

VOLATILE VAPOR INTRUSION (VVI) REPORT WITH RADON SAMPLING

**JOHN F. KENNEDY MIDDLE SCHOOL
500 BROADWAY
BETHPAGE, NEW YORK 11714**

PREPARED FOR:

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

**JCB PROJECT #: 17-36776
JUNE, 2017**

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

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Section No. 1.0: Introduction

J.C. Broderick and Associates, Inc. (JCB) was retained by the Bethpage Union Free School District (Bethpage) to investigate the potential for volatile vapor intrusion (VVI) as a result of the contamination emanating from the Bethpage Community Park site. JCB performed VVI air sampling within the John F. Kennedy Middle School. The sampling protocol was performed essentially in accordance with the requirements of the New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York", Final Version, October 2006.

Section No. 2.0: Site Description and Location

The Subject Site is located at 500 Broadway Bethpage, New York 11714. The Subject Site is located on the east side of Broadway between Michael Court to the north and Gateway Street to the south. According to the United States Geological Survey (USGS) *Huntington, New York, 1992 7.5 Minute Series Topographical Map*, the Subject Site is situated at an approximate elevation of 112 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: Air Sampling Evaluation

The following sections describe the sampling procedures taken.

Section No. 3.1: Pre-Work Field Preparations

On April 11, 2017, a pre-sampling inspection was performed to evaluate the physical layout and conditions of the school building, to specifically determine the location of each sample, identify conditions that may affect or interfere with the proposed sampling and to prepare the building for sampling.

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

Section No. 3.2: Subsurface Vapor Sample Collection

The following summarizes the manner in which subsurface vapor samples were collected. Please refer to Figure No. 2 - Sub-slab, Crawlspace, 1st Floor, and Ambient Sampling Locations for additional details.

- For the collection of the subsurface vapor samples, a probe was fabricated from ½-inch diameter, threaded brass pipe with a barbed tubing connection. The two (2) layers of 6-mil polyethylene sheeting were penetrated and a one (1) inch diameter hole was drilled, utilizing a hammer drill, into the sand floor of the crawlspace extending approximately two (2) inches below the top of the sand. The pipe was lowered into the hole, but not flush to the bottom, and set into place utilizing hydrated bentonite powder, which contains no volatile organic compounds (VOCs). A five (5) gallon plastic container was placed on top of the plastic sheeting and above the vapor point. The container was sealed to the plastic sheeting utilizing modeling clay and duct tape. Teflon-lined, ¼-inch I.D. disposable polyethylene tubing was then utilized to connect the barbed connection of the vapor point to a laboratory clean-certified, 6-liter SUMMA® canister, provided by York Analytical Laboratories, Inc. (York) through a flow controller pre-set for an eight (8) hour long sample duration. The tubing included a tee connection and valve to a purging vacuum pump calibrated for a flow rate of less than 0.2 liters per minute. The tubing, probe and subsurface soil was purged of at least one (1) liter of vapor prior to sample collection. Upon completion of the sampling, the polyethylene sheeting was replaced on the floor and secured with duct tape.
- Helium (He) was introduced into the atmosphere under the pail, as a tracer gas, to assure the viability of the vapor point seals with the atmosphere. The tracer gas was monitored in the purge air before sampling and outside of all seals before, during and after sampling, utilizing a Myron Helium Detector. In addition, Helium (He) was analyzed for in the SUMMA® canister and if detected at more than ten (10) percent, the sample would be considered invalid and retaken.
- A total of two (2) subsurface vapor samples were collected.
 - One (1) subsurface sample was collected from beneath the auditorium located on the west side of the school building.
 - One (1) subsurface sample was collected from beneath Classroom Number 101 at the south end of the school building.

Section No. 3.3: Indoor Air Sample Collection

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

- Sample flow rates conformed to the specifications in the sample collection method (less than 0.2 liters per minute) and were consistent with the hours of operation of the school building. Samples were taken from areas where personnel and occupants would not interfere with the sampling. The samples were collected, utilizing conventional sampling methods, in laboratory clean-certified, 6-liter SUMMA® canisters, provided by York through a flow controller pre-set for an eight (8) hour long sample duration. As per the guidance requirements, the samples were collected at a height approximately three (3) feet above the floor to represent a height at which occupants are normally seated.

Section No. 3.3.1: Crawlspace/Basement Air Sample Collection

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

- A total of two (2) crawlspace air samples were collected.
 - One (1) air sample was collected from the west side of the crawlspace located under the auditorium.
 - One (1) air sample was collected from the south end of the west crawlspace under Classroom Number 101.

Section No. 3.3.2: 1st Floor Air Sample Collection

Please refer to Figure No. 2 - Sub-slab, 1st Floor, 2nd Floor and Ambient Sampling Locations for additional details.

- A total of two (2) first floor air samples were collected.
 - One (1) air sample was collected from within the Auditorium on the west side of the building.
 - One (1) air sample was collected from within Classroom Number 101 located at the south end of the school building.

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

An outdoor (ambient) air sample was collected simultaneously with subsurface and indoor samples to evaluate the potential influence, if any, of outdoor air on indoor air quality. To obtain a representative sample which meets the data quality objectives, the outdoor air sample was collected in a manner consistent with that for indoor air samples. The sample was collected, utilizing conventional sampling methods, in a laboratory clean-certified, 6-liter SUMMA® canister, provided by York equipped with a flow controller pre-set for an eight (8) hour sample duration. As per the guidance requirements, the sample was collected at a height approximately three (3) feet above the floor. Please refer to Figure No. 2 - Sub-slab, 1st Floor, 2nd Floor and Ambient Sampling Locations for additional details.

- One (1) outdoor (ambient) air sample was collected.
 - One (1) air sample was collected from outside the east side of the school building adjacent to Classroom Number 112.

