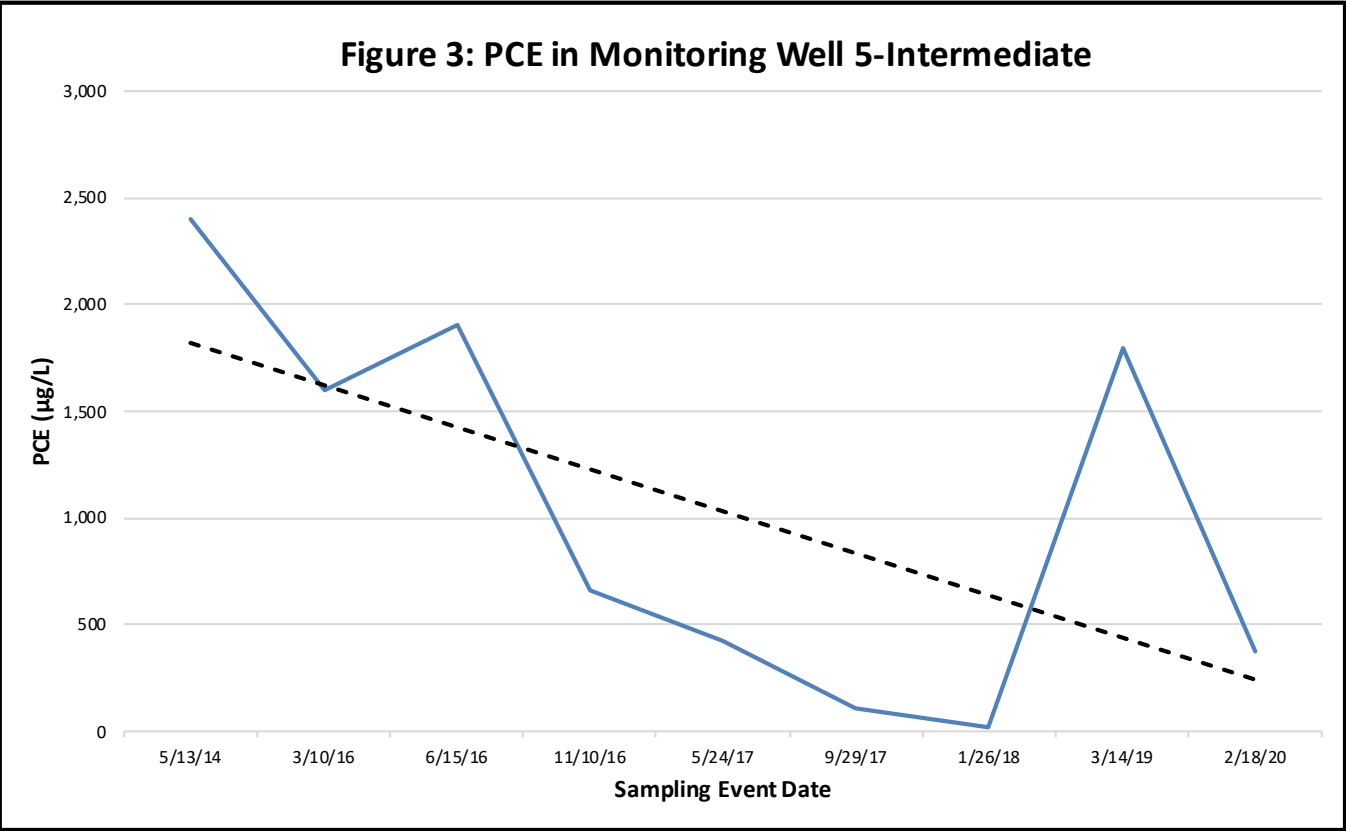
Groundwater monitoring will continue in accordance with the approved SMP. The next post-COC biannual groundwater monitoring event will take place August 2020 and include monitoring wells MW-5I and MW-6.

Table 1 Historical Groundwater Data (2014 to 2020)  Spic & Span Cleaners 79 to 81 Pondfield Road NYSDEC Site No. C360130			
MW-1S	PCE	TCE	Cis-1,2-DCE
4/16/14	1,000	<10	<10
5/14/14	5,800	51	17
3/10/16	2,600	13	4.4
6/15/16	34	0.58	<0.2
11/10/16	23	2.4	0.22
5/24/17	59	1.4	<0.2
9/29/17	1.6	<0.2	<0.2
3/19/19	37	1.3	<0.2
2/19/20	7.2	<2.5	<2.5
3/2021	13	0.58	
MW-2S	PCE	TCE	Cis-1,2-DCE
1/10/14	670	<10	<10
4/16/14	310	<10	<10
5/14/14	350	<10	<10
3/10/16	100	1.6	0.21
6/15/16	110	2.4	0.47
11/10/16	70	1.4	0.32
5/23/17	65	1.5	0.23
9/29/17	58	1.4	0.86
1/25/18	890	<2	<2
3/15/19	9.7	0.69	<0.2
2/19/20	6.2	<2.5	<2.5
3/2021	4.5	0.35J	
MW-4S	PCE	TCE	Cis-1,2-DCE
5/13/14	<10	<10	<10
3/9/16	0.59	<0.50	<0.2
6/14/16	0.94	<0.2	<0.2
11/9/16	3.1	<0.2	<0.2
2/22/17	1.1	<0.2	<0.2
5/22/17	0.23	<0.2	<0.2
9/28/17	1.4	<0.2	<0.2
1/25/18	2	<0.2	<0.2
3/19/19	0.33	<0.2	<0.2
2/19/20	<2.5	<2.5	<2.5
3/2021	0.75	<0.5	
<b>Notes:</b> All units in ug/L PCE: Tetrachloroethene TCE: Trichloroethene Cis-1,2-DCE: cis-1,2-Dichloroethene Highlight indicates an exceedance of the NYSDEC TOGS 1.1.1, June 1998 Bolded values signify detection above method detection limit			



Note:  
Trendline shown as dashed-line on figures

Table 1 (continued) Historical Groundwater Data (2014 to 2020)  Spic & Span Cleaners 79 to 81 Pondfield Road NYSDEC Site No. C360130			
MW-4I	PCE	TCE	Cis-1,2-DCE
5/13/14	<10	<10	<10
3/9/16	<0.2	<0.5	<0.5
6/14/16	<b>0.75</b>	<0.2	<0.2
11/9/16	<b>0.38</b>	<0.2	<0.2
2/22/17	<b>0.68</b>	<0.2	<0.2
5/23/17	<b>0.32</b>	<0.2	<0.2
9/28/17	<b>4.1</b>	<0.2	<0.2
1/25/18	<b>9.2</b>	0.23	<0.2
3/19/19	<0.2	<0.2	<0.2
2/18/20	<2.5	<2.5	<2.5
3/2021	0.31J	<0.5	
MW-5S	PCE	TCE	Cis-1,2-DCE
5/13/14	<10	<10	<10
3/9/16	<b>1</b>	<0.5	<0.5
6/14/16	<b>0.35</b>	<0.2	<0.2
11/9/16	<b>0.69</b>	<0.2	<0.2
2/22/17	<b>0.91</b>	<0.2	<0.2
5/23/17	<b>0.29</b>	<0.2	<0.2
9/28/17	<0.2	<0.2	<0.2
3/13/19	<b>0.39</b>	<0.2	<0.2
2/18/20	<2.5	<2.5	<2.5
3/2021	7.1	0.24	
MW-5I	PCE	TCE	Cis-1,2-DCE
5/13/14	<b>2,400</b>	<10	<10
3/10/16	<b>1,600</b>	<b>3.3</b>	<5
6/15/16	<b>1,900</b>	<5	<5
11/10/16	<b>660</b>	<b>4.2</b>	<b>10</b>
5/24/17	<b>420</b>	<b>2.2</b>	<b>3.6</b>
9/29/17	<b>110</b>	<b>2.5</b>	<b>7</b>
1/26/18	<b>19</b>	<b>1</b>	<b>3.4</b>
3/14/19	<b>1,800</b>	<b>3.2</b>	<b>1.1</b>
2/18/20	<b>370</b>	<2.5	<2.5
3/2021	1,800	2.6J	
MW-6	PCE	TCE	Cis-1,2-DCE
3/9/16	<b>530</b>	<b>2</b>	<2.5
6/14/16	<b>190</b>	<0.4	<b>0.42</b>
11/9/16	<b>290</b>	<b>1.1</b>	<b>0.63</b>
2/22/17	<b>150</b>	<b>0.91</b>	<b>0.59</b>
5/22/17	<b>150</b>	<b>1.1</b>	<b>0.48</b>
9/28/17	<b>400</b>	<b>2</b>	<1
1/26/18	<b>24</b>	<b>0.22</b>	<0.2
3/13/19	<b>150</b>	<b>0.75</b>	<b>0.39</b>
2/18/20	<b>210</b>	<2.5	<2.5
3/2021	200	0.52	
Notes: All units in ug/L PCE: Tetrachloroethene TCE: Trichloroethene CIS-1,2-DCE: cis-1,2-Dichloroethene Highlight indicates an exceedance of the NYSDEC TOGS 1.1.1, June 1998 Bolded values signify detection above method detection limit			



