

**VOLATILE VAPOR INTRUSION (VVI)  
REPORT**

**CENTRAL BOULEVARD ELEMENTARY  
SCHOOL  
60 CENTRAL BOULEVARD  
BETHPAGE, NEW YORK 11714**

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

**JCB PROJECT #: 16-35985  
JANUARY 2017**

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

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

J.C. Broderick and Associates (JCB) was retained by the Bethpage Union Free School District (Bethpage) to perform Volatile Vapor Intrusion (VVI) sampling due to information gathered from the “Proposed Remedial Action Plan” with regards to the “Northrop Grumman-Bethpage Facility Site Number 13003A, May 2012” prepared by Division of Environmental Remediation, New York State Department of Environmental Conservation (NYSDEC-DER). 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 60 Central Boulevard, Bethpage, New York 11714. The Subject Site is located at the western terminus of Central Boulevard. According to the United States Geological Survey (USGS) *Huntington, New York, 1979 7.5 Minute Series Topographical Map*, the Subject Site is situated at an approximate elevation of 98 feet (ft.) above mean sea level. The location of the Subject Site is shown on the Site Location Map, Appendix-A Figure-1.

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

The design scope outlined in the Volatile Vapor Intrusion (VVI) Investigation Work Plan (IWP) was followed during the volatile vapor intrusion evaluation. The following sections describe the procedures taken.

#### **Section No. 3.1: Pre-Work Field Preparations**

Prior to mobilization, 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.
  - A product inventory survey was completed, documenting possible sources of volatile chemicals present in the building during the indoor air sampling which could potentially influence the sample results. This inventory was completed utilizing the NYSDOH product inventory sheet provided in the NYSDOH “Guidance for Evaluating Soil Vapor Intrusion in the State of New York”, Final Version, October 2006. Please refer to Appendix D - Indoor Air Quality Questionnaire and Building Survey for additional details.
  - 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: 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 Environmental Laboratories, Inc. (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. 3.2.1: Basement/Crawlspace Air Sample Collection**

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

- A total of two (2) crawlspace and one (1) basement air samples were collected.
  - One (1) air sample was collected from within the crawlspace along the north side of the school building.
  - One (1) air sample was collected from within the crawlspace along the south side of the school building.
  - One (1) air sample was collected from within the basement of the school building in the hallway.

#### **Section No. 3.2.2: 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.

- Two (2) first floor air samples were collected.
  - One (1) air sample was collected from within Room 112 located on the north side of the school building.
  - One (1) air sample was collected from the hallway located on the south side of the school building.

### **Section No. 3.3: Outdoor (Ambient) Air Sample Collection**

An outdoor (ambient) air sample was collected simultaneously with indoor air 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 Environmental Laboratories, Inc. (York) equipped with a flow controller pre-set for an eight (8) hour sample duration. As per the guidance requirements, the sample was collected at a height approximately three (3) feet above the floor. Please refer to Figure No. 3 - 1<sup>st</sup> Floor and Ambient Sample Locations for additional details.

- One (1) outdoor (ambient) air sample was collected.
  - One (1) air sample was collected from outside the west side of the school building adjacent to the kitchen/cafeteria.

### **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 Environmental Laboratories, Inc. (York) 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.

The laboratory analysis results for the air samples collected were reviewed and compared to the 90<sup>th</sup> percentile as listed in Table C1 NYSDOH 2003 Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes of the NYSDOH's "Final NYSDOH CEH BEEI Soil Vapor Intrusion Guidance" dated October 2006.

The following table summarizes the Air Sample Analytical Results of Detected Compounds:

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

Client Sample ID	Background Values	North Crawlspace	Basement Hallway	South Crawlspace	North Room 112	South First Floor Hallway	Ambient
<b>TO-15 List</b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>	<b>µg/m<sup>3</sup></b>
1,1,1-Trichloroethane (TCA)	3.1	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	<0.25	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane (Freon 113)	1.8	ND	ND	1.0	ND	ND	ND
1,1,2-Trichloroethane	<0.25	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	<0.25	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	<0.25	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	3.4	ND	ND	ND	ND	ND	ND

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

Client Sample ID	Background Values	North Crawlspace	Basement Hallway	South Crawlspace	North Room 112	South First Floor Hallway	Ambient
TO-15 List	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
1,2,4-Trimethylbenzene	9.5	ND	0.65	8.2	ND	ND	ND
1,2-Dibromoethane	<0.25	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.72	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	< 0.25	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	<0.25	ND	ND	ND	ND	ND	ND
1,2-Dichlortetrafluoroethane	0.52	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	3.6	ND	ND	2.6	ND	ND	ND
1,3-Dichlorobenzene	0.60	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.3	ND	ND	ND	ND	ND	ND
2-Butanone	16	0.45	0.66	7.5	0.56	2.1	1.1
4-Methyl-2-pentanone (MIBK)	2.2	ND	ND	ND	ND	ND	ND
Acetone	110	8.2	17	21	5.8	8.9	3.3
Benzene	15	0.56	1.2	1.5	0.32	0.42	ND
Bromomethane	0.60	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.81	0.40	0.38	0.77	0.31	0.31	0.38
Chlorobenzene	<0.25	ND	ND	ND	ND	ND	ND
Chloroethane	< 0.25	ND	ND	ND	ND	ND	ND
Chloroform	1.4	ND	ND	ND	ND	ND	ND
Chloromethane	3.3	0.86	1.1	2.4	1.0	1.2	1.2
Cis-1,2-Dichloroethylene	<0.25	ND	ND	ND	ND	ND	ND
Cis-1,3-Dichloropropylene	<0.25	ND	ND	ND	ND	ND	ND
Cyclohexane	8.1	ND	ND	0.95	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	15	1.9	1.8	3.1	2.4	2.3	2.0
Ethyl Benzene	7.4	ND	0.70	4.9	ND	ND	ND
Hexachlorobutadiene	4.6	ND	ND	ND	ND	ND	ND
Methyl Methacrylate	0.45	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	27	ND	ND	ND	ND	ND	ND
Methylene Chloride	22	ND	2.9	2.1	ND	ND	ND
n-Heptane	19	0.62	2.4	1.0	ND	ND	ND
n-Hexane	18	0.58	1.7	3.3	ND	ND	ND
o-Xylene	7.6	ND	0.61	<b>8.7</b>	ND	ND	ND
p- & m- Xylenes	12	ND	3.2	<b>24</b>	ND	ND	ND
Styrene	1.3	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	2.9	1.1	0.41	1.9	0.20	0.27	0.34
Tetrahydrofuran	3.3	ND	ND	ND	ND	0.94	ND
Toluene	58	2.2	7.4	11	0.57	0.87	ND
Trichloroethylene (TCE)	0.48	ND	ND	0.28	ND	ND	ND
Trichlorofluoromethane (Freon 11)	17	1.8	2.0	3.2	5.3	4.1	1.9
Vinyl Chloride	<0.25	ND	ND	ND	ND	ND	ND

**Notes:** µg/m³ = parts per billion NA = Background Value Not Established

ND=Not Detected above the laboratory minimum detection limit

Background Values = NYSDOH 2003 Study of Volatile Organic Compounds in Air of Fuel Oil Heated Homes 90<sup>th</sup> Percentile

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

**BOLD** Indicates Result Above Background Value

### **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 exposed sand within the crawlspace (no concrete or plastic covering), the crawlspace sample locations were considered “sub-slab” samples for the purpose of the decision matrices for this investigation.

The NYSDOH has currently developed two (2) 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 2	No Further Action
Carbon Tetrachloride	Matrix 1	Take reasonable and practical actions to identify source(s) and reduce exposures
Tetrachloroethene (PCE)	Matrix 2	No Further Action
Trichloroethene (TCE)	Matrix 1	No Further Action
1,1-Dichloroethene	Matrix 2	No Further Action
Cis-1,2-Dichloroethene	Matrix 2	No Further Action
Vinyl Chloride	Matrix 1	No Further Action

**Notes:** Only seven (7) chemicals have been assigned to decision matrices by the NYSDOH to date.

The results of the matrices indicate that “No Further Action” is acceptable for 1,1,1-Trichloroethane, Tetrachloroethene, Trichloroethene, 1,1-Dichloroethene, cis-1,2-Dichloroethene, and Vinyl Chloride. The results of the matrices indicate “Take reasonable and practical actions to identify source(s) and reduce exposures” for Carbon Tetrachloride. It should be noted that the outdoor ambient sample collected at the west side of the school building also detected Carbon Tetrachloride. The concentration detected in the ambient was similar to the concentrations detected within the building spaces tested; therefore, the identified source of the Carbon Tetrachloride was the outdoor ambient air.

### **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/Conclusions**

Based upon the review of the VVI sampling laboratory analysis results all detectable concentrations observed were reported well below published occupational health guidelines. In addition, with the exception of a single parameter, xylene (o-xylene and p&m-xylene) all detectable concentrations observed were reported below their background values reported in the NYSDOH 2003 Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes 90<sup>th</sup> Percentile. An investigation revealed that the presence of xylene at its reported concentration is mostly likely associated with the building's operation and not attributable to VVI.

Therefore, based upon these findings and comparisons no immediate hazard concern was identified.

A careful evaluation of the indoor air sample results compared to the outdoor ambient results did reveal the presence of a number of analyzed parameters where it is possible that their presence may be attributable to VVI. However, based upon the data collected during this investigation it cannot be definitively determined.

