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January 28, 2020

SF Properties, LLC
c/o Mr. John Magee
14 Old Gate Hill Lane
Stony Point, NY 10980

Re: ***Vapor Intrusion Investigation Report***
Former Swivelier Site
Route 304 & West Nyack Road
Village of Nanuet, Rockland County, New York

Dear Mr. Magee:

In accordance with EWMA's September 25, 2019 proposal, EWMA has prepared this Vapor Intrusion (VI) Investigation Report. The objective of this report is to document the results of the VI investigation that was performed at the strip mall located adjacent to the subject site. If the results of the VI Investigation revealed there were no detections of the subject site contaminants of concern then there would be no pathway for vapor intrusion as it relates to groundwater contamination related to the Former Swivelier Site.

Background

EWMA, on behalf of S.F. Properties LLC, submitted an Annual Inspection Report dated January 24, 2019 to the NYSDEC. The report summarized the subject site investigative activities conducted during the months of November and December 2018. All work was conducted in accordance with the NYSDEC approved Site Management Plan (SMP) for the Former Swivelier Site.

One remedial investigative component discussed in the January 2019 Annual Inspection Report was regarding the collection of a soil-gas sample from a temporary soil vapor monitoring point which was installed in the area of the offsite monitoring well cluster identified as MW-9. This area is located across West Nyack Road at 103-121 Demarest Mill Road and the temporary soil vapor point was installed to the north of the MW-9 well cluster. Results from the soil gas sample point indicated that the Volatile Organic Compound (VOC) plume detected in the MW-9 cluster of wells was volatilizing into the overburden soil in the area. Continued groundwater monitoring of the VOC plume was recommended.

The NYSDEC, upon review of the January 2019 Annual Inspection Report recommended additional vapor intrusion (VI) investigation in the area of the MW-9 well cluster. The recommended VI Investigation is in the downgradient direction of the existing groundwater contamination plume in the area of the MW-9 well cluster. Since the initial soil vapor results were collected from the upgradient location, the downgradient direction of the contaminant plume was required to be investigated. Since the strip mall is located adjacently to the southeast of the MW-9 well cluster, it was necessary

to determine if volatilization of VOCs (from the groundwater contaminant plume) had migrated to below the Strip Mall whereby creating a VI pathway and potentially impacting Indoor Air (IA) quality for the occupants of the building.

The subject site is still listed as a Class II Superfund Site by the NYS Department of Health (DOH). EWMA's June 20, 2019 proposal recommended conducting a Vapor Intrusion (VI) Investigation. If the results from the VI Investigation indicated that there is no VI pathway (i.e., migrating VOC vapors from the groundwater plume to below the adjacent building) and there are no contaminants of concern related to the groundwater plume identified above a screening level, then the data would be used to petition the NYSDOH to remove the Superfund Designation.

In accordance with NYSDEC/NYSDOH directive, a Vapor Intrusion (VI) Investigation was conducted on July 10, 2019. The July 2019 VI Investigation was summarized in a Vapor Intrusion Investigation Report dated August 23, 2019 and submitted to SF Properties, LLC and the NYSDEC on the same date.

EWMA concluded that the results from the VI Investigation revealed there is no VI pathway (i.e., migrating VOC vapors from the Swivelier groundwater plume via the soil to below the adjacent building) and there are no contaminants of concern related to the groundwater plume identified in the Near Slab Soil Gas (NSSG) above any NYSVIG action level. Therefore, additional VI investigation related to the Swivelier site is no longer required and it is not necessary for the Swivelier site to be classified as a Class 2 Superfund Designation by the NYSDOH. The results of the August 2019 VI Report were provided to the NYSDEC Case Manager to petition for the Swivelier site to be declassified from the Class 2 Superfund Status/Designation.

The NYSDEC Case Manager responded by requesting confirmatory sampling to be performed at the site. The confirmatory sampling would consist of "the collection of a minimum of 2 indoor air Samples at the People to People tenant space and a minimum of two to three 5-feet or more in depth, Soil Gas Samples around the building."

October 23 & 24, 2019 Vapor Intrusion Investigation

Since soil gas samples were proposed to be installed to depths of approximately 5 feet below ground surface (bgs), a geophysical survey was conducted at proposed soil boring locations to clear each boring location and identify any subsurface utilities or anomalies that may pose a risk to installing a soil gas boring at respective boring locations.

The Vapor Intrusion Investigation (VII) consisted of the collection of Indoor Air (IA) and Soil Gas (SG) samples for analysis and the completion of an Indoor Air Building Survey. Two (2) IA and three (3) SG sample locations (including one ambient control sample for IA) where installed at the subject building location. The investigation occurred over a 2-day time period and consisted of the following:

Day 1

Two (2) 6-Liter stainless steel suma-canisters with 24-hour vacuum flow control regulators were installed on the first floor of the building for the purpose of collecting representative IA conditions. In addition, one (1) IA suma-canister was installed in a discreet location outside to collect for ambient

air conditions at the site location. A total of three (3) samples, designated as IAQ-1, IAQ-2 and Ambient, were collected over a 24-hour time period.

Day 2

The morning of Day 2 all IA canisters were turned off, samples collected and logged into chain of custody protocol for laboratory delivery. Three (3) SG sample points, designated as SG-1, SG-2 and SG-3, were installed in the areas of former July 2019 NSSG sample locations NSSG-3, NSSG-4 and NSSG-5. These locations were installed around the subject building location in the downgradient location of the MW-9 well cluster.

The collection of the SG samples required the use of a direct push type drill rig (i.e., Geoprobe®). Soil gas sample locations were advanced to a depth of approximately 6 feet bgs for the purpose of colleting soil gas samples from below ground surface. After each sample point was installed, equipment was set up to connect to a smaller stainless steel sum-canister. Prior to initiating the SG test, a leak test (via a helium shroud) was performed on the soil gas probe and all fittings to serve as a quality control measure to evaluate potential for dilution of a sample from ambient air. Results of the leak test revealed that the integrity of the shroud was not breached. SG samples were collected via 1-Liter passivated stainless-steel containers over a 30-minute time period.

