



MEMORANDUM

To: Syosset Central School District
From: Walden Environmental Engineering, PLLC
File: SYOS0118
Date: January 25, 2019
Subject: **South Grove School/Annex**
Soil Vapor Intrusion and Radon Monitoring Results

The Syosset School District (District) retained J.C. Broderick & Associates, Inc. (JCB) to conduct soil vapor intrusion sampling and radon sampling at the South Grove Elementary School and Annex in December 2018. Walden Environmental Engineering, PLLC has reviewed JCB's sampling results and concurs with JCB's conclusions that no hazardous condition or immediate health concern was identified associated with volatile vapor intrusion, and all of the radon sample results reported were below the EPA action level.

Soil Vapor Intrusion Sampling

JCB's soil vapor intrusion sampling results are summarized in the Volatile Vapor Intrusion (VVI) Report (December 2018), presented in Attachment A. The vapor intrusion investigation was performed in accordance with the New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York". Sub-slab vapor and indoor air samples (on the first floor) were collected at three (3) locations in the School building and one (1) location in the Annex. In addition, two (2) air samples were collected in the crawl space beneath the School (there is no crawl space beneath the Annex) and one (1) ambient air sample was collected outside each building.

The December 2018 sub-slab vapor and indoor air sampling results were compared to the NYSDOH decision matrix tables for target VOCs, indicating that no action is needed based on the concentrations detected. In addition, all detectable concentrations reported are well below published occupational health guidelines. The data confirm that indoor air within the School building and the Annex is safe and has not been impacted by sub-slab vapors. In addition, the building has an active operating sub-slab depressurization system (SSDS) that allows vapors beneath the building slab to be vented above the roof. These findings are consistent with the results reported for the June - July 2018 sampling event (summarized in JCB's July 2018 Volatile Vapor Intrusion (VVI) Report).



Radon

JCB conducted indoor radon sampling at the South Grove Elementary School and Annex in December 2018 during the holiday break. Air samples were collected in rooms on the ground level throughout the School building and Annex in accordance with procedures outlined in the EPA Radon Measurement in Schools (EPA 402-R-92-014) guidance document.

All of the radon sample results were well below the 4 picocuries per liter EPA action level, confirming that indoor air quality in the South Grove School and Annex is not impacted by radon. Letters presenting the radon sampling results are included in Attachment B.

Walden Environmental Engineering, PLLC

ATTACHMENT A
DECEMBER 2018 VOLATILE VAPOR INTRUSION (VVI) REPORT

VOLATILE VAPOR INTRUSION (VVI) REPORT

**SOUTH GROVE ELEMENTARY SCHOOL
AND
SOUTH GROVE ANNEX
60 COLONY LANE
SYOSSET, NEW YORK 11971**

**PREPARED FOR:
SYOSSET CENTRAL SCHOOL DISTRICT
99 PELL LANE
SYOSSET, NEW YORK 11791**

**JCB PROJECT #: 18-41173
DECEMBER 2018**

**J.C. BRODERICK & ASSOCIATES, INC.
Environmental Consulting & Testing**

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Section No. 1.0: Introduction

J.C. Broderick and Associates, Inc. (JCB) was retained by the Syosset Central School District (Syosset) to investigate the potential for volatile vapor intrusion (VVI) from known landfill contaminants by the adjoining Syosset Landfill located at 150 Miller Place Road. JCB performed VVI air sampling within the South Grove Elementary School and South Grove Annex buildings. The sampling protocol was performed in accordance with the New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York", Final Version, October 2006.

Section No. 2.0: Site Description and Location

The Subject Site is located at 60 Colony Lane, Syosset, New York 11971 and consists of two (2) buildings, the South Grove Elementary School and the South Grove Annex. The Subject Site is located on the west side of Colony Lane between Marsak Lane to the north and Southwood Circle to the south. According to the United States Geological Survey (USGS) *Hicksville, New York, 2013 7.5 Minute Series Topographical Map*, the Subject Site is situated at an approximate elevation of 200 feet (ft) above mean sea level. The location of the Subject Site is shown on the Site Location Map, Appendix-A Figure-1.

Section No. 3.0: Volatile Vapor Intrusion (VVI) Evaluation

The design scope outlined in the Environmental Site Investigation Work Plan (IWP) dated May 2018 was followed during the volatile vapor intrusion evaluations. The following sections describe the procedures taken.

Section No. 3.1: Pre-Work Field Preparations

Prior to setup, a pre-sampling inspection was performed to evaluate the physical layout and conditions of the school building, to specifically determine the location of each sample, identify conditions that may affect or interfere with the proposed sampling and to prepare the building for sampling.

- To document conditions during indoor air sampling and ultimately to aid in the interpretation of the sampling results, the following actions were taken:
 - The storage of volatile chemicals was identified.
 - The use of heating or air conditioning systems during sampling was noted.
 - Floor plan sketches were drawn which include: the floor layout with sampling locations, chemical storage areas, garages, doorways, stairways, locations of basement sumps or subsurface drains and utility perforations through building foundations, HVAC system supply and return registers, compass orientation (north) and footings that create separate foundation sections. Photographs were taken to accompany the floor plan sketches.
 - Any pertinent observations, including readings from a Photo-Ionization Detector (PID) and other field instrumentation, were recorded.

Section No. 3.2: Subsurface Vapor Sample Collection

The following summarizes the manner in which subsurface vapor samples were collected. Please refer to Figure No. 2 – Sub-Slab and Crawlspace Sample Locations for additional details.

- For the collection of the sub-slab vapor samples, a probe was fabricated from $\frac{1}{2}$ -inch diameter, threaded brass pipe with a barbed tubing connection. Using a hammer drill, a 1-inch hole was drilled into the concrete floor at least two inches below the base of the slab (three to four inches thick). The pipe was lowered into the hole, but not flush to the bottom, and set into place utilizing hydrated bentonite powder, which contains no volatile organic compounds (VOCs). A five (5) gallon plastic container was placed on top of the concrete floor and above the vapor point. The container was sealed to the concrete floor with modeling clay. Teflon-lined, $\frac{1}{4}$ -inch I.D. disposable polyethylene tubing was then utilized to connect the barbed connection of the vapor point to a laboratory clean-certified, 6-liter SUMMA® canister, provided by York Analytical Laboratories, Inc. (York) through a flow controller pre-set for an eight (8) hour long sample duration. The tubing included a tee connection and valve to a purging vacuum pump calibrated for a flow rate of less than 0.2 liters per minute. The tubing, probe, and subsurface soil was purged of at least one (1) liter of vapor prior to the start of sample collection. Upon completion of the sampling, the probe was removed from the concrete slab and the hole patched with concrete.
- Helium (He) was introduced into the atmosphere under the pail, as a tracer gas, to assure the viability of the vapor point seals with the atmosphere. The tracer gas was monitored in the purge air before sampling and outside of all seals before, during and after sampling, utilizing a Myron Helium Detector. In addition, Helium (He) was analyzed for in the SUMMA® canister and if detected at more than ten (10) percent, the sample would be considered invalid and retaken.
- On December 27, 2018, a total of three (3) sub-slab vapor samples were collected at the South Grove Elementary School.
 - One (1) sub-slab sample (North Sub-Slab) was collected from beneath the north wing crawlspace under the east side access hallway to the gymnasium of the South Grove Elementary School.
 - One (1) sub-slab sample (South Sub-Slab) was collected from beneath the south wing crawlspace under the southeast school entrance of the South Grove Elementary School.
 - One (1) sub-slab sample (Gym Sub-Slab) was collected from beneath the elevator pit servicing the south side of the stage in the gymnasium of the South Grove Elementary School.
- On December 27, 2018, one (1) sub-slab vapor sample was collected at the South Grove Annex.
 - One (1) sub-slab sample (Annex Sub-Slab) was collected from beneath the first-floor hallway of the northwest entrance of the South Grove Annex building.

Section No. 3.3: Indoor Air Sample Collection

The following summarizes the manner in which indoor air samples were collected:

- Sample flow rates conformed to the specifications in the sample collection method (less than 0.2 liters per minute) and were consistent with the hours of operation of the school building. Samples

were taken from areas where personnel and occupants would not interfere with the sampling. The samples were collected, utilizing conventional sampling methods, in laboratory clean-certified, 6-liter SUMMA® canisters, provided by York equipped with a flow controller pre-set for an eight (8) hour long sample duration. As per the guidance requirements, the samples were collected at a height approximately three (3) feet above the floor to represent a height at which occupants are normally seated.

Section No. 3.3.1: Crawlspace Air Sample Collection

Please refer to Figure No. 2 - Sub-Slab and Crawlspace Sample Locations for additional details.

- On December 27, 2018, a total of two (2) crawlspace air samples were collected at the South Grove Elementary School.
 - One (1) air sample (North Crawlspace) was collected from the north wing crawlspace under the east side access to the gymnasium of the South Grove Elementary School.
 - One (1) air sample (South Crawlspace) was collected from the south wing crawlspace under the southeast school entrance of the South Grove Elementary School.
- The South Grove Annex is slab on grade construction and does not have a crawlspace.

Section No. 3.3.2: 1st Floor Air Sample Collection

Please refer to Figure No. 3 - 1st Floor and Ambient Sample Locations for additional details.

- On December 27, 2018, a total of three (3) first floor air samples were collected at the South Grove Elementary School.
 - One (1) air sample (North First Floor) was collected from the north wing at the east side access to the gymnasium of the South Grove Elementary School.
 - One (1) air sample (South First Floor) was collected from the south wing at the southeast school entrance of the South Grove Elementary School.
 - One (1) air sample (Gym First Floor) was collected from the elevator pit servicing the south side of the stage in the gymnasium of the South Grove Elementary School.
- On December 27, 2018, one (1) first floor air sample was collected at the South Grove Annex.
 - One (1) air sample (Annex First Floor) was collected from the first-floor hallway at the northwest entrance of the South Grove Annex building.

Section No. 3.4: Outdoor (Ambient) Air Sample Collection

An outdoor (ambient) air sample was collected simultaneously with sub-slab, crawlspace, and indoor samples to evaluate the potential influence, if any, of outdoor air on indoor air quality. To obtain a representative sample which meets the data quality objectives, the outdoor air sample was collected in a manner consistent with that for indoor air samples. The sample was collected, utilizing conventional sampling methods, in a laboratory clean-certified, 6-liter SUMMA® canister, provided by York equipped with a flow controller pre-set for an eight (8) hour sample duration. As per the guidance

requirements, the sample was collected at a height approximately three (3) feet above the floor. Please refer to Figure No. 3 - 1st Floor and Ambient Sample Locations for additional details.

- On December 27, 2018, one (1) outdoor ambient air sample was collected at the South Grove Elementary School.
 - One (1) outdoor ambient air sample (Ambient #1) was collected from between the north and south wings of the South Grove Elementary School.
- On December 27, 2018, one (1) outdoor ambient air sample was collected at the South Grove Annex.
 - One (1) outdoor ambient air sample (Ambient #2) was collected from the northwest corner of the South Grove Annex.

Section No. 4.0: Laboratory Analytical Summary

The sub-slab vapor, indoor and outdoor air samples were collected into laboratory supplied, clean-certified, 6-liter SUMMA® canisters, and assigned individual identification numbers. Chain of custody documents were prepared and the samples were then delivered to an independent New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for analysis.

York Analytical Labs, Inc. provided laboratory analytical services. Copies of York's NYSDOH certifications are available upon request.

Indoor and outdoor air samples submitted for laboratory analysis were analyzed for Volatile Organic Compounds (VOCs) utilizing the Environmental Protection Agency Toxic Organics 15 (EPA TO-15) list. Sub-slab soil vapor samples were also analyzed for Helium.

The laboratory analysis results for the air samples collected were reviewed and compared to the 90th percentile as listed in Table C2 EPA 2001: Building assessment and survey evaluation (BASE) database, SUMA canister method found in NYSDOH's "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006.

The following table summarizes the soil vapor and air sampling analytical results detected of the list of compounds by EPA Method TO-15:

Table No. 1:
Volatile Vapor Intrusion Analytical Results of Detected Compounds by EPA Method TO-15

Sample ID		EPA 2001 BASE 90th percentile	South First Floor		South Crawl Space		South Sub Slab ¹		North First Floor		North Crawl Space		North Sub Slab ¹			
York ID	Sampling Date		18L1186-01 12/27/2018	18L1186-02 12/27/2018	18L1186-03 12/27/2018	18L1186-04 12/27/2018	18L1186-05 12/27/2018	18L1186-06 12/27/2018	Result	Q	Result	Q	Result	Q	Result	Q
Compound	CAS Number		ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³	ug/m ³					
Volatile Organics, EPA TO15 Full List																
Dilution Factor				0.905		1.225		14.67		0.861		0.821			18.79	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	3.5	0.69	U	0.94	U	1.10	U	0.66	U	0.63	U	1.40	U		
1,1,1-Trichloroethane	71-55-6	20.6	0.49	U	0.67	U	0.80	U	0.47	U	0.45	U	1.00	U		
1,2,4-Trimethylbenzene	95-63-6	9.5	2.10	D	0.60	U	17.0	D	0.51	D	0.52	D	10.0	D		
1,2-Dichlorotetrafluoroethane	76-14-2	6.8	0.63	U	0.86	D	1.00	U	0.60	U	0.57	U	1.30	U		
1,3,5-Trimethylbenzene	108-67-8	3.7	1.20	D	0.60	U	5.00	D	0.42	U	0.40	U	2.50	D		
1,1-Dichloroethylene	75-35-4	1.4	0.09	U	0.12	U	0.15	U	0.09	U	0.08	U	0.19	U		
2-Butanone	78-93-3	12	1.20	D	1.00	D	21.0	D	1.30	D	0.99	D	27.0	D		
4-Methyl-2-pentanone	108-10-1	6	0.37	U	0.50	U	2.60	D	0.35	U	0.34	U	1.90	D		
Acetone	67-64-1	98.9	35.0	D	12.0	D	430	D	27.0	D	14.0	D	290	D		
Benzene	71-43-2	9.4	0.64	D	0.67	D	5.40	D	0.74	D	0.63	D	7.10	D		
Carbon disulfide	75-15-0	4.2	0.28	U	0.38	U	0.46	U	0.27	U	0.26	U	0.59	U		
Carbon tetrachloride	56-23-5	1.3	0.40	D	0.46	D	0.46	D	0.43	D	0.41	D	0.35	D		
Chloromethane	74-87-3	3.7	1.60	D	1.40	D	1.10	D	1.20	D	1.10	D	1.00	D		
cis-1,2-Dichloroethylene	156-59-2	1.9	0.09	U	0.12	U	0.15	U	0.09	U	0.08	U	0.19	U		
Cyclohexane	110-82-7	~	0.34	D	0.42	U	1.20	D	0.30	U	0.28	U	2.40	D		
Dichlorodifluoromethane	75-71-8	16.5	2.70	D	2.10	D	2.50	D	2.10	D	1.70	D	2.10	D		
Ethyl acetate	141-78-6	5.4	0.65	U	0.88	U	4.0	D	0.62	U	0.59	U	1.40	U		
Ethyl Benzene	100-41-4	5.7	1.30	D	0.53	U	65.0	D	0.90	D	0.57	D	32.0	D		
Isopropanol	67-63-0	250	20.0	D	2.90	D	16.0	D	18.0	D	7.00	D	8.80	D		
Methyl Methacrylate	80-62-6	~	0.63	D	0.50	U	1.10	D	0.35	D	0.34	U	0.77	U		
Methylene chloride	75-09-2	10	1.40	D	0.85	U	5.40	D	1.70	D	1.40	D	1.30	U		
n-Heptane	142-82-5	~	0.37	D	0.50	U	3.50	D	0.39	D	0.34	U	5.00	D		
n-Hexane	110-54-3	10.2	0.83	D	0.82	D	6.80	D	0.58	D	0.64	D	12.0	D		
o-Xylene	95-47-6	7.9	1.30	D	0.53	U	24.0	D	0.41	D	0.50	D	10.0	D		
p- & m- Xylenes	179601-23-1	22.2	2.50	D	1.40	D	79.0	D	0.90	D	1.60	D	34.0	D		
p-Ethyltoluene	622-96-8	3.6	3.10	D	0.60	U	18.0	D	0.76	D	0.65	D	8.30	D		
Propylene	115-07-1	~	0.86	D	0.72	D	2.30	D	0.93	D	0.66	D	3.80	D		
Styrene	100-42-5	1.9	1.10	D	0.52	U	0.62	U	0.99	D	0.35	D	1.60	D		
Tetrachloroethylene	127-18-4	15.9	0.15	U	0.21	U	5.10	D	0.15	U	0.14	U	3.80	D		
Tetrahydrofuran	109-99-9	~	1.10	D	1.20	D	42.0	D	0.74	D	0.85	D	36.0	D		
Toluene	108-88-3	43	1.90	D	1.70	D	1,600	D	2.40	D	2.00	D	1,500	D		
Trichloroethylene	79-01-6	4.2	0.12	U	0.16	U	0.20	U	0.12	U	0.11	U	0.25	U		
Trichlorofluoromethane (Freon 11)	75-69-4	18.1	2.30	D	1.60	D	3.80	D	1.40	D	1.70	D	1.60	D		
Vinyl Chloride	75-01-4	1.9	0.06	U	0.08	U	0.09	U	0.06	U	0.05	U	0.12	U		

NOTES:

Q is the Qualifier Column with definitions as follows:

D = result is from an analysis that required a dilution

U = analyte not detected at or above the level indicated

~ = this indicates that no regulatory limit has been established for this analyte

¹ The State of New York does not have any standards, criteria, or guidance values for concentrations of volatile chemicals in subsurface vapors

Compounds in Gray are used in Decision Matrices A, B, & C. - See Section 5.0 and Table No. 2 for additional information

Table No. 1: (Continued)
Volatile Vapor Intrusion Analytical Results of Detected Compounds by EPA Method TO-15