Note:  
Trendline shown as dashed-line on figures

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**Attachment B:**  
Summary Letter, May 9, 2022

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Geotechnical  
Foundations  
Land Planning  
Geo-Structural  
Environmental  
Water Resources

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Principals:

Anthony Castillo, PE  
Fuad Dahan, PhD, PE, LSRP  
John M. Nederfield, PE  
Justin M. Protasiewicz, PE  
Michael St. Pierre, PE

May 09, 2022

Mr. Thomas Liptak  
81 Pondfield Road Company  
1311 Mamaroneck Avenue  
Suite 340  
White Plains, New York 10605

RE: **Groundwater, Soil Vapor and Indoor Air Sampling**  
**79-81 Pondfield Road**  
**Bronxville, New York 10708**  
**SESI Project No. 11663**

Dear Mr. Liptak:

SESI Consulting Engineers (SESI) performed recent environmental sampling and testing in accordance with our Corrective Measures Work Plan dated May 2021 and revised in October 2021. Specifically, the field activities included one (1) round of the semi-annual sampling that consists of two (2) groundwater monitoring wells, three (3) sub-slab soil vapor points, and co-deployed indoor air locations, and six (6) indoor air points at the Site located at 79-81 Pondfield Road in Bronxville, New York. The sampling was conducted on November 17-18, 2022. In addition, an annual sampling event was conducted on March 3 and 28, 2022 which consisted of sampling five (5) groundwater monitoring wells and three (3) sub slab vapor sampling points co-deployed indoor air locations and six (6) indoor air sampling points. The groundwater monitoring well location plan, sub slab, and indoor air sampling locations are included as **Figure 1**, **Figure 2**, and **Figure 3** respectively.

In summary, a total of two (2) groundwater samples were collected from existing monitoring wells in November 2021 as part of the semiannual sampling and five (5) groundwater sample locations in March 2022 as part of the annual sampling, two (2) rounds of three (3) soil vapor samples were collected from two (2) existing and one (1) new soil vapor sampling ports (six (6) total), and two (2) rounds of three (3) indoor air samples (six (6) total) were collected in the basement near the soil vapor sampling port locations. Two (2) rounds of an additional six (6) indoor air samples (12 total) were collected from tenant spaces as shown on **Figure 3**. Field sampling was performed in substantial conformance with applicable New York State Department of Environmental Conservation (NYSDEC) regulations.

Groundwater samples were submitted under chain-of-custody to Alpha Analytical Laboratories and SGS, a NELAP-certified laboratory (NY Certification MA0086) and SGS – certified laboratory (NY

Certification 10983), for analyses of the TCL VOC+15 Target Compound List Volatile Organic Compounds - 15 and Air Toxics (TO+15).

Similarly, soil vapor and indoor air samples were submitted under chain-of-custody to Alpha Analytical Laboratories and SGS for analysis. Soil vapor samples were analyzed for TO-15 (Toxic Organics - 15) and indoor air samples were analyzed for TO-15 and TO-15 SIM (Selective Ion Monitoring).

### **Analytical Results Groundwater and Indoor Air Sampling November 17, and 18, 2021**

Groundwater sampling results were compared to the NYSDEC TOGS GA (Technical and Operational Guidance Series, 1.1.1 Groundwater Effluent Limitations). Based on SESI's review, MW-5I and MW-6 exhibited tetrachloroethene (PCE) exceedances. A summary of exceedances of the NYSDEC TOGS GA is shown in Table 1A below.

**Table 1A – Groundwater Exceedances to the NYDEC TOGS GA dated 11/18/2021**

LOCATION	NY-TOGS-GA		MW-5I	MW-6
SAMPLING DATE			11/18/2021	11/18/2021
LAB SAMPLE ID			L2163944-01	L2163944-02
SAMPLE TYPE			WATER	WATER
		Units	Results	Results
Volatile Organics by GC/MS				
Tetrachloroethene	5	ug/l	190	250
NY-TOGS-GA: New York TOGS 111 Groundwater Effluent Limitations criteria reflects all addendum to criteria through June 2004.				

For comparison, the results of this groundwater sampling were included on the ACT Groundwater Monitoring Status Report (Attachment 1). SESI data is included on Table 1 of that report (outlined in boxes).

Soil vapor and indoor air sampling results were compared to New York State Department of Health (NYSDOH) Indoor Air Concentrations (IAC-A) Sub-slab Vapor Concentrations (SSC-A) Matrix A for trichloroethene (TCE), cis-1,2-dichloroethene and carbon tetrachloride. For methylene chloride and PCE, the results were compared to Matrix B. A summary of the data is shown below on Table 2A.

**Table 2A – Subslab Soil Vapor and Indoor Air Data dated 11/17/2021**



LOCATION						VP-1	VP-2	VP-3	DUP-1	AA-1	IA-1	IA-2
SAMPLING DATE						11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021
LAB SAMPLE ID	NY-IAC-A	NY-IAC-B	NY-SSC-A	NY-SSC-B		L2163567-02	L2163567-01	L2163567-03	L2163567-04	L2163567-05	L2163567-07	L2163567-06
SAMPLE TYPE						SOIL VAPOR	SOIL VAPOR	SOIL VAPOR	SOIL VAPOR	AIR	AIR	AIR
						Units	Results	Results	Results	Results	Results	Results
Volatile Organics in Air with SIMs (ug/m3)												
Methylene chloride		3		100	ug/m3	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.2		6		ug/m3	ND	ND	19.4	21	ND	ND	ND
Carbon tetrachloride	0.2		6		ug/m3	ND	ND	ND	ND	0.39	0.409	0.459
Trichloroethene	0.2		6		ug/m3	15.4	ND	190	201	ND	0.156	0.15
Tetrachloroethene		3		100	ug/m3	1710	23.9	2160	2290	0.21	1.43	1.63

LOCATION						IA-3	IA-101	IA-102	IA-103	IA-104	IA-105	IA-106
SAMPLING DATE						11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021
LAB SAMPLE ID	NY-IAC-A	NY-IAC-B	NY-SSC-A	NY-SSC-B		L2163567-08	L2163567-09	L2163567-10	L2163567-11	L2163567-12	L2163567-13	L2163567-14
SAMPLE TYPE						AIR	AIR	AIR	AIR	AIR	AIR	AIR
						Units	Results	Results	Results	Results	Results	Results
Volatile Organics in Air with SIMs (ug/m3)												
Methylene chloride		3		100	ug/m3	ND	ND	ND	ND	ND	ND	8.2
cis-1,2-Dichloroethene	0.2		6		ug/m3	0.139	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.2		6		ug/m3	0.421	0.447	0.447	0.434	0.415	0.403	0.365
Trichloroethene	0.2		6		ug/m3	0.828	ND	ND	ND	0.113	0.199	ND
Tetrachloroethene		3		100	ug/m3	8.68	0.387	0.203	0.292	2.52	3.09	1.83

NY-IAC-A: New York DOH Matrix A Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.  
NY-IAC-B: New York DOH Matrix B Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.  
NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.  
NY-SSC-B: New York DOH Matrix B Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

The VP-3 sample concentration for TCE (190 ug/m3) is above the standard of 60 ug/m3 for sub-slab concentrations, indicating mitigation is required based on Matrix A. For Matrix B, PCE concentrations were detected at 1,710 and 2,160ug/m3 in VP-1 and VP-3, respectively, above the standard of 1000 ug/m3 for mitigation.