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

On July 24, 2012, JCB performed the same volatile vapor intrusion sampling. The analytical results collected in 2012 was compared to this year's results and the following observations were made:

Table No. 3: Comparison of Current Analytical Results to Previous Years			
Location	Number of Additional Compounds Detected	Number of Compounds with Increased Concentrations	Number of Compounds with Decreased Concentrations
North Crawlspace	-4	3	9
Basement Hallway	-1	3	12
South Crawlspace	6	14	1
North Room 112	-3	2	7
South 1 <sup>st</sup> Floor Hallway	-2	2	6
Ambient	-5	2	5

It should be noted that the high number of compounds with decreasing concentrations detected indicates a downward trend suggesting an overall improvement in the areas tested.

### **Section No. 8.0: Recommendations**

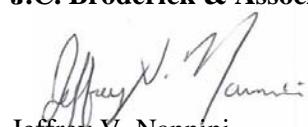
Although it is possible there may be a VVI condition, based upon the data collected to date it cannot be confirmed. It is recommended that periodic monitoring be performed to evaluate site conditions.

It is also recommended that an investigation be performed to identify any possible sources of Carbon Tetrachloride and Xylene associated with building operations. Steps should be taken to reduce the presence of these parameters such as, keeping containers tightly capped or storing VOC containing products in ventilated areas.

### **Section No. 9.0: 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 that all activities were performed in full accordance with the work plan.

Sincerely,  
**J.C. Broderick & Associates, Inc.**



Jeffrey V. Nannini

Environmental Scientist



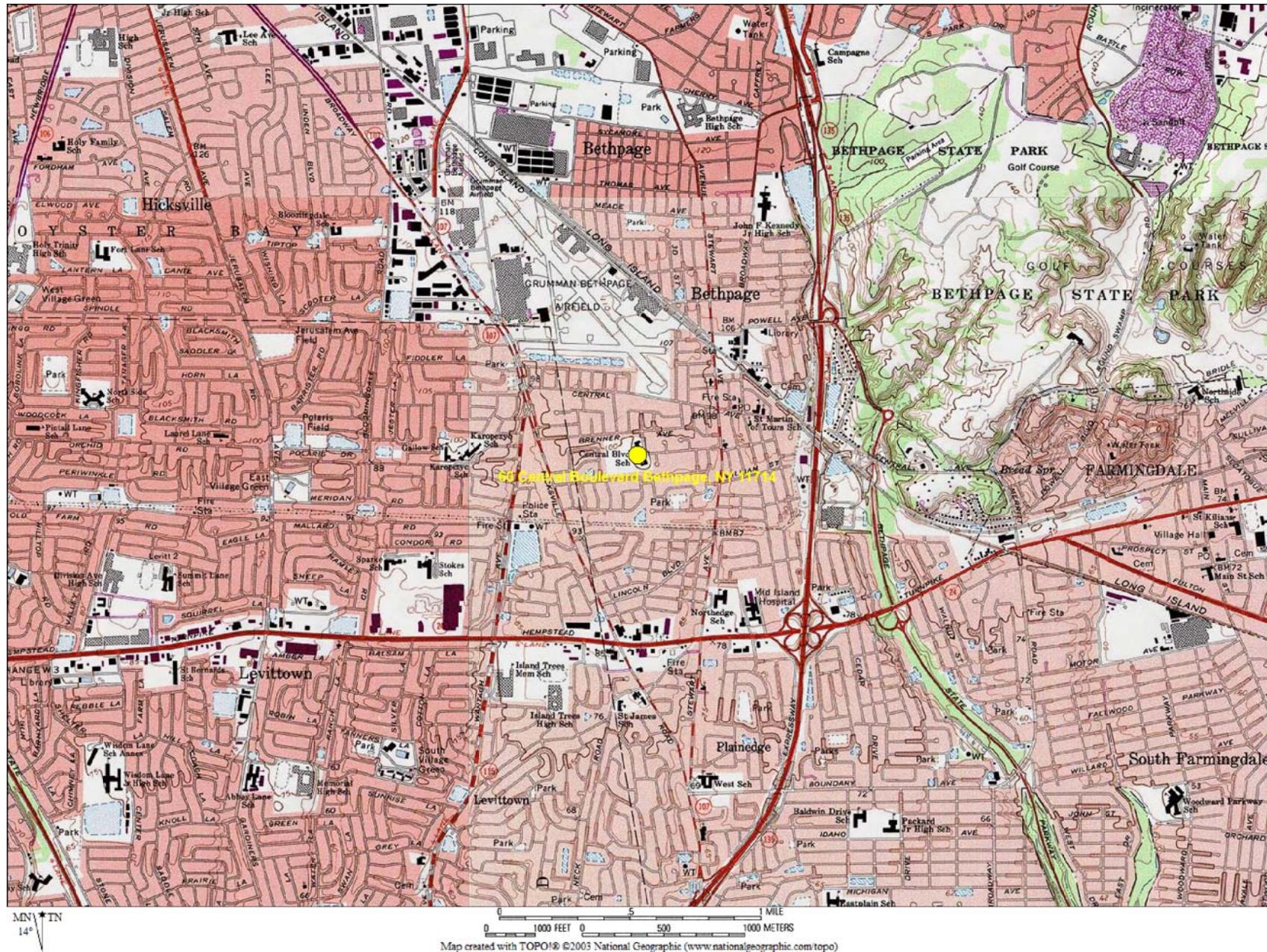
Steven Muller

PG  
Project Manager

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# **Attachment #1**

## **Field Drawing**



**JCB LEGEND**

**SUBJECT SITE**



**J.C. BRODERICK  
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**Notes:**

Central Boulevard School  
60 Central Boulevard  
Bethpage, NY 11714

Drawing Title

Figure No. 1

Site Location Map

Scale As Noted	Project No. 16-35985	Date 12-27-16
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Drawn By J.V.N.	Checked By S.W.M.	Page No. 1 of 3
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Drawing No.



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Central Boulevard School  
60 Central Boulevard  
Bethpage, NY 11714

Drawing Title

Figure No. 2

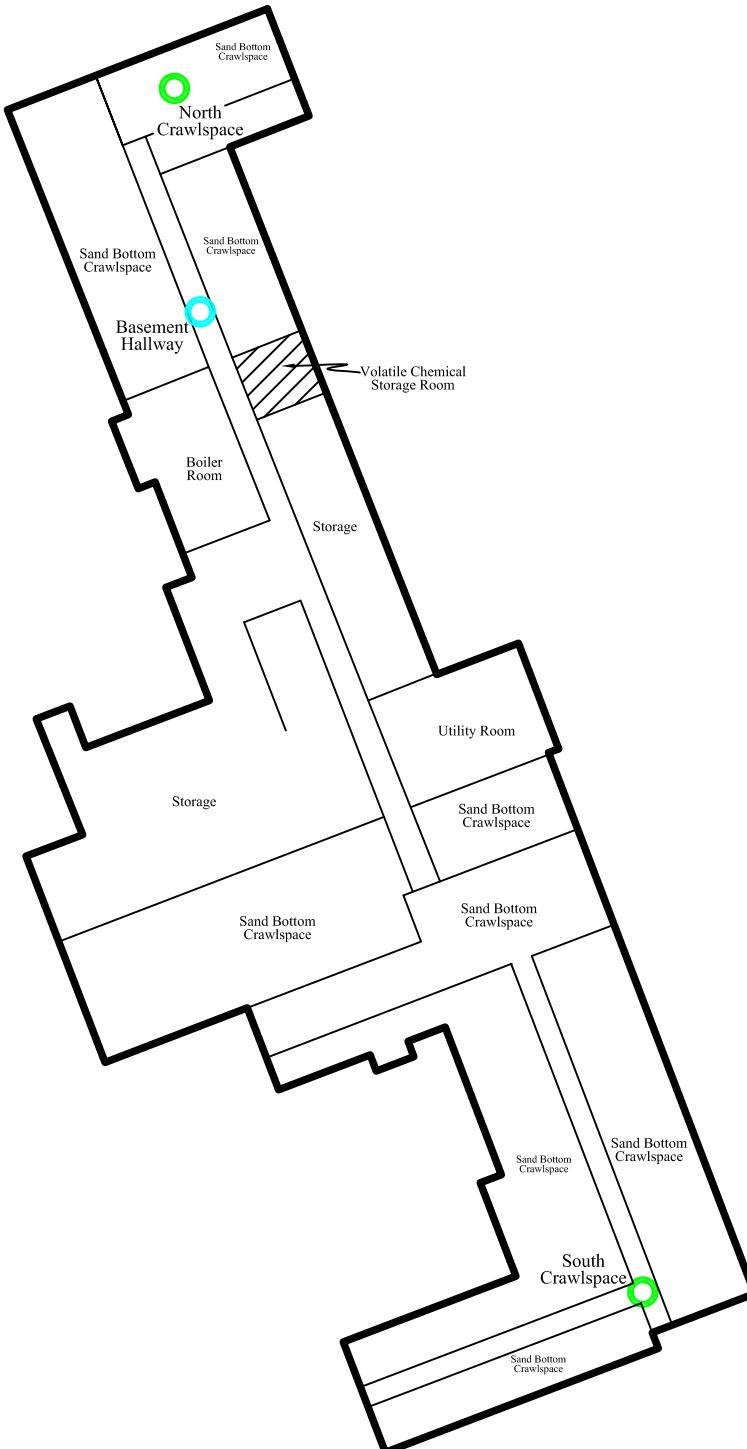
Crawlspace  
and  
Basement  
Sampling  
Locations

Scale Project No. Date  
N.T.S. 16-35985 12-27-16

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

Drawing No.

