

# **VOLATILE VAPOR INTRUSION (VVI) REPORT**

**BETHPAGE HIGH SCHOOL  
10 CHERRY AVENUE  
BETHPAGE, NEW YORK 11714**

**PREPARED FOR:  
BETHPAGE UNION FREE SCHOOL DISTRICT  
10 CHERRY AVENUE  
BETHPAGE, NEW YORK 11714**

**JCB PROJECT #: 21-48290**

**APRIL 2021**

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

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## Table of Contents

<b>Section No. 1.0: Introduction.....</b>	<b>1</b>
<b>Section No. 2.0: Site Description and Location.....</b>	<b>1</b>
<b>Section No. 3.0: Volatile Vapor Intrusion (VVI) Evaluation.....</b>	<b>1</b>
<b>Section No. 3.1: Pre-Work Field Preparations.....</b>	<b>1</b>
<b>Section No. 3.2: Subsurface Vapor Sample Collection .....</b>	<b>2</b>
<b>Section No. 3.3: Indoor Air Sample Collection .....</b>	<b>2</b>
<b>Section No. 3.3.1: Crawl Space/Basement Air Sample Collection .....</b>	<b>3</b>
<b>Section No. 3.3.2: 1<sup>st</sup> Floor Air Sample Collection.....</b>	<b>3</b>
<b>Section No. 3.4: Outdoor (Ambient) Air Sample Collection .....</b>	<b>3</b>
<b>Section No. 4.0: Laboratory Analytical Summary .....</b>	<b>4</b>
<b>Section No. 5.0: Decision Matrices .....</b>	<b>6</b>
<b>Section No. 6.0: Quality Assurance and Quality Control (QA/QC) Procedures .....</b>	<b>7</b>
<b>Section No. 7.0: Findings.....</b>	<b>7</b>
<b>Section No. 7.1: Previous Analytical Results Trend Analysis .....</b>	<b>7</b>
<b>Section No. 8.0: Conclusions.....</b>	<b>9</b>
<b>Section No. 9.0: Recommendations .....</b>	<b>9</b>
<b>Section No. 10.0: Certification.....</b>	<b>10</b>

### **List of Tables**

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

Table No. 2 – Volatile Chemicals Utilized in NYSDOH Decision Matrices

Table No. 3 – Resample Volatile Vapor Intrusion Analytical Results of Detected Compounds via EPA Method TO-15

Table No. 4 – Total VOCs ( $\mu\text{g}/\text{m}^3$ ) Detected Over Time

### **List of Graphs**

Graph No. 1 – Total VOCs ( $\mu\text{g}/\text{m}^3$ ) Detected Over Time – Subsurface Sample Locations

Graph No. 2 – Total VOCs ( $\mu\text{g}/\text{m}^3$ ) Detected Over Time – Interior/Ambient Sample Locations

### **List of Figures**

Figure 1 - Site Location Map

Figure 2 - Subsurface, Crawlspace and Basement Sampling Locations

Figure 3 - 1<sup>st</sup> Floor and Ambient Sampling Locations

Figure 4 - Subsurface, Crawlspace, Basement, First Floor and Ambient Sampling Locations

### **Appendices**

Appendix A - Figures

Appendix B - Field Photograph Logs

Appendix C - Laboratory Analytical Report

## **Section No. 1.0: Introduction**

J.C. Broderick and Associates, Inc. (JCB) was retained by the Bethpage Union Free School District (Bethpage) to investigate the potential for volatile vapor intrusion (VVI) from known groundwater contamination emanating from the nearby Bethpage Community Park and the former Grumman facility. JCB performed VVI air sampling within the Bethpage High School. The sampling protocol was performed essentially in accordance with the requirements of 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 10 Cherry Avenue Bethpage, New York 11714 and consists of a multi-story building with a partial basement and sub-basement and is operated by the Bethpage UFSD as the Bethpage High School. The Subject Site is located on the southeast corner of the intersection formed by Stewart and Cherry Avenues. According to the United States Geological Survey (USGS) *Huntington, New York, 1992 7.5 Minute Series Topographical Map*, the Subject Site is situated at an approximate elevation of 121 feet (ft) above mean sea level. The United States Geological Service (USGS) Water Table Map (2016) indicates the depth to groundwater is approximately 55 feet below the surface and is anticipated to flow southeast towards South Oyster Bay. 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 Volatile Vapor Intrusion (VVI) Investigation Work Plan (IWP) dated July 2012 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 - Subsurface, Crawl Space and Basement Sample Locations for additional details.

- For the collection of the subsurface vapor samples, a probe was fabricated from ½-inch diameter, threaded brass pipe with a barbed tubing connection. The two (2) layers of 6-mil polyethylene sheeting were penetrated, and a one (1) inch diameter hole was drilled, utilizing a hammer drill, into the sand floor of the crawl space extending approximately six (6) inches below the top of the sand. The pipe was lowered into the hole and sealed to the plastic sheeting with modeling clay containing no volatile organic compounds (VOCs). A five (5) gallon plastic container was placed on top of the plastic sheeting and above the vapor point. The container was also sealed to the plastic sheeting utilizing modeling clay. A Teflon-lined, ¼-inch I.D. disposable polyethylene tubing was then utilized to connect the barbed connection of the vapor point to a clean-certified, 6-liter SUMMA® canister, provided by York Analytical Labs, 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 sample collection. Upon completion of the sampling, the polyethylene sheeting was replaced on the floor and secured in place with duct tape.
- 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 March 29, 2021, a total of two (2) subsurface vapor samples were collected.
  - One (1) subsurface sample was collected from beneath the north end of the west crawl space under the west side school entrance.
  - One (1) subsurface sample was collected from beneath the south end of the west crawl space under the southwest cafeteria “A”.

### **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: Crawl Space/Basement Air Sample Collection**

Please refer to Figure No. 2 - Subsurface, Crawl space and Basement Sample Locations for additional details.

- On March 29, 2021, a total of two (2) crawl space and one (1) basement air samples were collected.
  - One (1) air sample was collected from the north end of the west crawl space under the west side school entrance.
  - One (1) air sample was collected from the south end of the west crawl space under the southwest cafeteria “A”.
  - One (1) air sample was collected from the intersection of the two (2) hallways in the basement of the administration building.

### **Section No. 3.3.2: 1<sup>st</sup> Floor Air Sample Collection**

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

- On March 29, 2021, two (2) 1<sup>st</sup> floor air sample was collected.
  - One (1) air sample was collected from the 1<sup>st</sup> Floor Hallway located approximately above the north crawl space sampling location.
  - One (1) air sample was collected from within Cafeteria “A” located in the southwest corner of the high school building.

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

An outdoor (ambient) air sample was collected simultaneously with subsurface 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 ground. Please refer to Figure No. 3 - 1<sup>st</sup> Floor and Ambient Sample Locations for additional details.

- On March 29, 2021, one (1) outdoor (ambient) air sample was collected.
  - One (1) air sample was collected from outside the west side of the high school building adjacent to Classroom Number 117.

#### **Section No. 4.0: Laboratory Analytical Summary**

The 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.

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. Subsurface soil vapor samples were also analyzed for Helium.

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

The table on the following page summarizes the Air Sampling Analytical Results of Detected Compounds.

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

Sample ID		EPA 2001 BASE 90th percentile	SOUTH SUBSURFACE		SOUTH CRAWL SPACE		1ST FLOOR CAFE A		NORTH SUBSURFACE		NORTH CRAWL SPACE		1ST FLOOR HALLWAY		ADMIN WING BASMNT		AMBIENT	
York ID	Sampling Date		21C1446-04 3/29/2021	Soil Vapor	21C1446-05 3/29/2021	Indoor Ambient Air	21D0514-02 4/10/2021	Indoor Ambient Air	21C1446-01 3/29/2021	Soil Vapor	21C1446-02 3/29/2021	Indoor Ambient Air	21C1446-03 3/29/2021	Indoor Ambient Air	21D0514-01 4/10/2021	Indoor Ambient Air	21D0514-03 4/10/2021	Outdoor Ambient Air
Client Matrix	Compound		CAS Number	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	
Helium				%		NT		NT		%		NT		NT		NT		
Dilution Factor				2.003						1.717								
Volatile Organics, EPA TO15 Full List			ug/m3	ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		
Dilution Factor				20.03		0.794		0.958		6.868		3.116		1.184		0.957		
1,2,4-Trimethylbenzene	95-63-6	9.5	3.20	D	0.390	U	0.470	J	3.70	D	0.410	U	0.580	U	0.470	J	0.490	
1,3,5-Trimethylbenzene	108-67-8	3.7	0.980	J	0.390	U	0.470	U	3.40	U	0.410	U	0.580	U	0.470	U	0.490	
2-Butanone	78-93-3	12	120	D	2.20	D	0.590	D	82.0	D	15.0	D	0.940	D	0.930	D	0.640	
2-Hexanone	591-78-6	~	1.60	J	0.650	J	0.780	U	5.60	U	0.780	D	0.970	U	0.780	U	0.810	
4-Methyl-2-pentanone	108-10-1	6	3.90	D	0.330	U	0.390	U	3.90	D	0.510	D	0.490	U	0.390	U	0.410	
Acetone	67-64-1	98.9	390	D	21.0	D	3.90	D	420	D	92.0	D	5.50	D	9.50	D	3.00	
Acrylonitrile	107-13-1	~	0.430	U	0.170	J	0.210	U	1.50	U	0.180	U	0.260	U	0.210	U	0.210	
Benzene	71-43-2	9.4	2.90	D	0.560	D	0.400	D	2.60	D	0.420	D	0.380	U	0.430	D	0.380	
Carbon disulfide	75-15-0	4.2	7.50	D	9.30	D	0.360	D	2.10	U	5.40	D	0.370	U	0.300	U	0.310	
Carbon tetrachloride	56-23-5	1.3	0.500	D	0.400	D	0.420	D	1.10	U	0.420	D	0.370	D	0.420	D	0.440	
Chloromethane	74-87-3	3.7	0.410	J	0.490	D	1.10	D	1.40	U	0.550	D	0.610	D	0.990	D	0.980	
Cyclohexane	110-82-7	~	1.00	D	0.270	U	0.330	U	2.40	U	0.290	U	0.410	U	0.330	U	0.340	
Dichlorodifluoromethane	75-71-8	16.5	2.00	D	1.90	D	2.00	D	3.40	U	1.80	D	2.00	D	2.00	D	2.00	
Ethyl acetate	141-78-6	5.4	18.0	D	0.570	J	0.690	J	14.0	D	0.600	J	0.850	U	0.760	D	0.710	
Ethyl Benzene	100-41-4	5.7	3.70	D	0.340	U	0.420	U	6.00	D	0.360	U	0.510	U	0.420	U	0.430	
Isopropanol	67-63-0	250	12.0	D	2.20	D	2.70	D	13.0	D	13.0	D	2.20	D	24.0	D	1.20	
Methyl Methacrylate	80-62-6	~	0.820	J	0.680	D	0.510	D	2.80	J	1.50	D	0.480	D	0.900	D	0.400	
Methylene chloride	75-09-2	10	3.50	D	7.20	D	1.70	D	12.0	D	4.30	D	4.10	D	2.80	D	3.90	
n-Heptane	142-82-5	~	1.80	D	0.330	U	0.390	J	2.80	J	0.340	J	0.490	U	0.630	D	0.410	
n-Hexane	110-54-3	10.2	8.20	D	0.340	D	0.570	D	9.20	D	0.290	D	0.420	J	0.610	D	0.490	
o-Xylene	95-47-6	7.9	3.40	D	0.340	J	0.420	J	4.20	D	0.360	J	0.510	U	0.420	J	0.430	
p- & m- Xylenes	179601-23-1	~	7.80	D	0.690	U	0.830	U	11.0	D	0.720	U	1.00	U	0.830	U	0.860	
p-Ethyltoluene	622-96-8	3.6	3.00	D	0.390	U	0.470	U	3.40	D	0.410	U	0.580	U	0.470	U	0.490	
Tetrachloroethylene	127-18-4	15.9	1.40	U	0.540	U	0.650	J	4.70	J	0.560	J	0.800	J	0.650	J	2.10	
Tetrahydrofuran	109-99-9	~	2.70	D	0.470	U	0.570	U	4.10	D	0.490	J	0.700	U	0.560	U	0.580	
Toluene	108-88-3	43	300	D	2.00	D	1.00	D	940	D	2.50	D	0.890	D	1.70	D	1.20	
Trichloroethylene	79-01-6	4.2	0.270	U	0.11	U	0.130	U	0.920	U	0.110	U	0.160	U	0.130	U	0.210	
Trichlorofluoromethane (Freon 11)	75-69-4	~	1.10	J	1.20	D	1.10	D	3.90	U	0.930	D	0.930	D	1.20	D	1.20	