Refer to the enclosed **Figure 1** for locations of the October 2019 IA and SG sample locations. All IA and SG samples were submitted to a certified laboratory under chain of custody protocol for analysis via USEPA Method TO-15 for only the VOCs that are related to the Swivelier groundwater plume (current or historic). The analytical data package included the required NYS full laboratory data deliverables report. For your convenience, the list of VOCs that were analyzed are provided below.

- Acetone
- Benzene
- Carbon Tetrachloride
- 1,2-Dichlorobenzene
- 1,1-Dichloroethene
- 1,2-Dichloroethene (cis)
- Methylene Chloride
- Methyl tert-butyl ether
- Tetrachloroethene
- 1,1,1-Trichloroethane
- Trichloroethene
- Vinyl Chloride

Results

Analytical results revealed that acetone, benzene and methylene chloride were detected in the ambient air sample. These same three compounds were the only compounds detected in the IA and SG samples. Acetone is a common lab contaminant as well as a common

background source of contamination. Furthermore, acetone is not detected in the upgradient MW-7 and MW-9 well clusters except for one detection of acetone in 2017 at 15.7 ug/L (below the NY groundwater standard of 50 ug/L) in the deep bedrock well MW-9D. In addition, none of these compounds (i.e., acetone, benzene and methylene chloride) are compounds of concern in the groundwater plume (upgradient MW-7 and MW-9 well clusters) related to the former Swivelier site and do not require any further investigation by the former Swivelier site responsible party.

Refer to enclosed **Table 1** which summarizes the analytical results of the October 2019 IA and SG samples. **Figure 2** depicts the analytical results on a site plan with the sample locations for ease of reference.

IA and SG analytical results revealed that the tested compounds of concern were not detected above an action level listed in the NYSVIG Matrices A, B or C. However, the anomaly that was detected in all samples was the compound acetone (to include low detections of benzene and methylene chloride), which as discussed above, is not part of the Swivelier site groundwater plume and warrants no further responsibility to the Swivelier site.

Conclusions / Recommendations

New York State does not have any standards, criteria or guidance values for concentrations of compounds in soil vapor. Additionally, currently there are no databases available of background levels of volatile chemicals in soil vapor. As such, soil vapor sampling results in NY are reviewed "as a whole" in conjunction with the results of other environmental sampling data. Therefore, the sample analytical results were compared to the contaminants of concern (COCs) related to the Swivelier groundwater plume, the potential for those COC vapors to migrate upward via the soil column, the groundwater analytical results associated with the upgradient MW-7 and MW-9 well clusters, NYSVIG Matrices A, B and C and reviewing the results as a whole to determine if they relate to the Swivelier groundwater plume COCs and potential for a vapor intrusion pathway associated with the Swivelier groundwater plume. To assist in this review, the table below identifies the MW-7 and MW-9 well clusters well depths.

Well ID	Well Depth (Feet Below Ground Surface)
MW-7I	60
MW-7SE	30
MW-7SW	16
MW-9SI	50
MW-9DI	75
MW-9D	120

There are no actionable levels of VOCs detected in the July 2019 NSSG and October 2019 IA and SG samples above the applicable NYSVIG Matrices A, B or C. The acetone detected in

the July 2019 NSSG samples and the acetone, benzene and methylene chloride detected in the October 2019 IA and SG samples are not related to the Swivelier groundwater plume. This is evidenced by two factors; 1) groundwater data from the upgradient wells do not detect acetone, benzene or methylene chloride as contaminants of concern [COC] and, 2) when reviewing the MW-7 and MW-9 well clusters groundwater data compared to the COCs detected in the above vapor intrusion investigation, there is no evidence of an upward vapor migration through the soil column for any of the COCs detected in the IA, SG NSSG samples thereby the result of any detections of acetone, benzene or methylene chloride in the IA, SG or NSSG samples is not a result of the Swivelier groundwater plume but a result of a combination of building activities and background contamination not related to the Swivelier plume.

Removing the unrelated acetone, benzene and methylene chloride detections, the VOCs detected in each of the July and October 2019 Vapor Intrusion Investigation sample points were totaled per sample point. The results viewed as a whole also do not reveal that there are any total values per sample point location that indicate there are any actionable levels of VOCs per the NYSVIG indicating again that there is not a vapor intrusion pathway/concern related to the Swivelier plume. Refer to enclosed **Table 2** which summarizes the July 2019 NSSG results and **Table 3** which summarizes the MW-7 and MW-9 well cluster sample data. **Figures 3** and **4** compare the results from the July and October 2019 VI investigation samples to MW-7 and MW-9 Well Cluster sample data.

Only two (2) COCs exist in the upgradient groundwater plume, Trichloroethene and cis-1,2-Dichloroethene in MW-9. These detections are only found in the deeper MW-9 wells and not in the shallow MW-9 well. This indicates that there is no upward vapor migration of these two compounds in the vapor phase. This determination is also supported by the fact that neither of these two COCs are detected in any of the July and October 2019 IA, SG and NSSG sample locations.

By utilizing all of the above Multiple Lines of Evidence (MLE) the results from the VI Investigation indicate that there is no VI pathway (i.e., migrating VOC vapors from the Swivelier groundwater plume via the overburden soil to below the adjacent building) and there are no contaminants of concern related to the Swivelier groundwater plume identified in the Vapor Intrusion Investigation above any NYSVIG action level.

Therefore, it is not necessary for the Swivelier site to be classified as a Class 2 Superfund Designation by the NYSDOH and the results of this report will be provided to the NYSDEC Case Manager to petition for the Swivelier site to be declassified from the Class 2 Superfund Status/Designation.

The site already has an approved Final Engineering Report (FER) and Site Management Plan (SMP) with both approved Engineering and Institutional Controls (for soil, groundwater and

vapor) in place. The Swivelier Site also is approved with a Commercial Use designation as part of the FER and SMP.