2



JCB LEGEND

- CRAWLSPACE SAMPLING LOCATION
- BASEMENT SAMPLING LOCATION



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60 Central Boulevard  
Bethpage, NY 11714

Drawing Title  
**Figure No. 3**

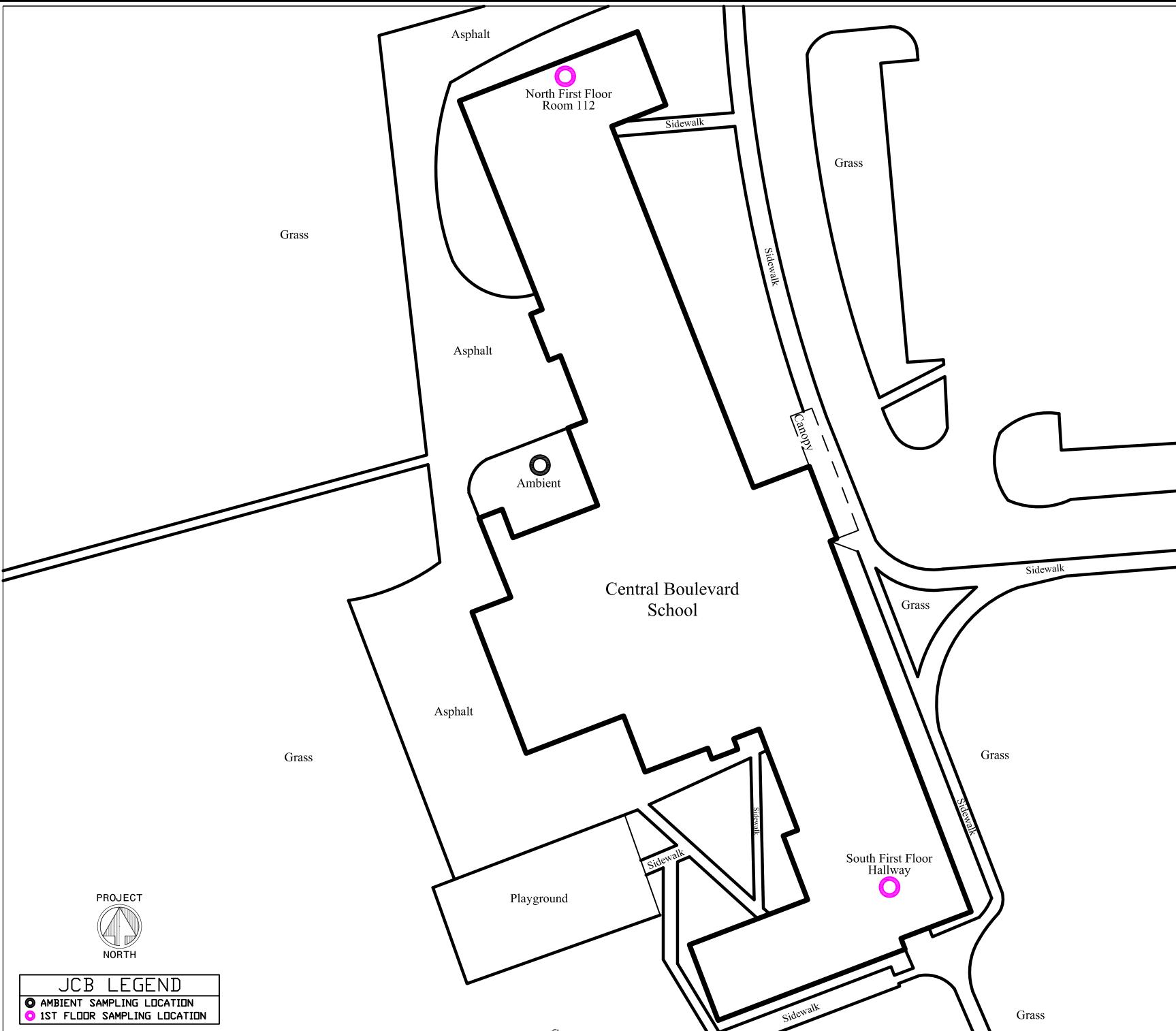
1st Floor  
and  
Ambient  
Sampling  
Locations

Scale Project No. Date  
N.T.S. 16-35985 12-27-16

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

Drawing No.

3



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## **Attachment #2**

## **Field Photograph Logs**

## North Crawlspace Sampling Location



## Field Photograph Log

Volatile Vapor Intrusion Report

Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, NY 11714



Photo No. 01

JCB#: 16-35985

## **North First Floor Room 112 Sampling Location**



## **Field Photograph Log**

**Volatile Vapor Intrusion Report**

**Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, NY 11714**



**Photo No. 02**

**JCB#: 16-35985**

## South Crawlspace Sampling Location



## Field Photograph Log

Volatile Vapor Intrusion Report

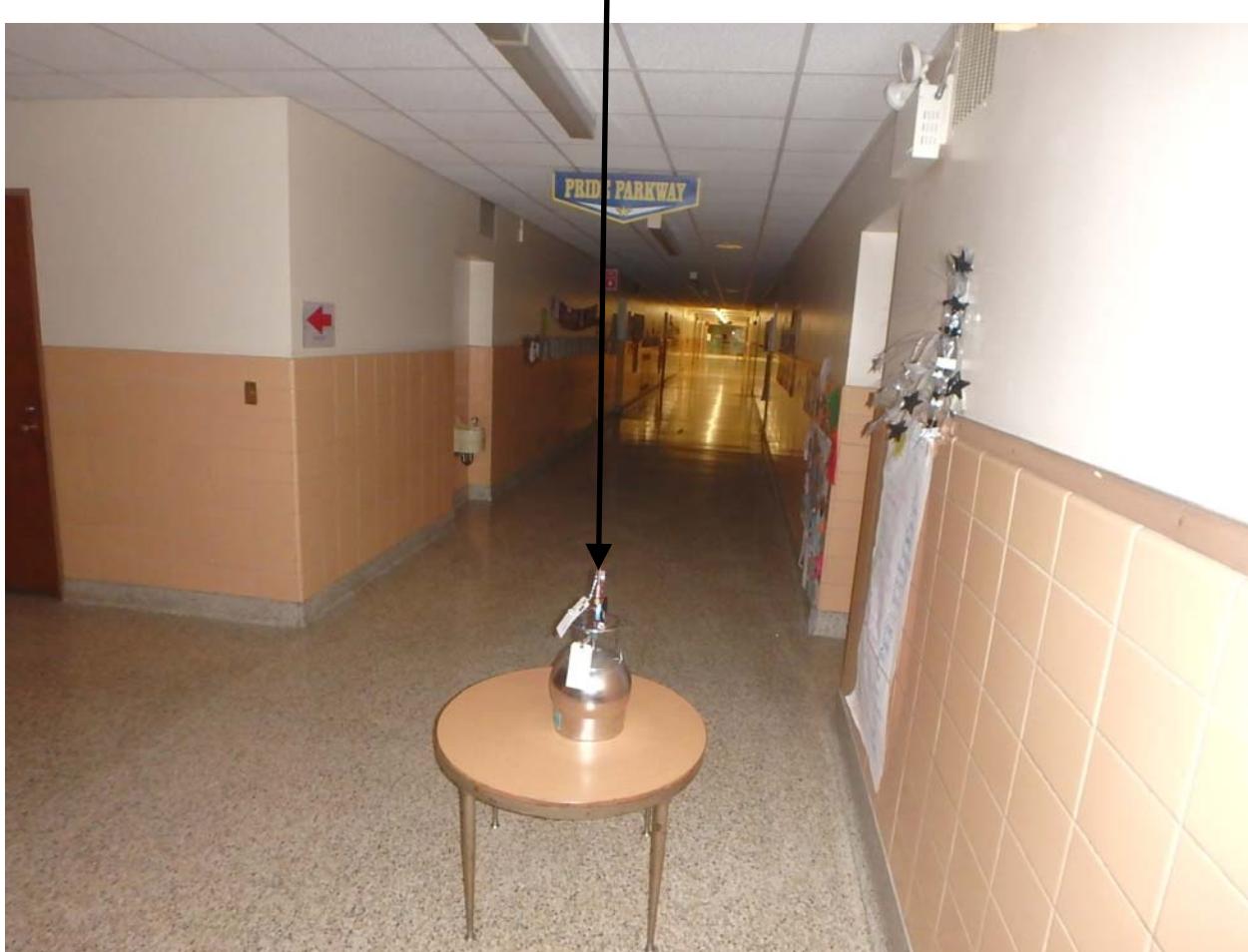
Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, NY 11714