**NOTES:**

Any Regulatory Exceedences are color coded by Regulation

**Q is the Qualifier Column with definitions as follows:**

D = result is from an analysis that required a dilution

J = analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U = analyte not detected at or above the level indicated

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

The results of the air sampling from the North Crawl Space indicated the detection of 2-Butanone at a concentration of 15.0 µg/m<sup>3</sup> above the EPA BASE 90<sup>th</sup> Percentile of 12.0 µg/m<sup>3</sup> and Carbon Disulfide at a concentration of 5.4 µg/m<sup>3</sup> above the EPA BASE 90<sup>th</sup> Percentile of 4.2 µg/m<sup>3</sup>. The air sampling from the South Crawl Space indicated the detection of Carbon Disulfide at a concentration of 9.3 µg/m<sup>3</sup> above the EPA BASE 90<sup>th</sup> Percentile of 4.2 µg/m<sup>3</sup>. It should be noted that the crawl space is not considered an occupied space.

The laboratory analysis results for the air samples collected were also reviewed and compared to the Air Guidance Values Derived by the NYSDOH as listed in Table 3.1 in NYSDOH's "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006 and all available updates. The results indicated no detection of the listed compounds above the NYSDOH Air Guidance Values (Table 3.1).

### **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 crawl space 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 subsurface vapor samples.

### **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, with the exception of two (2) parameters in North Crawl Space and one (1) parameter in the South Crawl Space, all remaining detectable concentrations observed within the occupied spaces of the school building were below their background values as reported in the EPA 2001: Building assessment and survey evaluation (BASE) database, SUMMA canister method 90<sup>th</sup> 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 when compared against the concentrations detected in the subsurface soil vapor samples.

- Based upon these findings, no hazardous condition or immediate health concern was identified associated with VVI.

### **Section No. 7.1: Previous Analytical Results Trend Analysis**

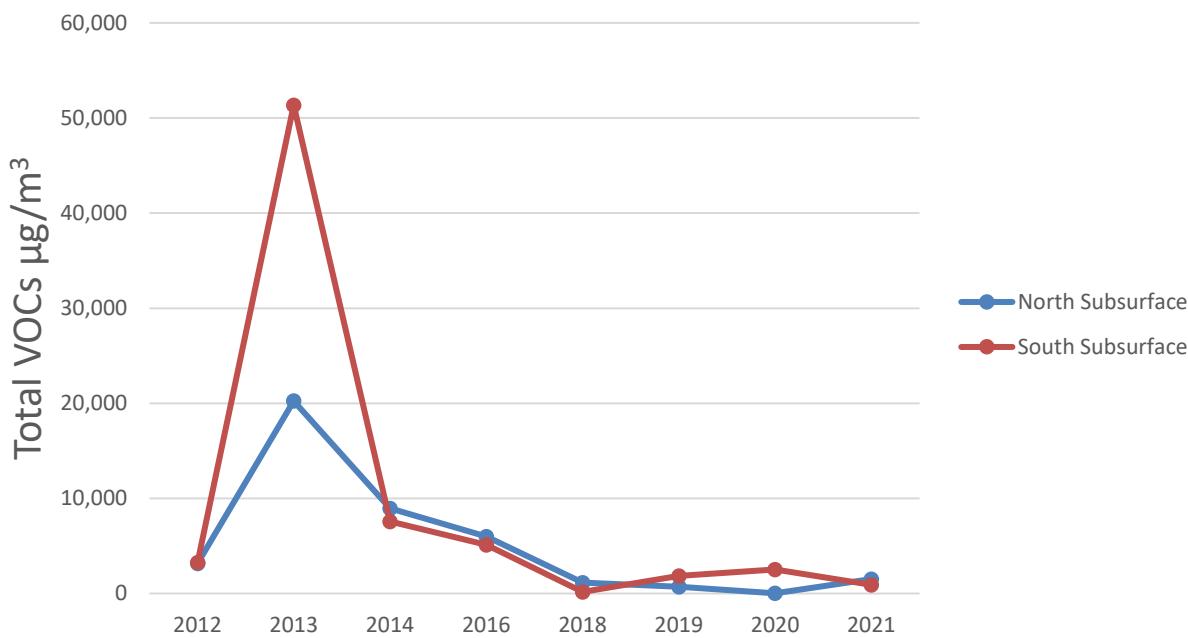
JCB has been performing the same volatile vapor intrusion sampling since 2012. The 2021 analytical results for total VOCs were compared to previous year's results and are presented in Table No. 3.

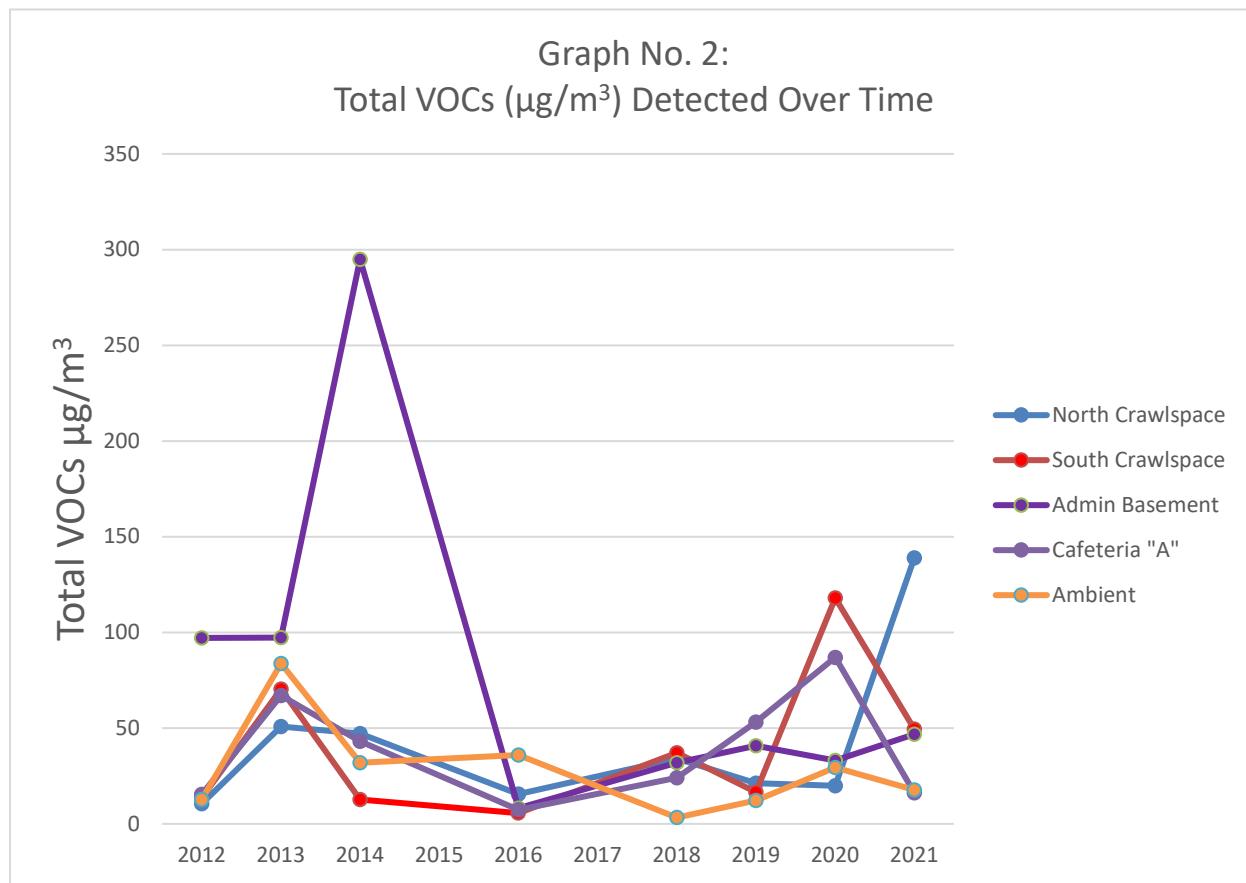
**Table No. 3:**  
**Total VOCs ( $\mu\text{g}/\text{m}^3$ ) Detected Over Time**

Location	Year							
	2012	2013	2014	2016	2018	2019	2020	2021
North Subsurface	3,153	20,243	8,944	5,991	1,144	718	23.3	1,529
North Crawl Space	10.5	50.8	47.1	15.5	34.1	21.2	19.9	139
First Floor Hallway	---	---	---	---	---	---	33.8	18.0
South Subsurface	3,269	51,353	7,558	5,121	169	1,860	2,538	895
South Crawl Space	13.6	70.4	12.7	5.60	37.1	16.6	118	49.5
Admin Basement	97.1	97.3	295	8.19	32.0	40.8	33.1	46.9
Cafeteria "A"	15.4	67.1	43.2	7.31	24.1	53.1	87.0	16.3
Ambient	12.7	83.8	31.9	35.9	3.28	12.2	29.5	17.8

In general, the concentration of total VOCs has decreased in the subsurface samples, below the plastic barrier since 2012 as indicated in Graph No. 1. The North Subsurface did indicate an increase over last year whereas the South Subsurface indicated a decrease. In addition, the occupied interior spaces indicated no significant changes in the detected total VOC concentration since 2012 as indicated in Graph No. 2 below.