The tables showing the compounds detected are also included herein (Table 3A -Groundwater Data dated 11/18/2021 and Table 4A Sub-slab and Indoor Air Data dated 11/17/2021) for samples collected during this event.

## Analytical Results Groundwater and Indoor Air Sampling March 15, 2022, and March 28, 2022

Groundwater sampling results were compared to the NYSDEC TOGS GA (Technical and Operational Guidance Series, 1.1.1 Groundwater Effluent Limitations). Based on SESI's review, MW-2S, MW-5S, and DUP-1 which is a duplicate sample of MW-1S exhibited tetrachloroethene (PCE) exceedances. A summary of exceedances of the NYSDEC TOGS GA is shown in Table 1B below.

**Table 1B – Groundwater Exceedances to the NYDEC TOGS GA dated 3/15/2022**

Job Number:	JD41388								
Account:	SESI Consulting Engineers								
Project:	Spic and Span Cleaners, 79 Pondfield Road, Bronxville, NY								
Project Number:	11663								
Results flagged as "Exceed" if any of the selected criteria exceeded (most stringent).									Legend: Exceed
Client Sample ID:	NY TOGS Class GA GW	MW-1S	MW-2S	MW-4S	MW-4I	MW-5S	TRIP BLANK	FIELD BLANK	DUP-1
Lab Sample ID:	JD41388-1	JD41388-2	JD41388-3	JD41388-4	JD41388-5	JD41388-6	JD41388-7	JD41388-8	
Date Sampled:	3/15/2022	3/15/2022	3/15/2022	3/15/2022	3/15/2022	3/15/2022	3/15/2022	3/15/2022	3/15/2022
Matrix:	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Trip Blank Water	Field Blank Water	Ground Water
<b>MS Volatiles (SW846 8260D)</b>									
Tetrachloroethene [ug/l]	5	4.1	22.9	ND (1.0)	0.91 J	51.4	ND (1.0)	ND (1.0)	5.1

NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.

For comparison, the results of this groundwater sampling were included on the ACT Groundwater Monitoring Status Report (Attachment 1). SESI data is included on Table 1 of that report (outlined in boxes).



Sub-Slab vapor points and indoor air sampling results were compared to New York State Department of Health (NYSDOH) Indoor Air Concentrations (IAC-A) Sub-slab Vapor Concentrations (SSC-A) Matrix A for trichloroethene (TCE), cis-1,2-dichloroethene and carbon tetrachloride. Methylene chloride and PCE, the results were compared to Matrix B. A summary of the data is shown below on Table 2.

**Table 2B – Subslab Soil Vapor and Indoor Air Data Sampled on 3/28/2022**

Client Sample ID:	NYSDOH Matrix A-IA	NYSDOH Matrix B-IA	NYSDOH Matrix A-SS	NYSDOH Matrix B-SS	Units	IA-101	IA-102	IA-103	IA-104	IA-105	IA-106	IA-1
Lab Sample ID:						JD42150-1	JD42150-2	JD42150-3	JD42150-4	JD42150-5	JD42150-6	JD42150-8
Date Sampled:						3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022
Matrix:						Indoor Air Comp.	Indoor Air Comp.	Indoor Air Comp.	Indoor Air Comp.	Indoor Air Comp.	Indoor Air Comp.	Indoor Air Comp.
MS Volatiles (TO-15) - ug/m3 (Volatile Organics in Air with SIMs)												
1,1-Dichloroethane	0.2		6		ug/m3	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.53)
Carbon tetrachloride	0.2		6		ug/m3	ND (0.25)	ND (0.25)	0.75	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.55)
cis-1,2-Dichloroethylene	0.2		6		ug/m3	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.67)
Methylene chloride		3		100	ug/m3	1.7	2.2	11	1.4	1.1	1.2	1.9
Tetrachloroethylene		3		100	ug/m3	ND (0.095)	1.1	ND (0.095)	1.1	1.2	7.5	4.6
Trichloroethylene	0.2		6		ug/m3	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.23)
Client Sample ID:	NYSDOH Matrix A-IA	NYSDOH Matrix B-IA	NYSDOH Matrix A-SS	NYSDOH Matrix B-SS	Units	IA-2	IA-3	VP-1	VP-2	VP-3	DUP-1	
Lab Sample ID:						JD42150-9	JD42150-	JD42150-	JD42150-	JD42150-	JD42150-	
Date Sampled:						3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	
Matrix:						Indoor Air Comp.	Indoor Air Comp.	Sub Slab Comp.	Sub Slab Comp.	Sub Slab Comp.	Sub Slab Comp.	
MS Volatiles (TO-15) - ug/m3 (Volatile Organics in Air with SIMs)												
1,1-Dichloroethane	0.2		6		ug/m3	ND (0.23)	ND (0.23)	ND (0.93)	ND (0.93)	ND (0.93)	ND (0.93)	
Carbon tetrachloride	0.2		6		ug/m3	ND (0.25)	ND (0.25)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	
cis-1,2-Dichloroethylene	0.2		6		ug/m3	ND (0.31)	0.44	3.3	ND (1.2)	23	26	
Methylene chloride		3		100	ug/m3	1.7	1.3	4.5	3.8	3.1	4.2	
Tetrachloroethylene		3		100	ug/m3	5.8	19	24	17	814	1470	
Trichloroethylene	0.2		6		ug/m3	ND (0.10)	2	7	ND (0.41)	155	190	

- Indicates the sample is above the corresponding standard  
 Matrix A-IA: New York DOH Matrix A Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.  
 Matrix B-IA: New York DOH Matrix B Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.  
 Matrix A-SS: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.  
 Matrix B-SS: New York DOH Matrix B Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.  
 DUP-1 a duplicate of VP-3 and was analyzed outside of hold time and the data may not be reliable

The carbon tetrachloride exceedance in sample IA-103 (0.75 ug/m3) requires no further action as no exceedances to the sub-slab vapor points for this compound was detected. The methylene chloride exceedance in sample IA-103 (11ug/m3) is above 10 ug/m3 triggers the Matrix A to identify and resample or mitigate. The exceedance to cis-1,2-dichloroethene in IA-3(0.44ug/m3) and VP-3 (23ug/m3) indicates continued monitoring is required. Tetrachloroethylene (PCE) exceedances were noted in indoor air samples; IA-106(7.5ug/m3), IA-1(4.6ug/m3), IA-2(5.8ug/m3), and IA-3(19ug/m3), and sub slab sample VP-3(814ug/m3) based on the NYDOH Matrix B Mitigation is required. Trichloroethylene exceedances were noted in indoor air sample IA-3 (2ug/m3), and sub slab samples VP-1 (7ug/m3), and VP-3 (155ug/m3) and based on the NYDOH Matrix A mitigation is required.

The tables showing the compounds detected are also included herein (Table 3B -Groundwater Data and Table 4A and Table 4B Sub-slab and Indoor Air Data).

Based on the above results mitigation may be required.

If you have any questions, please feel free to call.