It is my opinion that the Swivelier site no longer be required to continue with offsite vapor intrusion investigations, should be declassified (removed) as a Class 2 Superfund Site by NYS and the current soil/groundwater/vapor monitoring program as outlined in the approved FER and SMP be sufficient to close remaining NYSDEC and NYSDOH case #'s and regulatory requirements. It is recommended to provide the tenant and building owner the results of this investigation so they can address the COCs detected in the samples.

Please feel free to contact me at any time with questions or comments at (973) 560-1400 x190 or via email Robert.Fry@ewma.com

Very truly yours,
EWMA

Robert M. Fry, PG, LSRP

Enclosures:
- Table 1 – Summary of October 2019 IA and SG Sample Results
- Table 2 – Summary of July 2019 NSSG Sample Results
- Table 3 – Historic MW-7 and MW-9 Well Cluster Groundwater Results
- Figure 1 – October 2019 IA and SG Sample Location Map
- Figure 2 – October 2019 Sample locations and Results
- Figure 3 – October 2019 Sample Location Results Compared to MW-7 and MW-9 Groundwater Data
- Figure 4 – July 2019 Sample Location Results Compared to MW-7 and MW-9 Groundwater Data

cc: Donald Richardson, President, EWMA don.richardson@ewma.com

Table 1

Summary of October 23, 2019 Indoor Air and Soil Gas Sample Results
Former Swivelier Site Project
Rt 304 West Nyack Road

Sample Name:		IAQ-1			IAQ-2			Ambient			SG-1			SG-2			SG-3	
Lab ID:		E19-07965-01			E19-07965-02			E19-07965-03			E19-07965-04			E19-07965-05			E19-07965-06	
Date Sampled:		10/23/2019			10/23/2019			10/23/2019			10/24/2019			10/24/2019			10/24/2019	
			Conc	RL		Conc	RL		Conc	RL		Conc	RL		Conc	RL		Conc	RL
Compound	CAS	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3
Acetone	67-64-1		23	0.5		25	0.5		6	0.5	D	590	5	D	720	5	D	940	5
Benzene	71-43-2		1	0.6		1	0.6		2	0.6	D	17	6		ND	6		ND	6
Carbon tetrachloride	56-23-5		~	~		~	~		~	~		ND	13		ND	13		ND	13
Carbon tetrachloride*	56-23-5*		ND	1		ND	1		ND	1		~	~		~	~		~	~
1,2-Dichlorobenzene	95-50-1		ND	1		ND	1		ND	1		ND	12		ND	12		ND	12
1,1-Dichloroethene	75-35-4		~	~		~	~		~	~		ND	8		ND	8		ND	8
1,1-Dichloroethene*	75-35-4*		ND	0.8		ND	0.8		ND	0.8		~	~		~	~		~	~
1,2-Dichloroethene (cis)*	156-59-2*		ND	0.8		ND	0.8		ND	0.8		~	~		~	~		~	~
1,2-Dichloroethene (cis)	156-59-2		~	~		~	~		~	~		ND	8		ND	8		ND	8
Methylene chloride	75-09-2		3	0.7		10	0.7		4	0.7	D	26	7		ND	7	D	31	7
Methyl tert-butyl ether	1634-04-4		ND	0.7		ND	0.7		ND	0.7		ND	7		ND	7		ND	7
Tetrachloroethene	127-18-4		ND	1		ND	1		ND	1		ND	14		ND	14		ND	14
1,1,1-Trichloroethane	71-55-6		ND	1		ND	1		ND	1		ND	11		ND	11		ND	11
Trichloroethene	79-01-6		~	~		~	~		~	~		ND	11		ND	11		ND	11
Trichloroethene*	79-01-6*		ND	1		ND	1		ND	1		~	~		~	~		~	~
Vinyl chloride*	75-01-4*		ND	0.5		ND	0.5		ND	0.5		~	~		~	~		~	~
Vinyl chloride	75-01-4		~	~		~	~		~	~		ND	5		ND	5		ND	5

ND = Analyzed for but Not Detected at the RL

D = Extra dilution required for this compound

*** = More stringent SIM analysis was run on compound to meet laboratory RLs.**

Table 2
Summary of July 10, 2019 Near-Slab Soil Gas Sample Results
Former Swivelier Site Project
Rt 304 West Nyack Road

Sample Name:		NSSG-1			NSSG-2			NSSG-3			NSSG-4			NSSG-5		
Lab ID:		E19-05102-01			E19-05102-02			E19-05102-03			E19-05102-04			E19-05102-05		
Date Sampled:		07/10/2019			07/10/2019			07/10/2019			07/10/2019			07/10/2019		
			Conc	RL		Conc	RL		Conc	RL		Conc	RL		Conc	RL
Compound	CAS	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3
Acetone	67-64-1	D	160	5	D	320	5	D	630	5		88	0.5	D	210	5
Benzene	71-43-2		0.7	0.6		ND	0.6		ND	0.6		ND	0.6		0.8	0.6
Carbon tetrachloride	56-23-5		ND	0.3		ND	0.3		ND	0.3		ND	0.3		ND	0.3
1,2-Dichlorobenzene	95-50-1		ND	1		ND	1		ND	1		ND	1		ND	1
1,1-Dichloroethene	75-35-4		ND	0.8		ND	0.8		ND	0.8		ND	0.8		ND	0.8
1,2-Dichloroethene (cis)	156-59-2		ND	0.8		ND	0.8		ND	0.8		ND	0.8		ND	0.8
Methylene chloride	75-09-2		5	0.7		19	0.7		6	0.7		6	0.7		4	0.7
Methyl tert-butyl ether	1634-04-4		ND	0.7		ND	0.7		ND	0.7		ND	0.7		ND	0.7
Tetrachloroethene	127-18-4		ND	1		2	1		2	1		ND	1		1	1
1,1,1-Trichloroethane	71-55-6		ND	1		ND	1		ND	1		ND	1		ND	1
Trichloroethene	79-01-6		ND	0.3		ND	0.3		ND	0.3		ND	0.3		ND	0.3
Vinyl chloride	75-01-4		ND	0.5		ND	0.5		ND	0.5		ND	0.5		ND	0.5