**Graph No. 1:**  
**Total VOCs ( $\mu\text{g}/\text{m}^3$ ) Detected Over Time**





### **Section No. 8.0: Conclusions**

A careful evaluation of the indoor air sampling results compared to the sub-slab and ambient results did reveal the presence of a discernible pattern suggesting that the building could be impacted with VVI. It appears that the plastic barrier installed in the crawlspace of the building, although not its intended purpose has been relatively effectively in preventing the subsurface volatile vapors from migrating into the crawlspace and occupied portions of the school building.

The increase in total organic volatile vapors observed within the interior spaces during this sampling event is likely attributed to both the increased frequency of cleaning and disinfecting of the spaces from the COVID-19 pandemic.

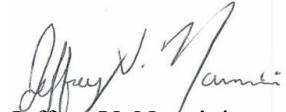
### **Section No. 9.0: Recommendations**

It is recommended that periodic VVI sampling be performed to monitor site conditions. It is also recommended that periodic inspection of the plastic barrier be performed and that any rips or tears to the barrier be repaired.

**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

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## **Appendix A**

## **Figures**



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Drawing Title

Figure No. 1

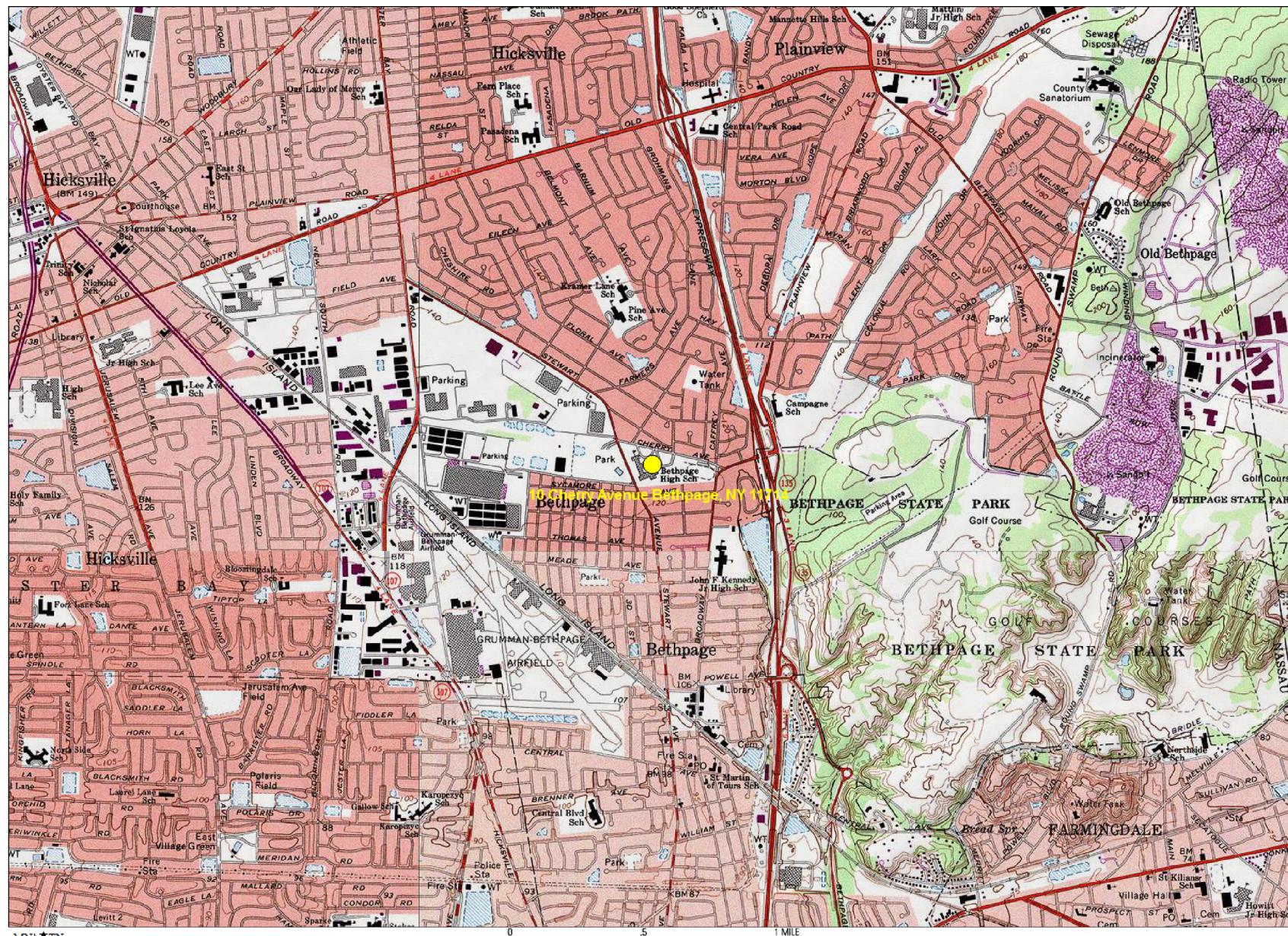
Site Location Map

Scale Project No. Date  
As Noted 21-48290 03-29-2021

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

Drawing No.

1



Map created with TOPO!® ©2003 National Geographic ([www.nationalgeographic.com/topo](http://www.nationalgeographic.com/topo))

JCB LEGEND

■ SUBJECT SITE



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:

Bethpage High School  
10 Cherry Avenue  
Bethpage, NY 11714

Drawing Title  
Figure No. 2

Subsurface,  
Crawlspace  
and  
Basement  
Sampling  
Locations

Scale Project No. Date  
N.T.S. 21-48290 03-29-2021

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

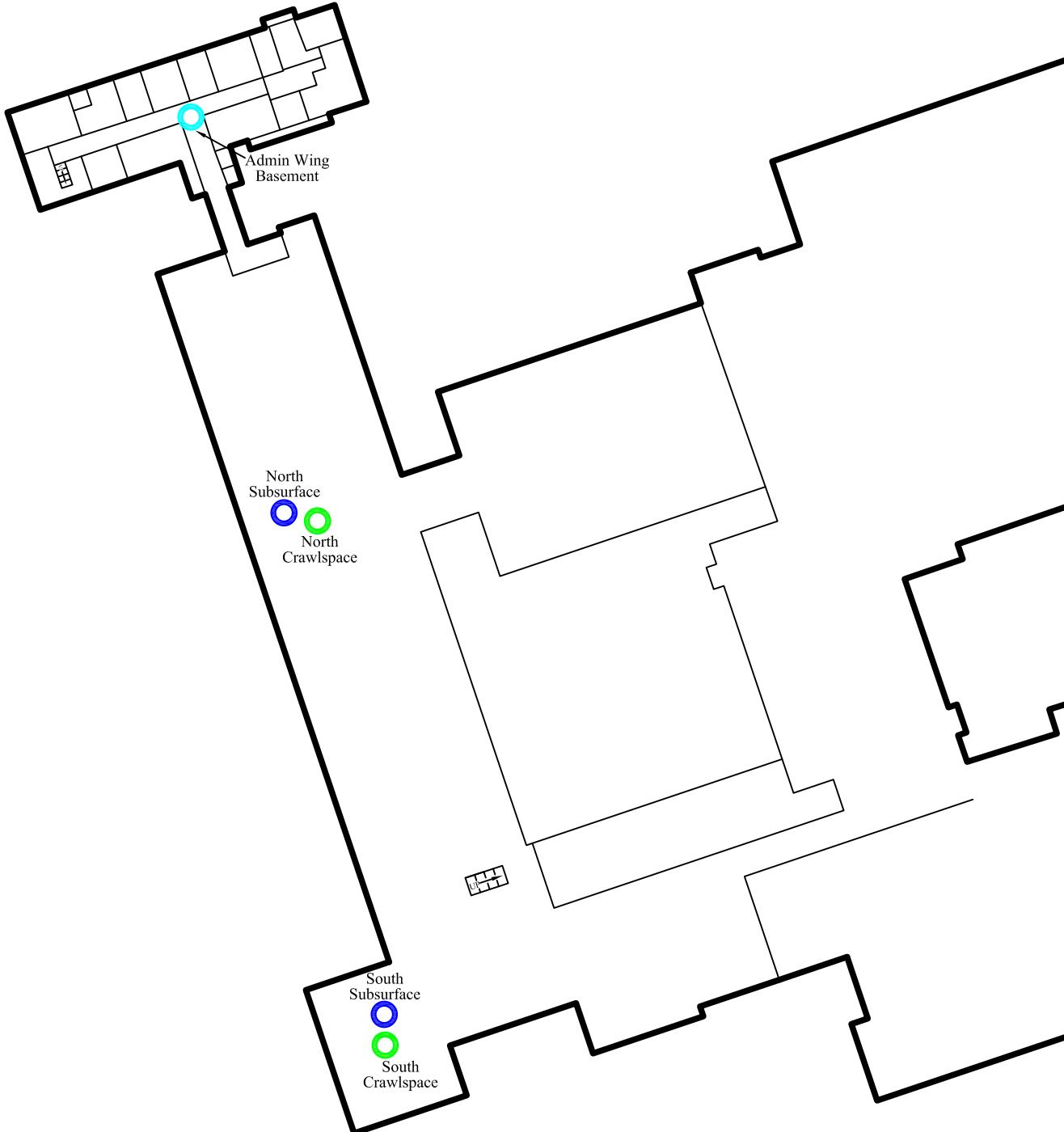
Drawing No.