Sincerely,

**SESI CONSULTING ENGINEERS**

Fuad Dahan, P.E., LSRP  
Principal

***Enclosed:***

***Table 3A and 3B – Groundwater Sampling Data***

***Table 4A and 4B – Subslab and Indoor Air Data***

***Figure 1 - Groundwater Sampling Locations***

***Figure 2- Sub-slab Sampling Locations***

***Figure 3 – Indoor Air Sampling Locations (Tenant Spaces)***

***Attachment 1 – ACT Groundwater Monitoring Status Report (with updated data)***

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## Tables

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**Table 3A Groundwater Sampling Results**

Table SA Groundwater Sampling Results							
LOCATION	CasNum	NY- TOGS- GA	Units	MW-5I	MW-6	FIELD BLANK	TRIP BLANK
SAMPLING DATE				11/18/2021	11/18/2021	11/18/2021	11/15/2021
LAB SAMPLE ID				L2163944-01	L2163944-02	L2163944-03	L2163944-04
SAMPLE TYPE				WATER	WATER	WATER	WATER
				Results	Results	Results	Results
Volatile Organics by GC/MS							
Tetrachloroethene	127-18-4	5	ug/l	190	250	ND	ND
Trichloroethene	79-01-6	5	ug/l	1.6	0.52J	ND	ND
NY-AWQS: New York TOGS 444 Ambient Water Quality System							

NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.

Table 3B Groundwater Sampling Results											
Job Number:	JD41388										
Account:	SESI Consulting Engineers										
Project:	Spic and Span Cleaners, 79 Pondfield Road, Bronxville, NY										
Project Number:	11663										
Results flagged as "Exceed" if any of the selected criteria exceeded (most stringent).										Legend:	Exceed
Client Sample ID:	CAS#		NY TOGS Class GA GW Standards (NYSDEC 6/2004) <sup>1</sup>	MW-1S	MW-2S	MW-4S	MW-4I	MW-5S	TRIP BLANK	FIELD BLANK	DUP-1
Lab Sample ID:				JD41388-1	JD41388-2	JD41388-3	JD41388-4	JD41388-5	JD41388-6	JD41388-7	JD41388-8
Date Sampled:				3/15/2022	3/15/2022	3/15/2022	3/15/2022	3/15/2022	3/15/2022	3/15/2022	3/15/2022
Matrix:				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Trip Blank Water	Field Blank Water	Ground Water
MS Volatiles (SW846 8260D)											
Tetrachloroethene	127-18-4	ug/l	5	4.1	22.9	ND (1.0)	0.91 J	51.4	ND (1.0)	ND (1.0)	5.1
Trichloroethene	79-01-6	ug/l	5	ND (1.0)	0.57 J	ND (1.0)	ND (1.0)	1.1	ND (1.0)	ND (1.0)	ND (1.0)
MS Volatile TIC											
Total TIC, Volatile		ug/l	-	0	0	0	0	0	0	0	0

**Footnotes:**

<sup>a</sup> Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

<sup>b</sup> Associated CCV outside of control limits high. This compound in blank spike is outside in house QC limits bias high.

<sup>c</sup> Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

<sup>d</sup> Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

<sup>e</sup> Associated CCV outside of control limits high, sample was ND.

NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.

Table 4A Indoor Air and Sub Slab Gas Sampling Results																			
	LOCATION		NY-IAC-A	NY-IAC-B	NY-SSC-A	NY-SSC-B		VP-1	VP-2	VP-3	DUP-1	AA-1	IA-1	IA-2	IA-3	IA-101			
	SAMPLING DATE							11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021
	LAB SAMPLE ID							L2163567-02	L2163567-01	L2163567-03	L2163567-04	L2163567-05	L2163567-07	L2163567-06	L2163567-08	L2163567-09			
	SAMPLE TYPE							SOIL_VAPOR	SOIL_VAPOR	SOIL_VAPOR	SOIL_VAPOR	AIR	AIR	AIR	AIR	AIR			
		CasNum					Units	Results	Results	Results	Results	Results	Results	Results	Results	Results			
Volatile Organics in Air with SIMs																			
	1,1,1-Trichloroethane	71-55-6		3		100	ug/m3	ND	ND	ND	ND	ND	0.115	0.256	1.29	ND			
	1,2-Dichloroethane	107-06-2					ug/m3	ND	ND	ND	ND	ND	ND	ND	ND	ND			
	Acetone	67-64-1					ug/m3	ND	11.2	66.5	74.1	4.54	5.56	11.1	18.8	43.2			
	Benzene	71-43-2					ug/m3	ND	ND	ND	ND	ND	ND	ND	0.926	0.866			
	Carbon tetrachloride	56-23-5	0.2			6	ug/m3	ND	ND	ND	ND	0.39	0.409	0.459	0.421	0.447			
	Chloroform	67-66-3					ug/m3	ND	ND	5.08	6.06	ND	ND	ND	ND	ND			
	Chloromethane	74-87-3					ug/m3	ND	0.946	ND	ND	0.882	0.874	0.863	0.845	1.02			
	cis-1,2-Dichloroethene	156-59-2	0.2			6	ug/m3	ND	ND	19.4	21	ND	ND	ND	0.139	ND			
	Cyclohexane	110-82-7					ug/m3	ND	ND	ND	ND	ND	ND	ND	ND	0.981			
	Dichlorodifluoromethane	75-71-8					ug/m3	ND	2.16	ND	ND	2.58	2.5	2.47	2.48	2.61			
	Ethanol	64-17-5					ug/m3	111	63.5	68	69	ND	ND	11.6	15.8	535			
	Isopropanol	67-63-0					ug/m3	47.7	329	65.4	36.9	7.74	67.4	297	342	16.1			
	Methylene chloride	75-09-2		3		100	ug/m3	ND	ND	ND	ND	ND	ND	ND	ND	ND			
	Tertiary butyl Alcohol	75-65-0					ug/m3	ND	ND	ND	ND	ND	ND	ND	ND	ND			
	Tetrachloroethene	127-18-4		3		100	ug/m3	1710	23.9	2160	2290	0.21	1.43	1.63	8.68	0.387			
	Toluene	108-88-3					ug/m3	ND	1.82	ND	ND	ND	ND	ND	0.806	2.98			
	Trichloroethene	79-01-6	0.2			6	ug/m3	15.4	ND	190	201	ND	0.156	0.15	0.828	ND			
	Trichlorofluoromethane	75-69-4					ug/m3	ND	ND	ND	ND	1.28	1.15	1.2	1.18	1.47			

LOCATION		NY-IAC-A	NY-IAC-B	NY-SSC-A	NY-SSC-B	IA-102	IA-103	IA-104	IA-104	IA-105	IA-105	IA-106	IA-106
SAMPLING DATE						11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021	11/17/2021
LAB SAMPLE ID						L2163567-10	L2163567-11	L2163567-12	L2163567-12 R1	L2163567-13	L2163567-13 R1	L2163567-14	L2163567-14 R1
SAMPLE TYPE						AIR	AIR	AIR	AIR	AIR	AIR	AIR	AIR
	CasNum					Units	Results	Results	Results	Results	Results	Results	Results
Volatile Organics in Air with SIMs													
1,1,1-Trichloroethane	71-55-6		3		100	ug/m3	ND	ND	0.136	-	0.207	-	0.256
1,2-Dichloroethane	107-06-2					ug/m3	0.809	ND	ND	-	ND	-	ND
Acetone	67-64-1					ug/m3	8.01	12	70.1	-	23.7	-	203
Benzene	71-43-2					ug/m3	0.834	1.03	0.744	-	0.85	-	ND
Carbon tetrachloride	56-23-5	0.2		6		ug/m3	0.447	0.434	0.415	-	0.403	-	0.365
Chloroform	67-66-3					ug/m3	ND	ND	0.986	-	ND	-	ND
Chloromethane	74-87-3					ug/m3	0.915	0.89	0.989	-	0.871	-	1.47
cis-1,2-Dichloroethene	156-59-2	0.2		6		ug/m3	ND	ND	ND	-	ND	-	ND
Cyclohexane	110-82-7					ug/m3	ND	ND	ND	-	ND	-	ND
Dichlorodifluoromethane	75-71-8					ug/m3	2.53	2.53	2.43	-	2.51	-	4.02
Ethanol	64-17-5					ug/m3	53.1	467	1680E	1490	82	-	101
Isopropanol	67-63-0					ug/m3	9.56	4.28	2050E	2440	669E	723	24800E
Methylene chloride	75-09-2		3		100	ug/m3	ND	ND	ND	-	ND	-	8.2
Tertiary butyl Alcohol	75-65-0					ug/m3	ND	ND	2.02	-	ND	-	ND
Tetrachloroethene	127-18-4		3		100	ug/m3	0.203	0.292	2.52	-	3.09	-	1.83
Toluene	108-88-3					ug/m3	1.66	3.6	1.32	-	1.07	-	2.66
Trichloroethene	79-01-6	0.2		6		ug/m3	ND	ND	0.113	-	0.199	-	ND
Trichlorofluoromethane	75-69-4					ug/m3	1.21	1.21	1.2	-	1.4	-	ND