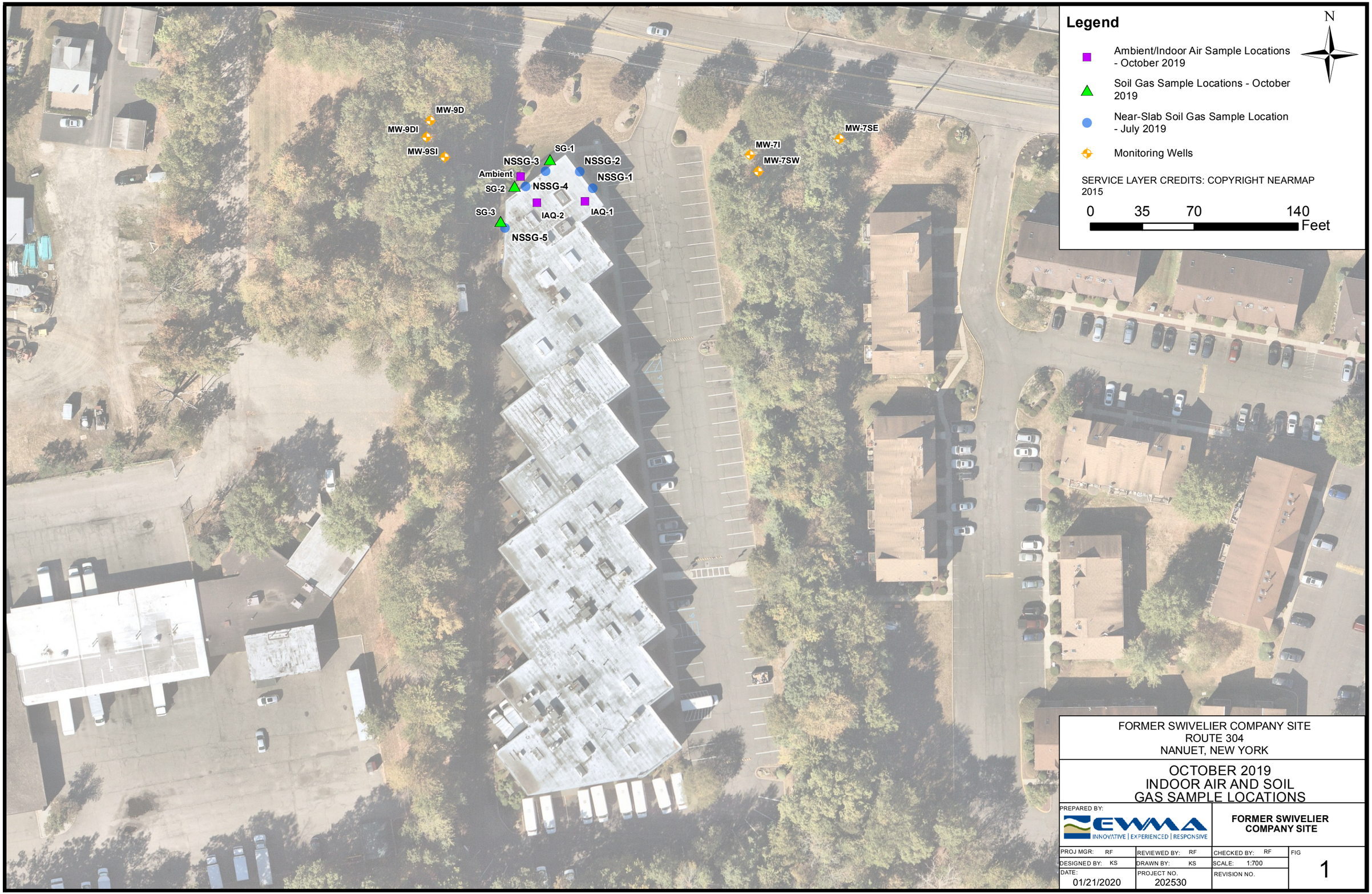
ND = Analyzed for but Not Detected at the RL

D = Extra dilution required for this compound

Table 3
Summary of Historic Groundwater Sample Results
Former Swivelier Site Project
Rt 304 West Nyack Road

Well Information (ft.)	Sampling Date	Acetone	Vinyl Chloride	Chloroethane	Chloroform	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	2-Butanone	Methyl tert-butyl ether (MTBE	Benzene	Trichloroethene	Bromodichloromethane	Tetrachloroethene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	Toluene	1,1-Dichloroethene
TOGS 1.1.1 GW STANDARDS GA CLASS		**50**	**2**	**5**	**7**	**5**	**5**	**50**	**NS**	**1**	**5**	**50**	**5**	**3**	**3**	**5**	**5**
MW-7I	11/21/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.31	ND	ND	ND	ND	ND	ND
MW-7SE	11/21/2017	ND	1.20	ND	ND	4.50	ND	ND	7.32	ND	ND	ND	ND	ND	ND	ND	ND
MW-7SW	11/21/2017	ND	ND	ND	ND	ND	ND	ND	46.2	ND	ND	ND	ND	ND	ND	ND	ND
	11/28/2018	NA	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA	ND
MW-9D	11/21/2017	15.7	ND	ND	ND	**6.79**	ND	ND	ND	ND	**84.2**	ND	ND	ND	ND	ND	ND
	11/28/2018	NA	ND	ND	ND	**212**	ND	NA	NA	NA	**1,080**	ND	ND	ND	ND	NA	ND
MW-9DI	11/21/2017	ND	ND	ND	ND	1.37	ND	ND	58.4	ND	**82.9**	ND	ND	ND	ND	ND	ND
MW-9SI	11/21/2017	ND	ND	ND	ND	ND	ND	ND	3.53	ND	ND	ND	ND	ND	ND	ND	ND

Lab Results & Standards reported in ug/L
ND = Non-Detect
NA = Not Analyzed
NS = No Standard



FORMER SWIVELIER COMPANY SITE
ROUTE 304
NANUET, NEW YORK

OCTOBER 2019
INDOOR AIR AND SOIL
GAS SAMPLE LOCATIONS

PREPARED BY: EWMA INNOVATIVE | EXPERIENCED | RESPONSIVE

FORMER SWIVELIER COMPANY SITE

PROJ MGR: RF	REVIEWED BY: RF	CHECKED BY: RF	FIG 1
DESIGNED BY: KS	DRAWN BY: KS	SCALE: 1:700	
DATE: 01/21/2020	PROJECT NO. 202530	REVISION NO.	