2



JCB LEGEND

- SUBSURFACE SAMPLING LOCATION
- CRAWLSPACE SAMPLING LOCATION
- BASEMENT SAMPLING LOCATION





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:

Bethpage High School  
10 Cherry Avenue  
Bethpage, NY 11714

Drawing Title

Figure No. 3

1st Floor  
and  
Ambient  
Sampling  
Locations

Scale Project No. Date  
N.T.S. 21-48290 03-29-2021

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

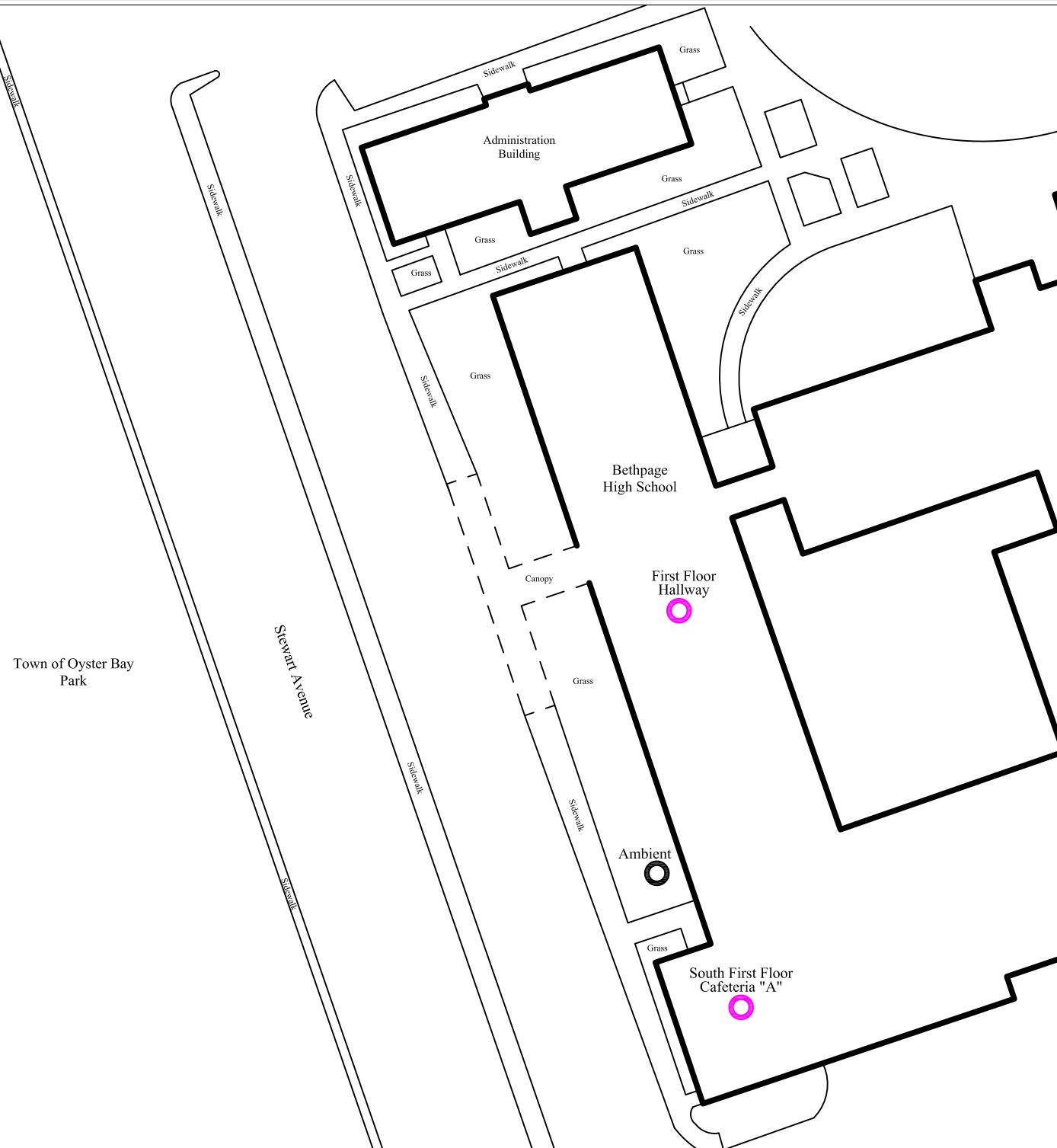
Drawing No.

3



JCB LEGEND

- AMBIENT SAMPLING LOCATION
- 1ST FLOOR SAMPLING LOCATION



---

## **Appendix B**

## **Field Photograph Logs**

**Sampling Location  
South Crawlspace and South Subsurface**



**Field Photograph Log**

**Volatile Vapor Intrusion Report**

**Bethpage High School  
10 Cherry Avenue  
Bethpage, New York 11714**



**Photo No. 01**

**JCB#: 21-48290**

**Sampling Location  
North Crawlspace and North Subsurface**



**Field Photograph Log**

**Volatile Vapor Intrusion Report**

**Bethpage High School  
10 Cherry Avenue  
Bethpage, New York 11714**



**Photo No. 02**

**JCB#: 21-48290**

**Sampling Location  
Administration Wing Basement**



**Field Photograph Log**

**Volatile Vapor Intrusion Report**

**Bethpage High School  
10 Cherry Avenue  
Bethpage, New York 11714**



**Photo No. 03**

**JCB#: 21-48290**

**Sampling Location  
South First Floor Cafeteria "A"**



**Field Photograph Log**

**Volatile Vapor Intrusion Report**

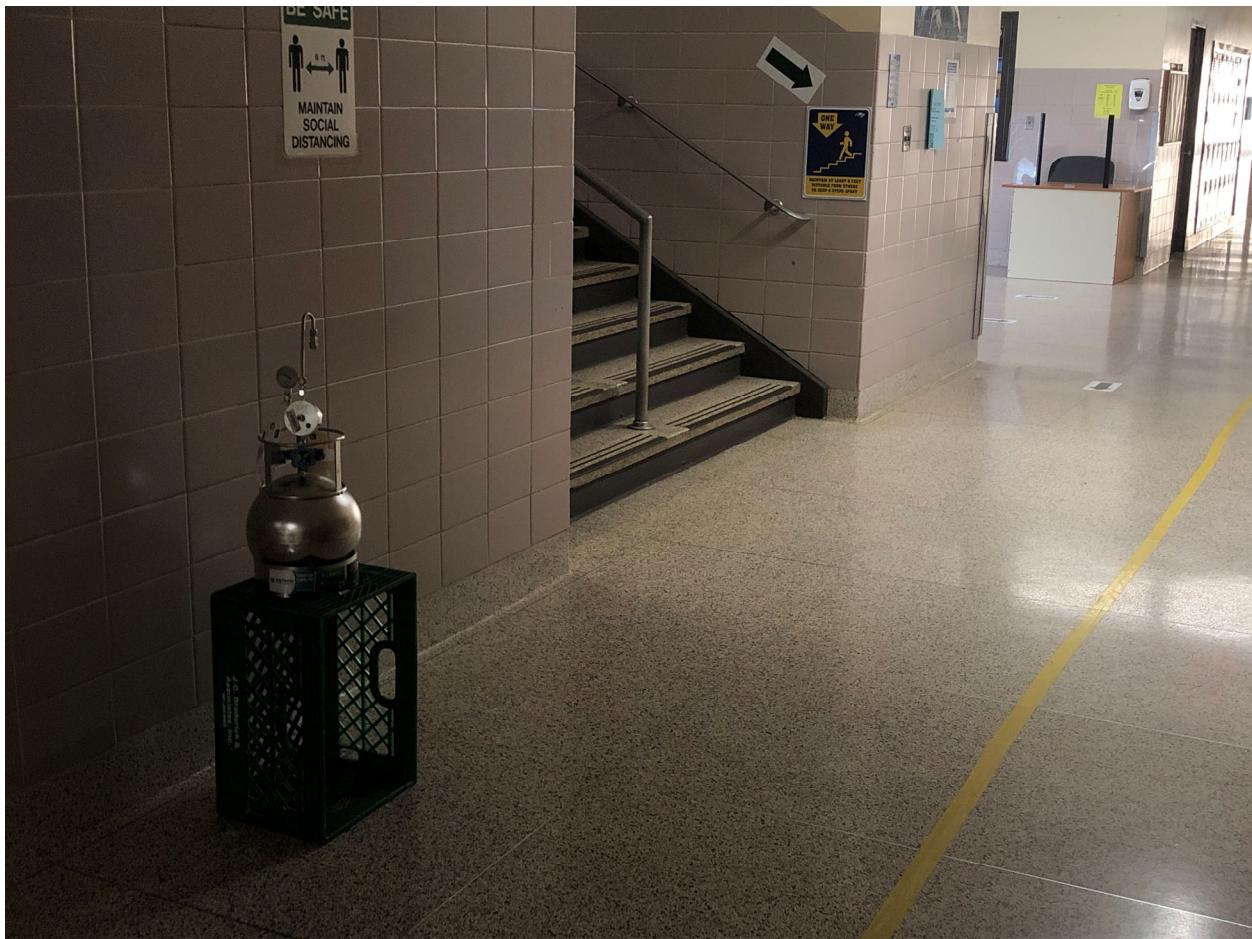
**Bethpage High School  
10 Cherry Avenue  
Bethpage, New York 11714**



**Photo No. 04**

**JCB#: 21-48290**

**Sampling Location  
First Floor Hallway**



**Field Photograph Log**

**Volatile Vapor Intrusion Report**

**Bethpage High School  
10 Cherry Avenue  
Bethpage, New York 11714**



**Photo No. 05**

**JCB#: 21-48290**

**Sampling Location  
Ambient (Outdoor)**



**Field Photograph Log**

**Volatile Vapor Intrusion Report**

**Bethpage High School  
10 Cherry Avenue  
Bethpage, New York 11714**



**Photo No. 06**

**JCB#: 21-48290**

---

## **Appendix C**

# **Laboratory Analysis Report**



# Technical Report

prepared for:

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

Report Date: 04/12/2021  
**Client Project ID: 21-48291 CENTRAL BLVD.**  
York Project (SDG) No.: 21C1446

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](http://www.YORKLAB.com)

STRATFORD, CT 06615  
(203) 325-1371



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

RICHMOND HILL, NY 11418  
[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 04/12/2021

Client Project ID: 21-48291 CENTRAL BLVD.

York Project (SDG) No.: 21C1446

**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 March 30, 2021 with a temperature of C. The project was identified as your project: **21-48291 CENTRAL BLVD.**

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.