NY-IAC-A: New York DOH Matrix A Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

NY-IAC-B: New York DOH Matrix B Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

NY-SSC-B: New York DOH Matrix B Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

Table 4B Indoor Air and Sub Slab Gas Sampling Results  
Spic and Span Cleaners  
79 Pondfield Road, Bronxville, NY

Job Number:	JD42150																	
Account:	SESI Consulting Engineers																	
Project:	Spic and Span Cleaners, 79 Pondfield Road, Bronxville, NY																	
Project Number:	11663																	
Cilent Sample ID:	NYSDOH Matrix A-IA	NYSDOH Matrix B-IA	NYSDOH Matrix A-SS	NYSDOH Matrix B-SS	Units	IA-101	IA-102	IA-103	IA-104	IA-105	IA-106	IA-1	IA-2	IA-3	VP-1	VP-2	VP-3	DUP-1
Lab Sample ID:						JD42150-1	JD42150-2	JD42150-3	JD42150-4	JD42150-5	JD42150-6	JD42150-8	JD42150-9	JD42150-10	JD42150-11	JD42150-12	JD42150-13	JD42150-
Date Sampled:						3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022	3/28/2022
Matrix:						Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Indoor Air	Soil Vapor	Soil Vapor	Soil Vapor	Soil Vapor
						Comp.	Comp.	Comp.	Comp.	Comp.	Comp.	Comp.	Comp.	Comp.	Comp.	Comp.	Comp.	Comp.
MS Volatiles (TO-15) - ug/m3																		
1,1,1-Trichloroethane		3		100	ug/m3	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	1	ND (0.45)	0.53 J	0.93	ND (0.82)	ND (0.82)	ND (0.82)	ND (0.82)
1,1-Dichloroethane	0.2		6		ug/m3	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.53)	ND (0.23)	ND (0.23)	ND (0.93)	ND (0.93)	ND (0.93)	ND (0.93)
1,2,4-Trimethylbenzene					ug/m3	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.43)	ND (0.93)	ND (0.43)	ND (0.43)	7.9	12	11	8.4
1,3,5-Trimethylbenzene					ug/m3	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.88)	ND (0.39)	ND (0.39)	ND (1.6)	2.2 J	2.2 J	ND (1.6)
2,2,4-Trimethylpentane					ug/m3	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.98)	ND (0.44)	ND (0.44)	5.6	4	2.8 J	ND (1.8)
4-Ethyltoluene					ug/m3	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	ND (0.47)	ND (1.0)	ND (0.47)	ND (0.47)	ND (1.9)	2.1 J	2.2 J	ND (1.9)
Acetone (2-Propanone)					ug/m3	18	108	17	16	21	25.9	8.6	9.5	21	41.8	41.1	122	141
Benzene					ug/m3	0.61 J	0.67	0.48 J	0.51 J	0.73	0.77	1.0 J	0.86	1.4	6.1	3.8	2.6	1.4 J
Carbon disulfide					ug/m3	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.31)	ND (0.14)	ND (0.14)	1.6 J	ND (0.56)	ND (0.56)	ND (0.56)
Carbon tetrachloride	0.2		6		ug/m3	ND (0.25)	ND (0.25)	0.75	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.55)	ND (0.25)	ND (0.25)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Chloroethane					ug/m3	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	0.29 J	ND (0.40)	ND (0.18)	ND (0.18)	ND (0.71)	ND (0.71)	ND (0.71)	ND (0.71)
Chloroform					ug/m3	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.40)	ND (0.18)	0.78 J	ND (0.73)	ND (0.73)	4.1	4.5
Chloromethane					ug/m3	1.3	1.2	2	1.4	1.3	1.4	1.6	1.3	1.2	ND (0.74)	1.6 J	ND (0.74)	ND (0.74)
cis-1,2-Dichloroethylene	0.2		6		ug/m3	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.67)	ND (0.31)	0.44	3.3	ND (1.2)	23	26
Cyclohexane					ug/m3	0.59 J	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.83)	ND (0.38)	ND (0.38)	3.4	2.5 J	ND (1.5)	ND (1.5)
Dichlorodifluoromethane					ug/m3	2.1	2.1	3.7	2.2	2.1	2.3	2.2	2.2	2.1	2.1 J	2.2 J	2.2 J	2.1 J
Ethanol					ug/m3	226 E	480 E	307 E	825 E	60.3	55.4	124	55.4	29.4	614 E	464 E	313	200
Ethyl Acetate					ug/m3	15	22	3.1	8.6	6.8	7.9	4.3	4	8.3	529	410	260	152
Ethylbenzene					ug/m3	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.56)	ND (0.26)	ND (0.26)	11	25	38	24
Freon 113					ug/m3	ND (0.24)	ND (0.24)	0.84	ND (0.24)	ND (0.24)	0.74 J	ND (0.53)	ND (0.24)	ND (0.24)	ND (0.92)	ND (0.92)	ND (0.92)	ND (0.92)
Heptane					ug/m3	ND (0.38)	ND (0.38)	ND (0.38)	0.40 J	ND (0.38)	ND (0.38)	ND (0.82)	ND (0.38)	ND (0.38)	7	4.9	3.9	2.0 J
Hexane					ug/m3	0.63 J	0.74	1.7	ND (0.39)	0.42 J	0.49 J	ND (0.88)	0.63 J	0.56 J	7.8	4.6	2.9	2.2 J
Isopropyl Alcohol					ug/m3	6.1	19	2.5	241 E	45.5	998 E	54.3	67.4	76	376	302	239	150
m,p-Xylene					ug/m3	1	ND (0.61)	ND (0.61)	ND (0.61)	ND (0.61)	ND (0.61)	ND (1.3)	ND (0.61)	ND (0.61)	45.6	133	213	146
m-Dichlorobenzene					ug/m3	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.53)	ND (0.24)	ND (0.24)	ND (0.96)	3.6	3.1	ND (0.96)
Methyl ethyl ketone					ug/m3	1.2	0.8	0.88	0.71	1.7	2.1	ND (0.71)	0.94	0.68	3.8	4.4	8.6	8.3
Methyl Isobutyl Ketone					ug/m3	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.66)	ND (0.30)	0.66 J	ND (1.2)	ND (1.2)	ND (1.2)	ND (1.2)
Methylene chloride		3		100	ug/m3	1.7	2.2	11	1.4	1.1	1.2	1.9	1.7	1.3	4.5	3.8	3.1	4.2
o-Xylene					ug/m3	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.74)	ND (0.33)	ND (0.33)	15	46	76.9	54.7
Propylene					ug/m3	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	2.2	ND (0.53)	1	1	ND (0.98)	ND (0.98)	2.4 J	ND (0.98)
Tertiary Butyl Alcohol					ug/m3	0.82	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	0.79	ND (0.64)	ND (0.28)	ND (0.28)	16	13	7.9	4.5
Tetrachloroethylene		3		100	ug/m3	ND (0.095)	1.1	ND (0.095)	1.1	1.2	7.5	4.6	5.8	19	24	17	814	1470
Tetrahydrofuran					ug/m3	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	0.41 J	1.3	ND (0.59)	ND (0.27)	ND (0.27)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)
Toluene					ug/m3	3.8	1.5	0.9	ND (0.21)	0.79	1.3	ND (0.49)	0.79	1.1	32	26	23	13
trans-1,2-Dichloroethylene					ug/m3	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.27)	ND (0.59)	ND (0.27)	ND (0.27)	ND (1.1)	ND (1.1)	1.6 J	1.8 J
Trichloroethylene	0.2		6		ug/m3	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.23)	ND (0.10)	2	7	ND (0.41)	155	190
Trichlorofluoromethane					ug/m3	1.3	1.3	7.3	1.1	1.2	1.3	1.3	1.7	1.3	ND (0.79)	ND (0.79)	ND (0.79)	ND (0.79)
Vinyl Acetate					ug/m3	1.5	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	4.6	ND (0.88)	ND (0.39)	0.49 J	39	20	8.8	8.1
Xylenes (total)					ug/m3	1	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.74)	ND (0.33)	ND (0.33)	60.8	179	290	200