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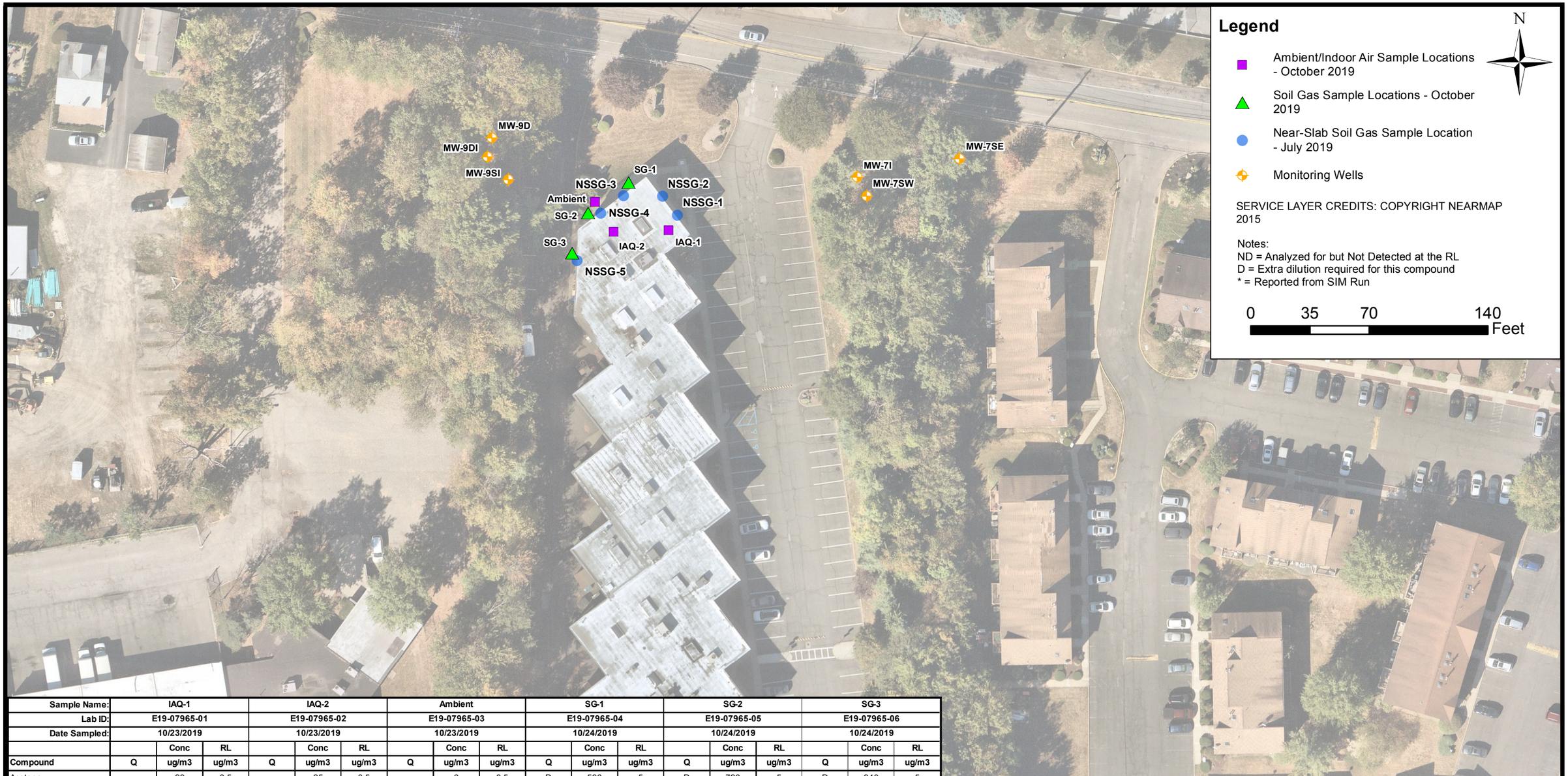

Sample Name:	IAQ-1			IAQ-2			Ambient			SG-1			SG-2			SG-3		
Lab ID:	E19-07965-01			E19-07965-02			E19-07965-03			E19-07965-04			E19-07965-05			E19-07965-06		
Date Sampled:	10/23/2019			10/23/2019			10/23/2019			10/24/2019			10/24/2019			10/24/2019		
		Conc	RL		Conc	RL		Conc	RL		Conc	RL		Conc	RL		Conc	RL
Compound	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3
Acetone		23	0.5		25	0.5		6	0.5	D	590	5	D	720	5	D	940	5
Benzene		1	0.6		1	0.6		2	0.6	D	17	6		ND	6		ND	6
Carbon tetrachloride		~	~		~	~		~	~		ND	13		ND	13		ND	13
Carbon tetrachloride*		ND	1		ND	1		ND	1		~	~		~	~		~	~
1,2-Dichlorobenzene		ND	1		ND	1		ND	1		ND	12		ND	12		ND	12
1,1-Dichloroethene		~	~		~	~		~	~		ND	8		ND	8		ND	8
1,1-Dichloroethene*		ND	0.8		ND	0.8		ND	0.8		~	~		~	~		~	~
1,2-Dichloroethene (cis)*		ND	0.8		ND	0.8		ND	0.8		~	~		~	~		~	~
1,2-Dichloroethene (cis)		~	~		~	~		~	~		ND	8		ND	8		ND	8
Methylene chloride		3	0.7		10	0.7		4	0.7	D	26	7		ND	7	D	31	7
Methyl tert-butyl ether		ND	0.7		ND	0.7		ND	0.7		ND	7		ND	7		ND	7
Tetrachloroethene		ND	1		ND	1		ND	1		ND	14		ND	14		ND	14
1,1,1-Trichloroethane		ND	1		ND	1		ND	1		ND	11		ND	11		ND	11
Trichloroethene		~	~		~	~		~	~		ND	11		ND	11		ND	11
Trichloroethene*		ND	1		ND	1		ND	1		~	~		~	~		~	~
Vinyl chloride*		ND	0.5		ND	0.5		ND	0.5		~	~		~	~		~	~
Vinyl chloride		~	~		~	~		~	~		ND	5		ND	5		ND	5