<b>York Sample ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
21C1446-01	NORTH SUBSURFACE	Soil Vapor	03/29/2021	03/30/2021
21C1446-02	NORTH CRAWL SPACE	Indoor Ambient Air	03/29/2021	03/30/2021
21C1446-03	FIRST FLOOR HALLWAY	Indoor Ambient Air	03/29/2021	03/30/2021
21C1446-04	SOUTH SUBSURFACE	Soil Vapor	03/29/2021	03/30/2021
21C1446-05	SOUTH CRAWL SPACE	Indoor Ambient Air	03/29/2021	03/30/2021

## **General Notes for York Project (SDG) No.: 21C1446**

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:** 04/12/2021

Benjamin Gulizia  
Laboratory Director





## Sample Information

Client Sample ID: NORTH SUBSURFACE

York Sample ID: 21C1446-01

York Project (SDG) No.  
21C1446

Client Project ID  
21-48291 CENTRAL BLVD.

Matrix  
Soil Vapor

Collection Date/Time  
March 29, 2021 3:00 pm

Date Received  
03/30/2021

### 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	4.7	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	3.7	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	4.7	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	5.3	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	3.7	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	2.8	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.68	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	5.1	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>3.7</b>		ug/m³	3.4	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	5.3	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	4.1	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	2.8	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	3.2	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	4.8	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	3.4	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	4.6	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	4.1	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	3.2	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	4.1	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	4.9	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
78-93-3	<b>2-Butanone</b>	<b>82</b>		ug/m³	2.0	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
							NELAC-NY12058,NJDEP-Queens			



## Sample Information

**Client Sample ID:** NORTH SUBSURFACE

**York Sample ID:** 21C1446-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21C1446	21-48291 CENTRAL BLVD.	Soil Vapor	March 29, 2021 3:00 pm	03/30/2021

### 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
591-78-6	* 2-Hexanone	ND		ug/m³	5.6	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	11	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
108-10-1	<b>4-Methyl-2-pentanone</b>	<b>3.9</b>		ug/m³	2.8	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
67-64-1	<b>Acetone</b>	<b>420</b>		ug/m³	3.3	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	1.5	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
71-43-2	<b>Benzene</b>	<b>2.6</b>		ug/m³	2.2	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	3.6	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	4.6	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
75-25-2	Bromoform	ND		ug/m³	7.1	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
74-83-9	Bromomethane	ND		ug/m³	2.7	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
75-15-0	Carbon disulfide	ND		ug/m³	2.1	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
56-23-5	Carbon tetrachloride	ND		ug/m³	1.1	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	3.2	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
75-00-3	Chloroethane	ND		ug/m³	1.8	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
67-66-3	Chloroform	ND		ug/m³	3.4	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
74-87-3	Chloromethane	ND		ug/m³	1.4	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.68	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	3.1	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
110-82-7	Cyclohexane	ND		ug/m³	2.4	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	5.9	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/m³	3.4	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
141-78-6	* Ethyl acetate	<b>14</b>		ug/m³	4.9	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ



## Sample Information

<b>Client Sample ID:</b> NORTH SUBSURFACE	<b>York Sample ID:</b> 21C1446-01			
York Project (SDG) No. 21C1446	Client Project ID 21-48291 CENTRAL BLVD.	Matrix Soil Vapor	Collection Date/Time March 29, 2021 3:00 pm	Date Received 03/30/2021

### 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	6.0		ug/m³	3.0	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	7.3	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
67-63-0	Isopropanol	13		ug/m³	3.4	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
80-62-6	Methyl Methacrylate	ND		ug/m³	2.8	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	2.5	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
75-09-2	Methylene chloride	12		ug/m³	4.8	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
142-82-5	n-Heptane	ND		ug/m³	2.8	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
110-54-3	n-Hexane	9.2		ug/m³	2.4	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
95-47-6	o-Xylene	4.2		ug/m³	3.0	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
179601-23-1	p- & m- Xylenes	11		ug/m³	6.0	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
622-96-8	* p-Ethyltoluene	3.4		ug/m³	3.4	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
115-07-1	* Propylene	ND		ug/m³	1.2	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
100-42-5	Styrene	ND		ug/m³	2.9	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
127-18-4	Tetrachloroethylene	ND		ug/m³	4.7	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
109-99-9	* Tetrahydrofuran	4.1		ug/m³	4.1	6.868	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 09:02	LLJ
108-88-3	Toluene	940		ug/m³	2.6	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	2.7	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	3.1	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.92	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	3.9	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	2.4	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	3.0	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ



## Sample Information

Client Sample ID: NORTH SUBSURFACE

York Sample ID: 21C1446-01

York Project (SDG) No.  
21C1446

Client Project ID  
21-48291 CENTRAL BLVD.

Matrix  
Soil Vapor

Collection Date/Time  
March 29, 2021 3:00 pm

Date Received  
03/30/2021

### 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	0.88	6.868	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 09:02	LLJ

### Helium

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: PREP for GASES by GC

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-59-7	* Helium	ND		%	0.86	1.717	GC/TCD Certifications:	04/05/2021 06:53	04/05/2021 16:53	tp

## Sample Information

Client Sample ID: NORTH CRAWL SPACE

York Sample ID: 21C1446-02

York Project (SDG) No.  
21C1446

Client Project ID  
21-48291 CENTRAL BLVD.

Matrix  
Indoor Ambient Air

Collection Date/Time  
March 29, 2021 3:00 pm

Date Received  
03/30/2021

### 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	0.83	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:00	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.45	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.57	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.64	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.45	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.34	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.082	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.62	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.41	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ



## Sample Information

Client Sample ID: NORTH CRAWL SPACE

York Sample ID: 21C1446-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
21C1446	21-48291 CENTRAL BLVD.	Indoor Ambient Air	March 29, 2021 3:00 pm	03/30/2021

### 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
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.64	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.50	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.34	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.38	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.58	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.41	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.55	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.50	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.38	0.83	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:00	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.50	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.60	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
78-93-3	<b>2-Butanone</b>	<b>15</b>		ug/m³	0.24	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
591-78-6	* 2-Hexanone	<b>0.78</b>		ug/m³	0.68	0.83	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:00	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.3	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
108-10-1	<b>4-Methyl-2-pentanone</b>	<b>0.51</b>		ug/m³	0.34	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
67-64-1	<b>Acetone</b>	<b>92</b>		ug/m³	1.5	3.116	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2021 19:00	04/07/2021 02:30	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.18	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
71-43-2	<b>Benzene</b>	<b>0.42</b>		ug/m³	0.27	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.43	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.56	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
75-25-2	Bromoform	ND		ug/m³	0.86	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.32	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ



## Sample Information

Client Sample ID: NORTH CRAWL SPACE

York Sample ID: 21C1446-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
21C1446	21-48291 CENTRAL BLVD.	Indoor Ambient Air	March 29, 2021 3:00 pm	03/30/2021

### 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
75-15-0	<b>Carbon disulfide</b>	<b>5.4</b>		ug/m³	0.26	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
56-23-5	<b>Carbon tetrachloride</b>	<b>0.42</b>		ug/m³	0.13	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.38	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.22	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
67-66-3	Chloroform	ND		ug/m³	0.41	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
74-87-3	<b>Chloromethane</b>	<b>0.55</b>	TO-CC V, TO-LC S-L	ug/m³	0.17	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.082	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.38	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
110-82-7	Cyclohexane	ND		ug/m³	0.29	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	0.71	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
75-71-8	<b>Dichlorodifluoromethane</b>	<b>1.8</b>		ug/m³	0.41	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	0.60	0.83	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:00	LLJ
100-41-4	Ethyl Benzene	ND		ug/m³	0.36	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	0.89	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
67-63-0	<b>Isopropanol</b>	<b>13</b>		ug/m³	0.41	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
80-62-6	<b>Methyl Methacrylate</b>	<b>1.5</b>		ug/m³	0.34	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.30	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
75-09-2	<b>Methylene chloride</b>	<b>4.3</b>		ug/m³	0.58	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.34	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
110-54-3	<b>n-Hexane</b>	<b>0.29</b>		ug/m³	0.29	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.36	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ



## Sample Information

**Client Sample ID:** NORTH CRAWL SPACE

**York Sample ID:** 21C1446-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21C1446	21-48291 CENTRAL BLVD.	Indoor Ambient Air	March 29, 2021 3:00 pm	03/30/2021

### 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
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.72	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.41	0.83	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:00	LLJ
115-07-1	* Propylene	ND		ug/m³	0.14	0.83	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:00	LLJ
100-42-5	Styrene	ND		ug/m³	0.35	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
127-18-4	Tetrachloroethylene	ND		ug/m³	0.56	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.49	0.83	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:00	LLJ
108-88-3	<b>Toluene</b>	<b>2.5</b>		ug/m³	0.31	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.33	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.38	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.11	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>0.93</b>		ug/m³	0.47	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.29	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.36	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.11	0.83	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:00	LLJ

## Sample Information

**Client Sample ID:** FIRST FLOOR HALLWAY

**York Sample ID:** 21C1446-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21C1446	21-48291 CENTRAL BLVD.	Indoor Ambient Air	March 29, 2021 3:00 pm	03/30/2021

### 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	0.81	1.184	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:59	LLJ



## Sample Information

Client Sample ID: FIRST FLOOR HALLWAY

York Sample ID: 21C1446-03

York Project (SDG) No.

21C1446

Client Project ID

21-48291 CENTRAL BLVD.

Matrix

Indoor Ambient Air

Collection Date/Time

March 29, 2021 3:00 pm

Date Received

03/30/2021

### 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
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.65	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.81	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.91	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.65	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.48	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.12	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.88	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.58	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.91	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.71	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.48	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.55	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.83	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.58	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.79	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.71	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.55	1.184	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:59	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.71	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.85	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
78-93-3	<b>2-Butanone</b>	<b>0.94</b>		ug/m³	0.35	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.97	1.184	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:59	LLJ



## Sample Information

Client Sample ID: FIRST FLOOR HALLWAY

York Sample ID: 21C1446-03

York Project (SDG) No.

21C1446

Client Project ID

21-48291 CENTRAL BLVD.

Matrix

Indoor Ambient Air

Collection Date/Time

March 29, 2021 3:00 pm

Date Received

03/30/2021

### 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	1.9	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.49	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
67-64-1	<b>Acetone</b>	<b>5.5</b>		ug/m³	0.56	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.26	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
71-43-2	Benzene	ND		ug/m³	0.38	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.61	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.79	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
75-25-2	Bromoform	ND		ug/m³	1.2	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.46	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
75-15-0	Carbon disulfide	ND		ug/m³	0.37	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
56-23-5	<b>Carbon tetrachloride</b>	<b>0.37</b>		ug/m³	0.19	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.55	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.31	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
67-66-3	Chloroform	ND		ug/m³	0.58	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
74-87-3	<b>Chloromethane</b>	<b>0.61</b>	TO-CC V, TO-LC S-L	ug/m³	0.24	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.12	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.54	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
110-82-7	Cyclohexane	ND		ug/m³	0.41	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	1.0	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
75-71-8	<b>Dichlorodifluoromethane</b>	<b>2.0</b>		ug/m³	0.59	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	0.85	1.184	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:59	LLJ



## Sample Information

Client Sample ID: FIRST FLOOR HALLWAY

York Sample ID:

21C1446-03

York Project (SDG) No.