Sample ID York ID Sampling Date	Compound	CAS Number	EPA 2001 BASE 90th percentile		Ambient #1 18L1186-07 12/27/2018		Gym First Floor 18L1186-08 12/27/2018		Gym Sub Surface 18L1186-09 12/27/2018		Annex First Floor 18L1186-10 12/27/2018		Annex Sub Slab ¹ 18L1186-11 12/27/2018		Ambient #2 18L1186-12 12/27/2018	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, EPA TO15 Full List			ug/m ³		ug/m ³		ug/m ³		ug/m ³		ug/m ³		ug/m ³		ug/m ³	
Dilution Factor					0.806		0.97		26.62		0.834		1.34			0.7632
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	3.5	0.74	D	0.74	U	1.00	U	0.64	U	1.00	U	0.58		0.58	D
1,1,1-Trichloroethane	71-55-6	20.6	0.44	U	0.53	U	0.73	U	0.46	U	0.73	U	0.42		0.42	U
1,2,4-Trimethylbenzene	95-63-6	9.5	0.75	D	0.48	U	18.0	D	0.41	U	0.66	U	0.38		0.38	U
1,2-Dichlorotetrafluoroethane	76-14-2	6.8	0.56	U	0.68	U	0.93	U	0.58	U	0.94	U	0.53		0.53	U
1,3,5-Trimethylbenzene	108-67-8	3.7	0.40	U	0.48	U	3.90	D	0.41	U	0.66	U	0.38		0.38	U
1,1-Dichloroethylene	75-35-4	1.4	0.08	U	0.10	U	0.13	U	0.08	U	0.13	U	0.08		0.08	U
2-Butanone	78-93-3	12	0.90	D	1.40	D	15.0	D	0.49	D	1.00	D	0.52		0.52	D
4-Methyl-2-pentanone	108-10-1	6	0.40	D	0.40	U	2.10	D	0.34	U	0.55	U	0.31		0.31	U
Acetone	67-64-1	98.9	6.60	D	3.80	D	270	D	3.30	D	6.90	D	2.50		2.50	D
Benzene	71-43-2	9.4	0.80	D	0.65	D	3.70	D	0.67	D	0.98	D	0.59		0.59	D
Carbon disulfide	75-15-0	4.2	0.25	U	0.30	U	3.20	D	0.26	U	0.42	U	0.24		0.24	U
Carbon tetrachloride	56-23-5	1.3	0.56	D	0.49	D	0.50	D	0.52	D	0.51	D	0.48		0.48	D
Chloromethane	74-87-3	3.7	2.20	D	1.60	D	1.30	D	2.00	D	2.30	D	1.60		1.60	D
cis-1,2-Dichloroethylene	156-59-2	1.9	0.45	D	0.10	U	0.13	U	0.08	U	0.21	D	0.08		0.08	U
Cyclohexane	110-82-7	~	0.28	U	0.33	U	0.96	D	0.29	U	0.46	U	0.26		0.26	U
Dichlorodifluoromethane	75-71-8	16.5	2.00	D	1.90	D	3.20	D	1.90	D	2.60	D	1.80		1.80	D
Ethyl acetate	141-78-6	5.4	0.96	D	0.70	U	2.60	D	0.60	U	0.97	U	0.55		0.55	U
Ethyl Benzene	100-41-4	5.7	0.80	D	0.42	U	9.80	D	0.36	U	0.58	U	0.33		0.33	U
Isopropanol	67-63-0	250	1.70	D	0.57	D	9.50	D	0.76	D	1.30	D	0.43		0.43	D
Methyl Methacrylate	80-62-6	~	0.33	U	0.40	U	0.54	U	0.34	U	0.55	U	0.31		0.31	U
Methylene chloride	75-09-2	10	2.50	D	0.81	D	1.20	D	2.10	D	4.00	D	2.10		2.10	D
n-Heptane	142-82-5	~	0.36	D	0.40	U	1.90	D	0.34	U	0.55	U	0.31		0.31	U
n-Hexane	110-54-3	10.2	0.51	D	0.34	U	5.00	D	0.38	D	0.76	D	0.30		0.30	D
o-Xylene	95-47-6	7.9	0.87	D	0.42	U	9.40	D	0.36	U	0.58	U	0.40		0.40	D
p- & m- Xylenes	179601-23-1	22.2	3.30	D	0.84	U	23.0	D	0.72	U	1.20	D	1.30		1.30	D
p-Ethyltoluene	622-96-8	3.6	0.87	D	0.48	U	14.0	D	0.41	U	0.66	U	0.38		0.38	D
Propylene	115-07-1	~	0.74	D	1.00	D	2.90	D	0.69	D	0.83	D	0.56		0.56	D
Styrene	100-42-5	1.9	0.34	U	0.41	U	1.10	D	0.36	U	0.57	U	0.33		0.33	U
Tetrachloroethylene	127-18-4	15.9	1.20	D	0.46	D	1.60	D	0.14	U	0.23	U	0.13		0.13	U
Tetrahydrofuran	109-99-9	~	0.48	U	0.57	U	40.0	D	0.49	U	0.79	U	0.45		0.45	U
Toluene	108-88-3	43	4.60	D	2.30	D	220	D	1.00	D	2.70	D	1.80		1.80	D
Trichloroethylene	79-01-6	4.2	0.17	D	0.13	U	0.18	U	0.11	U	0.18	U	0.10		0.10	U
Trichlorofluoromethane (Freon 11)	75-69-4	18.1	2.20	D	1.40	D	2.90	D	1.70	D	2.30	D	1.80		1.80	D
Vinyl Chloride	75-01-4	1.9	0.05	U	0.06	U	0.09	U	0.05	U	0.09	U	0.05		0.05	U

NOTES:

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

U=analyte not detected at or above the level indicated

~this indicates that no regulatory limit has been established for this analyte

¹ The State of New York does not have any standards, criteria, or guidance values for concentrations of volatile chemicals in subsurface vapors

Compounds in Gray are used in Decision Matrices A, B, & C. - See Section 5.0 and Table No. 2 for additional information

Section No. 5.0: Decision Matrices

Decision matrices are risk management tools developed by the NYSDOH to provide guidance on a case-by-case basis about actions that should be taken to address current and potential exposures related to soil vapor intrusion. The matrices are intended to be used when evaluating the results from buildings with full slab foundations. Due to the presence of polyethylene sheeting covering the crawlspace sand, the structure was deemed to contain a full slab for the purpose of this investigation.

The NYSDOH has currently developed three (3) matrices to use as tools in making decisions when soil vapor may be entering buildings. JCB implemented the matrices and the following table summarizes the results:

Table No. 2: Volatile Chemicals Utilized in NYSDOH Decision Matrices		
Compound	Soil Vapor/Indoor Air Decision Matrix	Result
1,1,1-Trichloroethane (TCA)	Matrix B	No Further Action
Carbon Tetrachloride	Matrix A	No Further Action
cis 1,2-Dichloroethene	Matrix A	No Further Action
1,1-Dichloroethene	Matrix A	No Further Action
Methylene Chloride	Matrix B	No Further Action
Tetrachloroethene (PCE)	Matrix B	No Further Action
Trichloroethene (TCE)	Matrix A	No Further Action
Vinyl Chloride	Matrix C	No Further Action

Notes:
A total of eight (8) chemicals have been assigned to decision matrices by the NYSDOH, May 2017.

The results of the matrices indicate that “No Further Action” is required for all eight (8) volatile organic chemicals utilized in the NYSDOH Decision Matrices.

The concentrations detected in the indoor air samples are likely due to the daily operations within the building or outdoor sources rather than soil vapor intrusion given the concentrations detected in the sub-slab soil vapor sample.

Section No. 6.0: Quality Assurance and Quality Control (QA/QC) Procedures

- In order to prevent cross-contamination between sampling locations, all re-usable sampling equipment which came into contact with sample materials was decontaminated prior to each use. Equipment used for sample collection was wiped clean, washed in a solution of Alconox and thoroughly rinsed with potable water. New and dedicated polyethylene tubing was used for collection of each subsurface sample. All sampling personnel wore disposable latex, nylon, or nitrile gloves during sampling events. At a minimum, gloves were changed between locations and before each laboratory sample was collected.
- The field sampling team maintained sampling log sheets summarizing the following:
 - Sample identification;
 - Canister ID Number;
 - Regulator ID Number;
 - Date and time of sample collection;
 - Sampling height;
 - Sampling methods and devices;
 - The volume of air sampled;
 - The vacuum of canisters before and after sample collection;
 - Chain of custody protocols and records used to track samples from sampling point to analysis.

Subsequent to sample collection, the Summa® canister was labeled with the sampling location, time, and samplers initials.

Section No. 7.0: Findings

Based upon the review of the VVI laboratory analysis results all detectable concentrations observed were reported well below published occupational health guidelines. In addition, all detectable concentrations observed in the occupied spaces of the school buildings were below their background values as reported in EPA 2001: Building assessment and survey evaluation (BASE) database, SUMA canister method 90th Percentile found in NYSDOH's "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006. The concentrations detected in the indoor air samples are likely due to the daily operations within the building or outdoor sources rather than soil vapor intrusion given the concentrations detected in the sub-slab soil vapor sample.

Section No. 8.0: Conclusions

Based upon the findings listed above, no hazardous condition or immediate health concern was identified associated with VVI.

A careful evaluation of the indoor air sampling results compared to the subsurface and ambient results did reveal the presence of a discernible pattern suggesting that the building could be impacted with VVI. It appears that the building concrete slab is relatively effective in preventing the subsurface volatile vapors from migrating into the occupied portions of the school building. It should be noted that the building has an operating active sub-slab depressurization system (SSDS) that allows for accumulating vapors under the building slab to be vented above the roof.

Section No. 9.0: Recommendations

It is recommended that the existing SSDS be periodically inspected and maintained in good operating condition and that periodic VVI sampling and testing be performed to monitor site conditions.

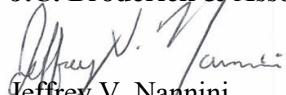
Steps should be taken to reduce the presence of volatile organic compounds such as, keeping containers tightly capped or storing VOC containing products in ventilated areas.

Section No. 10.0: Certification

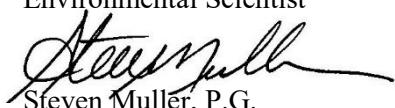
I certify that this Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York", Final Version, October 2006 and all updates, and that all activities were performed in full accordance with the work plan.

Sincerely,

J.C. Broderick & Associates, Inc.


Jeffrey V. Nannini

Environmental Scientist


Steven Muller, P.G.
Project Manager

Appendix A

Figures



J.C. BRODERICK

& Associates

Environmental Consulting and

Testing

1775 Express Drive North

Hauppauge, NY 11788

Phone: (631) 584.5492

Fax: (631) 584.3395

Notes:

South Grove
Elementary School
60 Colony Lane
Syosset, NY 11791

Drawing Title

Figure No. 1

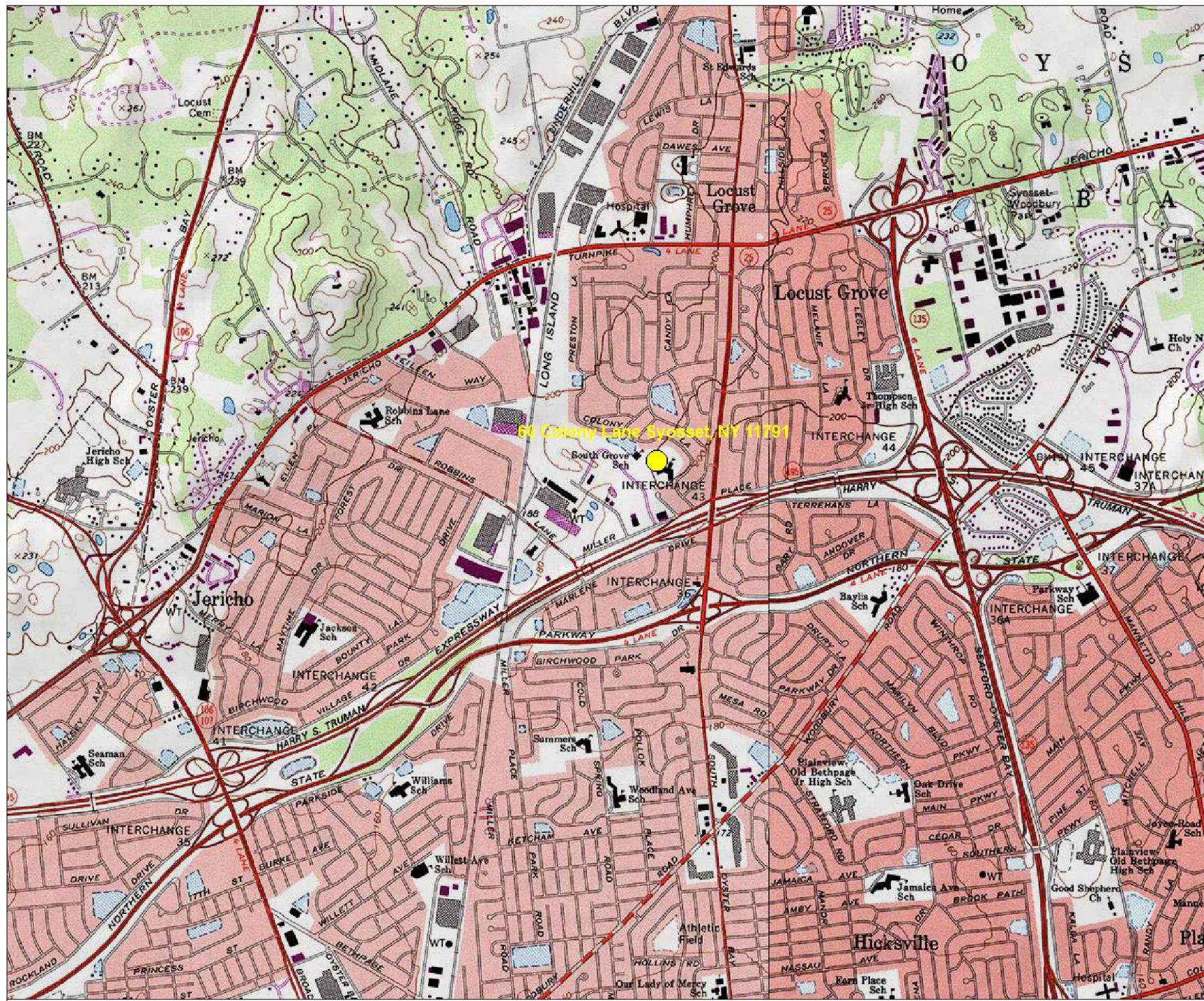
Site Location Map

Scale Project No. Date
As Noted 18-40270 07-03-18

Drawn By Checked By Page No.
J.V.N. S.W.M. 1 of 3

Drawing No.

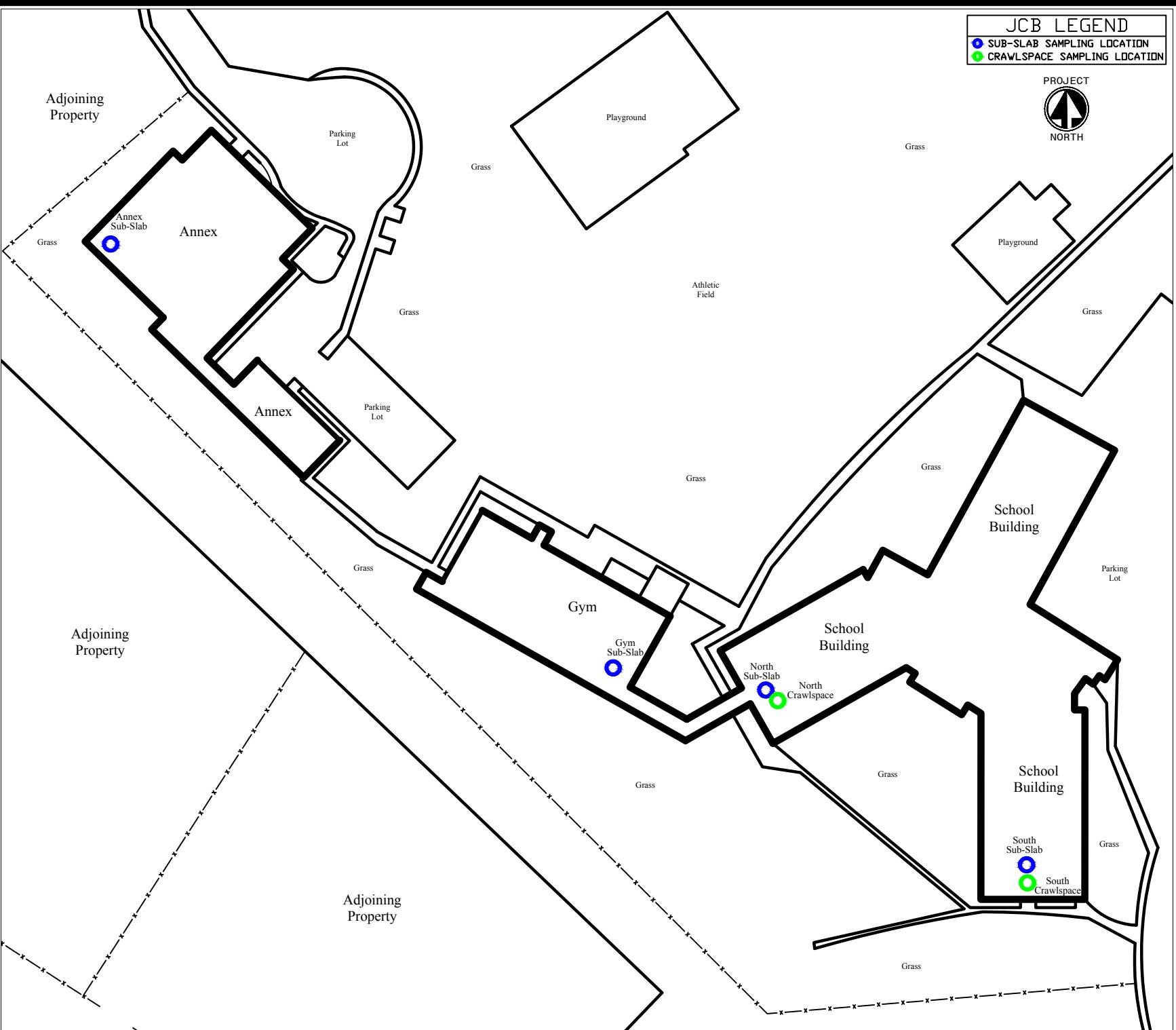
1



JCB LEGEND
SUBJECT SITE

0 1000 FEET 0 500 1000 METERS

Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)