FORMER SWIVELIER COMPANY SITE
ROUTE 304
NANUET, NEW YORK

OCTOBER 2019 INDOOR AIR AND SOIL GAS SAMPLE RESULTS

PREPARED BY: EWMA INNOVATIVE | EXPERIENCED | RESPONSIVE

FORMER SWIVELIER COMPANY SITE

PROJ MGR: RF	REVIEWED BY: RF	CHECKED BY: RF	FIG 2
DESIGNED BY: KS	DRAWN BY: KS	SCALE: 1:700	
DATE: 01/21/2020	PROJECT NO. 202530	REVISION NO.	

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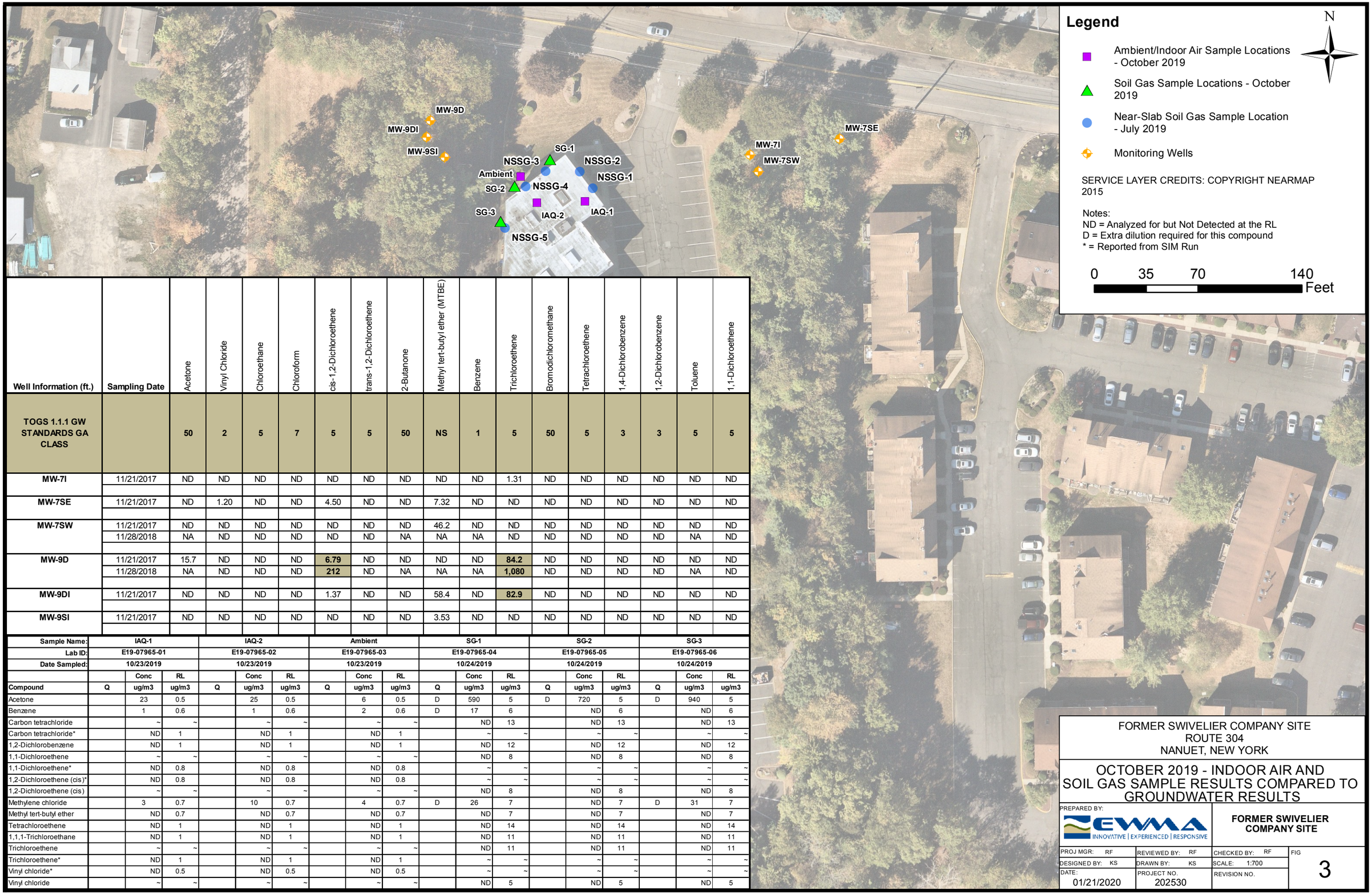


Well Information (ft.)	Sampling Date	Acetone	Vinyl Chloride	Chloroethane	Chloroform	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	2-Butanone	Methyl tert-butyl ether (MTBE)	Benzene	Trichloroethene	Bromodichloromethane	Tetrachloroethene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	Toluene	1,1-Dichloroethene
TOGS 1.1.1 GW STANDARDS GA CLASS		**50**	**2**	**5**	**7**	**5**	**5**	**50**	**NS**	**1**	**5**	**50**	**5**	**3**	**3**	**5**	**5**
MW-7I	11/21/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.31	ND	ND	ND	ND	ND	ND
MW-7SE	11/21/2017	ND	1.20	ND	ND	4.50	ND	ND	7.32	ND	ND	ND	ND	ND	ND	ND	ND
MW-7SW	11/21/2017	ND	ND	ND	ND	ND	ND	ND	46.2	ND	ND	ND	ND	ND	ND	ND	ND
	11/28/2018	NA	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA	ND
MW-9D	11/21/2017	15.7	ND	ND	ND	**6.79**	ND	ND	ND	ND	**84.2**	ND	ND	ND	ND	ND	ND
	11/28/2018	NA	ND	ND	ND	**212**	ND	NA	NA	NA	**1,080**	ND	ND	ND	ND	NA	ND
MW-9DI	11/21/2017	ND	ND	ND	ND	1.37	ND	ND	58.4	ND	**82.9**	ND	ND	ND	ND	ND	ND
MW-9SI	11/21/2017	ND	ND	ND	ND	ND	ND	ND	3.53	ND	ND	ND	ND	ND	ND	ND	ND