21C1446

Client Project ID

21-48291 CENTRAL BLVD.

Matrix

Indoor Ambient Air

Collection Date/Time

March 29, 2021 3:00 pm

Date Received

03/30/2021

### 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	0.51	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.3	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
67-63-0	<b>Isopropanol</b>	<b>2.2</b>		ug/m³	0.58	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
80-62-6	<b>Methyl Methacrylate</b>	<b>0.48</b>		ug/m³	0.48	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.43	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
75-09-2	<b>Methylene chloride</b>	<b>4.1</b>		ug/m³	0.82	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.49	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
110-54-3	n-Hexane	ND		ug/m³	0.42	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.51	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	1.0	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.58	1.184	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:59	LLJ
115-07-1	* Propylene	ND		ug/m³	0.20	1.184	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:59	LLJ
100-42-5	Styrene	ND		ug/m³	0.50	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
127-18-4	Tetrachloroethylene	ND		ug/m³	0.80	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.70	1.184	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 10:59	LLJ
108-88-3	<b>Toluene</b>	<b>0.89</b>		ug/m³	0.45	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.47	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.54	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.16	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>0.93</b>		ug/m³	0.67	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.42	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.52	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ



## Sample Information

Client Sample ID: FIRST FLOOR HALLWAY

York Sample ID: 21C1446-03

York Project (SDG) No.

21C1446

Client Project ID

21-48291 CENTRAL BLVD.

Matrix

Indoor Ambient Air

Collection Date/Time

March 29, 2021 3:00 pm

Date Received

03/30/2021

### 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	0.15	1.184	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 10:59	LLJ

## Sample Information

Client Sample ID: SOUTH SUBSURFACE

York Sample ID: 21C1446-04

York Project (SDG) No.

21C1446

Client Project ID

21-48291 CENTRAL BLVD.

Matrix

Soil Vapor

Collection Date/Time

March 29, 2021 3:00 pm

Date Received

03/30/2021

### 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	1.4	2.003	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 11:52	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	1.1	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.4	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.5	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	1.1	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.81	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.20	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.5	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>3.2</b>		ug/m³	0.98	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.5	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	1.2	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.81	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.93	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.4	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ



## Sample Information

<b>Client Sample ID:</b> SOUTH SUBSURFACE		<b>York Sample ID:</b>	<b>21C1446-04</b>
<u>York Project (SDG) No.</u> 21C1446	<u>Client Project ID</u> 21-48291 CENTRAL BLVD.	<u>Matrix</u> Soil Vapor	<u>Collection Date/Time</u> March 29, 2021 3:00 pm

### 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	0.98	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	1.3	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	1.2	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.93	2.003	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 11:52	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	1.2	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	1.4	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
78-93-3	<b>2-Butanone</b>	<b>120</b>		ug/m³	0.59	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	1.6	2.003	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 11:52	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	3.1	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
108-10-1	<b>4-Methyl-2-pentanone</b>	<b>3.9</b>		ug/m³	0.82	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
67-64-1	<b>Acetone</b>	<b>390</b>		ug/m³	9.5	20.03	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2021 19:00	04/07/2021 03:16	LLJ
107-13-1	Acrylonitrile	ND		ug/m³	0.43	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
71-43-2	<b>Benzene</b>	<b>2.9</b>		ug/m³	0.64	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	1.0	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	1.3	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
75-25-2	Bromoform	ND		ug/m³	2.1	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.78	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
75-15-0	<b>Carbon disulfide</b>	<b>7.5</b>		ug/m³	0.62	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
56-23-5	<b>Carbon tetrachloride</b>	<b>0.50</b>		ug/m³	0.32	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.92	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.53	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
67-66-3	Chloroform	ND		ug/m³	0.98	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ



## Sample Information

<b>Client Sample ID:</b> SOUTH SUBSURFACE	<b>York Sample ID:</b> 21C1446-04
<u>York Project (SDG) No.</u> 21C1446	<u>Client Project ID</u> 21-48291 CENTRAL BLVD.
	<u>Matrix</u> Soil Vapor
	<u>Collection Date/Time</u> March 29, 2021 3:00 pm
	<u>Date Received</u> 03/30/2021

### 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	ND	TO-CC V, TO-LC S-L	ug/m³	0.41	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.20	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.91	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
110-82-7	<b>Cyclohexane</b>	<b>1.0</b>		ug/m³	0.69	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	1.7	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
75-71-8	<b>Dichlorodifluoromethane</b>	<b>2.0</b>		ug/m³	0.99	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
141-78-6	* Ethyl acetate	<b>18</b>		ug/m³	1.4	2.003	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 11:52	LLJ
100-41-4	<b>Ethyl Benzene</b>	<b>3.7</b>		ug/m³	0.87	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	2.1	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
67-63-0	<b>Isopropanol</b>	<b>12</b>		ug/m³	0.98	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
80-62-6	Methyl Methacrylate	ND		ug/m³	0.82	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
75-09-2	<b>Methylene chloride</b>	<b>3.5</b>		ug/m³	1.4	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
142-82-5	<b>n-Heptane</b>	<b>1.8</b>		ug/m³	0.82	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
110-54-3	<b>n-Hexane</b>	<b>8.2</b>		ug/m³	0.71	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
95-47-6	<b>o-Xylene</b>	<b>3.4</b>		ug/m³	0.87	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
179601-23-1	<b>p- &amp; m- Xylenes</b>	<b>7.8</b>		ug/m³	1.7	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
622-96-8	* p-Ethyltoluene	<b>3.0</b>		ug/m³	0.98	2.003	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 11:52	LLJ
115-07-1	* Propylene	ND		ug/m³	0.34	2.003	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 11:52	LLJ
100-42-5	Styrene	ND		ug/m³	0.85	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
127-18-4	Tetrachloroethylene	ND		ug/m³	1.4	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
109-99-9	* Tetrahydrofuran	<b>2.7</b>		ug/m³	1.2	2.003	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 11:52	LLJ



## Sample Information

Client Sample ID: **SOUTH SUBSURFACE**

York Sample ID: **21C1446-04**

York Project (SDG) No.

21C1446

Client Project ID

21-48291 CENTRAL BLVD.

Matrix

Soil Vapor

Collection Date/Time

March 29, 2021 3:00 pm

Date Received

03/30/2021

### 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	300		ug/m³	7.5	20.03	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2021 19:00	04/07/2021 03:16	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.79	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.91	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.27	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	1.1	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.71	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.88	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.26	2.003	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 11:52	LLJ

### Helium

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: PREP for GASES by GC

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-59-7	* Helium	ND		%	1.0	2.003	GC/TCD Certifications:	04/05/2021 06:53	04/05/2021 16:58	tp

## Sample Information

Client Sample ID: **SOUTH CRAWL SPACE**

York Sample ID: **21C1446-05**

York Project (SDG) No.

21C1446

Client Project ID

21-48291 CENTRAL BLVD.

Matrix

Indoor Ambient Air

Collection Date/Time

March 29, 2021 3:00 pm

Date Received

03/30/2021

### 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	0.55	0.794	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 12:51	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.43	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.55	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ



## Sample Information

Client Sample ID: **SOUTH CRAWL SPACE**

York Sample ID: **21C1446-05**

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
21C1446	21-48291 CENTRAL BLVD.	Indoor Ambient Air	March 29, 2021 3:00 pm	03/30/2021

### 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
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.61	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.43	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.32	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.079	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.59	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.39	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.61	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.48	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.32	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.37	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.56	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.39	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.53	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.48	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.37	0.794	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 12:51	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.48	0.794	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 12:51	LLJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.57	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
78-93-3	<b>2-Butanone</b>	<b>2.2</b>		ug/m³	0.23	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.65	0.794	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 12:51	LLJ
107-05-1	3-Chloropropene	ND		ug/m³	1.2	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.33	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
67-64-1	<b>Acetone</b>	<b>21</b>		ug/m³	0.38	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ



## Sample Information

Client Sample ID: **SOUTH CRAWL SPACE**

York Sample ID:

**21C1446-05**

York Project (SDG) No.

21C1446

Client Project ID

21-48291 CENTRAL BLVD.

Matrix

Indoor Ambient Air

Collection Date/Time

March 29, 2021 3:00 pm

Date Received

03/30/2021

### 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
107-13-1	Acrylonitrile	ND		ug/m³	0.17	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
71-43-2	<b>Benzene</b>	<b>0.56</b>		ug/m³	0.25	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
100-44-7	Benzyl chloride	ND		ug/m³	0.41	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.53	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
75-25-2	Bromoform	ND		ug/m³	0.82	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
74-83-9	Bromomethane	ND		ug/m³	0.31	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
75-15-0	<b>Carbon disulfide</b>	<b>9.3</b>		ug/m³	0.25	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
56-23-5	<b>Carbon tetrachloride</b>	<b>0.40</b>		ug/m³	0.12	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
108-90-7	Chlorobenzene	ND		ug/m³	0.37	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
75-00-3	Chloroethane	ND		ug/m³	0.21	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
67-66-3	Chloroform	ND		ug/m³	0.39	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
74-87-3	<b>Chloromethane</b>	<b>0.49</b>	TO-CC V, TO-LC S-L	ug/m³	0.16	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.079	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.36	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
110-82-7	Cyclohexane	ND		ug/m³	0.27	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
124-48-1	Dibromochloromethane	ND		ug/m³	0.68	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
75-71-8	<b>Dichlorodifluoromethane</b>	<b>1.9</b>		ug/m³	0.39	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
141-78-6	* Ethyl acetate	ND		ug/m³	0.57	0.794	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 12:51	LLJ
100-41-4	Ethyl Benzene	ND		ug/m³	0.34	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	0.85	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
67-63-0	<b>Isopropanol</b>	<b>2.2</b>		ug/m³	0.39	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ



## Sample Information

**Client Sample ID:** SOUTH CRAWL SPACE

**York Sample ID:**

**21C1446-05**

York Project (SDG) No.

21C1446

Client Project ID

21-48291 CENTRAL BLVD.