J.C. BRODERICK

& Associates

Environmental Consulting and
Testing

1775 Express Drive North

Hauppauge, New York 11788

Phone: (631) 584.5492

Fax: (631) 584.3395

Notes:

South Grove
Elementary School
60 Colony Lane
Syosset, NY 11791

Drawing Title

Figure No. 2

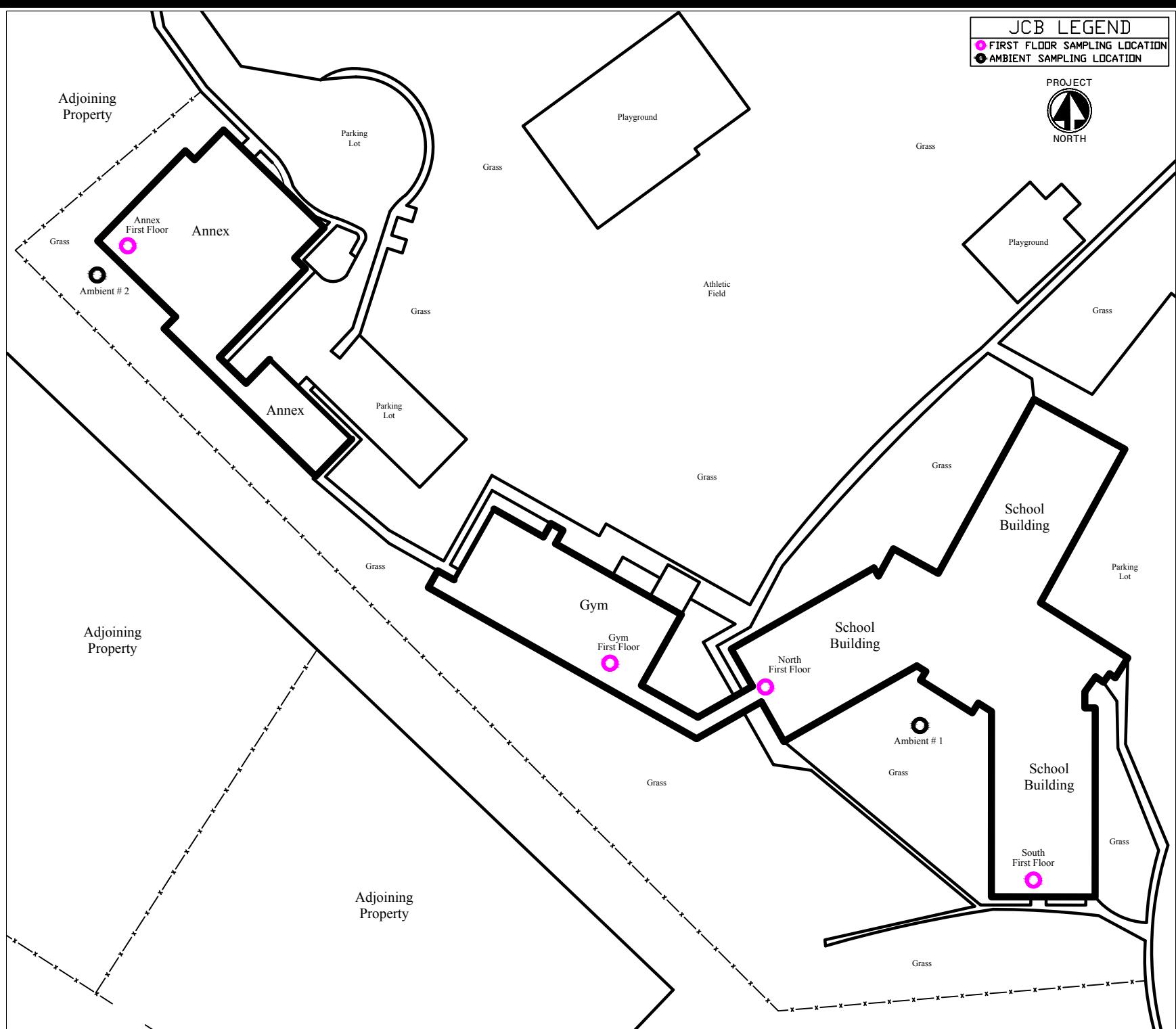
**Sub-Slab
and
Crawlspace
Sampling
Locations**

Scale	Project No.	Date
N.T.S.	18-40270	07-03-18

Drawn By	Checked By	Page No.
J.V.N.	S.W.M.	2 of 3

Drawing No.

2



J.C. BRODERICK

& Associates

Environmental Consulting and
Testing

Testing
1775 Express Drive North

1775 Express Drive North
Hauppauge, New York 11788

Phone: (631) 584-5492

Fax: (631) 584-3395

Notes:

South Grove
Elementary School
60 Colony Lane
Syosset, NY 11791

Drawing Title

Figure No. 3

1st Floor and Ambient Sampling Locations

Scale	Project No.	Date
N.T.S.	18-40270	07-03-18

Drawn By Checked By Page No.
J.V.N. S.W.M. 3 of 3

Drawing No.

Appendix B

Field Photograph Logs

**Sampling Location
North Sub-Slab South Grove ES**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 01

JCB#: 18-41173

**Sampling Location
North Crawlspace South Grove ES**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 02

JCB#: 18-41173

**Sampling Location
North First Floor South Grove ES**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 03

JCB#: 18-41173

**Sampling Location
South Sub-Slab South Grove ES**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

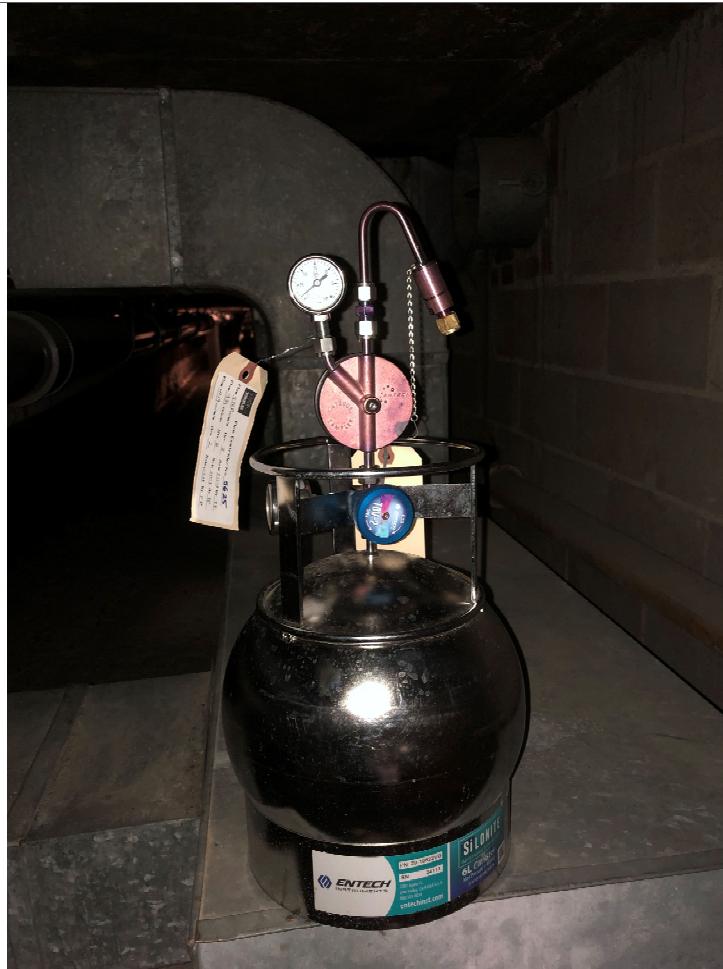
**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 04

JCB#: 18-41173

**Sampling Location
South Crawlspace South Grove ES**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 05

JCB#: 18-41173

**Sampling Location
South Ambient South Grove ES**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 06

JCB#: 18-41173

**Sampling Location
Sub-Slab South Grove Annex**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

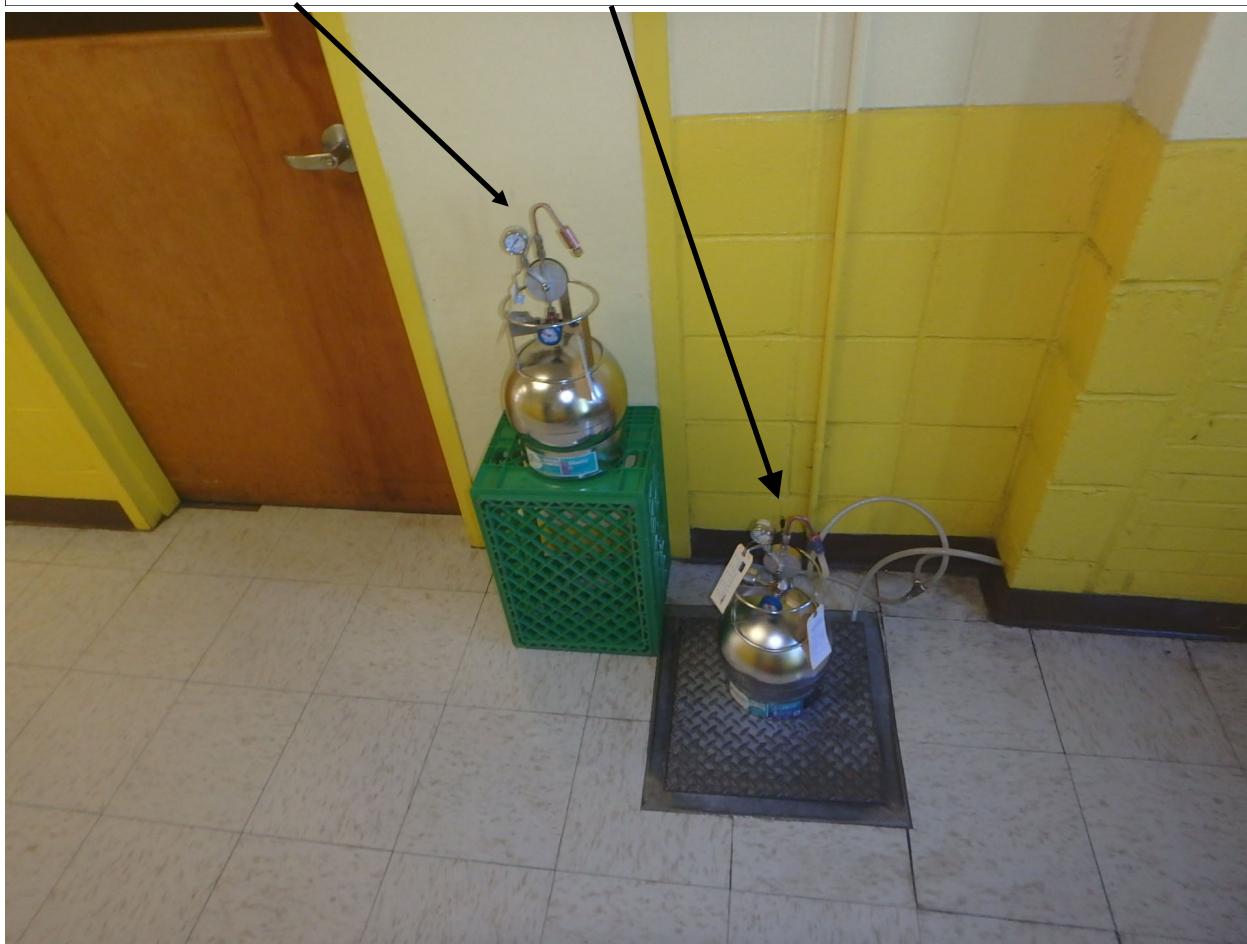
**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 07

JCB#: 18-41173

**Sampling Location
First Floor and Sub-Slab South Grove Annex**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

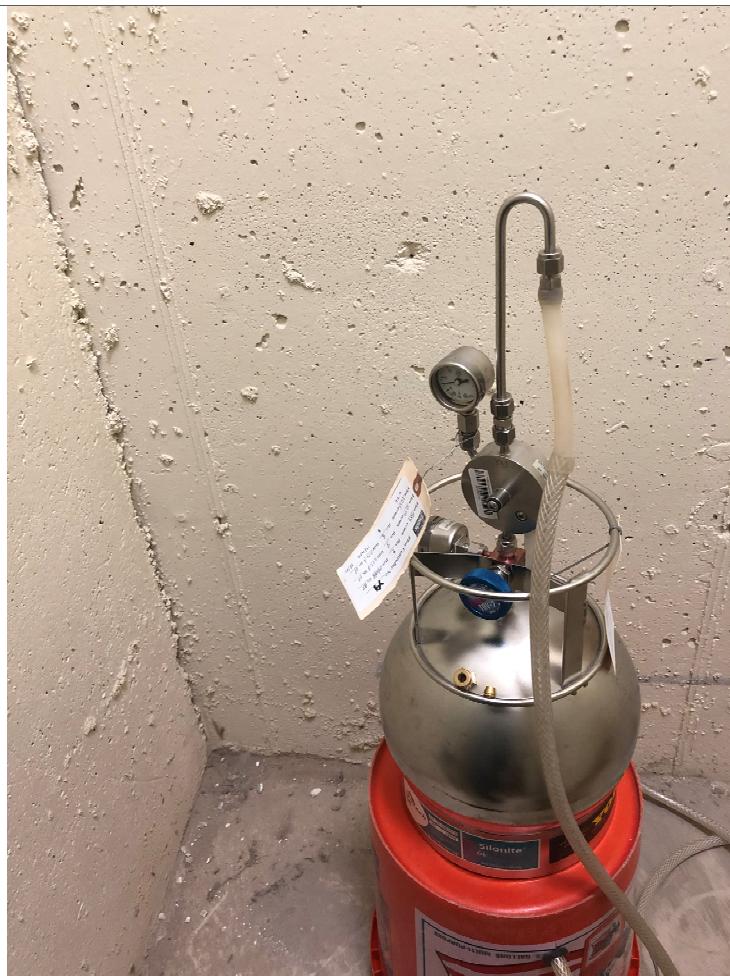
**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 08

JCB#: 18-41173

**Sampling Location
Gym Sub-Slab South Grove ES**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 09

JCB#: 18-41173

**Sampling Location
Gym First Floor South Grove ES**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 10

JCB#: 18-41173

**Sampling Location
Ambient #2 South Grove Annex**



Field Photograph Log

Volatile Vapor Intrusion (VVI) Report

**South Grove ES and South Grove Annex
60 Colony Lane
Syosset, New York 11971**



Photo No. 11

JCB#: 18-41173

Appendix C

Laboratory Analytical Reports



Technical Report

prepared for:

J.C. Broderick
1775 North Express Drive
Hauppauge NY, 11788
Attention: Steven Muller

Report Date: 01/09/2019

Client Project ID: 18-41173 Southgrove
York Project (SDG) No.: 18L1186

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

120 RESEARCH DRIVE
www.YORKLAB.com

STRATFORD, CT 06615
(203) 325-1371



132-02 89th AVENUE
FAX (203) 357-0166

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 01/09/2019
Client Project ID: 18-41173 Southgrove
York Project (SDG) No.: 18L1186

J.C. Broderick
1775 North Express Drive
Hauppauge NY, 11788
Attention: Steven Muller

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 31, 2018 and listed below. The project was identified as your project: **18-41173 Southgrove**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
18L1186-01	South First Floor	Indoor Ambient Air	12/27/2018	12/31/2018
18L1186-02	South Crawl Space	Indoor Ambient Air	12/27/2018	12/31/2018
18L1186-03	South Sub Slab	Soil Vapor	12/27/2018	12/31/2018
18L1186-04	North First Floor	Indoor Ambient Air	12/27/2018	12/31/2018
18L1186-05	North Crawl Space	Indoor Ambient Air	12/27/2018	12/31/2018
18L1186-06	North Sub Slab	Soil Vapor	12/27/2018	12/31/2018
18L1186-07	Ambient #1	Outdoor Ambient Air	12/27/2018	12/31/2018
18L1186-08	Gym First Floor	Indoor Ambient Air	12/27/2018	12/31/2018
18L1186-09	Gym Sub Surface	Soil Vapor	12/27/2018	12/31/2018
18L1186-10	Annex First Floor	Indoor Ambient Air	12/27/2018	12/31/2018
18L1186-11	Annex Sub Slab	Soil Vapor	12/27/2018	12/31/2018
18L1186-12	Ambient #2	Outdoor Ambient Air	12/27/2018	12/31/2018

General Notes for York Project (SDG) No.: 18L1186

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By:



Date: 01/09/2019

Benjamin Gulizia
Laboratory Director





Sample Information

Client Sample ID: South First Floor

York Sample ID: 18L1186-01

York Project (SDG) No.
18L1186

Client Project ID
18-41173 Southgrove

Matrix
Indoor Ambient Air

Collection Date/Time
December 27, 2018 3:00 pm

Date Received
12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.62	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.49	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.62	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.69	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.49	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.37	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.090	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.67	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
95-63-6	1,2,4-Trimethylbenzene	2.1		ug/m³	0.44	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.70	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.54	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.37	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.42	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.63	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
108-67-8	1,3,5-Trimethylbenzene	1.2		ug/m³	0.44	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
106-99-0	1,3-Butadiene	ND		ug/m³	0.60	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.54	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.42	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.54	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
123-91-1	1,4-Dioxane	ND		ug/m³	0.65	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
78-93-3	2-Butanone	1.2		ug/m³	0.27	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
NELAC-NY12058,NJDEP-Queens										