- Indicates the sample is above the cooresponding standard

Matrix A-IA: New York DOH Matrix A Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

Matrix B-IA: New York DOH Matrix B Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

Matrix A-SS: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

Matrix B-SS: New York DOH Matrix B Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

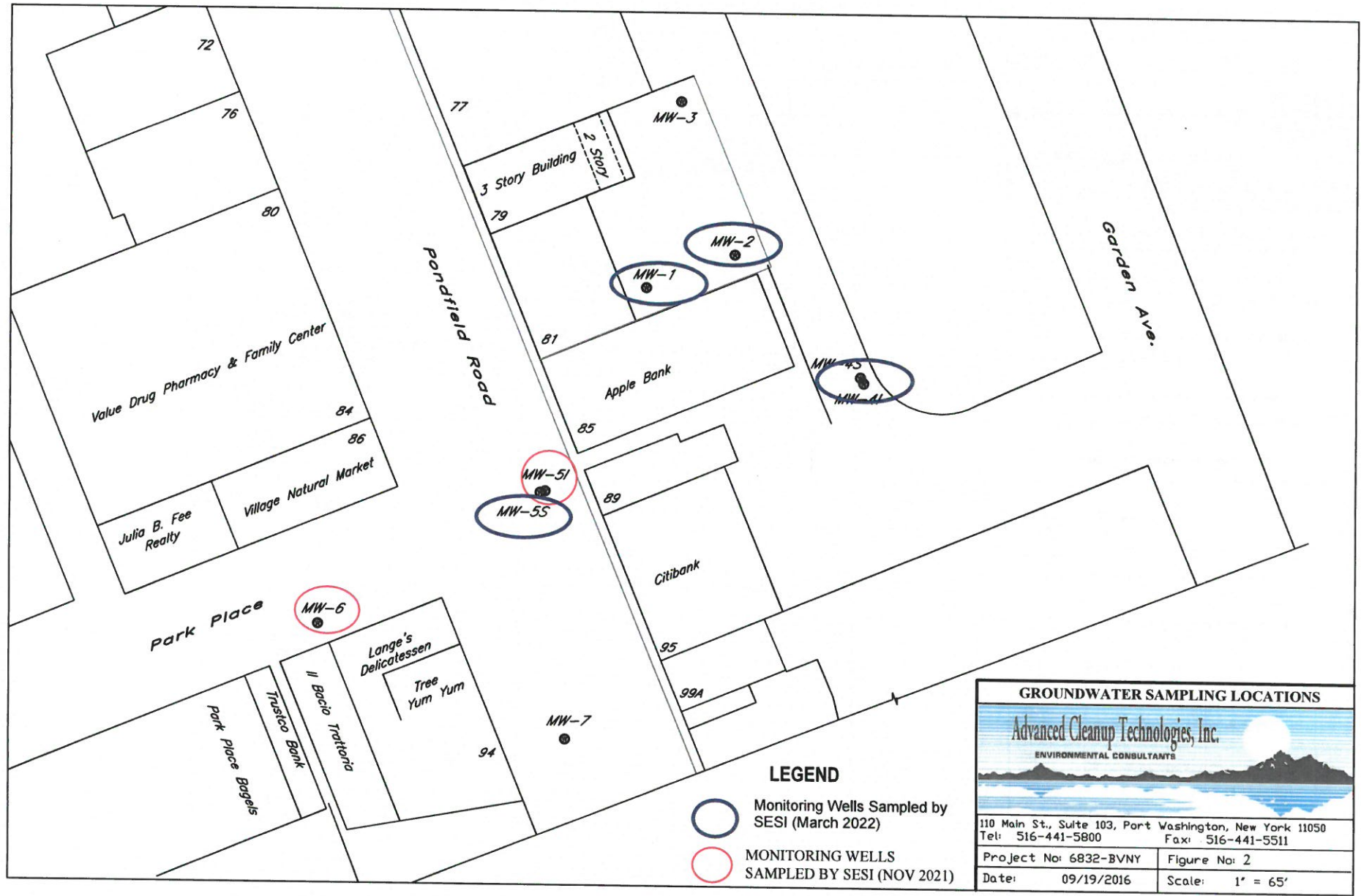
DUP-1 a duplicate of VP-3 and was analyzed outside of hold time and the data may not be reliable

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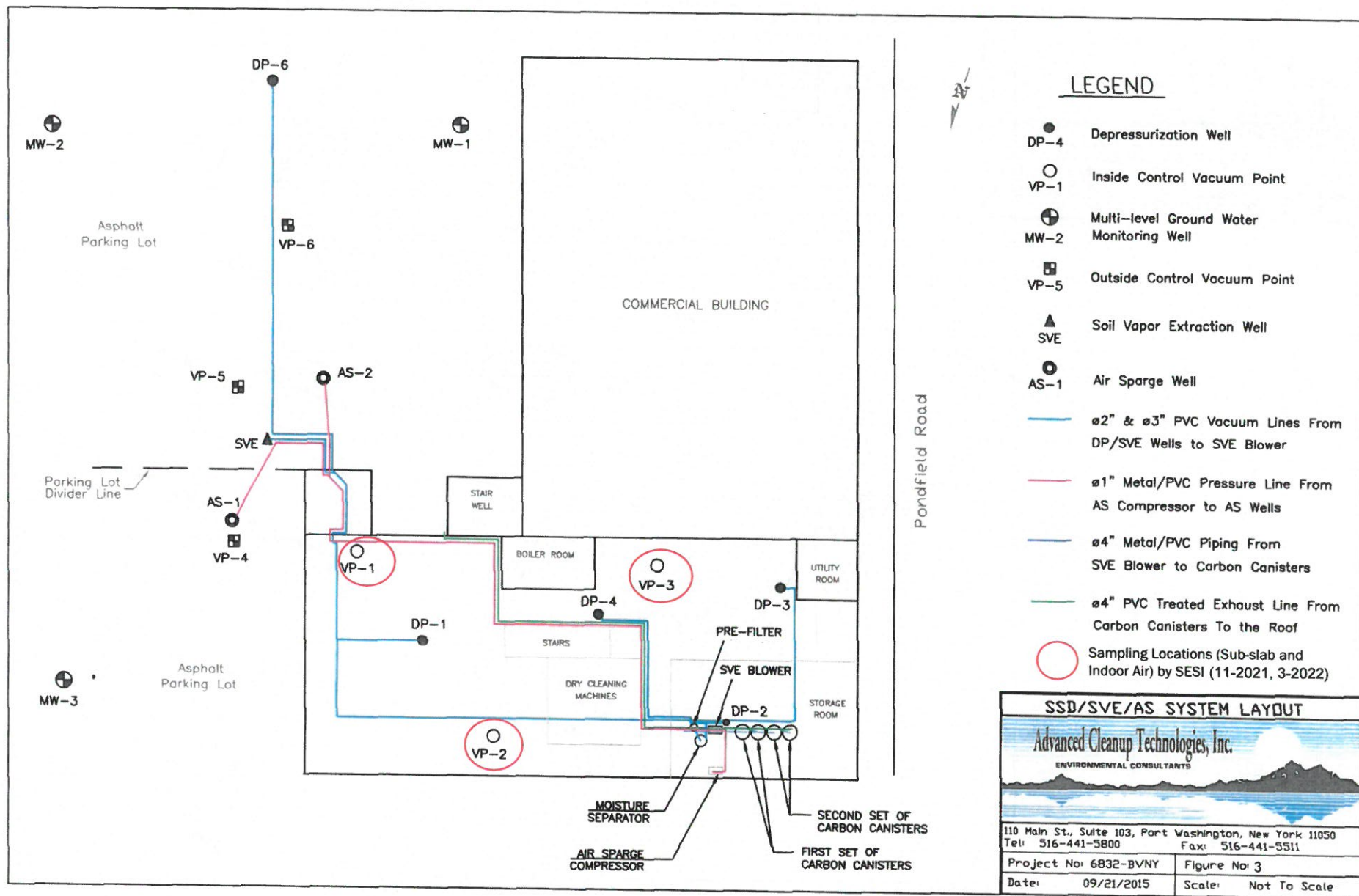
## Figures