Photo No. 03

JCB#: 16-35985

## **South First Floor Hallway Sampling Location**



## **Field Photograph Log**

**Volatile Vapor Intrusion Report**

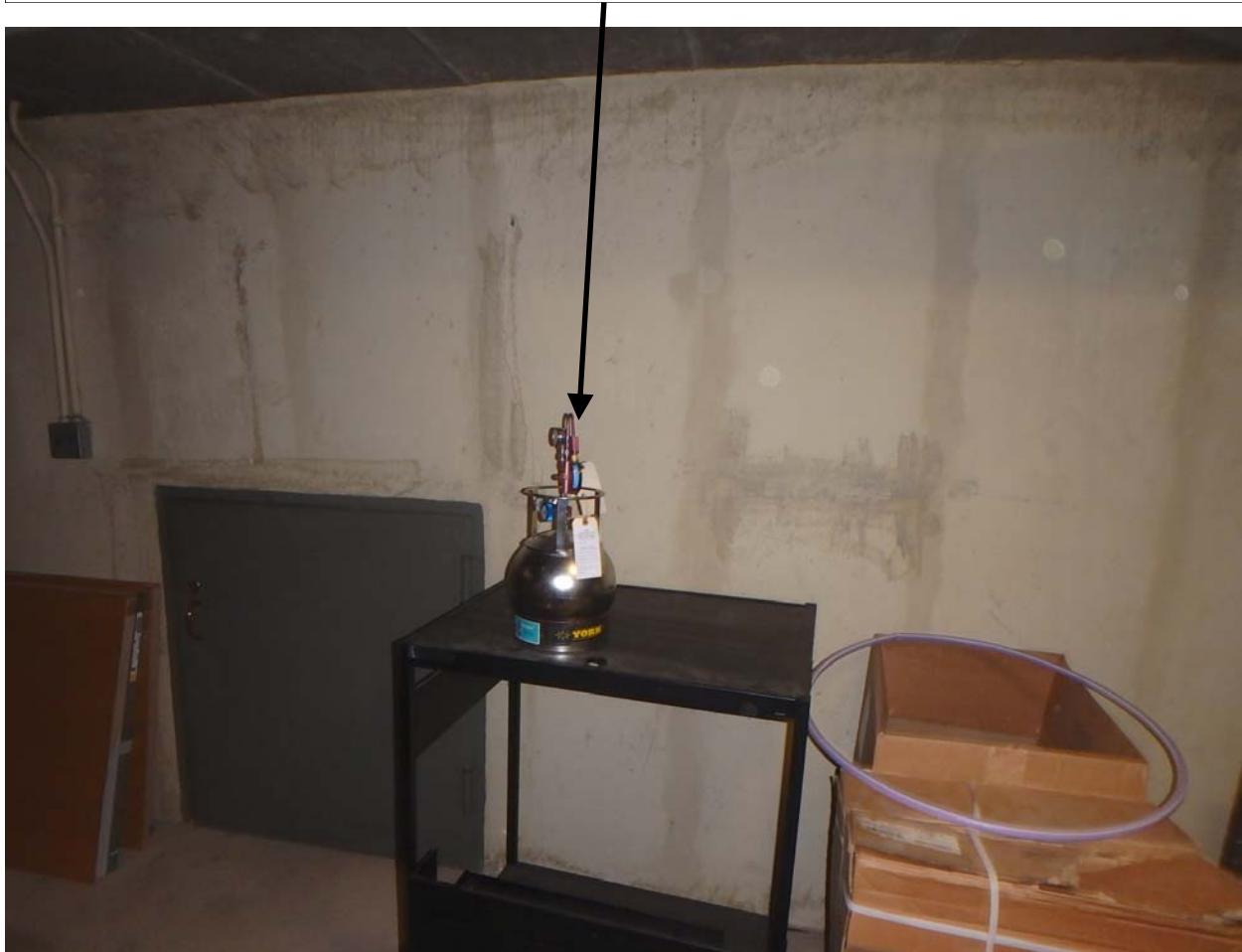
**Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, NY 11714**



**Photo No. 04**

**JCB#: 16-35985**

## **Basement Hallway Sampling Location**



## **Field Photograph Log**

**Volatile Vapor Intrusion Report**

**Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, NY 11714**



**Photo No. 05**

**JCB#: 16-35985**

## Ambient Sampling Location



## Field Photograph Log

Volatile Vapor Intrusion Report

Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, NY 11714



Photo No. 06

JCB#: 16-35985

## Typical Summa® Canister Starting Pressure



## Field Photograph Log

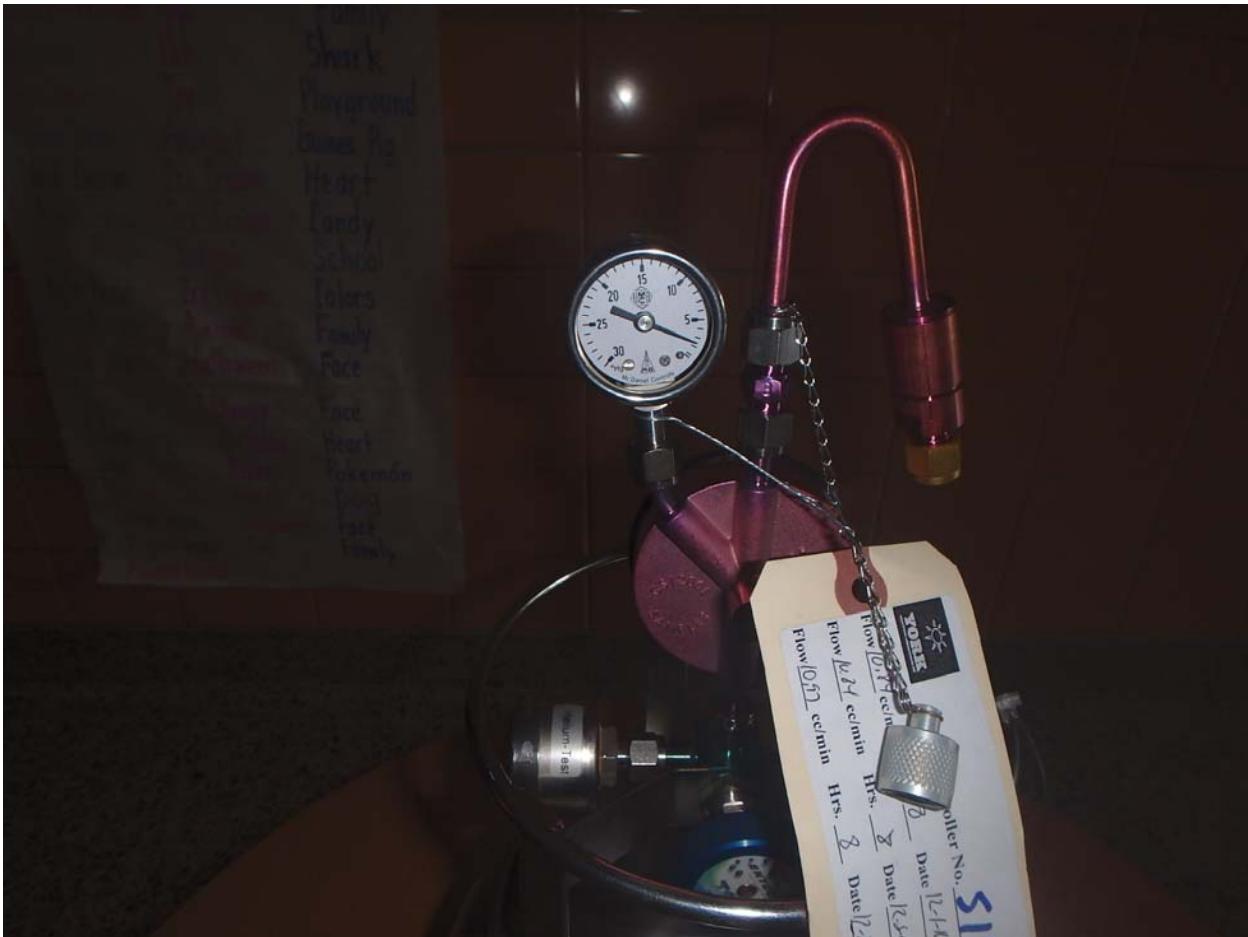
Volatile Vapor Intrusion Report

Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, NY 11714

Photo No. 07

JCB#: 16-35985

## Typical Summa® Canister Ending Pressure



## Field Photograph Log

Volatile Vapor Intrusion Report

Central Boulevard Elementary School  
60 Central Boulevard  
Bethpage, NY 11714

Photo No. 08

JCB#: 16-35985

---

## **Attachment #3**

# **Laboratory Analysis Report**



# Technical Report

prepared for:

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

Report Date: 01/05/2017  
**Client Project ID: 16-35985**  
York Project (SDG) No.: 16L1093

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

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[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 01/05/2017  
Client Project ID: 16-35985  
York Project (SDG) No.: 16L1093

**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 December 28, 2016 and listed below. The project was identified as your project: **16-35985**.

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 Notes 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 attachment to 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.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
16L1093-01	NORTH CRAWL SPACE	Indoor Ambient Air	12/27/2016	12/28/2016
16L1093-02	BASEMENT HALLWAY	Indoor Ambient Air	12/27/2016	12/28/2016
16L1093-03	SOUTH CRAWL SPACE	Indoor Ambient Air	12/27/2016	12/28/2016
16L1093-04	NORTH ROOM 112	Indoor Ambient Air	12/27/2016	12/28/2016
16L1093-05	SOUTH FIRST FLOOR HALLWAY	Indoor Ambient Air	12/27/2016	12/28/2016
16L1093-06	AMBIENT	Outdoor Ambient Ai	12/27/2016	12/28/2016

## **General Notes for York Project (SDG) No.: 16L1093**

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 samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
9. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

**Approved By:**



**Date:** 01/05/2017

Benjamin Gulizia  
Laboratory Director





## Sample Information

Client Sample ID: NORTH CRAWL SPACE

York Sample ID:

**16L1093-01**

York Project (SDG) No.  
16L1093

Client Project ID  
16-35985

Matrix  
Indoor Ambient Air

Collection Date/Time  
December 27, 2016 3:00 pm

Date Received  
12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.87	0.87	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.69	0.69	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.87	0.87	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.97	0.97	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.69	0.69	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.51	0.51	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.50	0.50	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.94	0.94	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.62	0.62	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.97	0.97	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.76	0.76	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.51	0.51	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.58	0.58	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.88	0.88	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.62	0.62	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.84	0.84	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.76	0.76	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.58	0.58	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.76	0.76	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.91	0.91	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
78-93-3	<b>2-Butanone</b>	<b>0.45</b>		ug/m³	0.37	0.37	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
								NELAC-NY10854,NJDEP,NELAC-NY10854-Quc			