Sample Information

Client Sample ID: South First Floor

York Sample ID: 18L1186-01

York Project (SDG) No.
18L1186

Client Project ID
18-41173 Southgrove

Matrix
Indoor Ambient Air

Collection Date/Time
December 27, 2018 3:00 pm

Date Received
12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	0.74	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
107-05-1	3-Chloropropene	ND		ug/m³	1.4	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.37	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
67-64-1	Acetone	35		ug/m³	0.43	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
107-13-1	Acrylonitrile	ND		ug/m³	0.20	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
71-43-2	Benzene	0.64		ug/m³	0.29	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
100-44-7	Benzyl chloride	ND		ug/m³	0.47	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
75-27-4	Bromodichloromethane	ND		ug/m³	0.61	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
75-25-2	Bromoform	ND		ug/m³	0.94	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
74-83-9	Bromomethane	ND		ug/m³	0.35	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
75-15-0	Carbon disulfide	ND		ug/m³	0.28	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
56-23-5	Carbon tetrachloride	0.40		ug/m³	0.14	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
108-90-7	Chlorobenzene	ND		ug/m³	0.42	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
75-00-3	Chloroethane	ND		ug/m³	0.24	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
67-66-3	Chloroform	ND		ug/m³	0.44	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
74-87-3	Chloromethane	1.6		ug/m³	0.19	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.090	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.41	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
110-82-7	Cyclohexane	0.34		ug/m³	0.31	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
124-48-1	Dibromochloromethane	ND		ug/m³	0.77	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
75-71-8	Dichlorodifluoromethane	2.7		ug/m³	0.45	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
141-78-6	* Ethyl acetate	ND		ug/m³	0.65	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP



Sample Information

<u>Client Sample ID:</u> South First Floor		<u>York Sample ID:</u> 18L1186-01
<u>York Project (SDG) No.</u> 18L1186	<u>Client Project ID</u> 18-41173 Southgrove	<u>Matrix</u> Indoor Ambient Air <u>Collection Date/Time</u> December 27, 2018 3:00 pm <u>Date Received</u> 12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-41-4	Ethyl Benzene	1.3		ug/m³	0.39	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
87-68-3	Hexachlorobutadiene	ND		ug/m³	0.97	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
67-63-0	Isopropanol	20		ug/m³	0.44	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
80-62-6	Methyl Methacrylate	0.63		ug/m³	0.37	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.33	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
75-09-2	Methylene chloride	1.4		ug/m³	0.63	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
142-82-5	n-Heptane	0.37		ug/m³	0.37	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
110-54-3	n-Hexane	0.83		ug/m³	0.32	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
95-47-6	o-Xylene	1.3		ug/m³	0.39	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
179601-23-1	p- & m- Xylenes	2.5		ug/m³	0.79	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
622-96-8	* p-Ethyltoluene	3.1		ug/m³	0.44	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
115-07-1	* Propylene	0.86		ug/m³	0.16	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
100-42-5	Styrene	1.1		ug/m³	0.39	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
127-18-4	Tetrachloroethylene	ND		ug/m³	0.15	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
109-99-9	* Tetrahydrofuran	1.1		ug/m³	0.53	0.905	EPA TO-15 Certifications:	12/31/2018 07:00	12/31/2018 21:07	PP
108-88-3	Toluene	1.9		ug/m³	0.34	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.36	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.41	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
79-01-6	Trichloroethylene	ND		ug/m³	0.12	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
75-69-4	Trichlorofluoromethane (Freon 11)	2.3		ug/m³	0.51	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
108-05-4	Vinyl acetate	ND		ug/m³	0.32	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
593-60-2	Vinyl bromide	ND		ug/m³	0.40	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP



Sample Information

Client Sample ID: South First Floor

York Sample ID: 18L1186-01

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.058	0.905	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	12/31/2018 07:00	12/31/2018 21:07	PP
Surrogate Recoveries										
Surrogate: SURR: <i>p</i> -Bromofluorobenzene										
Result										
Acceptance Range										
460-00-4	89.1 %									
70-130										

Sample Information

Client Sample ID: South Crawl Space

York Sample ID: 18L1186-02

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.84	1.225	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 16:39	PP
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.67	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.84	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.94	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.67	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.50	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.12	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.91	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.60	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.94	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.74	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.50	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP



Sample Information

Client Sample ID: South Crawl Space

York Sample ID: 18L1186-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18L1186	18-41173 Southgrove	Indoor Ambient Air	December 27, 2018 3:00 pm	12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.57	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
76-14-2	1,2-Dichlortetrafluoroethane	0.86		ug/m³	0.86	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.60	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
106-99-0	1,3-Butadiene	ND		ug/m³	0.81	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.74	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.57	1.225	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 16:39	PP
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.74	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
123-91-1	1,4-Dioxane	ND		ug/m³	0.88	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
78-93-3	2-Butanone	1.0		ug/m³	0.36	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
591-78-6	* 2-Hexanone	ND		ug/m³	1.0	1.225	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 16:39	PP
107-05-1	3-Chloropropene	ND		ug/m³	1.9	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.50	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
67-64-1	Acetone	12		ug/m³	0.58	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
107-13-1	Acrylonitrile	ND		ug/m³	0.27	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
71-43-2	Benzene	0.67		ug/m³	0.39	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
100-44-7	Benzyl chloride	ND		ug/m³	0.63	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
75-27-4	Bromodichloromethane	ND		ug/m³	0.82	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
75-25-2	Bromoform	ND		ug/m³	1.3	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
74-83-9	Bromomethane	ND		ug/m³	0.48	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
75-15-0	Carbon disulfide	ND		ug/m³	0.38	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
56-23-5	Carbon tetrachloride	0.46		ug/m³	0.19	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
108-90-7	Chlorobenzene	ND		ug/m³	0.56	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP



Sample Information

Client Sample ID: South Crawl Space

York Sample ID: 18L1186-02

York Project (SDG) No.
18L1186

Client Project ID
18-41173 Southgrove

Matrix
Indoor Ambient Air

Collection Date/Time
December 27, 2018 3:00 pm

Date Received
12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/m³	0.32	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
67-66-3	Chloroform	ND		ug/m³	0.60	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
74-87-3	Chloromethane	1.4		CCV-A ug/m³ , QL-03	0.25	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.12	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.56	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
110-82-7	Cyclohexane	ND		ug/m³	0.42	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
124-48-1	Dibromochloromethane	ND		ug/m³	1.0	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
75-71-8	Dichlorodifluoromethane	2.1		ug/m³	0.61	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
141-78-6	* Ethyl acetate	ND		ug/m³	0.88	1.225	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 16:39	PP
100-41-4	Ethyl Benzene	ND		ug/m³	0.53	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.3	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
67-63-0	Isopropanol	2.9		ug/m³	0.60	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
80-62-6	Methyl Methacrylate	ND		ug/m³	0.50	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.44	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
75-09-2	Methylene chloride	ND		ug/m³	0.85	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
142-82-5	n-Heptane	ND		ug/m³	0.50	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
110-54-3	n-Hexane	0.82		ug/m³	0.43	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
95-47-6	o-Xylene	ND		ug/m³	0.53	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
179601-23-1	p- & m- Xylenes	1.4		ug/m³	1.1	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.60	1.225	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 16:39	PP
115-07-1	* Propylene	0.72		ug/m³	0.21	1.225	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 16:39	PP
100-42-5	Styrene	ND		ug/m³	0.52	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP



Sample Information

Client Sample ID: South Crawl Space

York Sample ID: 18L1186-02

York Project (SDG) No.
18L1186

Client Project ID
18-41173 Southgrove

Matrix
Indoor Ambient Air

Collection Date/Time
December 27, 2018 3:00 pm

Date Received
12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	ND		ug/m³	0.21	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
109-99-9	* Tetrahydrofuran	1.2		ug/m³	0.72	1.225	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 16:39	PP
108-88-3	Toluene	1.7		ug/m³	0.46	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.49	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.56	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
79-01-6	Trichloroethylene	ND		ug/m³	0.16	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
75-69-4	Trichlorofluoromethane (Freon 11)	1.6		ug/m³	0.69	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
108-05-4	Vinyl acetate	ND		ug/m³	0.43	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
593-60-2	Vinyl bromide	ND		ug/m³	0.54	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
75-01-4	Vinyl Chloride	ND		ug/m³	0.078	1.225	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 16:39	PP
Surrogate Recoveries		Result	Acceptance Range							
460-00-4	Surrogate: SURN: <i>p</i> -Bromofluorobenzene	91.4 %			70-130					

Sample Information

Client Sample ID: South Sub Slab

York Sample ID: 18L1186-03

York Project (SDG) No.
18L1186

Client Project ID
18-41173 Southgrove

Matrix
Soil Vapor

Collection Date/Time
December 27, 2018 3:00 pm

Date Received
12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.0	1.467	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 17:44	PP
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.80	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.0	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.1	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP



Sample Information

Client Sample ID: South Sub Slab	York Sample ID: 18L1186-03			
York Project (SDG) No. 18L1186	Client Project ID 18-41173 Southgrove	Matrix Soil Vapor	Collection Date/Time December 27, 2018 3:00 pm	Date Received 12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.80	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.59	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.15	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.1	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
95-63-6	1,2,4-Trimethylbenzene	17		ug/m³	0.72	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.1	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.88	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.59	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.68	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.0	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
108-67-8	1,3,5-Trimethylbenzene	5.0		ug/m³	0.72	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
106-99-0	1,3-Butadiene	ND		ug/m³	0.97	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.88	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.68	1.467	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 17:44	PP
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.88	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
78-93-3	2-Butanone	21		ug/m³	0.43	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
591-78-6	* 2-Hexanone	ND		ug/m³	1.2	1.467	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 17:44	PP
107-05-1	3-Chloropropene	ND		ug/m³	2.3	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
108-10-1	4-Methyl-2-pentanone	2.6		ug/m³	0.60	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
67-64-1	Acetone	430		ug/m³	7.0	14.67	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/04/2019 09:00	01/05/2019 11:36	AS
107-13-1	Acrylonitrile	ND		ug/m³	0.32	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP



Sample Information

Client Sample ID: South Sub Slab

York Sample ID:

18L1186-03

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Soil Vapor

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	5.4		ug/m³	0.47	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
100-44-7	Benzyl chloride	ND		ug/m³	0.76	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
75-27-4	Bromodichloromethane	ND		ug/m³	0.98	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
75-25-2	Bromoform	ND		ug/m³	1.5	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
74-83-9	Bromomethane	ND		ug/m³	0.57	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
75-15-0	Carbon disulfide	ND		ug/m³	0.46	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
56-23-5	Carbon tetrachloride	0.46		ug/m³	0.23	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
108-90-7	Chlorobenzene	ND		ug/m³	0.68	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
75-00-3	Chloroethane	ND		ug/m³	0.39	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
67-66-3	Chloroform	ND		ug/m³	0.72	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
74-87-3	Chloromethane	1.1	QL-03, CCV-A	ug/m³	0.30	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.15	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.67	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
110-82-7	Cyclohexane	1.2		ug/m³	0.50	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
124-48-1	Dibromochloromethane	ND		ug/m³	1.2	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
75-71-8	Dichlorodifluoromethane	2.5		ug/m³	0.73	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
141-78-6	* Ethyl acetate	4.0		ug/m³	1.1	1.467	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 17:44	PP
100-41-4	Ethyl Benzene	65		ug/m³	0.64	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.6	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
67-63-0	Isopropanol	16		ug/m³	0.72	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
80-62-6	Methyl Methacrylate	1.1		ug/m³	0.60	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.53	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP



Sample Information

Client Sample ID: South Sub Slab

York Sample ID: 18L1186-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18L1186	18-41173 Southgrove	Soil Vapor	December 27, 2018 3:00 pm	12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	5.4		ug/m³	1.0	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
142-82-5	n-Heptane	3.5		ug/m³	0.60	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
110-54-3	n-Hexane	6.8		ug/m³	0.52	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
95-47-6	o-Xylene	24		ug/m³	0.64	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
179601-23-1	p- & m- Xylenes	79		ug/m³	1.3	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
622-96-8	* p-Ethyltoluene	18		ug/m³	0.72	1.467	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 17:44	PP
115-07-1	* Propylene	2.3		ug/m³	0.25	1.467	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 17:44	PP
100-42-5	Styrene	ND		ug/m³	0.62	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
127-18-4	Tetrachloroethylene	5.1		ug/m³	0.25	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
109-99-9	* Tetrahydrofuran	42		ug/m³	0.87	1.467	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 17:44	PP
108-88-3	Toluene	1600		ug/m³	5.5	14.67	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/04/2019 09:00	01/05/2019 11:36	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.58	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.67	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
79-01-6	Trichloroethylene	ND		ug/m³	0.20	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
75-69-4	Trichlorofluoromethane (Freon 11)	3.8		ug/m³	0.82	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
108-05-4	Vinyl acetate	ND		ug/m³	0.52	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
593-60-2	Vinyl bromide	ND		ug/m³	0.64	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
75-01-4	Vinyl Chloride	ND		ug/m³	0.094	1.467	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 17:44	PP
Surrogate Recoveries		Result	Acceptance Range							
460-00-4	Surrogate: SURL: p-Bromofluorobenzene	83.3 %			70-130					



Sample Information

Client Sample ID: North First Floor

York Sample ID:

18L1186-04

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.59	0.861	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 18:53	PP
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.47	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.59	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.66	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.47	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.35	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.085	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.64	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
95-63-6	1,2,4-Trimethylbenzene	0.51		ug/m³	0.42	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.66	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.52	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.35	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.40	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.60	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.42	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
106-99-0	1,3-Butadiene	ND		ug/m³	0.57	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.52	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.40	0.861	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 18:53	PP
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.52	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
123-91-1	1,4-Dioxane	ND		ug/m³	0.62	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
78-93-3	2-Butanone	1.3		ug/m³	0.25	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
591-78-6	* 2-Hexanone	ND		ug/m³	0.71	0.861	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 18:53	PP



Sample Information

Client Sample ID: North First Floor

York Sample ID: 18L1186-04

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18L1186	18-41173 Southgrove	Indoor Ambient Air	December 27, 2018 3:00 pm	12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m³	1.3	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.35	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
67-64-1	Acetone	27		ug/m³	0.41	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
107-13-1	Acrylonitrile	ND		ug/m³	0.19	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
71-43-2	Benzene	0.74		ug/m³	0.28	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
100-44-7	Benzyl chloride	ND		ug/m³	0.45	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
75-27-4	Bromodichloromethane	ND		ug/m³	0.58	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
75-25-2	Bromoform	ND		ug/m³	0.89	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
74-83-9	Bromomethane	ND		ug/m³	0.33	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
75-15-0	Carbon disulfide	ND		ug/m³	0.27	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
56-23-5	Carbon tetrachloride	0.43		ug/m³	0.14	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
108-90-7	Chlorobenzene	ND		ug/m³	0.40	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
75-00-3	Chloroethane	ND		ug/m³	0.23	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
67-66-3	Chloroform	ND		ug/m³	0.42	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
74-87-3	Chloromethane	1.2	QL-03, CCV-A	ug/m³	0.18	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.085	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.39	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
110-82-7	Cyclohexane	ND		ug/m³	0.30	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
124-48-1	Dibromochloromethane	ND		ug/m³	0.73	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
75-71-8	Dichlorodifluoromethane	2.1		ug/m³	0.43	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
141-78-6	* Ethyl acetate	ND		ug/m³	0.62	0.861	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 18:53	PP
100-41-4	Ethyl Benzene	0.90		ug/m³	0.37	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP



Sample Information

Client Sample ID: North First Floor

York Sample ID: 18L1186-04

<u>York Project (SDG) No.</u> 18L1186	<u>Client Project ID</u> 18-41173 Southgrove	<u>Matrix</u> Indoor Ambient Air	<u>Collection Date/Time</u> December 27, 2018 3:00 pm	<u>Date Received</u> 12/31/2018
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Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND		ug/m³	0.92	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
67-63-0	Isopropanol	18		ug/m³	0.42	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
80-62-6	Methyl Methacrylate	0.35		ug/m³	0.35	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.31	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
75-09-2	Methylene chloride	1.7		ug/m³	0.60	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
142-82-5	n-Heptane	0.39		ug/m³	0.35	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
110-54-3	n-Hexane	0.58		ug/m³	0.30	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
95-47-6	o-Xylene	0.41		ug/m³	0.37	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
179601-23-1	p- & m- Xylenes	0.90		ug/m³	0.75	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
622-96-8	* p-Ethyltoluene	0.76		ug/m³	0.42	0.861	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 18:53	PP
115-07-1	* Propylene	0.93		ug/m³	0.15	0.861	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 18:53	PP
100-42-5	Styrene	0.99		ug/m³	0.37	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
127-18-4	Tetrachloroethylene	ND		ug/m³	0.15	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
109-99-9	* Tetrahydrofuran	0.74		ug/m³	0.51	0.861	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 18:53	PP
108-88-3	Toluene	2.4		ug/m³	0.32	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.34	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.39	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
79-01-6	Trichloroethylene	ND		ug/m³	0.12	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
75-69-4	Trichlorofluoromethane (Freon 11)	1.4		ug/m³	0.48	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
108-05-4	Vinyl acetate	ND		ug/m³	0.30	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
593-60-2	Vinyl bromide	ND		ug/m³	0.38	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP
75-01-4	Vinyl Chloride	ND		ug/m³	0.055	0.861	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 18:53	PP

Surrogate Recoveries	Result	Acceptance Range
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Sample Information

Client Sample ID: North First Floor

York Sample ID: 18L1186-04

York Project (SDG) No.
18L1186

Client Project ID
18-41173 Southgrove

Matrix
Indoor Ambient Air

Collection Date/Time
December 27, 2018 3:00 pm

Date Received
12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	Surrogate: SURR: <i>p</i> -Bromofluorobenzene	87.4 %			70-130					