Section No. 4.0: Laboratory Analytical Summary

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

York Analytical Laboratories, Inc. of Stratford, Connecticut 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 90th 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:
Air Sampling Analytical Results via EPA Method TO-15**

Client Sample ID	Background Values	North Subsurface ¹	North Crawlspace	First Floor Auditorium	South Subsurface ¹	South Crawlspace	Room 101	Ambient
Sampling Date	µg/m ³	04-11-17	04-11-17	04-11-17	04-11-17	04-11-17	04-11-17	04-11-17
1,1,1-Trichloroethane	3.1	ND	ND	ND	ND	ND	3.9	ND
1,2,4-Trimethylbenzene	9.5	ND	ND	ND	ND	ND	8.1	ND
1,3,5-Trimethylbenzene	3.6	ND	ND	ND	ND	1.9	1.9	ND
2,2,4-Trimethylbenzene	NA	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NA	ND	ND	ND	ND	0.90	3.3	ND
Acetone	110	210	33	39	230	26	15	4.9
Benzene	15	11	0.54	0.55	11	0.90	0.64	0.49
Carbon Disulfide	NA	ND	2.2	5.1	ND	1.1	0.34	4.9
Carbon Tetrachloride	0.8	ND	0.43	0.38	ND	0.46	0.38	0.39
Chloroethane	< 0.25	ND	ND	ND	ND	ND	ND	ND
Chloromethane	3.3	ND	1.7	1.7	ND	1.7	1.7	1.4
Cyclohexane	8.1	ND	ND	ND	ND	ND	0.83	ND
Dichlorodifluoromethane	15	ND	2.0	2.0	ND	2.1	2.1	2.0
Ethyle acetate	NA	ND	ND	ND	ND	ND	2.0	ND
Ethylbenzene	7.3	ND	ND	ND	ND	ND	0.65	ND
n-Heptane	19	7.9	12	12	13	21	89	0.36
n-Hexane	18	6.1	1.9	0.89	8.6	1.5	3.9	ND
Isopropanol	NA	ND	3.0	2.6	ND	4.1	8.0	0.50
m&p-Xylenes	12	ND	ND	ND	ND	1.4	2.3	ND
Methyl Ethyl Ketone	16	27	1.1	0.95	11	1.4	1.5	0.73
Methylene Chloride	22	ND	ND	ND	ND	ND	ND	ND

Table No. 1:
Air Sampling Analytical Results via EPA Method TO-15

Client Sample ID	Background Values	North Subsurface ¹	North Crawlspace	First Floor Auditorium	South Subsurface ¹	South Crawlspace	Room 101	Ambient
Sampling Date	µg/m³	04-11-17	04-11-17	04-11-17	04-11-17	04-11-17	04-11-17	04-11-17
o-Xylene	7.6	ND	ND	ND	ND	0.50	ND	ND
p-Ethyltoluene	N/A	ND	ND	ND	ND	1.3	4.7	ND
Propylene	N/A	ND	5.5	6.1	3.5	3.8	0.86	0.53
Tetrachloroethene (PCE)	2.9	12	0.69	0.61	ND	0.57	0.54	0.84
Tetrahydrofuran	3.3	50	ND	ND	51	ND	ND	ND
Toluene	58	510	2.5	2.1	1,300	10	53	1.1
Trichloroethene (TCE)	0.5	ND	ND	ND	ND	0.17	0.16	ND
Trichlorofluoromethane (Freon 11)	17	ND	1.7	1.6	ND	1.5	1.5	1.4
Dichlorodifluoromethane (Freon 12)	15	ND	ND	ND	ND	ND	ND	ND

Notes:
 µg/m³ = parts per billion
 ND=Not Detected above the laboratory minimum detection limit
 Background Values = NYSDOH 2003 Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes 90th Percentile
¹ 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
 Compounds in Gray are used in Decision Matrices 1 & 2. - See Table No. 2 for additional information.

Section No. 5.0: Decision Matrices

Decision matrices are risk management tools developed by the NYSDOH to provide guidance on a case-by-case basis about actions that should be taken to address current and potential exposures related to soil vapor intrusion. The matrices are intended to be used when evaluating the results from buildings with full slab foundation.

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	Take Reasonable Action
Carbon Tetrachloride	Matrix 1	No Further Action when Ambient is factored in
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 required for 6 of the 7 volatile chemicals utilized in the NYSDOH Decision Matrix. The results of the matrices do recommend to “Take reasonable and practical actions to identify sources and reduce exposures” for 1,1,1-Trichloroethane (TCA).

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

Section No. 6.0: Radon Sampling and Analysis

The detection of Radium 226 and 228 in the groundwater adjacent to the Administration and High School buildings prompted the sampling and analysis of Radon within the JFK Middle School. On April 12, 2017, JCB set up short term Radon in Air test kits in 9 rooms and spaces within the basement of the building that were in contact with the ground. The sampling devices were collected on April 17, 2017 after 5 days of exposure.

The following table summarizes the Radon samples submitted for laboratory analysis:

Table No. 6: Summary of Radon Samples Submitted for Laboratory Analysis				
Sample ID#	Sample Start Date	Sample End Date	Description of Sample	Analysis Method
Rm 0005	04-12-17	04-17-17	Storage Room	Radon in Air
Rm 0004	04-12-17	04-17-17	Storage Room	Radon in Air
Rm 0006	04-12-17	04-17-17	Storage Room	Radon in Air
Hall A	04-12-17	04-17-17	Basement Hallway	Radon in Air
Rm 0009	04-12-17	04-17-17	Storage Room	Radon in Air
Rm 0010	04-12-17	04-17-17	Storage Room	Radon in Air
Room 0008	04-12-17	04-17-17	Storage Room	Radon in Air
Rm 0012	04-12-17	04-17-17	Storage Room	Radon in Air
Hall 0016	04-12-17	04-17-17	Basement Hallway	Radon in Air

Notes:
Rm = Room
Hall = Hall Way

Section No. 7.0: Radon Laboratory Analytical Summary

The short-term Radon in Air sampling was performed by laboratory supplied test kits, assigned individual identification numbers and secured. 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 of Radon in Air.