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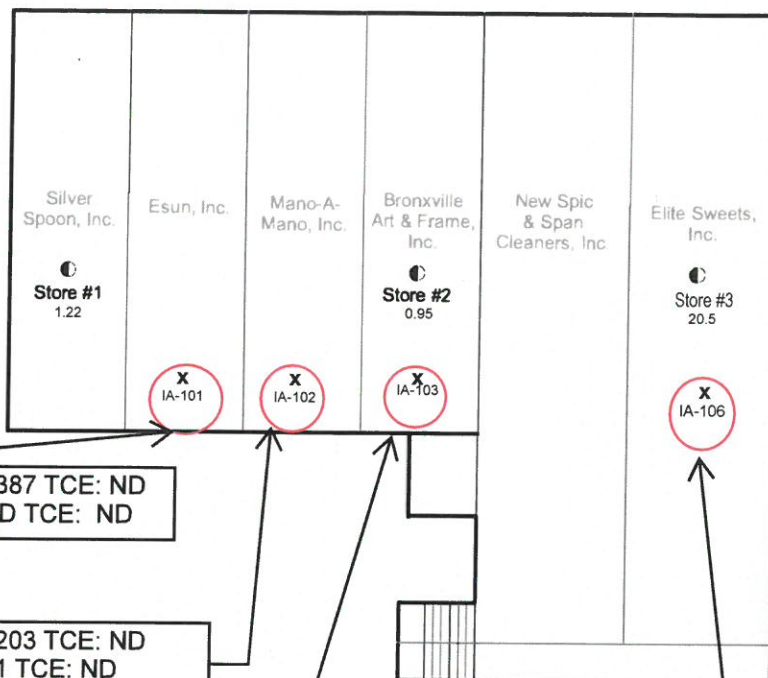
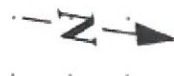


SESI FIGURE 1--MONITORING WELL LOCATIONS



SESI FIGURE 2--SUB-SLAB/  
INDOOR AIR SAMPLING LOCATIONS

# 1ST FLOOR



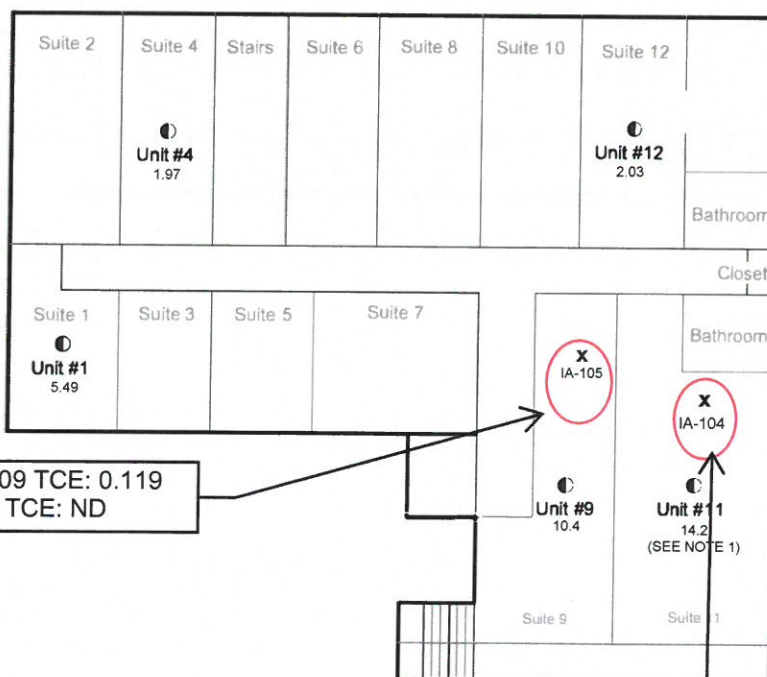
11/17/2021 PCE: 0.387 TCE: ND  
03/28/2022 PCE: ND TCE: ND

11/17/2021 PCE: 0.203 TCE: ND  
03/28/2022 PCE: 1.1 TCE: ND

11/17/2021 PCE: 0.292 TCE: ND  
3/28/2022 PCE: ND TCE: ND

11/17/2021 PCE: 1.83 TCE: ND  
3/28/2022 PCE: 7.5 TCE: ND

# 2ND FLOOR



11/17/2021 PCE: 3.09 TCE: 0.119  
3/28/2022 PCE: 1.2 TCE: ND

11/17/2021 PCE: 2.52 TCE: 0.113  
3/28/2022 PCE: 1.1 TCE: ND

NOTES:  
1. ACT, INC REMEDIAL INVESTIGATION REPORT SHOWS DATA FOR UNIT #14. HOWEVER, THIS LOCATION IS NOT DEPICTED ON FIGURE. THEREFORE, IT IS PRESUMED THAT UNIT #14 WAS INTENDED TO BE UNIT #11.

## LEGEND

Unit #1  
5.49 - PCE CONCENTRATIONS (ug/m3) (2013)

X  
IA-101 - INDOOR AIR SAMPLING LOCATIONS SAMPLED BY  
SESI (11-2021 and 3-2022) PCE/TCE CONCENTRATIONS (ug/m3)

FIGURE 3 INDOOR AIR SAMPLING LOCATIONS

## ONSITE AIR SAMPLING

**Advanced Cleanup Technologies, Inc.**  
ENVIRONMENTAL CONSULTANTS

960 S. Broadway, Suite 100, Hicksville, New York 11801  
Tel: 516-933-0655 Fax: 516-933-0659

Project No.: 6832-BVNY Figure No.: 8  
Date: 09/12/2013 Scale: 1" = 15.25'

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**Attachment 1:**  
ACT Groundwater Monitoring Status  
Report (with updated data)

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April 20, 2020

John B. Miller, P.E.  
NYS Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway, 11<sup>th</sup> Floor  
Albany, NY 12233-7014

Re: Groundwater Monitoring Status Report  
Spic and Span Cleaners, 79 Pondfield Road, Bronxville, NY  
NYSDEC Site No. C360130

Dear Mr. Miller,

The first post-Certificate of Completion groundwater monitoring event took place on February 18<sup>th</sup> and 19<sup>th</sup>, 2020. In accordance with the approved Site Management Plan, groundwater samples were collected from 2 on-site monitoring wells (MW-1S and MW-2S) and 5 off-site monitoring wells (MW-4S, MW-4I, MW-5S, MW-5I and MW-6).

Prior to purging, depth to water was determined using a conductivity meter. Before sample collection, groundwater was purged utilizing a low flow peristaltic pump, a Horiba in-line water quality meter and dedicated polyethylene and neoprene tubing. Sampling was performed when indicator parameters had stabilized. A total of nine water samples including seven groundwater samples and two equipment blanks were submitted to York Analytical Laboratories, Inc. (NYSDOH #10854) for analysis in accordance with EPA Method 8260. The current and historical laboratory analytical results are summarized in Table 1.

It can be seen from Table 1 and the accompanying figures that samples collected from on-site shallow monitoring wells MW-1 and MW-2 contained lower concentrations of PCE than the previous monitoring event in March 2019. Monitoring well MW-1S, located in the southwestern portion of the parking lot, contained 7.2 µg/L of Tetrachloroethene compared with 37 µg/L in March 2019. MW-2, located in the southeastern portion of the parking lot, contained 6.2 µg/L of Tetrachloroethene compared to 9.7 µg/L in March 2019.