Sample Information

Client Sample ID: North Crawl Space

York Sample ID: 18L1186-05

York Project (SDG) No.
18L1186

Client Project ID
18-41173 Southgrove

Matrix
Indoor Ambient Air

Collection Date/Time
December 27, 2018 3:00 pm

Date Received
12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.56	0.821	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 20:02	PP
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.45	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.56	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.63	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.45	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.33	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.081	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.61	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
95-63-6	1,2,4-Trimethylbenzene	0.52		ug/m³	0.40	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.63	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.49	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.33	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.38	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.57	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP



Sample Information

<u>Client Sample ID:</u> North Crawl Space		<u>York Sample ID:</u> 18L1186-05
<u>York Project (SDG) No.</u> 18L1186	<u>Client Project ID</u> 18-41173 Southgrove	<u>Matrix</u> Indoor Ambient Air <u>Collection Date/Time</u> December 27, 2018 3:00 pm <u>Date Received</u> 12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.40	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
106-99-0	1,3-Butadiene	ND		ug/m³	0.54	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.49	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.38	0.821	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 20:02	PP
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.49	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
123-91-1	1,4-Dioxane	ND		ug/m³	0.59	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
78-93-3	2-Butanone	0.99		ug/m³	0.24	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
591-78-6	* 2-Hexanone	ND		ug/m³	0.67	0.821	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 20:02	PP
107-05-1	3-Chloropropene	ND		ug/m³	1.3	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.34	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
67-64-1	Acetone	14		ug/m³	0.39	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
107-13-1	Acrylonitrile	ND		ug/m³	0.18	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
71-43-2	Benzene	0.63		ug/m³	0.26	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
100-44-7	Benzyl chloride	ND		ug/m³	0.43	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
75-27-4	Bromodichloromethane	ND		ug/m³	0.55	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
75-25-2	Bromoform	ND		ug/m³	0.85	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
74-83-9	Bromomethane	ND		ug/m³	0.32	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
75-15-0	Carbon disulfide	ND		ug/m³	0.26	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
56-23-5	Carbon tetrachloride	0.41		ug/m³	0.13	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
108-90-7	Chlorobenzene	ND		ug/m³	0.38	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
75-00-3	Chloroethane	ND		ug/m³	0.22	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
67-66-3	Chloroform	ND		ug/m³	0.40	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP



Sample Information

Client Sample ID: North Crawl Space	York Sample ID: 18L1186-05			
York Project (SDG) No. 18L1186	Client Project ID 18-41173 Southgrove	Matrix Indoor Ambient Air	Collection Date/Time December 27, 2018 3:00 pm	Date Received 12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-87-3	Chloromethane	1.1		ug/m³ CCV-A	0.17	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.081	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.37	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
110-82-7	Cyclohexane	ND		ug/m³	0.28	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
124-48-1	Dibromochloromethane	ND		ug/m³	0.70	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
75-71-8	Dichlorodifluoromethane	1.7		ug/m³	0.41	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
141-78-6	* Ethyl acetate	ND		ug/m³	0.59	0.821	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 20:02	PP
100-41-4	Ethyl Benzene	0.57		ug/m³	0.36	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
87-68-3	Hexachlorobutadiene	ND		ug/m³	0.88	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
67-63-0	Isopropanol	7.0		ug/m³	0.40	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
80-62-6	Methyl Methacrylate	ND		ug/m³	0.34	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.30	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
75-09-2	Methylene chloride	1.4		ug/m³	0.57	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
142-82-5	n-Heptane	ND		ug/m³	0.34	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
110-54-3	n-Hexane	0.64		ug/m³	0.29	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
95-47-6	o-Xylene	0.50		ug/m³	0.36	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
179601-23-1	p- & m- Xylenes	1.6		ug/m³	0.71	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
622-96-8	* p-Ethyltoluene	0.65		ug/m³	0.40	0.821	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 20:02	PP
115-07-1	* Propylene	0.66		ug/m³	0.14	0.821	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 20:02	PP
100-42-5	Styrene	0.35		ug/m³	0.35	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
127-18-4	Tetrachloroethylene	ND		ug/m³	0.14	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
109-99-9	* Tetrahydrofuran	0.85		ug/m³	0.48	0.821	EPA TO-15 Certifications:	01/02/2019 08:00	01/02/2019 20:02	PP



Sample Information

Client Sample ID: North Crawl Space

York Sample ID: 18L1186-05

York Project (SDG) No.
18L1186

Client Project ID
18-41173 Southgrove

Matrix
Indoor Ambient Air

Collection Date/Time
December 27, 2018 3:00 pm

Date Received
12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-88-3	Toluene	2.0		ug/m³	0.31	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.33	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.37	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
79-01-6	Trichloroethylene	ND		ug/m³	0.11	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
75-69-4	Trichlorofluoromethane (Freon 11)	1.7		ug/m³	0.46	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
108-05-4	Vinyl acetate	ND		ug/m³	0.29	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
593-60-2	Vinyl bromide	ND		ug/m³	0.36	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
75-01-4	Vinyl Chloride	ND		ug/m³	0.052	0.821	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/02/2019 20:02	PP
Surrogate Recoveries		Result	Acceptance Range							
460-00-4	Surrogate: Surr: <i>p</i> -Bromofluorobenzene	85.1 %			70-130					

Sample Information

Client Sample ID: North Sub Slab

York Sample ID: 18L1186-06

York Project (SDG) No.
18L1186

Client Project ID
18-41173 Southgrove

Matrix
Soil Vapor

Collection Date/Time
December 27, 2018 3:00 pm

Date Received
12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.3	1.879	EPA TO-15 Certifications:	01/02/2019 08:00	01/03/2019 04:51	PP
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	1.0	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.3	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.4	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	1.0	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP



Sample Information

Client Sample ID: North Sub Slab

York Sample ID:

18L1186-06

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Soil Vapor

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.76	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.19	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.4	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
95-63-6	1,2,4-Trimethylbenzene	10		ug/m³	0.92	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.4	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	1.1	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.76	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.87	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
76-14-2	1,2-Dichlortetrafluoroethane	ND		ug/m³	1.3	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
108-67-8	1,3,5-Trimethylbenzene	2.5		ug/m³	0.92	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
106-99-0	1,3-Butadiene	ND		ug/m³	1.2	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	1.1	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.87	1.879	EPA TO-15 Certifications:	01/02/2019 08:00	01/03/2019 04:51	PP
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	1.1	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
123-91-1	1,4-Dioxane	ND		ug/m³	1.4	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
78-93-3	2-Butanone	27		ug/m³	0.55	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
591-78-6	* 2-Hexanone	ND		ug/m³	1.5	1.879	EPA TO-15 Certifications:	01/02/2019 08:00	01/03/2019 04:51	PP
107-05-1	3-Chloropropene	ND		ug/m³	2.9	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
108-10-1	4-Methyl-2-pentanone	1.9		ug/m³	0.77	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
67-64-1	Acetone	290		ug/m³	8.9	18.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/04/2019 09:00	01/05/2019 12:36	AS
107-13-1	Acrylonitrile	ND		ug/m³	0.41	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
71-43-2	Benzene	7.1		ug/m³	0.60	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP



Sample Information

Client Sample ID: North Sub Slab

York Sample ID:

18L1186-06

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Soil Vapor

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-44-7	Benzyl chloride	ND		ug/m³	0.97	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
75-27-4	Bromodichloromethane	ND		ug/m³	1.3	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
75-25-2	Bromoform	ND		ug/m³	1.9	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
74-83-9	Bromomethane	ND		ug/m³	0.73	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
75-15-0	Carbon disulfide	ND		ug/m³	0.59	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
56-23-5	Carbon tetrachloride	0.35		ug/m³	0.30	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
108-90-7	Chlorobenzene	ND		ug/m³	0.87	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
75-00-3	Chloroethane	ND		ug/m³	0.50	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
67-66-3	Chloroform	ND		ug/m³	0.92	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
74-87-3	Chloromethane	1.0	QL-03, CCV-A	ug/m³	0.39	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.19	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.85	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
110-82-7	Cyclohexane	2.4		ug/m³	0.65	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
124-48-1	Dibromochloromethane	ND		ug/m³	1.6	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
75-71-8	Dichlorodifluoromethane	2.1		ug/m³	0.93	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
141-78-6	* Ethyl acetate	ND		ug/m³	1.4	1.879	EPA TO-15 Certifications:	01/02/2019 08:00	01/03/2019 04:51	PP
100-41-4	Ethyl Benzene	32		ug/m³	0.82	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
87-68-3	Hexachlorobutadiene	ND		ug/m³	2.0	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
67-63-0	Isopropanol	8.8		ug/m³	0.92	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
80-62-6	Methyl Methacrylate	ND		ug/m³	0.77	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.68	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP
75-09-2	Methylene chloride	ND		ug/m³	1.3	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP



Sample Information

Client Sample ID: North Sub Slab

York Sample ID:

18L1186-06

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Soil Vapor

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst	
142-82-5	n-Heptane	5.0		ug/m³	0.77	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
110-54-3	n-Hexane	12		ug/m³	0.66	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
95-47-6	o-Xylene	10		ug/m³	0.82	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
179601-23-1	p- & m- Xylenes	34		ug/m³	1.6	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
622-96-8	* p-Ethyltoluene	8.3		ug/m³	0.92	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
115-07-1	* Propylene	3.8		ug/m³	0.32	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
100-42-5	Styrene	1.6		ug/m³	0.80	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
127-18-4	Tetrachloroethylene	3.8		ug/m³	0.32	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
109-99-9	* Tetrahydrofuran	36		ug/m³	1.1	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
108-88-3	Toluene	1500		ug/m³	7.1	18.79	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/04/2019 09:00	01/05/2019 12:36	AS	
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.74	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.85	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
79-01-6	Trichloroethylene	ND		ug/m³	0.25	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
75-69-4	Trichlorofluoromethane (Freon 11)	1.6		ug/m³	1.1	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
108-05-4	Vinyl acetate	ND		ug/m³	0.66	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
593-60-2	Vinyl bromide	ND		ug/m³	0.82	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
75-01-4	Vinyl Chloride	ND		ug/m³	0.12	1.879	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/02/2019 08:00	01/03/2019 04:51	PP	
Surrogate Recoveries		Result	Acceptance Range								
460-00-4	Surrogate: SURN: p-Bromofluorobenzene	78.3 %				70-130					



Sample Information

Client Sample ID: Ambient #1

York Sample ID: 18L1186-07

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Outdoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND	IS-LO	ug/m³	0.55	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.44	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
79-34-5	1,1,2,2-Tetrachloroethane	ND	IS-LO	ug/m³	0.55	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.74		ug/m³	0.62	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.44	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.33	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.080	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
120-82-1	1,2,4-Trichlorobenzene	ND	IS-LO	ug/m³	0.60	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
95-63-6	1,2,4-Trimethylbenzene	0.75	IS-LO	ug/m³	0.40	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.62	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
95-50-1	1,2-Dichlorobenzene	ND	IS-LO	ug/m³	0.48	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.33	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.37	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
76-14-2	1,2-Dichlortetrafluoroethane	ND		ug/m³	0.56	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
108-67-8	1,3,5-Trimethylbenzene	ND	IS-LO	ug/m³	0.40	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
106-99-0	1,3-Butadiene	ND		ug/m³	0.53	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
541-73-1	1,3-Dichlorobenzene	ND	IS-LO	ug/m³	0.48	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.37	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
106-46-7	1,4-Dichlorobenzene	ND	IS-LO	ug/m³	0.48	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
123-91-1	1,4-Dioxane	ND		ug/m³	0.58	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
78-93-3	2-Butanone	0.90		ug/m³	0.24	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										
591-78-6	* 2-Hexanone	ND		ug/m³	0.66	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
NELAC-NY12058,NJDEP-Queens										



Sample Information

<u>Client Sample ID:</u> Ambient #1	<u>York Sample ID:</u> 18L1186-07			
<u>York Project (SDG) No.</u> 18L1186	<u>Client Project ID</u> 18-41173 Southgrove	<u>Matrix</u> Outdoor Ambient Air	<u>Collection Date/Time</u> December 27, 2018 3:00 pm	<u>Date Received</u> 12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m³	1.3	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
108-10-1	4-Methyl-2-pentanone	0.40		ug/m³	0.33	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
67-64-1	Acetone	6.6		ug/m³	0.38	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
107-13-1	Acrylonitrile	ND		ug/m³	0.17	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
71-43-2	Benzene	0.80		ug/m³	0.26	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
100-44-7	Benzyl chloride	ND	IS-LO	ug/m³	0.42	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
75-27-4	Bromodichloromethane	ND		ug/m³	0.54	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
75-25-2	Bromoform	ND	IS-LO	ug/m³	0.83	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
74-83-9	Bromomethane	ND		ug/m³	0.31	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
75-15-0	Carbon disulfide	ND		ug/m³	0.25	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
56-23-5	Carbon tetrachloride	0.56		ug/m³	0.13	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
108-90-7	Chlorobenzene	ND	IS-LO	ug/m³	0.37	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
75-00-3	Chloroethane	ND		ug/m³	0.21	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
67-66-3	Chloroform	ND		ug/m³	0.39	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
74-87-3	Chloromethane	2.2	QL-03, CCV-A	ug/m³	0.17	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
156-59-2	cis-1,2-Dichloroethylene	0.45		ug/m³	0.080	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.37	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
110-82-7	Cyclohexane	ND		ug/m³	0.28	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
124-48-1	Dibromochloromethane	ND		ug/m³	0.69	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
75-71-8	Dichlorodifluoromethane	2.0		ug/m³	0.40	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
141-78-6	* Ethyl acetate	0.96		ug/m³	0.58	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
100-41-4	Ethyl Benzene	0.80	IS-LO	ug/m³	0.35	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS



Sample Information

Client Sample ID: Ambient #1

York Sample ID: 18L1186-07

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Outdoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND	IS-LO	ug/m³	0.86	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
67-63-0	Isopropanol	1.7		ug/m³	0.40	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.33	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.29	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
75-09-2	Methylene chloride	2.5		ug/m³	0.56	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
142-82-5	n-Heptane	0.36		ug/m³	0.33	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
110-54-3	n-Hexane	0.51		ug/m³	0.28	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
95-47-6	o-Xylene	0.87	IS-LO	ug/m³	0.35	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
179601-23-1	p- & m- Xylenes	3.3	IS-LO	ug/m³	0.70	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
622-96-8	* p-Ethyltoluene	0.87	IS-LO	ug/m³	0.40	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
115-07-1	* Propylene	0.74		ug/m³	0.14	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
100-42-5	Styrene	ND	IS-LO	ug/m³	0.34	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
127-18-4	Tetrachloroethylene	1.2		ug/m³	0.14	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.48	0.806	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 01:14	AS
108-88-3	Toluene	4.6		ug/m³	0.30	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.32	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.37	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
79-01-6	Trichloroethylene	0.17		ug/m³	0.11	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
75-69-4	Trichlorofluoromethane (Freon 11)	2.2		ug/m³	0.45	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
108-05-4	Vinyl acetate	ND		ug/m³	0.28	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
593-60-2	Vinyl bromide	ND		ug/m³	0.35	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS
75-01-4	Vinyl Chloride	ND		ug/m³	0.052	0.806	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 01:14	AS

Surrogate Recoveries

Result

Acceptance Range

120 RESEARCH DRIVE

www.YORKLAB.com

STRATFORD, CT 06615

(203) 325-1371

■

132-02 89th AVENUE

FAX (203) 357-0166

RICHMOND HILL, NY 11418

ClientServices@yorklab.com



Sample Information

Client Sample ID: Ambient #1

York Sample ID: 18L1186-07

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Outdoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
460-00-4	Surrogate: SURR: <i>p</i> -Bromofluorobenzene	102 %	IS-LO	70-130						

Sample Information

Client Sample ID: Gym First Floor

York Sample ID: 18L1186-08

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.67	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.53	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.67	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.74	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.53	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.39	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.096	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.72	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.48	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.75	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.58	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.39	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.45	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.68	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS



Sample Information

Client Sample ID: Gym First Floor

York Sample ID: 18L1186-08

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.48	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
106-99-0	1,3-Butadiene	ND		ug/m³	0.64	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.58	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.45	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.58	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
123-91-1	1,4-Dioxane	ND		ug/m³	0.70	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
78-93-3	2-Butanone	1.4		ug/m³	0.29	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
591-78-6	* 2-Hexanone	ND		ug/m³	0.79	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
107-05-1	3-Chloropropene	ND		ug/m³	1.5	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.40	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
67-64-1	Acetone	3.8		ug/m³	0.46	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
107-13-1	Acrylonitrile	ND		ug/m³	0.21	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
71-43-2	Benzene	0.65		ug/m³	0.31	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
100-44-7	Benzyl chloride	ND		ug/m³	0.50	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
75-27-4	Bromodichloromethane	ND		ug/m³	0.65	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
75-25-2	Bromoform	ND		ug/m³	1.0	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
74-83-9	Bromomethane	ND		ug/m³	0.38	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
75-15-0	Carbon disulfide	ND		ug/m³	0.30	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
56-23-5	Carbon tetrachloride	0.49		ug/m³	0.15	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
108-90-7	Chlorobenzene	ND		ug/m³	0.45	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
75-00-3	Chloroethane	ND		ug/m³	0.26	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
67-66-3	Chloroform	ND		ug/m³	0.47	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS



Sample Information

Client Sample ID: Gym First Floor

York Sample ID: 18L1186-08

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-87-3	Chloromethane	1.6	QL-03, CCV-A	ug/m³	0.20	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.096	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.44	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
110-82-7	Cyclohexane	ND		ug/m³	0.33	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
124-48-1	Dibromochloromethane	ND		ug/m³	0.83	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
75-71-8	Dichlorodifluoromethane	1.9		ug/m³	0.48	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
141-78-6	* Ethyl acetate	ND		ug/m³	0.70	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
100-41-4	Ethyl Benzene	ND		ug/m³	0.42	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.0	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
67-63-0	Isopropanol	0.57		ug/m³	0.48	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.40	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.35	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
75-09-2	Methylene chloride	0.81		ug/m³	0.67	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
142-82-5	n-Heptane	ND		ug/m³	0.40	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
110-54-3	n-Hexane	ND		ug/m³	0.34	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
95-47-6	o-Xylene	ND		ug/m³	0.42	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.84	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.48	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
115-07-1	* Propylene	1.0		ug/m³	0.17	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS
100-42-5	Styrene	ND		ug/m³	0.41	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
127-18-4	Tetrachloroethylene	0.46		ug/m³	0.16	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.57	0.97	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 02:06	AS



Sample Information

Client Sample ID: Gym First Floor

York Sample ID: 18L1186-08

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-88-3	Toluene	2.3		ug/m³	0.37	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.38	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.44	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
75-69-4	Trichlorofluoromethane (Freon 11)	1.4		ug/m³	0.55	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
108-05-4	Vinyl acetate	ND		ug/m³	0.34	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
593-60-2	Vinyl bromide	ND		ug/m³	0.42	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
75-01-4	Vinyl Chloride	ND		ug/m³	0.062	0.97	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 02:06	AS
Surrogate Recoveries		Result	Acceptance Range							
460-00-4	Surrogate: Surr: <i>p</i> -Bromofluorobenzene	81.1 %			70-130					

Sample Information

Client Sample ID: Gym Sub Surface

York Sample ID: 18L1186-09

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Soil Vapor

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.91	1.331	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 03:12	AS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.73	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.91	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.0	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.73	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS



Sample Information

Client Sample ID: Gym Sub Surface	York Sample ID: 18L1186-09
<u>York Project (SDG) No.</u> 18L1186	<u>Client Project ID</u> 18-41173 Southgrove
	<u>Matrix</u> Soil Vapor <u>Collection Date/Time</u> December 27, 2018 3:00 pm <u>Date Received</u> 12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.54	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.13	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.99	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
95-63-6	1,2,4-Trimethylbenzene	18		ug/m³	0.65	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.0	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.80	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.54	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.62	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
76-14-2	1,2-Dichlortetrafluoroethane	ND		ug/m³	0.93	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
108-67-8	1,3,5-Trimethylbenzene	3.9		ug/m³	0.65	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
106-99-0	1,3-Butadiene	ND		ug/m³	0.88	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.80	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.62	1.331	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 03:12	AS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.80	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
123-91-1	1,4-Dioxane	ND		ug/m³	0.96	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
78-93-3	2-Butanone	15		ug/m³	0.39	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
591-78-6	* 2-Hexanone	ND		ug/m³	1.1	1.331	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 03:12	AS
107-05-1	3-Chloropropene	ND		ug/m³	2.1	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
108-10-1	4-Methyl-2-pentanone	2.1		ug/m³	0.55	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
67-64-1	Acetone	270		ug/m³	13	26.62	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 10:59	AS
107-13-1	Acrylonitrile	ND		ug/m³	0.29	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
71-43-2	Benzene	3.7		ug/m³	0.43	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS



Sample Information

Client Sample ID: Gym Sub Surface	York Sample ID: 18L1186-09			
York Project (SDG) No. 18L1186	Client Project ID 18-41173 Southgrove	Matrix Soil Vapor	Collection Date/Time December 27, 2018 3:00 pm	Date Received 12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-44-7	Benzyl chloride	ND		ug/m³	0.69	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
75-27-4	Bromodichloromethane	ND		ug/m³	0.89	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
75-25-2	Bromoform	ND		ug/m³	1.4	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
74-83-9	Bromomethane	ND		ug/m³	0.52	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
75-15-0	Carbon disulfide	3.2		ug/m³	0.41	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
56-23-5	Carbon tetrachloride	0.50		ug/m³	0.21	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
108-90-7	Chlorobenzene	ND		ug/m³	0.61	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
75-00-3	Chloroethane	ND		ug/m³	0.35	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
67-66-3	Chloroform	ND		ug/m³	0.65	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
74-87-3	Chloromethane	1.3	QL-03, CCV-A	ug/m³	0.27	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.13	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.60	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
110-82-7	Cyclohexane	0.96		ug/m³	0.46	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
124-48-1	Dibromochloromethane	ND		ug/m³	1.1	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
75-71-8	Dichlorodifluoromethane	3.2		ug/m³	0.66	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
141-78-6	* Ethyl acetate	2.6		ug/m³	0.96	1.331	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 03:12	AS
100-41-4	Ethyl Benzene	9.8		ug/m³	0.58	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.4	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
67-63-0	Isopropanol	9.5		ug/m³	0.65	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.54	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.48	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
75-09-2	Methylene chloride	1.2		ug/m³	0.92	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS



Sample Information

Client Sample ID: Gym Sub Surface

York Sample ID: 18L1186-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18L1186	18-41173 Southgrove	Soil Vapor	December 27, 2018 3:00 pm	12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
142-82-5	n-Heptane	1.9		ug/m³	0.55	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
110-54-3	n-Hexane	5.0		ug/m³	0.47	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
95-47-6	o-Xylene	9.4		ug/m³	0.58	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
179601-23-1	p- & m- Xylenes	23		ug/m³	1.2	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
622-96-8	* p-Ethyltoluene	14		ug/m³	0.65	1.331	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 03:12	AS
115-07-1	* Propylene	2.9		ug/m³	0.23	1.331	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 03:12	AS
100-42-5	Styrene	1.1		ug/m³	0.57	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
127-18-4	Tetrachloroethylene	1.6		ug/m³	0.23	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
109-99-9	* Tetrahydrofuran	40		ug/m³	0.79	1.331	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 03:12	AS
108-88-3	Toluene	220		ug/m³	0.50	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.53	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.60	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
79-01-6	Trichloroethylene	ND		ug/m³	0.18	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
75-69-4	Trichlorofluoromethane (Freon 11)	2.9		ug/m³	0.75	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
108-05-4	Vinyl acetate	ND		ug/m³	0.47	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
593-60-2	Vinyl bromide	ND		ug/m³	0.58	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
75-01-4	Vinyl Chloride	ND		ug/m³	0.085	1.331	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 03:12	AS
Surrogate Recoveries		Result	Acceptance Range							
460-00-4	Surrogate: SURN: p-Bromofluorobenzene	85.4 %				70-130				



Sample Information

Client Sample ID: Annex First Floor

York Sample ID:

18L1186-10

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.57	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.46	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.57	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.64	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.46	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.34	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.083	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.62	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.41	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.64	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.50	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.34	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.39	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.58	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.41	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
106-99-0	1,3-Butadiene	ND		ug/m³	0.55	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.50	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.39	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.50	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
123-91-1	1,4-Dioxane	ND		ug/m³	0.60	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
78-93-3	2-Butanone	0.49		ug/m³	0.25	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
							NELAC-NY12058,NJDEP-Queens			



Sample Information

Client Sample ID: Annex First Floor

York Sample ID: 18L1186-10

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18L1186	18-41173 Southgrove	Indoor Ambient Air	December 27, 2018 3:00 pm	12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	0.68	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
107-05-1	3-Chloropropene	ND		ug/m³	1.3	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.34	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
67-64-1	Acetone	3.3		ug/m³	0.40	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
107-13-1	Acrylonitrile	ND		ug/m³	0.18	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
71-43-2	Benzene	0.67		ug/m³	0.27	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
100-44-7	Benzyl chloride	ND		ug/m³	0.43	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
75-27-4	Bromodichloromethane	ND		ug/m³	0.56	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
75-25-2	Bromoform	ND		ug/m³	0.86	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
74-83-9	Bromomethane	ND		ug/m³	0.32	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
75-15-0	Carbon disulfide	ND		ug/m³	0.26	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
56-23-5	Carbon tetrachloride	0.52		ug/m³	0.13	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
108-90-7	Chlorobenzene	ND		ug/m³	0.38	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
75-00-3	Chloroethane	ND		ug/m³	0.22	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
67-66-3	Chloroform	ND		ug/m³	0.41	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
74-87-3	Chloromethane	2.0	QL-03, CCV-A	ug/m³	0.17	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.083	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.38	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
110-82-7	Cyclohexane	ND		ug/m³	0.29	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
124-48-1	Dibromochloromethane	ND		ug/m³	0.71	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
75-71-8	Dichlorodifluoromethane	1.9		ug/m³	0.41	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS
141-78-6	* Ethyl acetate	ND		ug/m³	0.60	0.834	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 04:20	AS



Sample Information

Client Sample ID: Annex First Floor

York Sample ID:

18L1186-10

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-41-4	Ethyl Benzene	ND		ug/m³	0.36	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
87-68-3	Hexachlorobutadiene	ND		ug/m³	0.89	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
67-63-0	Isopropanol	0.76		ug/m³	0.41	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.34	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.30	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
75-09-2	Methylene chloride	2.1		ug/m³	0.58	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
142-82-5	n-Heptane	ND		ug/m³	0.34	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
110-54-3	n-Hexane	0.38		ug/m³	0.29	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
95-47-6	o-Xylene	ND		ug/m³	0.36	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.72	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.41	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
115-07-1	* Propylene	0.69		ug/m³	0.14	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
100-42-5	Styrene	ND		ug/m³	0.36	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
127-18-4	Tetrachloroethylene	ND		ug/m³	0.14	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.49	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
108-88-3	Toluene	1.0		ug/m³	0.31	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.33	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.38	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
79-01-6	Trichloroethylene	ND		ug/m³	0.11	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
75-69-4	Trichlorofluoromethane (Freon 11)	1.7		ug/m³	0.47	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
108-05-4	Vinyl acetate	ND		ug/m³	0.29	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
593-60-2	Vinyl bromide	ND		ug/m³	0.36	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS



Sample Information

Client Sample ID: Annex First Floor

York Sample ID: 18L1186-10

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.053	0.834	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 04:20	AS
Surrogate Recoveries										
Surrogate: SURR: p-Bromofluorobenzene										
Result										
Acceptance Range										
460-00-4 89.9 % 70-130										

Sample Information

Client Sample ID: Annex Sub Slab

York Sample ID: 18L1186-11

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Soil Vapor

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.92	1.34	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 05:25	AS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.73	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.92	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.0	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.73	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.54	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.13	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.99	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.66	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.0	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.81	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.54	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS



Sample Information

<u>Client Sample ID:</u> Annex Sub Slab	<u>York Sample ID:</u> 18L1186-11			
<u>York Project (SDG) No.</u> 18L1186	<u>Client Project ID</u> 18-41173 Southgrove	<u>Matrix</u> Soil Vapor	<u>Collection Date/Time</u> December 27, 2018 3:00 pm	<u>Date Received</u> 12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.62	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
76-14-2	1,2-Dichlortetrafluoroethane	ND		ug/m³	0.94	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.66	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
106-99-0	1,3-Butadiene	ND		ug/m³	0.89	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.81	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.62	1.34	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 05:25	AS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.81	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
123-91-1	1,4-Dioxane	ND		ug/m³	0.97	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
78-93-3	2-Butanone	1.0		ug/m³	0.40	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
591-78-6	* 2-Hexanone	ND		ug/m³	1.1	1.34	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 05:25	AS
107-05-1	3-Chloropropene	ND		ug/m³	2.1	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.55	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
67-64-1	Acetone	6.9		ug/m³	0.64	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
107-13-1	Acrylonitrile	ND		ug/m³	0.29	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
71-43-2	Benzene	0.98		ug/m³	0.43	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
100-44-7	Benzyl chloride	ND		ug/m³	0.69	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
75-27-4	Bromodichloromethane	ND		ug/m³	0.90	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
75-25-2	Bromoform	ND		ug/m³	1.4	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
74-83-9	Bromomethane	ND		ug/m³	0.52	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
75-15-0	Carbon disulfide	ND		ug/m³	0.42	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
56-23-5	Carbon tetrachloride	0.51		ug/m³	0.21	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
108-90-7	Chlorobenzene	ND		ug/m³	0.62	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS



Sample Information

Client Sample ID: Annex Sub Slab

York Sample ID:

18L1186-11

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Soil Vapor

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/m³	0.35	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
67-66-3	Chloroform	ND		ug/m³	0.65	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
74-87-3	Chloromethane	2.3		QL-03, ug/m³ CCV-A	0.28	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
156-59-2	cis-1,2-Dichloroethylene	0.21		ug/m³	0.13	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.61	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
110-82-7	Cyclohexane	ND		ug/m³	0.46	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
124-48-1	Dibromochloromethane	ND		ug/m³	1.1	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
75-71-8	Dichlorodifluoromethane	2.6		ug/m³	0.66	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
141-78-6	* Ethyl acetate	ND		ug/m³	0.97	1.34	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 05:25	AS
100-41-4	Ethyl Benzene	ND		ug/m³	0.58	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.4	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
67-63-0	Isopropanol	1.3		ug/m³	0.66	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.55	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.48	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
75-09-2	Methylene chloride	4.0		ug/m³	0.93	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
142-82-5	n-Heptane	ND		ug/m³	0.55	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
110-54-3	n-Hexane	0.76		ug/m³	0.47	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
95-47-6	o-Xylene	ND		ug/m³	0.58	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
179601-23-1	p- & m- Xylenes	1.2		ug/m³	1.2	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.66	1.34	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 05:25	AS
115-07-1	* Propylene	0.83		ug/m³	0.23	1.34	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 05:25	AS
100-42-5	Styrene	ND		ug/m³	0.57	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS



Sample Information

Client Sample ID: Annex Sub Slab

York Sample ID:

18L1186-11

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Soil Vapor

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	ND		ug/m³	0.23	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.79	1.34	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 05:25	AS
108-88-3	Toluene	2.7		ug/m³	0.50	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.53	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.61	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
79-01-6	Trichloroethylene	ND		ug/m³	0.18	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
75-69-4	Trichlorofluoromethane (Freon 11)	2.3		ug/m³	0.75	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
108-05-4	Vinyl acetate	ND		ug/m³	0.47	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
593-60-2	Vinyl bromide	ND		ug/m³	0.59	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
75-01-4	Vinyl Chloride	ND		ug/m³	0.086	1.34	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 05:25	AS
Surrogate Recoveries		Result	Acceptance Range							
460-00-4	Surrogate: SURR: <i>p</i> -Bromofluorobenzene	84.9 %			70-130					

Sample Information

Client Sample ID: Ambient #2

York Sample ID:

18L1186-12

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Outdoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.52	0.7632	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 06:34	AS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.42	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.52	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.58		ug/m³	0.58	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS



Sample Information

<u>Client Sample ID:</u> Ambient #2		<u>York Sample ID:</u> 18L1186-12
<u>York Project (SDG) No.</u> 18L1186	<u>Client Project ID</u> 18-41173 Southgrove	<u>Matrix</u> Outdoor Ambient Air <u>Collection Date/Time</u> December 27, 2018 3:00 pm <u>Date Received</u> 12/31/2018

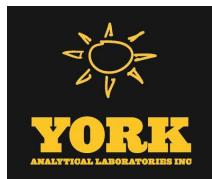
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.42	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.31	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.076	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.57	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.38	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.59	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.46	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.31	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.35	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.53	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.38	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
106-99-0	1,3-Butadiene	ND		ug/m³	0.51	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.46	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.35	0.7632	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 06:34	AS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.46	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
123-91-1	1,4-Dioxane	ND		ug/m³	0.55	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
78-93-3	2-Butanone	0.52		ug/m³	0.23	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
591-78-6	* 2-Hexanone	ND		ug/m³	0.63	0.7632	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 06:34	AS
107-05-1	3-Chloropropene	ND		ug/m³	1.2	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.31	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
67-64-1	Acetone	2.5		ug/m³	0.36	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
107-13-1	Acrylonitrile	ND		ug/m³	0.17	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS



Sample Information

Client Sample ID: Ambient #2

York Sample ID: 18L1186-12

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18L1186	18-41173 Southgrove	Outdoor Ambient Air	December 27, 2018 3:00 pm	12/31/2018

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	0.59		ug/m³	0.24	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
100-44-7	Benzyl chloride	ND		ug/m³	0.40	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
75-27-4	Bromodichloromethane	ND		ug/m³	0.51	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
75-25-2	Bromoform	ND		ug/m³	0.79	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
74-83-9	Bromomethane	ND		ug/m³	0.30	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
75-15-0	Carbon disulfide	ND		ug/m³	0.24	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
56-23-5	Carbon tetrachloride	0.48		ug/m³	0.12	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
108-90-7	Chlorobenzene	ND		ug/m³	0.35	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
75-00-3	Chloroethane	ND		ug/m³	0.20	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
67-66-3	Chloroform	ND		ug/m³	0.37	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
74-87-3	Chloromethane	1.6	QL-03, CCV-A	ug/m³	0.16	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.076	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.35	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
110-82-7	Cyclohexane	ND		ug/m³	0.26	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
124-48-1	Dibromochloromethane	ND		ug/m³	0.65	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
75-71-8	Dichlorodifluoromethane	1.8		ug/m³	0.38	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
141-78-6	* Ethyl acetate	ND		ug/m³	0.55	0.7632	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 06:34	AS
100-41-4	Ethyl Benzene	ND		ug/m³	0.33	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
87-68-3	Hexachlorobutadiene	ND		ug/m³	0.81	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
67-63-0	Isopropanol	0.43		ug/m³	0.38	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.31	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.28	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS



Sample Information

Client Sample ID: Ambient #2

York Sample ID: 18L1186-12

York Project (SDG) No.