EMSL Analytical Inc. (EMSL) of Cinnaminson, New Jersey provided laboratory analytical services. Copies of EMSL's NYSDOH certifications are available upon request.

The laboratory analytical results for the Radon in Air samples were reviewed and compared to the United States Environmental Protection Agency (EPA) *Radon Measurement in Schools Revised Edition* (EPA 402-R-92-014), dated July 1993.

The following table summarizes the Groundwater Analytical Results:

Table No. 7: Summary of Radon Samples Analysis Results					
Sample ID#	Box Number	Sample Device Number	Radon Activity pCi/L	Blank Device Number	Radon Activity pCi/L
Rm 0005	165557	283839	1.9	283725	0.04
Rm 0004	165558	283790	2.7	283720	0.1
Rm 0006	165564	283732	3.1	283935	0.04
Hall A	165561	283914	1.8	283844	0
Rm 0009	165560	283738	1.7	283739	0.04
Rm 0010	165567	283817	1.1	283815	0.4
Rm 0008	165549	283731	4	283826	0.1
Rm 0012	165559	283870	2.3	283781	0
Hall 0016	165568	283852	1.7	283800	0.1

Notes:
Rm = Room
HS = High School

The laboratory analysis results from the Radon samples submitted did not reveal any elevated concentrations of Radon exceeding 4.0 pCi/L, the referenced guidance value established by the EPA.

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 were 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: Volatile Vapor Intrusion Findings

Based upon the review of the VVI laboratory analysis results all detectable concentrations observed were reported well below published occupational health guidelines. In addition, with the exception of a 1,1,1-Trichloroethane and n-Heptane, all detectable concentrations observed in the occupied spaces of the school building were below their background values as reported in the NYSDOH 2003 Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes 90th Percentile. It is believed that the presence of these compounds at its reported concentration is most likely associated with products typically used in building maintenance activities and consumer products such as cleaners, glues, and aerosol sprays.

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

Section No. 8.0: Conclusions

A careful evaluation of the indoor air sampling results compared to the subsurface and ambient results did not reveal the presence of a discernible pattern suggesting that the building could be impacted with VVI.

The detection of Radium 226 and 228 in the groundwater adjacent to the Administration and High School buildings prompted the sampling and analysis of Radon within the JFK Middle School. The results did not reveal any elevated concentrations of Radon exceeding 4.0 pCi/L, the referenced guidance value established by the EPA.

Section No. 9.0: Recommendations

It is recommended that periodic VVI sampling be performed to monitor site conditions.

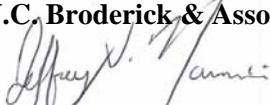
It is also recommended that an investigation be performed to identify any possible sources of 1,1,1-Trichloroethane and n-Heptane associated with building operations or consumer products. Steps should be taken to reduce the presence of these parameters such as, keeping containers tightly capped or storing VOC containing products in ventilated areas.

Section No. 10.0: Certification

I certify that this Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the New York State Department of Health (NYSDOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York", Final Version, October 2006 and 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, CEC
Project Manager

Appendix A

Figures



J.C. BRODERICK

& Associates

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John F. Kennedy
Middle School
500 Broadway
Bethpage, NY 11714