## Sample Information

Client Sample ID: NORTH CRAWL SPACE

York Sample ID: 16L1093-01

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.0	1.0	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
107-05-1	3-Chloropropene	ND		ug/m³	2.0	2.0	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.52	0.52	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
67-64-1	<b>Acetone</b>	<b>8.2</b>		ug/m³	0.60	0.60	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.27	0.27	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
71-43-2	<b>Benzene</b>	<b>0.56</b>		ug/m³	0.40	0.40	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.65	0.65	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.85	0.85	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
75-25-2	Bromoform	ND		ug/m³	1.3	1.3	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
74-83-9	Bromomethane	ND		ug/m³	0.49	0.49	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
75-15-0	Carbon disulfide	ND		ug/m³	0.39	0.39	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
56-23-5	<b>Carbon tetrachloride</b>	<b>0.40</b>		ug/m³	0.20	0.20	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.58	0.58	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
75-00-3	Chloroethane	ND		ug/m³	0.33	0.33	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
67-66-3	Chloroform	ND		ug/m³	0.62	0.62	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
74-87-3	<b>Chloromethane</b>	<b>0.86</b>		ug/m³	0.26	0.26	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.50	0.50	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.57	0.57	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.43	0.43	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	1.1	1.1	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
75-71-8	<b>Dichlorodifluoromethane</b>	<b>1.9</b>		ug/m³	0.62	0.62	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	0.91	0.91	1.262	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 19:24	LDS



## Sample Information

Client Sample ID: NORTH CRAWL SPACE

York Sample ID: 16L1093-01

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-41-4	Ethyl Benzene	ND		ug/m³	0.55	0.55	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.3	1.3	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
67-63-0	<b>Isopropanol</b>	<b>2.6</b>		ug/m³	0.62	0.62	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.52	0.52	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.45	0.45	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
75-09-2	Methylene chloride	ND		ug/m³	0.88	0.88	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
142-82-5	<b>n-Heptane</b>	<b>0.62</b>		ug/m³	0.52	0.52	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
110-54-3	<b>n-Hexane</b>	<b>0.58</b>		ug/m³	0.44	0.44	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
95-47-6	o-Xylene	ND		ug/m³	0.55	0.55	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m³	1.1	1.1	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.62	0.62	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
115-07-1	* Propylene	ND		ug/m³	0.22	0.22	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
100-42-5	Styrene	ND		ug/m³	0.54	0.54	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
127-18-4	<b>Tetrachloroethylene</b>	<b>1.1</b>		ug/m³	0.21	0.21	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.74	0.74	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
108-88-3	<b>Toluene</b>	<b>2.2</b>		ug/m³	0.48	0.48	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.50	0.50	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.57	0.57	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
79-01-6	Trichloroethylene	ND		ug/m³	0.17	0.17	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.8</b>		ug/m³	0.71	0.71	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.44	0.44	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.55	0.55	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS



## Sample Information

Client Sample ID: NORTH CRAWL SPACE

York Sample ID: 16L1093-01

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.32	0.32	1.262	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 19:24	LDS
<b>Surrogate Recoveries</b>											
460-00-4	Surrogate: <i>p</i> -Bromofluorobenzene	98.7 %					72-118				

## Sample Information

Client Sample ID: BASEMENT HALLWAY

York Sample ID: 16L1093-02

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.69	0.69	1.011	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 20:25	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.55	0.55	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.69	0.69	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.77	0.77	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.55	0.55	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.41	0.41	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.40	0.40	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.75	0.75	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>0.65</b>		ug/m³	0.50	0.50	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.78	0.78	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.61	0.61	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.41	0.41	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.47	0.47	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS



## Sample Information

Client Sample ID: **BASEMENT HALLWAY**

York Sample ID: **16L1093-02**

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.71	0.71	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.50	0.50	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.67	0.67	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.61	0.61	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.47	0.47	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.61	0.61	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.73	0.73	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
78-93-3	<b>2-Butanone</b>	<b>0.66</b>		ug/m³	0.30	0.30	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	0.83	0.83	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1.6	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.41	0.41	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
67-64-1	<b>Acetone</b>	<b>17</b>		ug/m³	0.48	0.48	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.22	0.22	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
71-43-2	<b>Benzene</b>	<b>1.2</b>		ug/m³	0.32	0.32	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.52	0.52	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.68	0.68	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
75-25-2	Bromoform	ND		ug/m³	1.0	1.0	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
74-83-9	Bromomethane	ND		ug/m³	0.39	0.39	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
75-15-0	Carbon disulfide	ND		ug/m³	0.31	0.31	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
56-23-5	<b>Carbon tetrachloride</b>	<b>0.38</b>		ug/m³	0.16	0.16	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.47	0.47	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
75-00-3	Chloroethane	ND		ug/m³	0.27	0.27	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS



## Sample Information

**Client Sample ID:** BASEMENT HALLWAY

**York Sample ID:** 16L1093-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
16L1093	16-35985	Indoor Ambient Air	December 27, 2016 3:00 pm	12/28/2016

### 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
67-66-3	Chloroform	ND		ug/m³	0.49	0.49	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
74-87-3	<b>Chloromethane</b>	<b>1.1</b>		ug/m³	0.21	0.21	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.46	0.46	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.35	0.35	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	0.86	0.86	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
75-71-8	<b>Dichlorodifluoromethane</b>	<b>1.8</b>		ug/m³	0.50	0.50	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
141-78-6	* Ethyl acetate	<b>0.77</b>		ug/m³	0.73	0.73	1.011 EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 20:25	LDS
100-41-4	<b>Ethyl Benzene</b>	<b>0.70</b>		ug/m³	0.44	0.44	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.1	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
67-63-0	Isopropanol	ND		ug/m³	0.50	0.50	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.41	0.41	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.36	0.36	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
75-09-2	<b>Methylene chloride</b>	<b>2.9</b>		ug/m³	0.70	0.70	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
142-82-5	<b>n-Heptane</b>	<b>2.4</b>		ug/m³	0.41	0.41	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
110-54-3	<b>n-Hexane</b>	<b>1.7</b>		ug/m³	0.36	0.36	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
95-47-6	<b>o-Xylene</b>	<b>0.61</b>		ug/m³	0.44	0.44	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
179601-23-1	<b>p- &amp; m- Xylenes</b>	<b>3.2</b>		ug/m³	0.88	0.88	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
622-96-8	* p-Ethyltoluene	<b>0.55</b>		ug/m³	0.50	0.50	1.011 EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 20:25	LDS
115-07-1	* Propylene	ND		ug/m³	0.17	0.17	1.011 EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 20:25	LDS
100-42-5	Styrene	ND		ug/m³	0.43	0.43	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
127-18-4	<b>Tetrachloroethylene</b>	<b>0.41</b>		ug/m³	0.17	0.17	1.011 EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS



## Sample Information

Client Sample ID: **BASEMENT HALLWAY**

York Sample ID: **16L1093-02**

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.60	0.60	1.011	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 20:25	LDS
108-88-3	<b>Toluene</b>	<b>7.4</b>		ug/m³	0.38	0.38	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.46	0.46	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
79-01-6	Trichloroethylene	ND		ug/m³	0.14	0.14	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>2.0</b>		ug/m³	0.57	0.57	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.36	0.36	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.44	0.44	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
75-01-4	Vinyl Chloride	ND		ug/m³	0.26	0.26	1.011	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 20:25	LDS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
460-00-4	Surrogate: <i>p</i> -Bromofluorobenzene	97.2 %				72-118					

## Sample Information

Client Sample ID: **SOUTH CRAWL SPACE**

York Sample ID: **16L1093-03**

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.70	0.70	1.026	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 21:26	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.56	0.56	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.70	0.70	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
76-13-1	<b>1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)</b>	<b>1.0</b>		ug/m³	0.79	0.79	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.56	0.56	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS



## Sample Information

Client Sample ID: SOUTH CRAWL SPACE

York Sample ID: 16L1093-03

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.42	0.42	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.41	0.41	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.76	0.76	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>8.2</b>		ug/m³	0.50	0.50	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.79	0.79	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.62	0.62	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.42	0.42	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.47	0.47	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
76-14-2	1,2-Dichlortetrafluoroethane	ND		ug/m³	0.72	0.72	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
108-67-8	<b>1,3,5-Trimethylbenzene</b>	<b>2.6</b>		ug/m³	0.50	0.50	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.68	0.68	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.62	0.62	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.47	0.47	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.62	0.62	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.74	0.74	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
78-93-3	<b>2-Butanone</b>	<b>7.5</b>		ug/m³	0.30	0.30	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	0.84	0.84	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1.6	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.42	0.42	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
67-64-1	<b>Acetone</b>	<b>21</b>		ug/m³	0.49	0.49	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.22	0.22	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
71-43-2	<b>Benzene</b>	<b>1.5</b>		ug/m³	0.33	0.33	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS



## Sample Information

Client Sample ID: SOUTH CRAWL SPACE

York Sample ID: 16L1093-03

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
16L1093	16-35985	Indoor Ambient Air	December 27, 2016 3:00 pm	12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-44-7	Benzyl chloride	ND		ug/m³	0.53	0.53	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.69	0.69	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
75-25-2	Bromoform	ND		ug/m³	1.1	1.1	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
74-83-9	Bromomethane	ND		ug/m³	0.40	0.40	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
75-15-0	Carbon disulfide	ND		ug/m³	0.32	0.32	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
56-23-5	<b>Carbon tetrachloride</b>	<b>0.77</b>		ug/m³	0.16	0.16	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.47	0.47	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
75-00-3	Chloroethane	ND		ug/m³	0.27	0.27	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
67-66-3	Chloroform	ND		ug/m³	0.50	0.50	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
74-87-3	<b>Chloromethane</b>	<b>2.4</b>		ug/m³	0.21	0.21	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.41	0.41	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.47	0.47	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
110-82-7	<b>Cyclohexane</b>	<b>0.95</b>		ug/m³	0.35	0.35	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	0.87	0.87	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
75-71-8	<b>Dichlorodifluoromethane</b>	<b>3.1</b>		ug/m³	0.51	0.51	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
141-78-6	* <b>Ethyl acetate</b>	<b>20</b>		ug/m³	0.74	0.74	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
100-41-4	<b>Ethyl Benzene</b>	<b>4.9</b>		ug/m³	0.45	0.45	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.1	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
67-63-0	<b>Isopropanol</b>	<b>3.0</b>		ug/m³	0.50	0.50	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.42	0.42	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.37	0.37	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
75-09-2	<b>Methylene chloride</b>	<b>2.1</b>		ug/m³	0.71	0.71	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS



## Sample Information

Client Sample ID: **SOUTH CRAWL SPACE**

York Sample ID: **16L1093-03**

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
142-82-5	<b>n-Heptane</b>	<b>1.0</b>		ug/m³	0.42	0.42	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
110-54-3	<b>n-Hexane</b>	<b>3.3</b>		ug/m³	0.36	0.36	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
95-47-6	<b>o-Xylene</b>	<b>8.7</b>		ug/m³	0.45	0.45	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
179601-23-1	<b>p- &amp; m- Xylenes</b>	<b>24</b>		ug/m³	0.89	0.89	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
622-96-8	<b>* p-Ethyltoluene</b>	<b>7.0</b>		ug/m³	0.50	0.50	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
115-07-1	* Propylene	ND		ug/m³	0.18	0.18	1.026	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 21:26	LDS
100-42-5	Styrene	ND		ug/m³	0.44	0.44	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
127-18-4	<b>Tetrachloroethylene</b>	<b>1.9</b>		ug/m³	0.17	0.17	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.61	0.61	1.026	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 21:26	LDS
108-88-3	<b>Toluene</b>	<b>11</b>		ug/m³	0.39	0.39	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.41	0.41	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.47	0.47	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
79-01-6	<b>Trichloroethylene</b>	<b>0.28</b>		ug/m³	0.14	0.14	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>3.2</b>		ug/m³	0.58	0.58	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.36	0.36	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.45	0.45	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
75-01-4	Vinyl Chloride	ND		ug/m³	0.26	0.26	1.026	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 21:26	LDS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
460-00-4	Surrogate: <i>p</i> -Bromofluorobenzene	99.0 %	72-118								

## Sample Information

Client Sample ID: **NORTH ROOM 112**

York Sample ID: **16L1093-04**

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016



## Sample Information

Client Sample ID: NORTH ROOM 112

York Sample ID: 16L1093-04

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
16L1093	16-35985	Indoor Ambient Air	December 27, 2016 3:00 pm	12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.69	0.69	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.55	0.55	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.69	0.69	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.77	0.77	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.55	0.55	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.74	0.74	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.77	0.77	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.46	0.46	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.70	0.70	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.66	0.66	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.46	0.46	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.72	0.72	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
78-93-3	<b>2-Butanone</b>	<b>0.56</b>		ug/m³	0.29	0.29	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	0.82	0.82	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS



## Sample Information

Client Sample ID: NORTH ROOM 112

York Sample ID: 16L1093-04

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1.6	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
67-64-1	<b>Acetone</b>	<b>5.8</b>		ug/m³	0.48	0.48	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.22	0.22	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
71-43-2	<b>Benzene</b>	<b>0.32</b>		ug/m³	0.32	0.32	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.52	0.52	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.67	0.67	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
75-25-2	Bromoform	ND		ug/m³	1.0	1.0	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
74-83-9	Bromomethane	ND		ug/m³	0.39	0.39	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
75-15-0	Carbon disulfide	ND		ug/m³	0.31	0.31	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
56-23-5	<b>Carbon tetrachloride</b>	<b>0.31</b>		ug/m³	0.16	0.16	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
75-00-3	Chloroethane	ND		ug/m³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
67-66-3	Chloroform	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
74-87-3	<b>Chloromethane</b>	<b>1.0</b>		ug/m³	0.21	0.21	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.34	0.34	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	0.85	0.85	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
75-71-8	<b>Dichlorodifluoromethane</b>	<b>2.4</b>		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	0.72	0.72	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
100-41-4	Ethyl Benzene	ND		ug/m³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS



## Sample Information

Client Sample ID: NORTH ROOM 112

York Sample ID: 16L1093-04

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.1	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
67-63-0	<b>Isopropanol</b>	<b>4.4</b>		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.36	0.36	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
75-09-2	Methylene chloride	ND		ug/m³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
142-82-5	n-Heptane	ND		ug/m³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
110-54-3	n-Hexane	ND		ug/m³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
95-47-6	o-Xylene	ND		ug/m³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.87	0.87	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
115-07-1	* Propylene	ND		ug/m³	0.17	0.17	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
100-42-5	Styrene	ND		ug/m³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
127-18-4	<b>Tetrachloroethylene</b>	<b>0.20</b>		ug/m³	0.17	0.17	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.59	0.59	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 22:24	LDS
108-88-3	<b>Toluene</b>	<b>0.57</b>		ug/m³	0.38	0.38	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.13	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>5.3</b>		ug/m³	0.56	0.56	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.44	0.44	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS
75-01-4	Vinyl Chloride	ND		ug/m³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 22:24	LDS



## Sample Information

Client Sample ID: NORTH ROOM 112

York Sample ID: 16L1093-04

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Surrogate Recoveries	Result		Acceptance Range							
460-00-4	Surrogate: p-Bromofluorobenzene	97.6 %				72-118					

## Sample Information

Client Sample ID: SOUTH FIRST FLOOR HALLWAY

York Sample ID: 16L1093-05

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.69	0.69	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 23:24	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.74	0.74	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
76-14-2	1,2-Dichlortetrafluoroethane	ND		ug/m³	0.70	0.70	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS



## Sample Information

Client Sample ID: SOUTH FIRST FLOOR HALLWAY

York Sample ID: 16L1093-05

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.66	0.66	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.46	0.46	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 23:24	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.72	0.72	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
78-93-3	<b>2-Butanone</b>	<b>2.1</b>		ug/m³	0.29	0.29	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	0.82	0.82	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 23:24	LDS
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1.6	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
67-64-1	<b>Acetone</b>	<b>8.9</b>		ug/m³	0.48	0.48	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.22	0.22	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
71-43-2	<b>Benzene</b>	<b>0.42</b>		ug/m³	0.32	0.32	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.52	0.52	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.67	0.67	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
75-25-2	Bromoform	ND		ug/m³	1.0	1.0	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
74-83-9	Bromomethane	ND		ug/m³	0.39	0.39	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
75-15-0	Carbon disulfide	ND		ug/m³	0.31	0.31	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
56-23-5	<b>Carbon tetrachloride</b>	<b>0.31</b>		ug/m³	0.16	0.16	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
75-00-3	Chloroethane	ND		ug/m³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
67-66-3	Chloroform	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS



## Sample Information

Client Sample ID: SOUTH FIRST FLOOR HALLWAY

York Sample ID: 16L1093-05

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-87-3	Chloromethane	1.2		ug/m³	0.21	0.21	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.34	0.34	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	0.85	0.85	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
75-71-8	Dichlorodifluoromethane	2.3		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	0.72	0.72	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 23:24	LDS
100-41-4	Ethyl Benzene	ND		ug/m³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.1	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
67-63-0	Isopropanol	8.3		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.36	0.36	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
75-09-2	Methylene chloride	ND		ug/m³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
142-82-5	n-Heptane	ND		ug/m³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
110-54-3	n-Hexane	ND		ug/m³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
95-47-6	o-Xylene	ND		ug/m³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.87	0.87	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 23:24	LDS
115-07-1	* Propylene	ND		ug/m³	0.17	0.17	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 23:24	LDS
100-42-5	Styrene	ND		ug/m³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
127-18-4	Tetrachloroethylene	0.27		ug/m³	0.17	0.17	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
109-99-9	* Tetrahydrofuran	0.94		ug/m³	0.59	0.59	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 23:24	LDS



## Sample Information

Client Sample ID: **SOUTH FIRST FLOOR HALLWAY**

York Sample ID: **16L1093-05**

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Indoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-88-3	Toluene	0.87		ug/m³	0.38	0.38	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.13	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	4.1		ug/m³	0.56	0.56	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.44	0.44	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
75-01-4	Vinyl Chloride	ND		ug/m³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 23:24	LDS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
460-00-4	Surrogate: p-Bromofluorobenzene	98.6 %									

## Sample Information

Client Sample ID: **AMBIENT**

York Sample ID: **16L1093-06**

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Outdoor Ambient Air

Collection Date/Time

December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.69	0.69	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 17:24	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS



## Sample Information

Client Sample ID: AMBIENT

York Sample ID: 16L1093-06

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Outdoor Ambient Air December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.74	0.74	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.70	0.70	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.66	0.66	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.46	0.46	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 17:24	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.72	0.72	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
78-93-3	<b>2-Butanone</b>	<b>1.1</b>		ug/m³	0.29	0.29	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	0.82	0.82	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 17:24	LDS
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1.6	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
67-64-1	<b>Acetone</b>	<b>3.3</b>		ug/m³	0.48	0.48	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.22	0.22	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
71-43-2	Benzene	ND		ug/m³	0.32	0.32	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.52	0.52	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS



## Sample Information

Client Sample ID: AMBIENT

York Sample ID: 16L1093-06

York Project (SDG) No.