Matrix

Indoor Ambient Air

Collection Date/Time

March 29, 2021 3:00 pm

Date Received

03/30/2021

### 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
80-62-6	<b>Methyl Methacrylate</b>	<b>0.68</b>		ug/m³	0.33	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.29	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
75-09-2	<b>Methylene chloride</b>	<b>7.2</b>		ug/m³	0.55	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
142-82-5	n-Heptane	ND		ug/m³	0.33	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
110-54-3	<b>n-Hexane</b>	<b>0.34</b>		ug/m³	0.28	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
95-47-6	o-Xylene	ND		ug/m³	0.34	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.69	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.39	0.794	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 12:51	LLJ
115-07-1	* Propylene	ND		ug/m³	0.14	0.794	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 12:51	LLJ
100-42-5	Styrene	ND		ug/m³	0.34	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
127-18-4	Tetrachloroethylene	ND		ug/m³	0.54	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.47	0.794	EPA TO-15 Certifications:	04/05/2021 17:00	04/06/2021 12:51	LLJ
108-88-3	<b>Toluene</b>	<b>2.0</b>		ug/m³	0.30	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.31	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.36	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
79-01-6	Trichloroethylene	ND		ug/m³	0.11	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.2</b>		ug/m³	0.45	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
108-05-4	Vinyl acetate	ND		ug/m³	0.28	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
593-60-2	Vinyl bromide	ND		ug/m³	0.35	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	0.794	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/05/2021 17:00	04/06/2021 12:51	LLJ





## Sample and Data Qualifiers Relating to This Work Order

- TO-LCS-L The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
- TO-LCS-H The result reported for this compound may be biased high due to its behavior in the analysis batch LCS where it recovered greater than 130% of the expected value.
- TO-CCV The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).

### 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.

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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.

2IC1446

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 <b>ZI-48291</b>	Turn-Around Time
Company: <b>JCBRODICK &amp; ASSOC. INC.</b>	Address: <b>1775 EXPRESSEWAY DR. N Hempstead, NY 11748</b>	Phone.: <b>631-584-5492</b>	Address:		
Contact: <b>S. MULLER</b>	E-mail: <b>S.MULLER@JCBWOODSIDE.COM</b>	Phone.: Contact:	E-mail:	YOUR Project Name <b>CENTRAL BLVD.</b>	
				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.

*Stephen Muller*

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

*Stephen Muller*

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

Certified Canisters: Batch \_\_\_\_\_ Individual \_\_\_\_\_ Please enter the following REQUIRED Field Data Reporting Units: ug/m<sup>3</sup>  ppbv \_\_\_\_\_ ppmv \_\_\_\_\_

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
North Subsurface	3/29/21	AS	30	13	24114	13561	TO-15 + He
North Crawl Space	3/29/21	AI	29	6	36985	7079	TO-15
First Floor Hallway	3/29/21	AI	29.5	11	24111	4-25	TO-15
South Subsurface	3/29/21	AS	28.5	10	37793	7093	TO-15 + He
South Crawl Space	3/29/21	AI	30	3	36411	6864	TO-15
South First Floor Cafeteria	3/29/21	AI	30	4	36983	7083	TO-15
Admin Wings Basement	3/29/21	AI	29.5	12	23196	6873	TO-15
Ambient	3/29/21	AO	30	6	28307	4515	TO-15
				1			<del>23225</del>
				1			

Comments:	Detection Limits Required			Sampling Media
	<input checked="" type="checkbox"/> $\leq 1 \text{ ug/m}^3$ NYSDEC V1 Limits _____			6 Liter Canister <input checked="" type="checkbox"/>
	Routine Survey _____ Other _____			Tedlar Bag <input checked="" type="checkbox"/>

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
<i>K. Baskin</i>	3/30/21 12:45 pm	<i>K. Baskin</i>	3/30/21 12:40pm	<i>K. Baskin</i>	3/30/21 3:30 pm



# Technical Report

prepared for:

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

Report Date: 04/20/2021

**Client Project ID: 21-48290 Bethpage HS**  
**York Project (SDG) No.: 21D0514**

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](http://www.YORKLAB.com)

STRATFORD, CT 06615  
(203) 325-1371



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

RICHMOND HILL, NY 11418  
[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 04/20/2021  
Client Project ID: 21-48290 Bethpage HS  
York Project (SDG) No.: 21D0514

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

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## 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 April 12, 2021 with a temperature of C. The project was identified as your project: **21-48290 Bethpage HS**.

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.

<b>York Sample ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
21D0514-01	ADMIN WING BASEMENT	Indoor Ambient Air	04/10/2021	04/12/2021
21D0514-02	SOUTH FIRST FL CAFE A	Indoor Ambient Air	04/10/2021	04/12/2021
21D0514-03	AMBIENT	Outdoor Ambient Ai	04/10/2021	04/12/2021

## **General Notes for York Project (SDG) No.: 21D0514**

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:** 04/20/2021

Benjamin Gulizia  
Laboratory Director





## Sample Information

Client Sample ID: ADMIN WING BASEMENT

York Sample ID: 21D0514-01

York Project (SDG) No.  
21D0514

Client Project ID  
21-48290 Bethpage HS

Matrix  
Indoor Ambient Air

Collection Date/Time  
April 10, 2021 3:00 pm

Date Received  
04/12/2021

### 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
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.66	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.52	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.66	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.73	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.52	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.39	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.095	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.71	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.47	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.74	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.58	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.39	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.44	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.67	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.47	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.64	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.58	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.44	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.58	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.69	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
78-93-3	<b>2-Butanone</b>	<b>0.93</b>		ug/m³	0.28	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ



## Sample Information

Client Sample ID: ADMIN WING BASEMENT

York Sample ID:

**21D0514-01**

York Project (SDG) No.

21D0514

Client Project ID

21-48290 Bethpage HS

Matrix

Indoor Ambient Air

Collection Date/Time

April 10, 2021 3:00 pm

Date Received

04/12/2021

### 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	0.78	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
107-05-1	3-Chloropropene	ND		ug/m³	1.5	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.39	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
67-64-1	<b>Acetone</b>	<b>9.5</b>		ug/m³	0.45	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
107-13-1	Acrylonitrile	ND		ug/m³	0.21	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
71-43-2	<b>Benzene</b>	<b>0.43</b>		ug/m³	0.31	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
100-44-7	Benzyl chloride	ND		ug/m³	0.50	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.64	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
75-25-2	Bromoform	ND		ug/m³	0.99	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
74-83-9	Bromomethane	ND		ug/m³	0.37	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
75-15-0	Carbon disulfide	ND		ug/m³	0.30	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
56-23-5	<b>Carbon tetrachloride</b>	<b>0.42</b>		ug/m³	0.15	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
108-90-7	Chlorobenzene	ND		ug/m³	0.44	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
75-00-3	Chloroethane	ND		ug/m³	0.25	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
67-66-3	Chloroform	ND		ug/m³	0.47	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
74-87-3	<b>Chloromethane</b>	<b>0.99</b>		ug/m³	0.20	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.095	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.43	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
110-82-7	Cyclohexane	ND		ug/m³	0.33	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
124-48-1	Dibromochloromethane	ND		ug/m³	0.82	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
75-71-8	<b>Dichlorodifluoromethane</b>	<b>2.0</b>		ug/m³	0.47	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
141-78-6	* Ethyl acetate	<b>0.76</b>		ug/m³	0.69	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ



## Sample Information

Client Sample ID: ADMIN WING BASEMENT

York Sample ID:

**21D0514-01**

York Project (SDG) No.

21D0514

Client Project ID

21-48290 Bethpage HS

Matrix

Indoor Ambient Air

Collection Date/Time

April 10, 2021 3:00 pm

Date Received

04/12/2021

### 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	0.42	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.0	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
67-63-0	<b>Isopropanol</b>	<b>24</b>		ug/m³	0.47	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
80-62-6	<b>Methyl Methacrylate</b>	<b>0.90</b>		ug/m³	0.39	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.35	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
75-09-2	<b>Methylene chloride</b>	<b>2.8</b>		ug/m³	0.66	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
142-82-5	<b>n-Heptane</b>	<b>0.63</b>		ug/m³	0.39	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
110-54-3	<b>n-Hexane</b>	<b>0.61</b>		ug/m³	0.34	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
95-47-6	o-Xylene	ND		ug/m³	0.42	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.83	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.47	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
115-07-1	* Propylene	ND		ug/m³	0.16	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
100-42-5	Styrene	ND		ug/m³	0.41	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
127-18-4	Tetrachloroethylene	ND		ug/m³	0.65	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.56	0.957	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 21:14	LJ
108-88-3	<b>Toluene</b>	<b>1.7</b>		ug/m³	0.36	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.38	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.43	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.2</b>		ug/m³	0.54	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
108-05-4	Vinyl acetate	ND		ug/m³	0.34	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ
593-60-2	Vinyl bromide	ND		ug/m³	0.42	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ



## Sample Information

Client Sample ID: ADMIN WING BASEMENT

York Sample ID: 21D0514-01

York Project (SDG) No.

21D0514

Client Project ID

21-48290 Bethpage HS

Matrix

Indoor Ambient Air

Collection Date/Time

April 10, 2021 3:00 pm

Date Received

04/12/2021

### 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	0.12	0.957	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 21:14	LJ

## Sample Information

Client Sample ID: SOUTH FIRST FL CAFE A

York Sample ID: 21D0514-02

York Project (SDG) No.

21D0514

Client Project ID

21-48290 Bethpage HS

Matrix

Indoor Ambient Air

Collection Date/Time

April 10, 2021 3:00 pm

Date Received

04/12/2021

### 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	0.66	0.958	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 23:23	LJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.52	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.66	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.73	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.52	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.39	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.095	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.71	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.47	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.74	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.58	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.39	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.44	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.67	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ



## Sample Information

Client Sample ID: **SOUTH FIRST FL CAFE A**

York Sample ID:

**21D0514-02**

York Project (SDG) No.

21D0514

Client Project ID

21-48290 Bethpage HS

Matrix

Indoor Ambient Air

Collection Date/Time

April 10, 2021 3:00 pm

Date Received

04/12/2021

### 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	0.47	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.64	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.58	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.44	0.958	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 23:23	LJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.58	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.69	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
78-93-3	<b>2-Butanone</b>	<b>0.59</b>		ug/m³	0.28	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.78	0.958	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 23:23	LJ
107-05-1	3-Chloropropene	ND		ug/m³	1.5	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.39	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
67-64-1	<b>Acetone</b>	<b>3.9</b>		ug/m³	0.46	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
107-13-1	Acrylonitrile	ND		ug/m³	0.21	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
71-43-2	<b>Benzene</b>	<b>0.40</b>		ug/m³	0.31	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
100-44-7	Benzyl chloride	ND		ug/m³	0.50	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.64	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
75-25-2	Bromoform	ND		ug/m³	0.99	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
74-83-9	Bromomethane	ND		ug/m³	0.37	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
75-15-0	<b>Carbon disulfide</b>	<b>0.36</b>		ug/m³	0.30	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
56-23-5	<b>Carbon tetrachloride</b>	<b>0.42</b>		ug/m³	0.15	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
108-90-7	Chlorobenzene	ND		ug/m³	0.44	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
75-00-3	Chloroethane	ND		ug/m³	0.25	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
67-66-3	Chloroform	ND		ug/m³	0.47	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ



## Sample Information

Client Sample ID: SOUTH FIRST FL CAFE A

York Sample ID:

21D0514-02

York Project (SDG) No.