Drawing Title

Figure No. 1

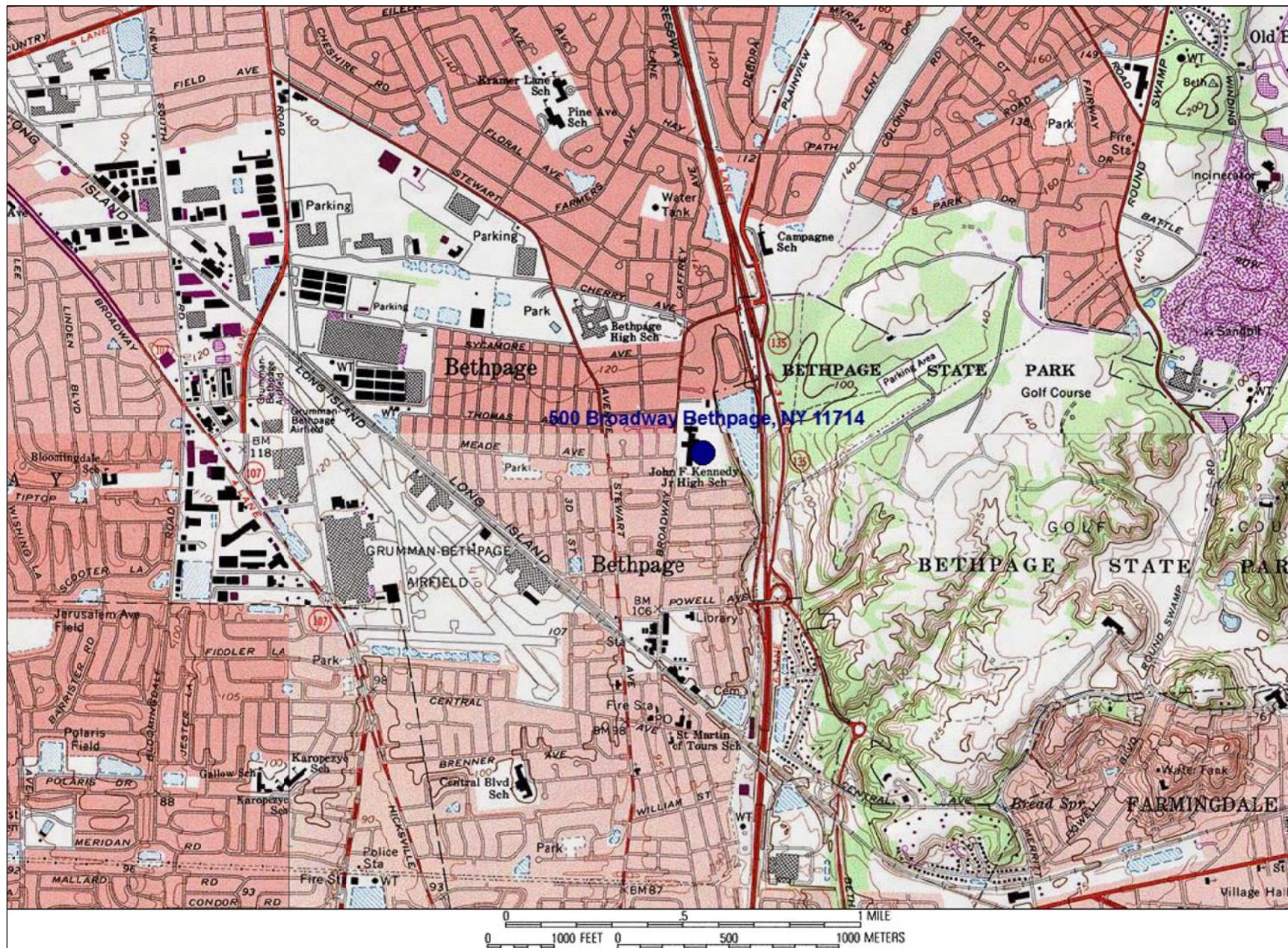
Site Location Map

Scale Project No. Date
As Noted 17-36776 04-28-17

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J.V.N. S.W.M. 1 of 3

Drawing No.

1



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

JCB LEGEND

● SUBJECT SITE



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John F. Kennedy
Middle School
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Bethpage, NY 11714

Drawing Title
Figure No. 2
Subsurface,
Crawlspace
and
Basement
VVI Sampling
Locations

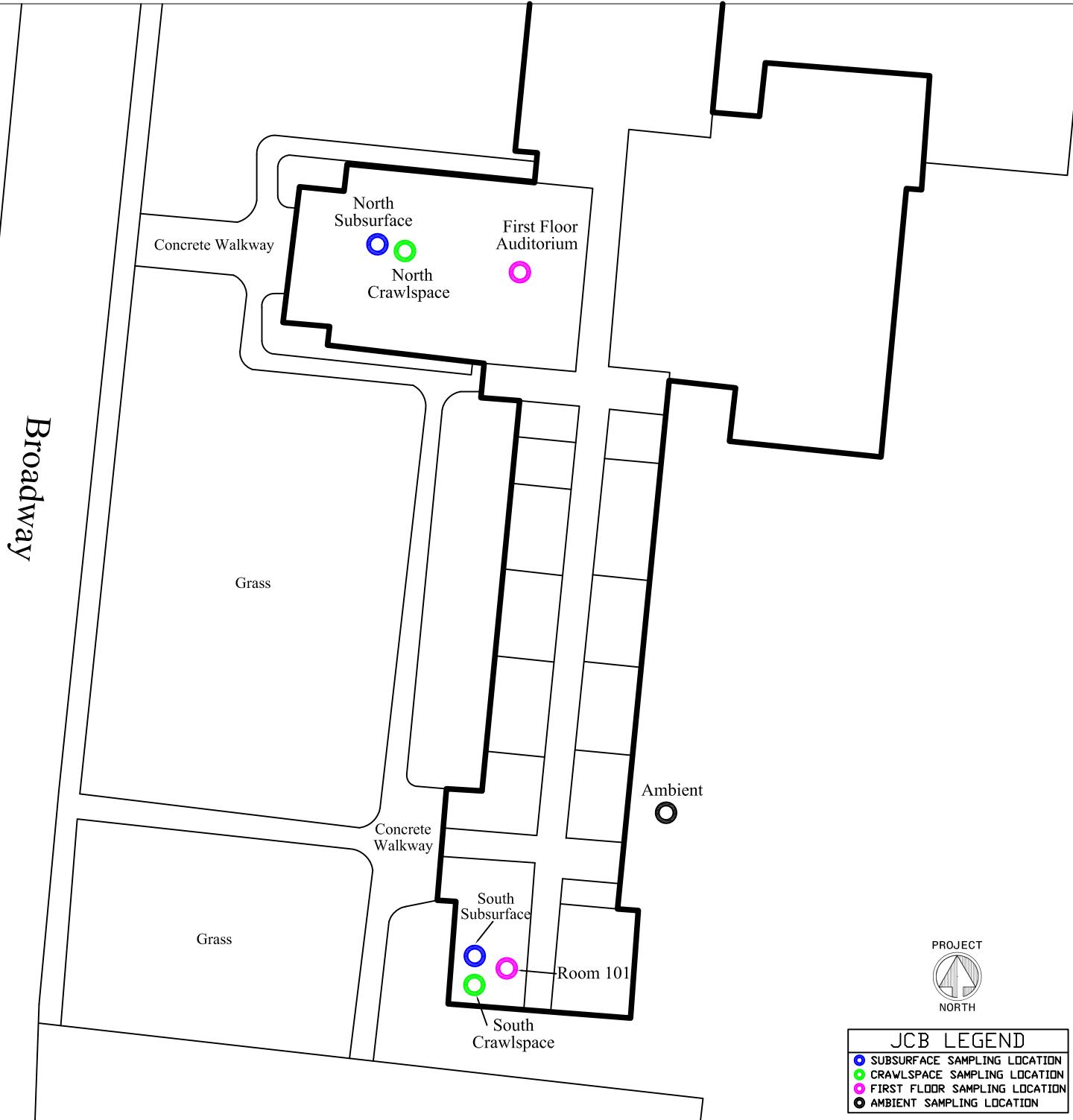
Scale Project No. Date
N.T.S. 17-36776 04-11-17

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J.V.N. S.W.M. 2 of 3



JCB LEGEND

- SUBSURFACE SAMPLING LOCATION
- CRAWLSPACE SAMPLING LOCATION
- FIRST FLOOR SAMPLING LOCATION
- AMBIENT SAMPLING LOCATION





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Notes:

John F. Kennedy
Middle School
500 Broadway
Bethpage, NY 11714

Drawing Title

Figure No. 3

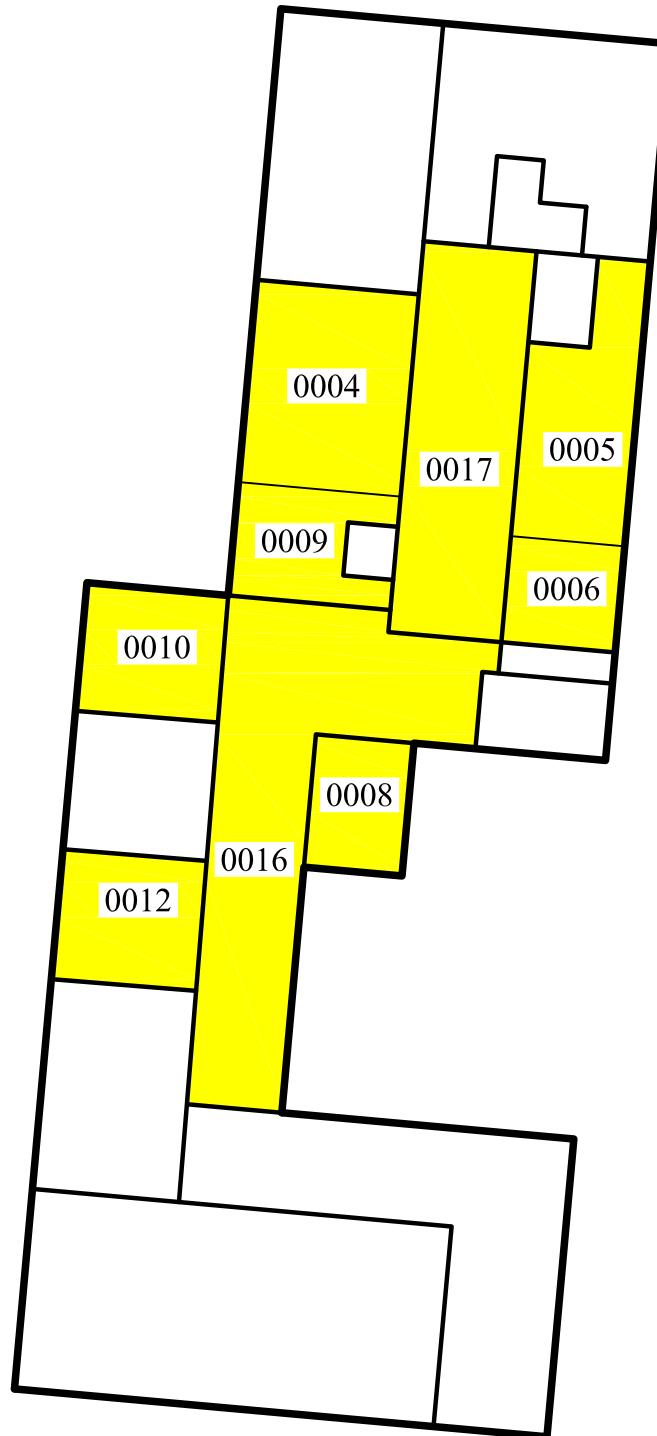
Basement
Radon
Sampling
Locations

Scale Project No. Date
N.T.S. 17-36776 04-28-17

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



JCB LEGEND
RADON SAMPLE LOCATION



Appendix B

Field Photograph Logs

North Crawlspace Sampling Location



Field Photograph Log

Volatile Vapor Intrusion Report

John F. Kennedy Middle School
500 Broadway Bethpage
Bethpage, New York 11714



Photo No. 01

JCB#: 17-36776

South Crawlspace Sampling Location



Field Photograph Log

Volatile Vapor Intrusion Report

**John F. Kennedy Middle School
500 Broadway Bethpage
Bethpage, New York 11714**



Photo No. 02

JCB#: 17-36776

Room 101 Sample Location



Field Photograph Log

Volatile Vapor Intrusion Report

**John F. Kennedy Middle School
500 Broadway Bethpage
Bethpage, New York 11714**



Photo No. 03

JCB#: 17-36776

Auditorium Sampling Location



Field Photograph Log

Volatile Vapor Intrusion Report

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Bethpage, New York 11714



Photo No. 04

JCB#: 17-36776

Ambient Sampling Location



Field Photograph Log

Volatile Vapor Intrusion Report

John F. Kennedy Middle School
500 Broadway Bethpage
Bethpage, New York 11714



Photo No. 05

JCB#: 17-36776

Typical Subsurface Sampling Equipment and Setup



Field Photograph Log

Volatile Vapor Intrusion Report

John F. Kennedy Middle School
500 Broadway Bethpage
Bethpage, New York 11714



Photo No. 06

JCB#: 17-36776

Typical Summa® Canister Starting Pressure



Field Photograph Log

Volatile Vapor Intrusion Report

John F. Kennedy Middle School
500 Broadway Bethpage
Bethpage, New York 11714

Photo No. 07

JCB#: 17-36776

Typical Summa® Canister Ending Pressure



Field Photograph Log

Volatile Vapor Intrusion Report

John F. Kennedy Middle School
500 Broadway Bethpage
Bethpage, New York 11714

Photo No. 08

JCB#: 17-36776

Appendix C

Laboratory Analysis Report



Technical Report

prepared for:

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

Report Date: 04/21/2017
Client Project ID: 17-36776
York Project (SDG) No.: 17D0591

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

Report Date: 04/21/2017
Client Project ID: 17-36776
York Project (SDG) No.: 17D0591

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

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on April 14, 2017 and listed below. The project was identified as your project: **17-36776**.