16L1093

Client Project ID

16-35985

Matrix

Outdoor Ambient Air December 27, 2016 3:00 pm

Date Received

12/28/2016

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-27-4	Bromodichloromethane	ND		ug/m³	0.67	0.67	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
75-25-2	Bromoform	ND		ug/m³	1.0	1.0	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
74-83-9	Bromomethane	ND		ug/m³	0.39	0.39	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
75-15-0	Carbon disulfide	ND		ug/m³	0.31	0.31	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
56-23-5	<b>Carbon tetrachloride</b>	<b>0.38</b>		ug/m³	0.16	0.16	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
75-00-3	Chloroethane	ND		ug/m³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
67-66-3	Chloroform	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
74-87-3	<b>Chloromethane</b>	<b>1.2</b>		ug/m³	0.21	0.21	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.34	0.34	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	0.85	0.85	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
75-71-8	<b>Dichlorodifluoromethane</b>	<b>2.0</b>		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	0.72	0.72	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 17:24	LDS
100-41-4	Ethyl Benzene	ND		ug/m³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.1	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
67-63-0	Isopropanol	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.36	0.36	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
75-09-2	Methylene chloride	ND		ug/m³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
142-82-5	n-Heptane	ND		ug/m³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS



## Sample Information

**Client Sample ID:** AMBIENT

**York Sample ID:** 16L1093-06

**York Project (SDG) No.**

16L1093

**Client Project ID**

16-35985

**Matrix**

Outdoor Ambient Air

**Collection Date/Time**

December 27, 2016 3:00 pm

**Date Received**

12/28/2016

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
110-54-3	n-Hexane	ND		ug/m³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
95-47-6	o-Xylene	ND		ug/m³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.87	0.87	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.49	0.49	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 17:24	LDS
115-07-1	* Propylene	ND		ug/m³	0.17	0.17	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 17:24	LDS
100-42-5	Styrene	ND		ug/m³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
127-18-4	<b>Tetrachloroethylene</b>	<b>0.34</b>		ug/m³	0.17	0.17	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.59	0.59	1	EPA TO-15 Certifications:	12/29/2016 16:54	12/29/2016 17:24	LDS
108-88-3	Toluene	ND		ug/m³	0.38	0.38	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
79-01-6	Trichloroethylene	ND		ug/m³	0.13	0.13	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.9</b>		ug/m³	0.56	0.56	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.44	0.44	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
75-01-4	Vinyl Chloride	ND		ug/m³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP,NELAC-NY10854-Quc	12/29/2016 16:54	12/29/2016 17:24	LDS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
460-00-4	Surrogate: p-Bromofluorobenzene	101 %	72-118								



## Notes and Definitions

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

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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

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



**YORK**  
ANALYTICAL LABORATORIES INC.

# Field Chain-of-Custody Record - AIR

Page 1 of 1

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.

This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.

York Project No. 16L1093

YOUR Information		Report To:	Invoice To:	YOUR Project ID	Turn-Around Time	Report Type/Deliverables
Company: <u>JCBRODENICK &amp; ASSOC.</u>	Address: <u>111 EXPRESSTUDY DR. #1</u>	Company: <u>JCB</u>	Address: <u>HAMPTON BAY, NY 11980</u>	16-35985	RUSH - Same Day <input type="checkbox"/>	Summary Report <input checked="" type="checkbox"/>
Address: <u>HAUPPAUGE, NY 11788</u>	Phone No. <u>631-584-5492</u>	Phone No. <u>_____</u>	Phone No. <u>_____</u>	Purchase Order No. <u>_____</u>	RUSH - Next Day <input type="checkbox"/>	Summary w/ QA Summary <input type="checkbox"/>
Contact Person: <u>S. MULLER</u>	E-Mail Address: <u>JCBRODENICK.COM</u>	Attention: <u>_____</u>	E-Mail Address: <u>_____</u>	Samples from: CT <input type="checkbox"/> NY <input checked="" type="checkbox"/> NJ <input type="checkbox"/>	RUSH - Two Day <input type="checkbox"/>	CT RCP Package <input type="checkbox"/>
					RUSH - Three Day <input type="checkbox"/>	NY ASP A Package <input type="checkbox"/>
					RUSH - Four Day <input type="checkbox"/>	NY ASP B/CLP Pkg <input type="checkbox"/>
					Standard(5-7 Days) <input checked="" type="checkbox"/>	NJDEP Reduced <input type="checkbox"/>
						<i>Electronic Deliverables:</i>
						EDD (Specify Type) <input type="checkbox"/>
						Standard Excel <input type="checkbox"/>
						Regulatory Comparison Excel <input type="checkbox"/>

**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.**

Samples Collected/Authorized By (Signature)

STEVEN MULLER  
Name (printed)

### Air Matrix Codes

- AI - INDOOR Ambient Air
- AO - OUTDOOR Amb. Air
- AE - Vapor Extraction Well/Process Gas/Effluent
- AS - SOIL Vapor/Sub-Slab

Additional Notes:

### Please enter the following Field Data

#### Detection Limits Required

≤ 1 ug/m<sup>3</sup>

NYSDEC VI Limits

(VI = vapor intrusion)

NJDEP low level

Routine Survey

Other

#### Special Instructions

Sample Identification	Date Sampled	AIR Matrix	Canister Vacuum Before Sampling (in. Hg)	Canister Vacuum After Sampling (in. Hg)	Canister ID	Flow Cont.ID	ANALYSES REQUESTED	Sampling Media
NORTH CRAWLSPACE	12/27/16	AI	30	11	18300	7363	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag <input type="checkbox"/>
BASEMENT HALLWAY	12/27/16	AI	29	4	17348	5379	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag <input type="checkbox"/>
SOUTH CRAWL-SPACE	12/27/16	AI	28	4	22082	7419	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag <input type="checkbox"/>
NORTH ROOM 112	12/27/16	AI	24	81	16954	5118	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag <input type="checkbox"/>
SOUTH FIRST FLOOR HALLWAY	12/27/16	AI	28	2	16152	5117	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag <input type="checkbox"/>
AMBIENT	12/27/16	AO	27	2	18316	Y27	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag <input type="checkbox"/>
								6 Liter canister <input type="checkbox"/> Tedlar Bag <input type="checkbox"/>
								6 Liter canister <input type="checkbox"/> Tedlar Bag <input type="checkbox"/>
								6 Liter canister <input type="checkbox"/> Tedlar Bag <input type="checkbox"/>
								6 Liter canister <input type="checkbox"/> Tedlar Bag <input type="checkbox"/>
								6 Liter canister <input type="checkbox"/> Tedlar Bag <input type="checkbox"/>
								6 Liter canister <input type="checkbox"/> Tedlar Bag <input type="checkbox"/>

Comments

BETHPAGE CENTRAL ES

Samples Relinquished By James Comes Date/Time 12-28-16 16:53  
Samples Relinquished By James Comes Date/Time 12-28-16 16:53

Samples Received By K. Bailey Date/Time 12/28/16 1PM  
Samples Received in LAB by Z. D. prof Date/Time 12-28-16 1653

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**Attachment #4**

**Indoor Air Quality Questionnaire and  
Building Survey**

**NEW YORK STATE DEPARTMENT OF HEALTH  
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY  
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Jeffrey Nannini Date/Time Prepared \_\_\_\_\_

Preparer's Affiliation \_\_\_\_\_ Phone No. 631-584-5492

Purpose of Investigation Volatile Vapor Intrusion (VVI) Report

**1. OCCUPANT:**

Interviewed:   Y/N

Last Name: Central Blvd School First Name: \_\_\_\_\_

Address: 60 Central Boulevard Bethpage, NY 11714

County: Nassau

Home Phone: \_\_\_\_\_ Office Phone: \_\_\_\_\_

Number of Occupants/persons at this location \_\_\_\_\_ Age of Occupants Various

**2. OWNER OR LANDLORD:** (Check if same as occupant )

Interviewed:   Y/N

Last Name: Bethpage UFSD First Name: \_\_\_\_\_

Address: 10 Cherry Avenue Bethpage, NY 11714

County: Nassau

Home Phone: \_\_\_\_\_ Office Phone: \_\_\_\_\_

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

Residential  
 Industrial

School  
 Church

Commercial/Multi-use  
 Other: \_\_\_\_\_

If the property is residential, type? (Circle appropriate response)

- |                                       |  |  |
|---------------------------------------|--|--|
| <input type="checkbox"/> Ranch        | <input type="checkbox"/> 2-Family        | <input type="checkbox"/> 3-Family          |
| <input type="checkbox"/> Raised Ranch | <input type="checkbox"/> Split Level     | <input type="checkbox"/> Colonial          |
| <input type="checkbox"/> Cape Cod     | <input type="checkbox"/> Contemporary    | <input type="checkbox"/> Mobile Home       |
| <input type="checkbox"/> Duplex       | <input type="checkbox"/> Apartment House | <input type="checkbox"/> Townhouses/Condos |
| <input type="checkbox"/> Modular      | <input type="checkbox"/> Log Home        | <input type="checkbox"/> Other: _____      |

If multiple units, how many? \_\_\_\_\_

If the property is commercial, type?