Sample Name:	IAQ-1			IAQ-2			Ambient			SG-1			SG-2			SG-3		
Lab ID:	E19-07965-01			E19-07965-02			E19-07965-03			E19-07965-04			E19-07965-05			E19-07965-06		
Date Sampled:	10/23/2019			10/23/2019			10/23/2019			10/24/2019			10/24/2019			10/24/2019		
		Conc	RL		Conc	RL		Conc	RL		Conc	RL		Conc	RL		Conc	RL
Compound	**Q**	**ug/m3**	**ug/m3**	**Q**	**ug/m3**	**ug/m3**	**Q**	**ug/m3**	**ug/m3**	**Q**	**ug/m3**	**ug/m3**	**Q**	**ug/m3**	**ug/m3**	**Q**	**ug/m3**	**ug/m3**
Acetone		23	0.5		25	0.5		6	0.5	D	590	5	D	720	5	D	940	5
Benzene		1	0.6		1	0.6		2	0.6	D	17	6		ND	6		ND	6
Carbon tetrachloride		~	~		~	~		~	~		ND	13		ND	13		ND	13
Carbon tetrachloride*		ND	1		ND	1		ND	1		~	~		~	~		~	~
1,2-Dichlorobenzene		ND	1		ND	1		ND	1		ND	12		ND	12		ND	12
1,1-Dichloroethene		~	~		~	~		~	~		ND	8		ND	8		ND	8
1,1-Dichloroethene*		ND	0.8		ND	0.8		ND	0.8		~	~		~	~		~	~
1,2-Dichloroethene (cis)*		ND	0.8		ND	0.8		ND	0.8		~	~		~	~		~	~
1,2-Dichloroethene (cis)		~	~		~	~		~	~		ND	8		ND	8		ND	8
Methylene chloride		3	0.7		10	0.7		4	0.7	D	26	7		ND	7	D	31	7
Methyl tert-butyl ether		ND	0.7		ND	0.7		ND	0.7		ND	7		ND	7		ND	7
Tetrachloroethene		ND	1		ND	1		ND	1		ND	14		ND	14		ND	14
1,1,1-Trichloroethane		ND	1		ND	1		ND	1		ND	11		ND	11		ND	11
Trichloroethene		~	~		~	~		~	~		ND	11		ND	11		ND	11
Trichloroethene*		ND	1		ND	1		ND	1		~	~		~	~		~	~
Vinyl chloride*		ND	0.5		ND	0.5		ND	0.5		~	~		~	~		~	~
Vinyl chloride		~	~		~	~		~	~		ND	5		ND	5		ND	5

FORMER SWIVELIER COMPANY SITE
ROUTE 304
NANUET, NEW YORK

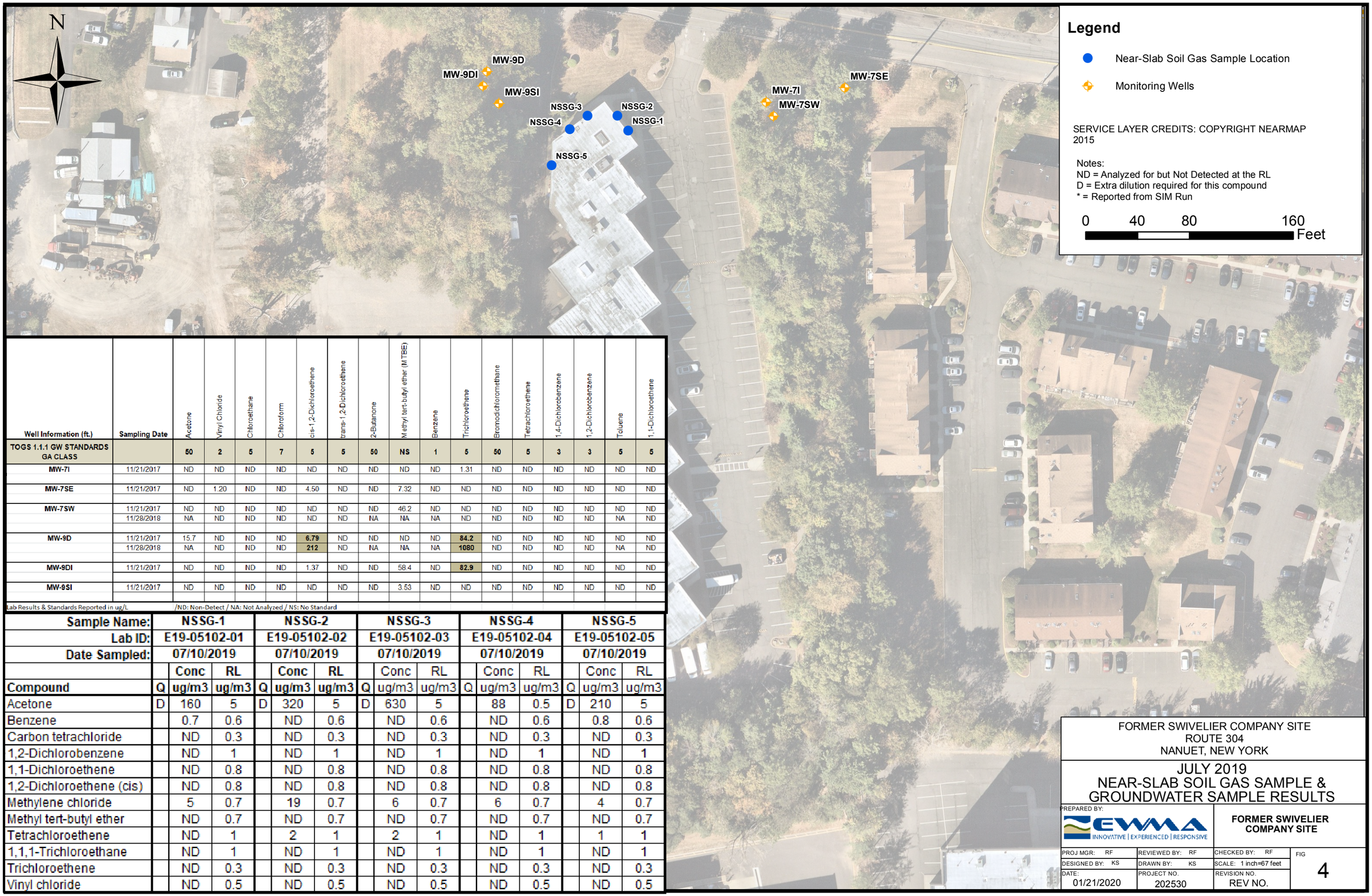
OCTOBER 2019 - INDOOR AIR AND SOIL GAS SAMPLE RESULTS COMPARED TO GROUNDWATER RESULTS