21D0514

Client Project ID

21-48290 Bethpage HS

Matrix

Indoor Ambient Air

Collection Date/Time

April 10, 2021 3:00 pm

Date Received

04/12/2021

### 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	0.20	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.095	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.43	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
110-82-7	Cyclohexane	ND		ug/m³	0.33	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
124-48-1	Dibromochloromethane	ND		ug/m³	0.82	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
75-71-8	Dichlorodifluoromethane	2.0		ug/m³	0.47	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
141-78-6	* Ethyl acetate	ND		ug/m³	0.69	0.958	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 23:23	LJ
100-41-4	Ethyl Benzene	ND		ug/m³	0.42	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.0	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
67-63-0	Isopropanol	2.7		ug/m³	0.47	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
80-62-6	Methyl Methacrylate	0.51		ug/m³	0.39	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.35	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
75-09-2	Methylene chloride	1.7		ug/m³	0.67	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
142-82-5	n-Heptane	ND		ug/m³	0.39	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
110-54-3	n-Hexane	0.57		ug/m³	0.34	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
95-47-6	o-Xylene	ND		ug/m³	0.42	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.83	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.47	0.958	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 23:23	LJ
115-07-1	* Propylene	ND		ug/m³	0.16	0.958	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 23:23	LJ
100-42-5	Styrene	ND		ug/m³	0.41	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
127-18-4	Tetrachloroethylene	ND		ug/m³	0.65	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.57	0.958	EPA TO-15 Certifications:	04/19/2021 11:59	04/19/2021 23:23	LJ



## Sample Information

Client Sample ID: **SOUTH FIRST FL CAFE A**

York Sample ID:

**21D0514-02**

York Project (SDG) No.

21D0514

Client Project ID

21-48290 Bethpage HS

Matrix

Indoor Ambient Air

Collection Date/Time

April 10, 2021 3:00 pm

Date Received

04/12/2021

### 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	1.0		ug/m³	0.36	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.38	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.43	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
75-69-4	Trichlorofluoromethane (Freon 11)	1.1		ug/m³	0.54	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
108-05-4	Vinyl acetate	ND		ug/m³	0.34	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
593-60-2	Vinyl bromide	ND		ug/m³	0.42	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.12	0.958	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/19/2021 23:23	LJ

## Sample Information

Client Sample ID: **AMBIENT**

York Sample ID:

**21D0514-03**

York Project (SDG) No.

21D0514

Client Project ID

21-48290 Bethpage HS

Matrix

Outdoor Ambient Air

Collection Date/Time

April 10, 2021 3:00 pm

Date Received

04/12/2021

### 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	0.68	0.989	EPA TO-15 Certifications:	04/19/2021 11:59	04/20/2021 02:53	LJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.54	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.68	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.76	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.54	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.40	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.098	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ



## Sample Information

**Client Sample ID:** AMBIENT

**York Sample ID:** 21D0514-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
21D0514	21-48290 Bethpage HS	Outdoor Ambient Air	April 10, 2021 3:00 pm	04/12/2021

### 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
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.73	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.49	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.76	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.59	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.40	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.46	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.69	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.49	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
106-99-0	1,3-Butadiene	ND		ug/m³	0.66	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.59	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.46	0.989	EPA TO-15 Certifications:	04/19/2021 11:59	04/20/2021 02:53	LJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.59	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
123-91-1	1,4-Dioxane	ND		ug/m³	0.71	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
78-93-3	<b>2-Butanone</b>	<b>0.64</b>		ug/m³	0.29	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
591-78-6	* 2-Hexanone	ND		ug/m³	0.81	0.989	EPA TO-15 Certifications:	04/19/2021 11:59	04/20/2021 02:53	LJ
107-05-1	3-Chloropropene	ND		ug/m³	1.5	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.41	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
67-64-1	<b>Acetone</b>	<b>3.0</b>		ug/m³	0.47	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
107-13-1	Acrylonitrile	ND		ug/m³	0.21	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
71-43-2	<b>Benzene</b>	<b>0.38</b>		ug/m³	0.32	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
100-44-7	Benzyl chloride	ND		ug/m³	0.51	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
75-27-4	Bromodichloromethane	ND		ug/m³	0.66	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ



## Sample Information

Client Sample ID: AMBIENT

York Sample ID: 21D0514-03

York Project (SDG) No.

21D0514

Client Project ID

21-48290 Bethpage HS

Matrix

Outdoor Ambient Air

Collection Date/Time

April 10, 2021 3:00 pm

Date Received

04/12/2021

### 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
75-25-2	Bromoform	ND		ug/m³	1.0	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
74-83-9	Bromomethane	ND		ug/m³	0.38	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
75-15-0	Carbon disulfide	ND		ug/m³	0.31	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
56-23-5	<b>Carbon tetrachloride</b>	<b>0.44</b>		ug/m³	0.16	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
108-90-7	Chlorobenzene	ND		ug/m³	0.46	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
75-00-3	Chloroethane	ND		ug/m³	0.26	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
67-66-3	Chloroform	ND		ug/m³	0.48	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
74-87-3	<b>Chloromethane</b>	<b>0.98</b>		ug/m³	0.20	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.098	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.45	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
110-82-7	Cyclohexane	ND		ug/m³	0.34	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
124-48-1	Dibromochloromethane	ND		ug/m³	0.84	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
75-71-8	<b>Dichlorodifluoromethane</b>	<b>2.0</b>		ug/m³	0.49	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
141-78-6	* Ethyl acetate	ND		ug/m³	0.71	0.989	EPA TO-15 Certifications:	04/19/2021 11:59	04/20/2021 02:53	LJ
100-41-4	Ethyl Benzene	ND		ug/m³	0.43	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
67-63-0	<b>Isopropanol</b>	<b>1.2</b>		ug/m³	0.49	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
80-62-6	<b>Methyl Methacrylate</b>	<b>0.40</b>		ug/m³	0.40	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.36	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
75-09-2	<b>Methylene chloride</b>	<b>3.9</b>		ug/m³	0.69	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
142-82-5	n-Heptane	ND		ug/m³	0.41	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
110-54-3	<b>n-Hexane</b>	<b>0.49</b>		ug/m³	0.35	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ



## Sample Information

<u>Client Sample ID:</u> AMBIENT	<u>York Sample ID:</u> 21D0514-03			
<u>York Project (SDG) No.</u> 21D0514	<u>Client Project ID</u> 21-48290 Bethpage HS	<u>Matrix</u> Outdoor Ambient Air	<u>Collection Date/Time</u> April 10, 2021 3:00 pm	<u>Date Received</u> 04/12/2021

### 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
95-47-6	o-Xylene	ND		ug/m³	0.43	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.86	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.49	0.989	EPA TO-15 Certifications:	04/19/2021 11:59	04/20/2021 02:53	LJ
115-07-1	* Propylene	ND		ug/m³	0.17	0.989	EPA TO-15 Certifications:	04/19/2021 11:59	04/20/2021 02:53	LJ
100-42-5	Styrene	ND		ug/m³	0.42	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
127-18-4	<b>Tetrachloroethylene</b>	<b>2.1</b>		ug/m³	0.67	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.58	0.989	EPA TO-15 Certifications:	04/19/2021 11:59	04/20/2021 02:53	LJ
108-88-3	<b>Toluene</b>	<b>1.2</b>		ug/m³	0.37	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.39	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.45	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
79-01-6	<b>Trichloroethylene</b>	<b>0.21</b>		ug/m³	0.13	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.2</b>		ug/m³	0.56	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
108-05-4	Vinyl acetate	ND		ug/m³	0.35	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
593-60-2	Vinyl bromide	ND		ug/m³	0.43	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ
75-01-4	Vinyl Chloride	ND		ug/m³	0.13	0.989	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/19/2021 11:59	04/20/2021 02:53	LJ





## Sample and Data Qualifiers Relating to This Work Order

TO-LCS-H The result reported for this compound may be biased high due to its behavior in the analysis batch LCS where it recovered greater than 130% of the expected value.

TO-CCV The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).

### 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.

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**York Analytical Laboratories, Inc.**

**YORK**  
ANALYTICAL LABORATORIES LTD.

[clientservices@yorklab.com](mailto:clientservices@yorklab.com)  
[www.yorklab.com](http://www.yorklab.com)

# **Field Chain-of-Custody Record - AIR**

**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.

YORK Project No.

21D0514

YOUR Information		Report To:	Invoice To:	YOUR Project Number  21-48290	Turn-Around Time
Company: <b>JCBRODICK &amp; ASSOC.</b>	Address: <b>1775 EXPRESSWAY DR. N</b> <b>HANOVER, NJ 1755</b>	Company: <b>JCB</b>	Address:		RUSH - Next Day
Phone: <b>631-584-5492</b>	Phone.:  Contact: <b>S. Muller</b>	Phone.:  Contact:	YOUR Project Name  <b>BETHPAGE HS</b>	RUSH - Two Day	
Email: <b>E-mail: S.Muller@jcbrodrick.com</b>	E-mail:	E-mail:		RUSH - Three Day	
				YOUR PO#:	RUSH - Four Day
					Standard (5-7 Day) <input checked="" type="checkbox"/>

**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.**

Signed Muller

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

*John Stenfli*

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

**Certified Canisters: Batch Individual**

**Please enter the following REQUIRED Field Data**

**Reporting Units:** ug/m<sup>3</sup>       ppbv       ppmv

**Comments:**

### Detection Limits Required

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Sampling Media

$\leq 1 \text{ ug/m}^3$   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
John W. / JCS	4/12/21 10 <sup>AM</sup>	KBandy/OKC	4/12/21 12PM	KBandy/OKC	4/12/21 1640
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
J. Hale / YORK	4-12-21 / 1640	J. Hale / YORK	4-12-21 / 1936	Ed / LK	4/12/21 / 1936
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
Ed / LK	4-12-21 2215			Alene A Schunk	4/13/21 09:00