18L1186

Client Project ID

18-41173 Southgrove

Matrix

Outdoor Ambient Air

Collection Date/Time

December 27, 2018 3:00 pm

Date Received

12/31/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	2.1		ug/m³	0.53	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
142-82-5	n-Heptane	ND		ug/m³	0.31	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
110-54-3	n-Hexane	0.30		ug/m³	0.27	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
95-47-6	o-Xylene	0.40		ug/m³	0.33	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
179601-23-1	p- & m- Xylenes	1.3		ug/m³	0.66	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
622-96-8	* p-Ethyltoluene	0.38		ug/m³	0.38	0.7632	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 06:34	AS
115-07-1	* Propylene	0.56		ug/m³	0.13	0.7632	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 06:34	AS
100-42-5	Styrene	ND		ug/m³	0.33	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
127-18-4	Tetrachloroethylene	ND		ug/m³	0.13	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.45	0.7632	EPA TO-15 Certifications:	01/06/2019 09:00	01/07/2019 06:34	AS
108-88-3	Toluene	1.8		ug/m³	0.29	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.30	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.35	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
79-01-6	Trichloroethylene	ND		ug/m³	0.10	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
75-69-4	Trichlorofluoromethane (Freon 11)	1.8		ug/m³	0.43	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
108-05-4	Vinyl acetate	ND		ug/m³	0.27	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
593-60-2	Vinyl bromide	ND		ug/m³	0.33	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
75-01-4	Vinyl Chloride	ND		ug/m³	0.049	0.7632	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	01/06/2019 09:00	01/07/2019 06:34	AS
Surrogate Recoveries		Result	Acceptance Range							
460-00-4	Surrogate: SURR: <i>p</i> -Bromofluorobenzene	79.1 %			70-130					





Sample and Data Qualifiers Relating to This Work Order

- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QL-03 This LCS analyte recovered outside of acceptance limits. The LCS contains approximately 70 compounds, a limited number of which may be outside acceptance windows.
- IS-LO The internal std associated with this target compound did not meet acceptance criteria (area <50% CCV) at the stated dilution due to matrix effects. Sample was rerun to confirm matrix effects.
- CCV-A The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>30% Difference for average Rf). This applies to detected analytes only.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence . This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.



Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



York Analytical Laboratories, Inc.
120 Research Drive 132-02 89th Ave Queens,
Stratford, CT 06615 NY 11418

YORK
ANALYTICAL LABORATORIES INC.

clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

YORK Project No.

18L1186

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
Signature binds you to YORK's Standard Terms & Conditions.

Your

Page 1 of 1

YOUR Information		Report To:	Invoice To:	YOUR Project Number <i>18-41173</i>	Turn-Around Tin RUSH - Next Day RUSH - Two Day RUSH - Three Day RUSH - Four Day Standard (5-7 Day)
Company: <i>JCBRODICK & ASSOC</i>	Address: <i>1775 EXPRESSWAY DR. N HAUPPAUGE, NY 11788</i>	Company: <i>JCB</i>	Address:		
Phone: <i>631-584-5492</i>	Phone:	Phone:			
Contact: <i>S MULLEN</i>	Contact:	Contact:			
E-mail: <i>SMULLEN@JCBRODICK.COM</i>	E-mail:	E-mail:	YOUR PO#:		

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

STEVEN MULLEN

Samples Collected by: (print your name above and sign below)

Steven Mullen

Air Matrix Codes		Samples From	Report / EDD Type (circle selections)			YORK Reg. Com
AI - Indoor Ambient Air	New York	X	Summary Report	CT RCP	Standard Excel EDD	Compared to the followi
AO - Outdoor Amb. Air	New Jersey		QA Report	CT RCP DQA/DUE	EQuis (Standard)	Regulation(s): (please fill in)
AE - Vapor Extraction Well/ Process Gas/Effluent	Connecticut		NY ASP A Package	NJDEP Reduced Deliv.	NYSDEC EQUIS	
AS - Soil Vapor/Sub-Slab	Pennsylvania		NY ASP B Package	NJDKQP	NJDEP SRP HazSite	
	Other		Other:			

Certified Canisters: Batch _____ Individual _____

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ ppbv ppmv

Analysis Requested

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	
SOUTH FIRST FLOOR	12/27/18	AI	>30	8.0	24111	7083	TO-15
SOUTH CRAWL SPACE	12/27/18	AI	29.5	12.0	23198	5603	TO-15
SOUTH SUB-SLAB	12/27/18	AS	28.5	3.0	23989	5707	TO-15
NORTH FIRST FLOOR	12/27/18	AI	30.0	5.0	24108	5607	TO-15
NORTH CRAWL SPACE	12/27/18	AI	28.5	3.5	24113	5625	TO-15
NORTH SUB-SLAB	12/27/18	AS	30.0	9.0	Y85	5001	TO-15
AMBIENT #1	12/27/18	AO	>30	6.5	18317	Y14	TO-15
GYM FIRST FLOOR	12/27/18	AI	>30	8.5	24115	6866	TO-15
GYM SUB-SURFACE	12/27/18	AS	28.0	3.0	Y85	5607	TO-15
ANNEX FIRST FLOOR	12/27/18	AI	28.0	4.5	Y80	7085	TO-15

Comments:

Detection Limits Required

Sampling Media

≤ 1 ug/m³ NYSDEC V1 Limits

Routine Survey Other

6 Liter Canister

Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
<i>Steven Mullen JCB</i>	12/28/18 12 pm	<i>Kathy York</i>	12/28/18 10 am	<i>W. Buhayuk</i>	12/31/18 8 AM
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
<i>Queens Scoured Room</i>	12/31/18 8 AM				
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				<i>John York</i>	12/31/18 10:15



York Analytical Laboratories, Inc.
120 Research Drive 132-02 89th Ave Queen
Stratford, CT 06615 NY 11418

YORK

clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

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Your Page

ATTACHMENT B
DECEMBER 2018 RADON SAMPLING LETTERS

J.C. Broderick & Associates, Inc.

Environmental / Construction Consulting & Testing

January 11, 2019

Mr. Gregory Hamilton
Syosset Central School District
99 Pell Lane
Syosset, New York 11791



1775 Expressway Drive North
Hauppauge, NY 11788
631.584.5492
Fax: 631.584.3395
www.jcbroderick.com

**Re: Indoor Radon Sampling
South Grove Elementary School
60 Colony Lane
Syosset, New York 11791
Sampling Dates: December 22 - 26, 2018**

JCB#: 18-41195

Dear Mr. Hamilton:

J.C. Broderick and Associates, Inc. (JCB) was retained to perform indoor radon sampling within the above referenced school building.

The sampling was performed by experienced JCB representatives following the EPA Radon Measurement in Schools (EPA 402-R-92-014) guidance document. Sampling was performed utilizing Short-Term test devices which were placed in frequently occupied rooms in contact with the ground after the building was closed for a minimum of 12 hours.

The samples were assigned unique identification numbers, logged into a chain of custody document, and delivered to an accredited laboratory for the analysis of Radon. The results were compared with the decision-making flowchart found in the EPA Radon Measurement in Schools (EPA 402-R-92-014) guidance document which establishes an action level of 4 pCi/L.

The results of the sampling performed revealed the following:

- All results were reported below the EPA action level.

Please see the attached laboratory reports to be included in the District's Radon Measurement Plan. If there are any questions or if more information is needed, please feel free to contact our office.

Sincerely,

A handwritten signature in black ink, appearing to read "Bryan Ezelius".

Bryan Ezelius
J. C. Broderick & Associates, Inc.

A handwritten signature in black ink, appearing to read "Edward McGuire III".

Edward McGuire III
J. C. Broderick & Associates, Inc.



EMSL RadEx

79564620741
CHAIN OF CUSTODY
RADON LABORATORY SERVICES
(COMMERCIAL USE)

EMSL Job #:

NET#
JCBSR50
4 dayEMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: 800-220-3675
www.emsl.com

EMSL ANALYTICAL, INC.

Company Information:

EMSL
Acct #:

Company Name: JC Broderick & Associates Inc
 Contact: Edward McGuire
 Address: 1775 Expressway Dr North
 City: Hauppauge
 State: New York Zip: 11788
 Phone: 631 584 5492 Fax:
 Email: EMcguire@JCBroderick.com

Technician Certification #:

Tech Name: Jarett Boniface
 Tech Signature: [Signature]

Project/Site Information:

*Required

Project Name: South Grove Elementary School
 Project #/ PO: 18-41195
 *Address: 60 Colony Lane
 *City: Syosset *State: NY *Zip: 11791

*Building type? Residential Non-Residential
 School Other: _____

*Building foundation type? Basement Crawlspace
 Slab on Grade Other: _____

Special Notes / Instructions:

RECEIVED
21 DEC 2018
CINNAMINSON, NJ
EMSL

*Turnaround Time (TAT) Options

<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 3 Day	<input checked="" type="checkbox"/> 4 Day
--------------------------------	--------------------------------	--------------------------------	---

Disclaimer: In no event shall EMSL be liable for indirect, special, consequential, or incidental damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages arising out of or in connection with EMSL's services there under or the delivery, use, reliance upon or interpretation of test results by client or third party. We accept no legal responsibility for the purposes for which the client uses the test results. In no event shall EMSL be liable to a client or any third party, whether based upon theories of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereafter.

(S) Sample (B) Blank (D) Duplicate	Device Number	Location	Room #	Exposure Period Beginning Date		Exposure Period Ending Date		Temp, °F	Humidity, %
				Date	Time	Date	Time		
(S) Sample	330460/	Center Desk	2005	12/22/18	7:50	12/26/18	9:21	64.5	32.3
S	330495/	Center Desk	2002	12/22/18	7:51	12/26/18	9:23	69.6	25.5
B	330575/	Center Desk	2008	12/22/18	7:53	12/26/18	9:24	71.0	25.0
S	330573/	Center Desk	2011	12/22/18	7:54	12/26/18	9:25	71.4	24.6
D	330542/	Center Desk	2015	12/22/18	7:54	12/26/18	9:26	71.9	25.0
S	330567/	Center Desk	2018	12/22/18	7:55	12/26/18	9:26	72.3	26.3
S	330599/	Center Table	2023	12/22/18	7:56	12/26/18	9:27	72.5	26.0
S	330466/	Center Desk							

Relinquished by (Sign):

Date: _____ Time: _____

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Date: 12/27/18 Time: _____



EMSL ANALYTICAL, INC.

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2018 DEC 27 A 10:09

NBB
EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: 800-220-3675
www.emsl.com

(S) Sample (B) Blank (D) Duplicate	Device Number	Location	Room #	Exposure Period Beginning Date		Exposure Period Ending Date		Temp, °F	Humidity %
				Date	Time	Date	Time		
S	330489✓	center Table	2030	12/22/18	8:04	12/26/18	9:30	74.3	24.1
B	330561✓								
S	330560✓	center Desk	2027	12/22/18	8:06	12/26/18	9:32	74.6	29.0
S	330507✓	center Desk	2032	12/22/18	8:08	12/26/18	9:33	75.0	22.8
S	330472✓	center Desk	2032	12/22/18	8:09	12/26/18	9:34	75.0	21.6
S	330530✓	center Table	2070	12/22/18	8:10	12/26/18	9:35	74.6	23.6
S	330506✓	center Desk	2068B	12/22/18	8:11	12/26/18	9:36	74.6	26.1
D	330547✓								
S	330496✓	center	2041	12/22/18	8:13	12/26/18	9:37	74.6	24.2
S	330577✓	center Desk	2043	12/22/18	8:14	12/26/18	9:39	74.6	30.4
S	330501✓	Center Table	2044	12/22/18	8:17	12/26/18	9:40	74.8	39.1
S	330511✓	center Desk	2068	12/22/18	8:20	12/26/18	9:41	75.2	25.2
S	330568✓	center Table	2096	12/22/18	8:25	12/26/18	9:44	76.2	22.6
S	330533✓	center Desk	2071	12/22/18	8:30	12/26/18	9:45	76.1	20.8
B	330592✓								
S	330557✓	center Desk	2075	12/22/18	8:31	12/26/18	9:46	75.5	20.6
S	330579✓	Center Desk	2078	12/22/18	8:33	12/26/18	9:47	75.2	20.4
S	330551✓	center Desk	2081	12/22/18	8:35	12/26/18	9:48	75.0	20.4
S	330581✓	center Desk	2086	12/22/18	8:35	12/26/18	9:49	75.2	20.4
D	330536✓								

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Date: _____ Time: _____

Page of _____

Received by EMSL (Sign):

DR

Date: 10/27/18 Time: _____



**CHAIN OF CUSTODY
RADON LABORATORY SERVICES
(COMMERCIAL USE)**

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: 800-220-3675
www.emsl.com

EMSL Job #:

(S) Sample (B) Blank (D) Duplicate	Device Number	Location	Room #	Exposure Period		Exposure Period		Temp, °F	Humidity %
				Beginning Date Date	Time	Ending Date Date	Time		
S	330521✓	Center Desk	2089	12/22/18	8:39	12/26/18	9:51	74.1	20.5
S	330538✓	center desk	2045	12/22/18	8:41	12/26/18	9:53	73.9	23.0
S	330576✓	Center Desk	2062	12/22/18	8:43	12/26/18	9:55	74.4	21.2
B	330594✓	Center Desk	2060	12/22/18	8:44	12/26/18	10:07	73.5	21.8
S	330545✓	Center Desk	2050	12/22/18	8:45	12/26/18	10:06	73.7	21.0
S	330587✓	center desk	2052	12/22/18	8:46	12/26/18	10:05	73.7	21.6
D	330498✓	Center Desk	2058	12/22/18	8:46	12/26/18	10:04	73.9	21.2
S	330517✓	Center Desk	2056	12/22/18	8:47	12/26/18	10:02	73.5	21.6
S	330484✓	Center Desk	2054	12/22/18	8:49	12/26/18	10:01	73.0	23.5
S	330503	center desk	Gym Office 123	12/22/18	9:16	12/26/18	10:00	72.6	24.7
S	330559	Center Desk	Gym Office 124	12/22/18	9:17	12/26/18	9:59	72.8	28.5
								74.00	27 A 10:09
								74.00	CINNAMON HANSON, H.J.

Relinquished by (Sign):

Date: _____ Time: _____

Page of

Received by EMSL (Sign):

Date: 12/26 Time:



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-0327

<http://www.EMSL.com>

cinnaminsonradonlab@emsl.com

EMSL Order:	381812208
CustomerID:	JCBR50
CustomerPO:	18-41195
ProjectID:	

Attn: **Ed McGuire**
J.C. Broderick & Associates
1775 Expressway Drive North, Suite 1
Hauppauge, NY 11788

Phone: (631) 584-5492
Fax:
Received: 12/27/18 10:09 AM
Analysis Date: 12/29/2018
Collected: 12/22/2018

Project: **South Grove Elementary School / 60 Colony Lane**

Test Site: **South Grove Elementary School**
60 Colony Lane
Syosset, NY 11791

Test Report: Radon in Air Test Results

Liquid Scintillation ID	Location	Radon Activity (pCi/L)	Start	Stop	Temperature F	Humidity %	Sample Type
330460	Center Desk / 2005	0.8	12/22/2018 7:50:00 AM	12/26/2018 9:21:00 AM	64.5	32.3	Customer
381812208-0001							
Sample Notes:							
330495	Center Desk / 2002	0.8	12/22/2018 7:51:00 AM	12/26/2018 9:23:00 AM	69.6	25.5	Customer
381812208-0002							
Sample Notes:							
330575	Center Desk / 2002	0.04	12/22/2018 7:51:00 AM	12/26/2018 9:23:00 AM	69.6	25.5	Blank
381812208-0003							
Sample Notes:							
330573	Center Desk / 2008	0.9	12/22/2018 7:53:00 AM	12/26/2018 9:24:00 AM	71	25	Customer
381812208-0004							
Sample Notes:							
330542	Center Desk / 2008	0.9	12/22/2018 7:53:00 AM	12/26/2018 9:24:00 AM	71	25	Duplicate
381812208-0005							
Sample Notes: Duplicate's Customer Sample:381812208-0004 Duplicate RPD = 0.0%							
330494	Center Desk / 2011	0.8	12/22/2018 7:54:00 AM	12/26/2018 9:25:00 AM	71.4	24.6	Customer
381812208-0006							
Sample Notes:							
330567	Center Desk / 2015	0.9	12/22/2018 7:54:00 AM	12/26/2018 9:26:00 AM	71.9	25	Customer
381812208-0007							
Sample Notes:							
330599	Center Table / 2018	0.9	12/22/2018 7:55:00 AM	12/26/2018 9:26:00 AM	72.3	26.3	Customer
381812208-0008							
Sample Notes:							
330466	Center Desk / 2023	0.8	12/22/2018 7:56:00 AM	12/26/2018 9:27:00 AM	72.5	26	Customer
381812208-0009							
Sample Notes:							
330489	Center Table / 2030	0.7	12/22/2018 8:04:00 AM	12/26/2018 9:30:00 AM	74.3	24.1	Customer
381812208-0010							
Sample Notes:							

Please visit www.radontestinglab.com

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-0327

<http://www.EMSL.com>cinnaminsonradonlab@emsl.com

EMSL Order:	381812208
CustomerID:	JCBR50
CustomerPO:	18-41195
ProjectID:	