PREPARED BY: EWMA INNOVATIVE | EXPERIENCED | RESPONSIVE

FORMER SWIVELIER COMPANY SITE

PROJ MGR: RF	REVIEWED BY: RF	CHECKED BY: RF	FIG 3
DESIGNED BY: KS	DRAWN BY: KS	SCALE: 1:700	
DATE: 01/21/2020	PROJECT NO. 202530	REVISION NO.	

2020 - EWMA G:\Job Data\2020\00\202530\DRAWINGS\20201Figure3_MW_IAResults.mxd, 1/21/2020, 3:01:04 PM, Jessica_S



Well Information (ft.)	Sampling Date	Acetone	Vinyl Chloride	Chloroethane	Chloroform	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	2-Butanone	Methyl tert-butyl ether (MTBE)	Benzene	Trichloroethene	Bromodichloromethane	Tetrachloroethene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	Toluene	1,1-Dichloroethene
TOGS 1.1.1 GW STANDARDS GA CLASS		**50**	**2**	**5**	**7**	**5**	**5**	**50**	**NS**	**1**	**5**	**50**	**5**	**3**	**3**	**5**	**5**
MW-7I	11/21/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.31	ND	ND	ND	ND	ND	ND
MW-7SE	11/21/2017	ND	1.20	ND	ND	4.50	ND	ND	7.32	ND	ND	ND	ND	ND	ND	ND	ND
MW-7SW	11/21/2017	ND	ND	ND	ND	ND	ND	ND	46.2	ND	ND	ND	ND	ND	ND	ND	ND
	11/28/2018	NA	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA	ND
MW-9D	11/21/2017	15.7	ND	ND	ND	**6.79**	ND	ND	ND	ND	**84.2**	ND	ND	ND	ND	ND	ND
	11/28/2018	NA	ND	ND	ND	**212**	ND	NA	NA	NA	**1080**	ND	ND	ND	ND	NA	ND
MW-9DI	11/21/2017	ND	ND	ND	ND	1.37	ND	ND	58.4	ND	**82.9**	ND	ND	ND	ND	ND	ND
MW-9SI	11/21/2017	ND	ND	ND	ND	ND	ND	ND	3.53	ND	ND	ND	ND	ND	ND	ND	ND

Lab Results & Standards Reported in ug/L /ND: Non-Detect / NA: Not Analyzed / NS: No Standard

Sample Name:		NSSG-1			NSSG-2			NSSG-3			NSSG-4			NSSG-5	
Lab ID:		E19-05102-01			E19-05102-02			E19-05102-03			E19-05102-04			E19-05102-05	
Date Sampled:		07/10/2019			07/10/2019			07/10/2019			07/10/2019			07/10/2019	
		Conc	RL		Conc	RL		Conc	RL		Conc	RL		Conc	RL
Compound	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3	Q	ug/m3	ug/m3
Acetone	D	160	5	D	320	5	D	630	5		88	0.5	D	210	5
Benzene		0.7	0.6		ND	0.6		ND	0.6		ND	0.6		0.8	0.6
Carbon tetrachloride		ND	0.3		ND	0.3		ND	0.3		ND	0.3		ND	0.3
1,2-Dichlorobenzene		ND	1		ND	1		ND	1		ND	1		ND	1
1,1-Dichloroethene		ND	0.8		ND	0.8		ND	0.8		ND	0.8		ND	0.8
1,2-Dichloroethene (cis)		ND	0.8		ND	0.8		ND	0.8		ND	0.8		ND	0.8
Methylene chloride		5	0.7		19	0.7		6	0.7		6	0.7		4	0.7
Methyl tert-butyl ether		ND	0.7		ND	0.7		ND	0.7		ND	0.7		ND	0.7
Tetrachloroethene		ND	1		2	1		2	1		ND	1		1	1
1,1,1-Trichloroethane		ND	1		ND	1		ND	1		ND	1		ND	1
Trichloroethene		ND	0.3		ND	0.3		ND	0.3		ND	0.3		ND	0.3
Vinyl chloride		ND	0.5		ND	0.5		ND	0.5		ND	0.5		ND	0.5

FORMER SWIVELIER COMPANY SITE
ROUTE 304
NANUET, NEW YORK

JULY 2019
NEAR-SLAB SOIL GAS SAMPLE & GROUNDWATER SAMPLE RESULTS

PREPARED BY: EWMA INNOVATIVE | EXPERIENCED | RESPONSIVE

FORMER SWIVELIER COMPANY SITE

PROJ MGR: RF	REVIEWED BY: RF	CHECKED BY: RF	FIG 4
DESIGNED BY: KS	DRAWN BY: KS	SCALE: 1 inch=67 feet	
DATE: 01/21/2020	PROJECT NO. 202530	REVISION NO. REV NO.	

2020 - EWMA G:\Job Data\2020\00\202530\DRAWINGS\2020\Figure4_JulyResults.mxd, 1/21/2020, 3:16:51 PM, Jessica_S