Off-site wells MW-4S and MW-4I, located to the southeast of the site, contained CVOCs at or below water quality standards or detection limits. Similarly, off-site well MW-5S contained CVOCs at or below water quality standards or detection limits. In MW-5I, Tetrachloroethene levels decreased from 1,800 µg/L in March 2019 to 370 µg/L in February 2020. However,



Tetrachloroethene concentrations in off-site monitoring well MW-6, located southwest of the site, increased slightly from 150 µg/L in March 2019 to 210 µg/L in February 2020.

## **Conclusions**

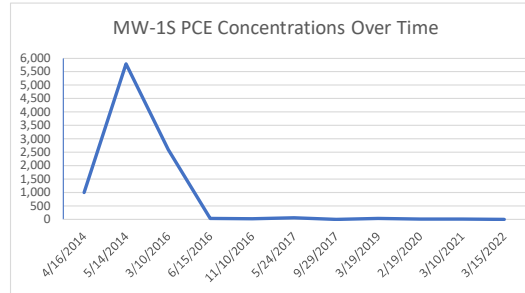
As depicted in Figures 1 and 2, groundwater quality in on-site shallow monitoring wells MW-1 and MW-2 have shown continuous improvement in groundwater quality since monitoring commenced in 2014 and have now reached asymptotic levels. As depicted in Figure 3, groundwater quality in off-site monitoring well MW-5I has shown significant improvement since the previous monitoring event. In contrast, groundwater quality in off-site monitoring well MW-6 has shown a continuous increase in contaminant levels since 2018, which is consistent with an offsite source of contamination.

## **Recommendations**

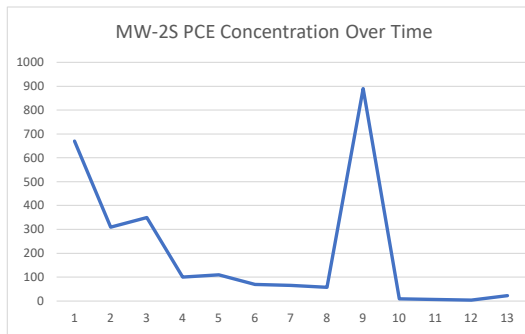
Groundwater monitoring will continue in accordance with the approved SMP. The next post-COC biannual groundwater monitoring event will take place August 2020 and include monitoring wells MW-5I and MW-6.

Table 1  
Historical Groundwater Data (2014 to 2022)  
Spic Span Cleaners  
78 to 81 Pondfield Road  
NYSEC Site No. 360130

MW-1S	PCE	TCE	Cis-1, 2-DCE
4/16/2014	1,000	<10	<10
5/14/2014	5,800	51	17
3/10/2016	2,600	13	4.4
6/15/2016	34	0.58	<0.2
11/10/2016	23	2.4	0.22
5/24/2017	59	1.4	<0.2
9/29/2017	1.6	<0.2	<0.2
3/19/2019	37	1.3	<0.2
2/19/2020	7.2	<2.5	<2.5
3/10/2021	13	0.58	
3/15/2022	4.1	<1	<1.0



MW-2S	PCE	TCE	Cis-1, 2-DCE
1/10/2014	670	<10	<10
4/16/2014	310	<10	<10
5/14/2014	350	<10	<10
3/10/2016	100	1.6	0.21
6/15/2016	110	2.4	0.47
11/10/2016	70	1.4	0.32
5/23/2017	65	1.5	0.23
9/29/2017	58	1.4	0.86
1/25/2018	890	<2	<2
3/15/2019	9.7	0.69	<0.2
2/19/2020	6.2	<2.5	<2.5
3/10/2021	4.5	0.35J	
3/15/2022	22.9	0.57J	<1.0



MW-4S	PCE	TCE	Cis-1, 2-DCE
5/13/2014	<10	<10	<10
3/9/2016	0.59	<0.50	<0.2
6/14/2016	0.94	<0.2	<0.2
11/9/2016	3.1	<0.2	<0.2
2/22/2017	1.1	<0.2	<0.2
5/22/2017	0.23	<0.2	<0.2
9/28/2017	1.4	<0.2	<0.2
1/25/2018	2	<0.2	<0.2
3/19/2019	0.33	<0.2	<0.2
2/19/2020	<2.5	<2.5	<2.5
3/10/2021	0.75	<0.5	
3/15/2022	<1.0	<1.0	<1.0

Table 1  
Historical Groundwater Data (2014 to 2022)  
Spic Span Cleaners  
78 to 81 Pondfield Road  
NYSEC Site No. 360130

MW-4I	PCE	TCE	Cis-1, 2-DCE
5/13/2014	<10	<10	<10
3/9/2016	<0.2	<0.5	<0.5
6/14/2016	0.75	<0.2	<0.2
11/9/2016	0.38	<0.2	<0.2
2/22/2017	0.68	<0.2	<0.2
5/23/2017	0.32	<0.2	<0.2
9/28/2017	4.1	<0.2	<0.2
1/25/2018	9.2	0.23	<0.2
3/19/2019	<0.2	<0.2	<0.2
2/18/2020	<2.5	<2.5	<2.5
3/10/2021	0.31J	<0.5	
3/15/2022	0.91J	<1.0	<1.0

MW-5S	PCE	TCE	Cis-1, 2-DCE
5/13/2014	<10	<10	<10
3/9/2016	1	<0.5	<0.5
6/14/2016	0.35	<0.2	<0.2
11/9/2016	0.69	<0.2	<0.2
2/22/2017	0.91	<0.2	<0.2
5/23/2017	0.29	<0.2	<0.2
9/28/2017	<0.2	<0.2	<0.2
3/13/2019	0.39	<0.2	<0.2
2/18/2020	<2.5	<2.5	<2.5
3/10/2021	7.1	0.24	
3/15/2022	51.4	1.1	0.78J

MW-5I	PCE	TCE	Cis-1, 2-DCE
5/13/2014	2,400	<10	<10
3/10/2016	1,600	3.3	<5
6/15/2016	1,900	<5	<5
11/10/2016	660	4.2	10
5/24/2017	420	2.2	3.6
9/29/2017	110	2.5	7
1/26/2018	19	1	3.4
3/14/2019	1,800	3.2	1.1
2/18/2020	370	<2.5	<2.5
3/10/2021	1,800	2.6J	
11/18/2021	190	1.6	

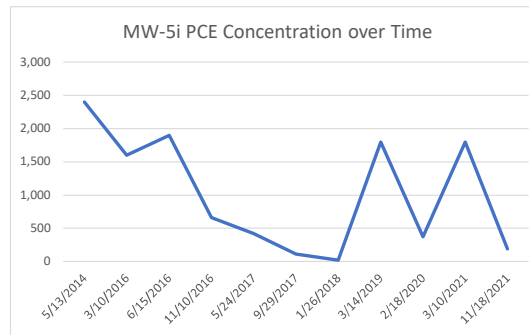




Table 1  
Historical Groundwater Data (2014 to 2022)  
Spic Span Cleaners  
78 to 81 Pondfield Road  
NYSEC Site No. 360130

MW-6	PCE	TCE	Cis-1, 2-DCE
3/19/2016	<b>530</b>	2	<2.5
6/14/2016	<b>190</b>	<0.4	<b>0.42</b>
11/9/2016	<b>290</b>	<b>1.1</b>	<b>0.63</b>
2/22/2017	<b>150</b>	<b>0.91</b>	<b>0.59</b>
5/22/2017	<b>150</b>	<b>1.1</b>	<b>0.48</b>
9/28/2017	<b>400</b>	2	<1
1/26/2018	<b>24</b>	<b>0.22</b>	<0.2
3/13/2019	<b>150</b>	<b>0.75</b>	<b>0.39</b>
2/18/2020	<b>210</b>	<2.5	<2.5
3/10/2021	<b>200</b>	0.52	
11/18/2021	<b>250</b>	0.52J	

Notes: All units in ug/L

PCE: Tetrachlorethene

TCE: Trichloroethene

CIS-1,2-DCE: cis-1,2-Dichloroethene

**Highlight** indicates an exceedance of the NYSDEC TOGS 1.1.1, June 1998

**Bolded** values signify detection above method detection limit.

J indicates detection above method detection limit but below standards.

PCE: 5 ug/l