Business Type(s) \_\_\_\_\_

Does it include residences (i.e., multi-use)? Y / N   If yes, how many? \_\_\_\_\_

Other characteristics:

Number of floors 2 \_\_\_\_\_

Building age 56 \_\_\_\_\_

Is the building insulated? Y / N

How air tight? Tight / Average / Not Tight

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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#### 4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

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Airflow near source

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Outdoor air infiltration

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Infiltration into air ducts

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**5. BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

- a. Above grade construction:  wood frame  concrete  stone  brick
- b. Basement type:  full  crawlspace  slab  other \_\_\_\_\_
- c. Basement floor:  concrete  dirt  stone  other \_\_\_\_\_
- d. Basement floor:  uncovered  covered  covered with \_\_\_\_\_
- e. Concrete floor:  unsealed  sealed  sealed with \_\_\_\_\_
- f. Foundation walls:  poured  block  stone  other \_\_\_\_\_
- g. Foundation walls:  unsealed  sealed  sealed with \_\_\_\_\_
- h. The basement is:  wet  damp  dry  moldy
- i. The basement is:  finished  unfinished  partially finished
- j. Sump present?  Y / N
- k. Water in sump?  Y /  N /  not applicable

Basement/Lowest level depth below grade: 8 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

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**6. HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Hot air circulation | <input type="checkbox"/> Heat pump                   | <input type="checkbox"/> Hot water baseboard                                      |
| <input type="checkbox"/> Space Heaters       | <input checked="" type="checkbox"/> Stream radiation | <input type="checkbox"/> Radiant floor  |
| <input type="checkbox"/> Electric baseboard  | <input type="checkbox"/> Wood stove                  | <input type="checkbox"/> Outdoor wood boiler <input type="checkbox"/> Other _____ |

The primary type of fuel used is:

- |   |  |                                   |
|---|--|-----------------------------------|
| <input checked="" type="checkbox"/> Natural Gas | <input checked="" type="checkbox"/> Fuel Oil | <input type="checkbox"/> Kerosene |
| <input type="checkbox"/> Electric               | <input type="checkbox"/> Propane             | <input type="checkbox"/> Solar    |
| <input type="checkbox"/> Wood                   | <input type="checkbox"/> Coal                |                                   |

Domestic hot water tank fueled by: Natural Gas/Fuel oil

Boiler/furnace located in:  Basement  Outdoors  Main Floor  Other \_\_\_\_\_

Air conditioning:  Central Air  Window units  Open Windows  None

Are there air distribution ducts present?   Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

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## 7. OCCUPANCY

Is basement/lowest level occupied?  Full-time     Occasionally     Seldom     Almost Never

<u>Level</u>	<u>General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)</u>
Basement	Storage, Boiler Room
1 <sup>st</sup> Floor	Students and Faculty
2 <sup>nd</sup> Floor	Students and Faculty
3 <sup>rd</sup> Floor	
4 <sup>th</sup> Floor	

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

- a. Is there an attached garage?  Y / N
- b. Does the garage have a separate heating unit?  Y / N  NA
- c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car)?  Y / N  NA   
Please specify \_\_\_\_\_
- d. Has the building ever had a fire?  Y / N  When? \_\_\_\_\_
- e. Is a kerosene or unvented gas space heater present?  Y / N  Where? \_\_\_\_\_
- f. Is there a workshop or hobby/craft area?  Y / N  Where & Type? \_\_\_\_\_
- g. Is there smoking in the building?  Y / N  How frequently? \_\_\_\_\_
- h. Have cleaning products been used recently?  Y / N  When & Type? \_\_\_\_\_  
Throughout First and Second Floors
- i. Have cosmetic products been used recently?  Y / N  When & Type? \_\_\_\_\_

- j. Has painting/staining been done in the last 6 months?   Where & When? \_\_\_\_\_
- k. Is there new carpet, drapes or other textiles?   Where & When? \_\_\_\_\_
- l. Have air fresheners been used recently?   When & Type? \_\_\_\_\_
- m. Is there a kitchen exhaust fan?   If yes, where vented? \_\_\_\_\_
- n. Is there a bathroom exhaust fan?   If yes, where vented? \_\_\_\_\_
- o. Is there a clothes dryer?   If yes, is it vented outside?   Y / N
- p. Has there been a pesticide application?   When & Type? \_\_\_\_\_

**Are there odors in the building?**  Y / N   
If yes, please describe: \_\_\_\_\_

**Do any of the building occupants use solvents at work?**  Y / N   
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? \_\_\_\_\_

If yes, are their clothes washed at work?  Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

- Yes, use dry-cleaning regularly (weekly)  
 Yes, use dry-cleaning infrequently (monthly or less)  
 Yes, work at a dry-cleaning service       No  
 Unknown

**Is there a radon mitigation system for the building/structure?** Y / N Date of Installation: \_\_\_\_\_  
**Is the system active or passive?**  Active/Passive

## 9. WATER AND SEWAGE

**Water Supply:**  Public Water  Drilled Well  Driven Well  Dug Well  Other: \_\_\_\_\_

**Sewage Disposal:**  Public Sewer  Septic Tank  Leach Field  Dry Well  Other: \_\_\_\_\_

## 10. RELOCATION INFORMATION (for oil spill residential emergency)

- a. Provide reasons why relocation is recommended: \_\_\_\_\_
- b. Residents choose to: remain in home  relocate to friends/family  relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained?  Y / N
- d. Relocation package provided and explained to residents?  Y / N

**11. FLOOR PLANS**

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

**Basement:**

See Attached Figure No. 2: Crawlspace and Basement Sampling Locations, Appendix A for Additional Details

**First Floor:**

See Attached Figure No. 3: 1st Floor and Ambient Sampling Locations, Appendix A for Additional Details

**12. OUTDOOR PLOT**

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

See Attached Figure No. 3: 1st Floor and Ambient  
Sampling Locations, Appendix A  
for Additional Details

**13. PRODUCT INVENTORY FORM**

Make & Model of field instrument used: MiniRae 3000

List specific products found in the residence that have the potential to affect indoor air quality.

<b>Location</b>	<b>Product Description</b>	<b>Size (units)</b>	<b>Condition *</b>	<b>Chemical Ingredients</b>	<b>Field Instrument Reading (units)</b>	<b>Photo ** <u>Y / N</u></b>
NE Storage Room	20 Paint Cans	1 Gal.	Used	Paint	15.0 ppm	Yes
NE Storage Room	14 Paint Cans	5 Gal.	Used	Paint	15.0 ppm	Yes
NE Storage Room	4 Gym Finish	2.5 Gal.	Unopened	Urethane	15.0 ppm	Yes
NE Storage Room	Tile Adhesive	4 Gal.	Used	Glue	15.0 ppm	Yes
NE Storage Room	31 Cleaner Cans	2 Qt.	Unopened	Various Cleaners	15.0 ppm	Yes
NE Storage Room	11 Bags Salt	50 lb.	Unopened	Driveway Icemelt Salt	15.0 ppm	Yes
NE Storage Room	5 Cans Plexiglas Cleaner	32 oz.	Unopened	Plexiglas Cleaner	15.0 ppm	Yes
NE Storage Room	6 Bags Hand Sanitizer	1 L	Unopened	Hand Sanitizer	15.0 ppm	Yes
NE Storage Room	Fuel Oil Treatment	5 Gal.	Used	Fuel Oil Treatment	15.0 ppm	Yes
NE Storage Room	Deodorizer		Unopened	Deodorizer	15.0 ppm	Yes
NE Storage Room	31 Cans Disinfectant	16 oz.	Unopened	Spray Disinfectant	15.0 ppm	Yes
NE Storage Room	4 Cleaner Cans	1 Gal.	Unopened	Various Cleaners	15.0 ppm	Yes
NE Storage Room	Wood Glue	1 Gal.	Used	Wood Glue	15.0 ppm	Yes
NE Storage Room	12 Cans Polish	17 oz.	Used	Wood Polish	15.0 ppm	Yes
NE Storage Room	1 Box Light Ballasts		Used	Approx. 30 Used Light Ballasts	15.0 ppm	Yes
NE Storage Room	2 Primer Cans	4.5 oz.	Used	Spray Primer	15.0 ppm	Yes
NE Storage Room	15 Cans Polish	16 oz.	Unopened	Stainless Steel Polish	15.0 ppm	Yes
NE Storage Room	5 Bottles Enzymes		Unopened	Micro Enzymes	15.0 ppm	Yes
NE Storage Room	Deicer		Used		15.0 ppm	Yes

\* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**

\*\* Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

**13. PRODUCT INVENTORY FORM**

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List specific products found in the residence that have the potential to affect indoor air quality.

<b>Location</b>	<b>Product Description</b>	<b>Size (units)</b>	<b>Condition *</b>	<b>Chemical Ingredients</b>	<b>Field Instrument Reading (units)</b>	<b>Photo ** <u>Y / N</u></b>
NE Storage Room	Penetrating Oil		Used	Oil	15.0 ppm	Yes
NE Storage Room	Sealant		Used	Sealant	15.0 ppm	Yes
NE Storage Room	Backpack Blower	3 qt.	Used	Gas Powered Tool	15.0 ppm	Yes
NE Storage Room	Gasoline/Oil Mix	1 Gal.	Used	Gasoline & 2 Cycle Oil Mixture	15.0 ppm	Yes
NE Storage Room	5 Cans Urinal Liquid		Unopened	Waterless Urinal Liquid	15.0 ppm	Yes
NE Storage Room	2 Tubes Silicone		Unopened	Silicone Caulking	15.0 ppm	Yes
NE Storage Room	1 Tube Firestop Putty		Used	Firestopping Caulking/Putty	15.0 ppm	Yes
NE Storage Room	1 Can Cleaner	21 oz.	Used	Power Cleaner	15.0 ppm	Yes
Hallway	22 Cans Paint	1 Gal.	Used	Paint	5.0 ppm	Yes
Hallway	6 Can Paint	5 Gal.	Used	Paint	5.0 ppm	Yes
Hallway	1 Can Adhesive	1 Gal.	Used	Flooring Adhesive	5.0 ppm	Yes
Hallway	Universal Waste		Used	Light Bulbs Awaiting Disposal	5.0 ppm	Yes
SE Storage Room	2 Snowblowers		Used	2 Quart Gas Tanks	11.0 ppm	Yes
SE Storage Room	Gasoline Can	5 Gal.	Used	Gasoline Can	11.0 ppm	Yes
SE Storage Room	2 Paint Cans	1 Gal.	Used	Paint	11.0 ppm	Yes
SE Storage Room	1 Can Solvent	1 Gal.	Used	Clean Up Solvent	11.0 ppm	Yes

\* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**

\*\* Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.