Test Report: Radon in Air Test Results

Liquid Scintillation ID	Location	Radon Activity (pCi/L)	Start	Stop	Temperature F	Humidity %	Sample Type
330561 381812208-0011	Center Table / 2030	0.1	12/22/2018 8:04:00 AM	12/26/2018 9:30:00 AM	74.3	24.1	Blank
Sample Notes:							
330560 381812208-0012	Center Desk / 2027	1	12/22/2018 8:06:00 AM	12/26/2018 9:32:00 AM	74.6	29	Customer
Sample Notes:							
330507 381812208-0013	Center Desk / 2032	0.8	12/22/2018 8:08:00 AM	12/26/2018 9:33:00 AM	75	22.8	Customer
Sample Notes:							
330472 381812208-0014	Center Desk / 2032	0.9	12/22/2018 8:09:00 AM	12/26/2018 9:34:00 AM	75	21.6	Customer
Sample Notes:							
330530 381812208-0015	Center Table / 2070	0.5	12/22/2018 8:10:00 AM	12/26/2018 9:35:00 AM	74.6	23.6	Customer
Sample Notes:							
330506 381812208-0016	Center Desk / 2068B	0.5	12/22/2018 8:11:00 AM	12/26/2018 9:36:00 AM	74.6	26.1	Customer
Sample Notes:							
330547 381812208-0017	Center Desk / 2068B	0.6	12/22/2018 8:11:00 AM	12/26/2018 9:36:00 AM	74.6	26.1	Duplicate
Sample Notes: Duplicate's Customer Sample:381812208-0016							
330496 381812208-0018	Center / 2041	0.8	12/22/2018 8:13:00 AM	12/26/2018 9:37:00 AM	74.6	24.2	Customer
Sample Notes:							
330577 381812208-0019	Center Desk / 2043	0.8	12/22/2018 8:14:00 AM	12/26/2018 9:39:00 AM	74.6	30.4	Customer
Sample Notes:							
330501 381812208-0020	Center Table / 2044	0.8	12/22/2018 8:17:00 AM	12/26/2018 9:40:00 AM	74.8	39.1	Customer
Sample Notes:							
330511 381812208-0021	Center Desk / 2068	0.4	12/22/2018 8:20:00 AM	12/26/2018 9:41:00 AM	75.2	25.2	Customer
Sample Notes:							
330568 381812208-0022	Center Table / 2096	0.7	12/22/2018 8:25:00 AM	12/26/2018 9:44:00 AM	76.2	22.6	Customer
Sample Notes:							
330533 381812208-0023	Center Desk / 2071	0.8	12/22/2018 8:30:00 AM	12/26/2018 9:45:00 AM	76.1	20.8	Customer
Sample Notes:							

Please visit www.radontestinglab.com

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-0327

<http://www.EMSL.com>cinnaminsonradonlab@emsl.com

EMSL Order:	381812208
CustomerID:	JCBR50
CustomerPO:	18-41195
ProjectID:	

Test Report: Radon in Air Test Results

Liquid Scintillation ID	Location	Radon Activity (pCi/L)	Start	Stop	Temperature F	Humidity %	Sample Type
330592 381812208-0024	Center Desk / 2071	0.1	12/22/2018 8:30:00 AM	12/26/2018 9:45:00 AM	76.1	20.8	Blank
Sample Notes:							
330557 381812208-0025	Center Desk / 2075	0.9	12/22/2018 8:31:00 AM	12/26/2018 9:46:00 AM	75.5	20.6	Customer
Sample Notes:							
330579 381812208-0026	Center Desk / 2078	0.7	12/22/2018 8:33:00 AM	12/26/2018 9:47:00 AM	75.2	20.4	Customer
Sample Notes:							
330551 381812208-0027	Center Desk / 2081	0.8	12/22/2018 8:35:00 AM	12/26/2018 9:48:00 AM	75	20.4	Customer
Sample Notes:							
330581 381812208-0028	Center Desk / 2086	0.9	12/22/2018 8:35:00 AM	12/26/2018 9:49:00 AM	75.2	20.4	Customer
Sample Notes:							
330536 381812208-0029	Center Desk / 2086	0.8	12/22/2018 8:35:00 AM	12/26/2018 9:49:00 AM	75.2	20.4	Duplicate
Sample Notes: Duplicate's Customer Sample:381812208-0028							
330521 381812208-0030	Center Desk / 2089	0.9	12/22/2018 8:39:00 AM	12/26/2018 9:51:00 AM	74.1	20.5	Customer
Sample Notes:							
330538 381812208-0031	Center Desk / 2045	0.9	12/22/2018 8:41:00 AM	12/26/2018 9:53:00 AM	73.9	23	Customer
Sample Notes:							
330576 381812208-0032	Center Desk / 2062	0.7	12/22/2018 8:43:00 AM	12/26/2018 9:55:00 AM	74.4	21.2	Customer
Sample Notes:							
330594 381812208-0033	Center Desk / 2062	0.04	12/22/2018 8:43:00 AM	12/26/2018 9:55:00 AM	74.4	21.2	Blank
Sample Notes:							
330518 381812208-0034	Center Desk / 2060	0.6	12/22/2018 8:44:00 AM	12/26/2018 10:07:00 AM	73.5	21.8	Customer
Sample Notes:							
330545 381812208-0035	Center Desk / 2050	1	12/22/2018 8:45:00 AM	12/26/2018 10:06:00 AM	73.7	21	Customer
Sample Notes:							
330587 381812208-0036	Center Desk / 2052	0.6	12/22/2018 8:46:00 AM	12/26/2018 10:05:00 AM	73.7	21.6	Customer
Sample Notes:							

Please visit www.radontestinglab.com



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-0327

<http://www.EMSL.com>

cinnaminsonradonlab@emsl.com

EMSL Order:	381812208
CustomerID:	JCBR50
CustomerPO:	18-41195
ProjectID:	

Test Report: Radon in Air Test Results

Liquid Scintillation ID	Location	Radon Activity (pCi/L)	Start	Stop	Temperature F	Humidity %	Sample Type
330498	Center Desk / 2052	0.7	12/22/2018	12/26/2018	73.7	21.6	Duplicate
381812208-0037			8:46:00 AM	10:05:00 AM			Duplicate RPD = 15.4%
Sample Notes: Duplicate's Customer Sample:381812208-0036							
330517	Center Desk / 2058	0.6	12/22/2018	12/26/2018	73.9	21.2	Customer
381812208-0038			8:46:00 AM	10:04:00 AM			
Sample Notes:							
330525	Center Desk / 2056	0.7	12/22/2018	12/26/2018	73.5	21.6	Customer
381812208-0039			8:47:00 AM	10:02:00 AM			
Sample Notes:							
330484	Center Desk / 2054	0.7	12/22/2018	12/26/2018	73	23.5	Customer
381812208-0040			8:49:00 AM	10:01:00 AM			
Sample Notes:							
330503	Center Desk / Gym Office 123	1.2	12/22/2018	12/26/2018	72.6	24.7	Customer
381812208-0041			9:16:00 AM	10:00:00 AM			
Sample Notes:							
330559	Center Desk / Gym Office 124	0.8	12/22/2018	12/26/2018	72.8	28.5	Customer
381812208-0042			9:17:00 AM	9:59:00 AM			
Sample Notes:							

Report Notes

The United States Environmental Protection Agency (EPA) has established a radon action level of 4.0pCi/L. EPA recommends mitigation of a structure if the confirmed radon level is equal to or greater than 4.0pCi/L.

The radon tests were performed using liquid scintillation radon detectors and counted on a liquid scintillation counter following EPA Method # 402-R-92-004 testing protocol for Radon in Air testing. EPA recommends retesting every two years.

Please contact EMSL Analytical, Inc. or your State Health Department for further information.

All procedures used for generating this report are in complete accordance with the current EPA protocols for the analysis of Radon in Air.

Analyst(s)

Drew Bush (42)

Laura Freeman, 10872 & Michael Menz, CIH

In no event shall EMSL be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages, arising out of or in connection with EMSL's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. In no event shall EMSL be liable to a client or any third party, whether based upon theories of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder. The test results meets all NELAC requirements unless otherwise specified.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ Accreditations: NRSB ARL6006, NJ DEP 03036, MEB 92525, PA 2573, IN 00455, IA L00032, ME 20200C, NE RMB-1083, NY ELAP 10872, NM 885-10L, FL RB2034, OH RL-39, NRPP #109000AL, KS-LB-0005, IL RNL2008202.

Initial report from 01/02/2019 12:50:38; Report Revised 01/04/2019 1:57 PM

Please visit www.radontestinglab.com

Test Report RadonCom-7.26.0 Printed: 1/2/2019 12:50:38 PM; ; Report Revised 01/04/2019 1:57 PM

Page 4 of 4

J.C. Broderick & Associates, Inc.

Environmental/Construction Consulting & Testing

January 11, 2019

Mr. Gregory Hamilton
Syosset Central School District
99 Pell Lane
Syosset, New York 11791



1775 Expressway Drive North
Hauppauge, NY 11788
631.584.5492
Fax: 631.584.0325
www.jcbroderick.com

**Re: Indoor Radon Sampling
South Grove Annex
60 Colony Lane
Syosset, New York 11791
Sampling Dates: December 22 - 26, 2018**

JCB#: 18-41195

Dear Mr. Hamilton:

J.C. Broderick and Associates, Inc. (JCB) was retained to perform indoor radon sampling within the above referenced school building.

The sampling was performed by experienced JCB representatives following the EPA Radon Measurement in Schools (EPA 402-R-92-014) guidance document. Sampling was performed utilizing Short-Term test devices which were placed in frequently occupied rooms in contact with the ground after the building was closed for a minimum of 12 hours.

The samples were assigned unique identification numbers, logged into a chain of custody document, and delivered to an accredited laboratory for the analysis of Radon. The results were compared with the decision-making flowchart found in the EPA Radon Measurement in Schools (EPA 402-R-92-014) guidance document which establishes an action level of 4 pCi/L.

The results of the sampling performed revealed the following:

- All results were reported below the EPA action level.

Please see the attached laboratory reports to be included in the District's Radon Measurement Plan. If there are any questions or if more information is needed, please feel free to contact our office.

Sincerely,

A handwritten signature in black ink, appearing to read "Bryan Ezelius".

Bryan Ezelius
J. C. Broderick & Associates, Inc.

A handwritten signature in black ink, appearing to read "Edward McGuire III".

Edward McGuire III
J. C. Broderick & Associates, Inc.



EMSL ANALYTICAL, INC.

EMSL Fed EX
795064620741
CHAIN OF CUSTODY
RADON LABORATORY SERVICES
(COMMERCIAL USE)

EMSL Job #: 381812207

#1
JC.BR50
4 day

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: 800-220-3675
www.emsl.com

Company Information:	EMSL Acct #:
Company Name: JC Broderick & Associates Inc	
Contact: Edward McGuire	
Address: 1775 Expressway Dr North	
City: Hauppauge	
State: New York Zip: 11788	
Phone: 631-584-5412 Fax:	
Email: Emcguire@JCBroderick.com	
Technician Certification #:	
Tech Name: Jarett Boniface	
Tech Signature:	

Project/Site Information:		*Required
Project Name: South Grove Annex		
Project #/PO: 18-40112		
*Address: 60 Colony Lane		
*City: Syosset	*State: NY	*Zip: 11791
*Building type? <input type="checkbox"/> Residential <input type="checkbox"/> Non-Residential		
<input checked="" type="checkbox"/> School <input type="checkbox"/> Other		
*Building foundation type? <input type="checkbox"/> Basement <input checked="" type="checkbox"/> Crawlspace		
<input checked="" type="checkbox"/> Slab on Grade <input type="checkbox"/> Other		
Special Notes / Instructions:		

*Turnaround Time (TAT) Options

<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input type="checkbox"/> 3 Day	<input checked="" type="checkbox"/> 4 Day
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RECEIVED
CINNAMINSON, NJ
EMSL
AUG 08

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(S) Sample (B) Blank (D) Duplicate	Device Number	Location	Room #	Exposure Period Beginning Date		Exposure Period Ending Date		Temp, °F	Humidity, %
				Date	Time	Date	Time		
(S) Sample	330515/	Center Desk	2013	12/22/18	10:06	12/26/18	10:41	68.9	21.2
B	330552/	Center Desk	2015	12/22/18	10:06	12/26/18	10:42	69.8	21.5
S	330563/	Center Desk	2016	12/22/18	10:08	12/26/18	10:43	70.7	21.3
D	330570/	Center Desk	2018	12/22/18	10:09	12/26/18	10:44	71.0	20.9
S	330556/	Center Desk	2020	12/22/18	10:10	12/26/18	10:45	70.8	21.0
S	330562/	Center Table	2024	12/22/18	10:11	12/26/18	10:46	71.2	20.7
S	330586/	Center Desk	2022	12/22/18	10:12	12/26/18	10:47	72.5	20.9

Relinquished by (Sign):

Date:

Time:

1 Page of 2

Received by EMSL (Sign):

Date:

Time:



EMSL ANALYTICAL, INC.

**CHAIN OF CUSTODY
RADON LABORATORY SERVICES
(COMMERCIAL USE)**

EMSL Job #: 381812207

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: 800-220-3675
www.emsl.com

RECEIVED

CINNAMONSON, N.J.

Relinquished by (Sign):

Date: _____ Time: _____

1 Page of 2

Received by EMSL (Sign).

Date. 10/11/16 Time:

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-0327
<http://www.EMSL.com>

cinnaminsonradonlab@emsl.com

EMSL Order: 381812207
CustomerID: JCBR50
CustomerPO: 18-40112
ProjectID:

Attn: **Ed McGuire**
J.C. Broderick & Associates
1775 Expressway Drive North, Suite 1
Hauppauge, NY 11788

Phone: (631) 584-5492
Fax:
Received: 12/27/18 10:08 AM
Analysis Date: 12/28/2018
Collected: 12/22/2018

Project: **South Grove Annex / 60 Colony Lane**

Test Site: **South Grove Annex**
60 Colony Lane
Syosset, NY 11791

Test Report: Radon in Air Test Results

Liquid Scintillation ID	Location	Radon Activity (pCi/L)	Start	Stop	Temperature F	Humidity %	Sample Type
330515	Center Desk / 2013	0.6	12/22/2018	12/26/2018	68.9	21.2	Customer
381812207-0001			10:06:00 AM	10:41:00 AM			
Sample Notes:							
330552	Center Desk / 2013	0	12/22/2018	12/26/2018	68.9	21.2	Blank
381812207-0002			10:06:00 AM	10:41:00 AM			
Sample Notes:							
330563	Center Desk / 2015	0.5	12/22/2018	12/26/2018	69.8	21.5	Customer
381812207-0003			10:06:00 AM	10:42:00 AM			
Sample Notes:							
330522	Center Desk / 2016	0.9	12/22/2018	12/26/2018	70.7	21.3	Customer
381812207-0004			10:08:00 AM	10:43:00 AM			
Sample Notes:							
330570	Center Desk / 2016	0.9	12/22/2018	12/26/2018	70.7	21.3	Duplicate
381812207-0005			10:08:00 AM	10:43:00 AM			Duplicate RPD = 0.0%
Sample Notes: Duplicate's Customer Sample:381812207-0004							
330527	Center Desk / 2018	0.8	12/22/2018	12/26/2018	71	20.9	Customer
381812207-0006			10:09:00 AM	10:44:00 AM			
Sample Notes:							
330556	Center Desk / 2020	0.7	12/22/2018	12/26/2018	70.8	21	Customer
381812207-0007			10:10:00 AM	10:45:00 AM			
Sample Notes:							
330562	Center Table / 2024	0.5	12/22/2018	12/26/2018	71.2	20.7	Customer
381812207-0008			10:11:00 AM	10:46:00 AM			
Sample Notes:							
330586	Center Desk / 2022	0.7	12/22/2018	12/26/2018	72.5	20.9	Customer
381812207-0009			10:12:00 AM	10:47:00 AM			
Sample Notes:							
330524	Center Table / 2022A	0.4	12/22/2018	12/26/2018	71.8	20.5	Customer
381812207-0010			10:12:00 AM	10:47:00 AM			
Sample Notes:							

Please visit www.radontestinglab.com

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 / (856) 786-0327

<http://www.EMSL.com>cinnaminsonradonlab@emsl.com

EMSL Order:	381812207
CustomerID:	JCBR50
CustomerPO:	18-40112
ProjectID:	

Test Report: Radon in Air Test Results

Liquid Scintillation ID	Location	Radon Activity (pCi/L)	Start	Stop	Temperature F	Humidity %	Sample Type
330598 381812207-0011	Center Desk / 9	0.3	12/22/2018 10:15:00 AM	12/26/2018 10:50:00 AM	73.5	20.7	Customer
Sample Notes:							
330516 381812207-0012	Center Desk / 8	0.3	12/22/2018 10:15:00 AM	12/26/2018 10:51:00 AM	73.7	20.3	Customer
Sample Notes:							
330585 381812207-0013	Center Desk / 2025	0.8	12/22/2018 10:21:00 AM	12/26/2018 10:53:00 AM	74.6	32.2	Customer
Sample Notes:							
330566 381812207-0014	Center Desk / 2025	0.1	12/22/2018 10:21:00 AM	12/26/2018 10:53:00 AM	74.6	32.2	Blank
Sample Notes:							
330500 381812207-0015	Center Desk / 2027	0.6	12/22/2018 10:22:00 AM	12/26/2018 10:54:00 AM	73.7	21	Customer
Sample Notes:							
330565 381812207-0016	Center Desk / 2029	0.9	12/22/2018 10:22:00 AM	12/26/2018 10:55:00 AM	73.4	27.9	Customer
Sample Notes: Duplicate's Customer Sample:381812207-0016							
330330 381812207-0018	Center Desk / 2006A	0.7	12/22/2018 10:25:00 AM	12/26/2018 10:56:00 AM	70.7	22.9	Customer
Sample Notes:							
330535 381812207-0019	Center Desk / 2009	0.6	12/22/2018 10:28:00 AM	12/26/2018 10:58:00 AM	70.8	21.9	Customer
Sample Notes:							

Report NotesPlease visit www.radontestinglab.com



EMSL Analytical, Inc.

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<http://www.EMSL.com>

cinnaminsonradonlab@emsl.com

EMSL Order: 381812207
CustomerID: JCBR50
CustomerPO: 18-40112
ProjectID:

Test Report: Radon in Air Test Results

Liquid Scintillation ID	Location	Radon Activity (pCi/L)	Start	Stop	Temperature F	Humidity %	Sample Type
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Analyst(s) _____

Drew Bush (19)

Laura Freeman, 10872 & Michael Menz, CIH

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Initial report from 01/03/2019 09:14:04; Report Revised 01/08/2019 2:21 PM

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Test Report RadonCom-7.26.0 Printed: 1/3/2019 9:15:40 AM; Report Revised 01/08/2019 2:21 PM

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