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>
17D0591-01	North Subsurface	Soil Vapor	04/11/2017	04/14/2017
17D0591-02	North Crawlspace	Indoor Ambient Air	04/11/2017	04/14/2017
17D0591-03	South Subsurface	Soil Vapor	04/11/2017	04/14/2017
17D0591-04	South Crawlspace	Indoor Ambient Air	04/11/2017	04/14/2017
17D0591-05	First Floor Auditorium	Indoor Ambient Air	04/11/2017	04/14/2017
17D0591-06	Room 101	Indoor Ambient Air	04/11/2017	04/14/2017
17D0591-07	Outdoor Ambient	Outdoor Ambient Ai	04/11/2017	04/14/2017

General Notes for York Project (SDG) No.: 17D0591

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: 04/21/2017

Benjamin Gulizia
Laboratory Director





Sample Information

Client Sample ID: North Subsurface

York Sample ID: 17D0591-01

York Project (SDG) No.
17D0591

Client Project ID
17-36776

Matrix
Soil Vapor

Collection Date/Time
April 11, 2017 3:00 pm

Date Received
04/14/2017

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	12	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	9.5	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	12	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	13	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	9.5	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	7.1	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	6.9	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	13	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	8.6	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	13	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	10	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	7.1	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	8.1	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	12	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	8.6	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	12	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	10	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	8.1	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	10	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	13	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
78-93-3	2-Butanone	27		ug/m³	5.1	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS



Sample Information

<u>Client Sample ID:</u> North Subsurface	<u>York Sample ID:</u> 17D0591-01
<u>York Project (SDG) No.</u> 17D0591	<u>Client Project ID</u> 17-36776

Matrix Soil Vapor

Collection Date/Time April 11, 2017 3:00 pm

Date Received 04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	14	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
107-05-1	3-Chloropropene	ND		ug/m³	27	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	7.1	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
67-64-1	Acetone	210		ug/m³	8.3	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
107-13-1	Acrylonitrile	ND		ug/m³	3.8	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
71-43-2	Benzene	11		ug/m³	5.6	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
100-44-7	Benzyl chloride	ND		ug/m³	9.0	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	12	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
75-25-2	Bromoform	ND		ug/m³	18	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
74-83-9	Bromomethane	ND		ug/m³	6.8	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
75-15-0	Carbon disulfide	ND		ug/m³	5.4	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
56-23-5	Carbon tetrachloride	ND		ug/m³	2.7	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
108-90-7	Chlorobenzene	ND		ug/m³	8.0	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
75-00-3	Chloroethane	ND		ug/m³	4.6	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
67-66-3	Chloroform	ND		ug/m³	8.5	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
74-87-3	Chloromethane	ND		ug/m³	3.6	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	6.9	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	7.9	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
110-82-7	Cyclohexane	ND		ug/m³	6.0	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	15	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m³	8.6	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	13	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS



Sample Information

<u>Client Sample ID:</u> North Subsurface	<u>York Sample ID:</u> 17D0591-01
<u>York Project (SDG) No.</u> 17D0591	<u>Client Project ID</u> 17-36776
	<u>Matrix</u> Soil Vapor <u>Collection Date/Time</u> April 11, 2017 3:00 pm <u>Date Received</u> 04/14/2017

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
100-41-4	Ethyl Benzene	ND		ug/m³	7.6	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	19	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
67-63-0	Isopropanol	ND		ug/m³	8.6	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	7.1	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	6.3	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
75-09-2	Methylene chloride	ND		ug/m³	12	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
142-82-5	n-Heptane	7.9		ug/m³	7.1	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
110-54-3	n-Hexane	6.1		ug/m³	6.1	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
95-47-6	o-Xylene	ND		ug/m³	7.6	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m³	15	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m³	8.6	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
115-07-1	* Propylene	ND		ug/m³	3.0	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
100-42-5	Styrene	ND		ug/m³	7.4	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
127-18-4	Tetrachloroethylene	12		ug/m³	3.0	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
109-99-9	* Tetrahydrofuran	50		ug/m³	10	17.44	EPA TO-15 Certifications:	04/18/2017 00:07	04/18/2017 00:07	LDS
108-88-3	Toluene	510		ug/m³	6.6	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	6.9	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	7.9	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
79-01-6	Trichloroethylene	ND		ug/m³	2.3	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	9.8	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
108-05-4	Vinyl acetate	ND		ug/m³	6.1	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
593-60-2	Vinyl bromide	ND		ug/m³	7.6	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS



Sample Information

Client Sample ID: North Subsurface

York Sample ID: 17D0591-01

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Soil Vapor

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	4.5	17.44	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 00:07	04/18/2017 00:07	LDS
Surrogate Recoveries										
Surrogate: <i>p</i> -Bromofluorobenzene										
460-00-4		96.7 %			72-118					

Helium

Log-in Notes:

Sample Notes:

Sample Prepared by Method: PREP for GASES by GC

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-59-7	* Helium	ND		%	0.90	1.79	GC/TCD Certifications:	04/20/2017 16:51	04/20/2017 19:10	LDS

Sample Information

Client Sample ID: North Crawlspace

York Sample ID: 17D0591-02

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Indoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.78	1.13	EPA TO-15 Certifications:	04/18/2017 01:17	04/18/2017 01:17	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.62	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.78	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.87	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.62	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.46	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.45	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.84	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS



Sample Information

Client Sample ID: North Crawlspace

York Sample ID: 17D0591-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
17D0591	17-36776	Indoor Ambient Air	April 11, 2017 3:00 pm	04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.56	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.87	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.68	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.46	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.52	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.79	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.56	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.75	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.68	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.52	1.13	EPA TO-15 Certifications:	04/18/2017 01:17	04/18/2017 01:17	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.68	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.81	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
78-93-3	2-Butanone	1.1		ug/m³	0.33	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	0.93	1.13	EPA TO-15 Certifications:	04/18/2017 01:17	04/18/2017 01:17	LDS
107-05-1	3-Chloropropene	ND		ug/m³	1.8	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.46	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
67-64-1	Acetone	33		ug/m³	0.54	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.25	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
71-43-2	Benzene	0.54		ug/m³	0.36	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.59	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.76	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
75-25-2	Bromoform	ND		ug/m³	1.2	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS



Sample Information

Client Sample ID: North Crawlspace

York Sample ID: 17D0591-02

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Indoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-83-9	Bromomethane	ND		ug/m³	0.44	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
75-15-0	Carbon disulfide	2.2		ug/m³	0.35	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
56-23-5	Carbon tetrachloride	0.43		ug/m³	0.18	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.52	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
75-00-3	Chloroethane	ND		ug/m³	0.30	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
67-66-3	Chloroform	ND		ug/m³	0.55	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
74-87-3	Chloromethane	1.7		ug/m³	0.23	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.45	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.51	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.39	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	0.96	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
75-71-8	Dichlorodifluoromethane	2.0		ug/m³	0.56	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	0.81	1.13	EPA TO-15 Certifications:	04/18/2017 01:17	04/18/2017 01:17	LDS
100-41-4	Ethyl Benzene	ND		ug/m³	0.49	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.2	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
67-63-0	Isopropanol	3.0		ug/m³	0.56	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.46	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.41	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
75-09-2	Methylene chloride	ND		ug/m³	0.79	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
142-82-5	n-Heptane	12		ug/m³	0.46	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
110-54-3	n-Hexane	1.9		ug/m³	0.40	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS
95-47-6	o-Xylene	ND		ug/m³	0.49	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS



Sample Information

Client Sample ID: North Crawlspace

York Sample ID: 17D0591-02

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Indoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst		
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.98	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.56	1.13	EPA TO-15 Certifications:	04/18/2017 01:17	04/18/2017 01:17	LDS		
115-07-1	* Propylene	5.5		ug/m³	0.19	1.13	EPA TO-15 Certifications:	04/18/2017 01:17	04/18/2017 01:17	LDS		
100-42-5	Styrene	ND		ug/m³	0.48	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
127-18-4	Tetrachloroethylene	0.69		ug/m³	0.19	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.67	1.13	EPA TO-15 Certifications:	04/18/2017 01:17	04/18/2017 01:17	LDS		
108-88-3	Toluene	2.5		ug/m³	0.43	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.45	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.51	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
79-01-6	Trichloroethylene	ND		ug/m³	0.15	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
75-69-4	Trichlorofluoromethane (Freon 11)	1.7		ug/m³	0.63	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
108-05-4	Vinyl acetate	ND		ug/m³	0.40	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
593-60-2	Vinyl bromide	ND		ug/m³	0.49	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
75-01-4	Vinyl Chloride	ND		ug/m³	0.29	1.13	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 01:17	04/18/2017 01:17	LDS		
Surrogate Recoveries		Result	Acceptance Range									
460-00-4	Surrogate: p-Bromofluorobenzene	93.4 %			72-118							

Sample Information

Client Sample ID: South Subsurface

York Sample ID: 17D0591-03

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Soil Vapor

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
120 RESEARCH DRIVE	STRATFORD, CT 06615		■		132-02 89th AVENUE			RICHMOND HILL, NY 11418		
www.YORKLAB.com	(203) 325-1371				FAX (203) 357-0166			ClientServices@yorklab.com		



Sample Information

<u>Client Sample ID:</u> South Subsurface	<u>York Sample ID:</u> 17D0591-03
<u>York Project (SDG) No.</u> 17D0591	<u>Client Project ID</u> 17-36776

Matrix Soil Vapor

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	14	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	11	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	14	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	16	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	11	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	8.3	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	8.1	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	15	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	10	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	16	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	12	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	8.3	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	9.4	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	14	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	10	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	14	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	12	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	9.4	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	12	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	15	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
78-93-3	2-Butanone	11		ug/m³	6.0	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS



Sample Information

Client Sample ID: South Subsurface

York Sample ID: 17D0591-03

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Soil Vapor

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	17	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
107-05-1	3-Chloropropene	ND		ug/m³	32	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	8.4	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
67-64-1	Acetone	230		ug/m³	9.7	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
107-13-1	Acrylonitrile	ND		ug/m³	4.4	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
71-43-2	Benzene	11		ug/m³	6.5	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
100-44-7	Benzyl chloride	ND		ug/m³	11	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	14	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
75-25-2	Bromoform	ND		ug/m³	21	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
74-83-9	Bromomethane	ND		ug/m³	7.9	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
75-15-0	Carbon disulfide	ND		ug/m³	6.4	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
56-23-5	Carbon tetrachloride	ND		ug/m³	3.2	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
108-90-7	Chlorobenzene	ND		ug/m³	9.4	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
75-00-3	Chloroethane	ND		ug/m³	5.4	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
67-66-3	Chloroform	ND		ug/m³	10	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
74-87-3	Chloromethane	ND		ug/m³	4.2	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	8.1	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	9.3	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
110-82-7	Cyclohexane	ND		ug/m³	7.0	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	17	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m³	10	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	15	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS



Sample Information

Client Sample ID: South Subsurface

York Sample ID: 17D0591-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0591	17-36776	Soil Vapor	April 11, 2017 3:00 pm	04/14/2017

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
100-41-4	Ethyl Benzene	ND		ug/m³	8.9	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	22	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
67-63-0	Isopropanol	ND		ug/m³	10	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	8.4	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	7.4	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
75-09-2	Methylene chloride	ND		ug/m³	14	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
142-82-5	n-Heptane	13		ug/m³	8.4	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
110-54-3	n-Hexane	8.6		ug/m³	7.2	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
95-47-6	o-Xylene	ND		ug/m³	8.9	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m³	18	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m³	10	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
115-07-1	* Propylene	3.5		ug/m³	3.5	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
100-42-5	Styrene	ND		ug/m³	8.7	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
127-18-4	Tetrachloroethylene	12		ug/m³	3.5	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
109-99-9	* Tetrahydrofuran	51		ug/m³	12	20.4	EPA TO-15 Certifications:	04/18/2017 02:18	04/18/2017 02:18	LDS
108-88-3	Toluene	1300		ug/m³	7.7	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	8.1	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	9.3	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
79-01-6	Trichloroethylene	ND		ug/m³	2.7	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	11	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
108-05-4	Vinyl acetate	ND		ug/m³	7.2	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
593-60-2	Vinyl bromide	ND		ug/m³	8.9	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS



Sample Information

Client Sample ID: South Subsurface

York Sample ID: 17D0591-03

York Project (SDG) No.
17D0591

Client Project ID
17-36776

Matrix
Soil Vapor

Collection Date/Time
April 11, 2017 3:00 pm

Date Received
04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	5.2	20.4	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 02:18	04/18/2017 02:18	LDS
Surrogate Recoveries										
Surrogate: <i>p</i> -Bromofluorobenzene										
460-00-4		93.3 %			72-118					

Helium

Log-in Notes:

Sample Notes:

Sample Prepared by Method: PREP for GASES by GC

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-59-7	* Helium	ND		%	0.90	1.79	GC/TCD Certifications:	04/20/2017 16:51	04/20/2017 19:16	LDS

Sample Information

Client Sample ID: South Crawlspace

York Sample ID: 17D0591-04

York Project (SDG) No.
17D0591

Client Project ID
17-36776

Matrix
Indoor Ambient Air

Collection Date/Time
April 11, 2017 3:00 pm

Date Received
04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.72	1.042	EPA TO-15 Certifications:	04/18/2017 03:28	04/18/2017 03:28	LDS
71-55-6										
1,1,1-Trichloroethane										
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.72	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.80	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.57	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.42	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.41	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.77	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS



Sample Information

Client Sample ID: South Crawlspace

York Sample ID: 17D0591-04

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
17D0591	17-36776	Indoor Ambient Air	April 11, 2017 3:00 pm	04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	1.9		ug/m³	0.51	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.80	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.63	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.42	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.48	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.73	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.51	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.69	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.63	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.48	1.042	EPA TO-15 Certifications:	04/18/2017 03:28	04/18/2017 03:28	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.63	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.75	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
78-93-3	2-Butanone	1.4		ug/m³	0.31	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	0.85	1.042	EPA TO-15 Certifications:	04/18/2017 03:28	04/18/2017 03:28	LDS
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
108-10-1	4-Methyl-2-pentanone	0.90		ug/m³	0.43	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
67-64-1	Acetone	26		ug/m³	0.50	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.23	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
71-43-2	Benzene	0.90		ug/m³	0.33	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.54	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.70	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
75-25-2	Bromoform	ND		ug/m³	1.1	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS



Sample Information

Client Sample ID: South Crawlspace

York Sample ID: 17D0591-04

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Indoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

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
74-83-9	Bromomethane	ND		ug/m³	0.40	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
75-15-0	Carbon disulfide	1.1		ug/m³	0.32	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
56-23-5	Carbon tetrachloride	0.46		ug/m³	0.16	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.48	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
75-00-3	Chloroethane	ND		ug/m³	0.27	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
67-66-3	Chloroform	ND		ug/m³	0.51	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
74-87-3	Chloromethane	1.7		ug/m³	0.22	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.41	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.47	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.36	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	0.89	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
75-71-8	Dichlorodifluoromethane	2.1		ug/m³	0.52	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	0.75	1.042	EPA TO-15 Certifications:	04/18/2017 03:28	04/18/2017 03:28	LDS
100-41-4	Ethyl Benzene	ND		ug/m³	0.45	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
67-63-0	Isopropanol	4.1		ug/m³	0.51	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.43	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.38	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
75-09-2	Methylene chloride	ND		ug/m³	0.72	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
142-82-5	n-Heptane	21		ug/m³	0.43	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
110-54-3	n-Hexane	1.5		ug/m³	0.37	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
95-47-6	o-Xylene	0.50		ug/m³	0.45	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS



Sample Information

Client Sample ID: South Crawlspace

York Sample ID: 17D0591-04

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Indoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	1.4		ug/m³	0.90	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
622-96-8	* p-Ethyltoluene	1.3		ug/m³	0.51	1.042	EPA TO-15 Certifications:	04/18/2017 03:28	04/18/2017 03:28	LDS
115-07-1	* Propylene	3.8		ug/m³	0.18	1.042	EPA TO-15 Certifications:	04/18/2017 03:28	04/18/2017 03:28	LDS
100-42-5	Styrene	ND		ug/m³	0.44	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
127-18-4	Tetrachloroethylene	0.57		ug/m³	0.18	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.61	1.042	EPA TO-15 Certifications:	04/18/2017 03:28	04/18/2017 03:28	LDS
108-88-3	Toluene	10		ug/m³	0.39	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.41	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.47	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
79-01-6	Trichloroethylene	0.17		ug/m³	0.14	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	1.5		ug/m³	0.59	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.37	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.46	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
75-01-4	Vinyl Chloride	ND		ug/m³	0.27	1.042	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 03:28	04/18/2017 03:28	LDS
Surrogate Recoveries		Result	Acceptance Range							
460-00-4	Surrogate: p-Bromofluorobenzene	93.3 %			72-118					

Sample Information

Client Sample ID: First Floor Auditorium

York Sample ID: 17D0591-05

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Indoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

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
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Sample Information

Client Sample ID: First Floor Auditorium	York Sample ID: 17D0591-05
<u>York Project (SDG) No.</u> 17D0591	<u>Client Project ID</u> 17-36776
	<u>Matrix</u> Indoor Ambient Air <u>Collection Date/Time</u> April 11, 2017 3:00 pm <u>Date Received</u> 04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.69	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.55	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.69	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.77	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.55	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.41	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.40	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.75	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.50	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.77	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.61	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.41	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.47	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
76-14-2	1,2-Dichlortetrafluoroethane	ND		ug/m³	0.70	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.50	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.67	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.61	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.47	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.61	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.73	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
78-93-3	2-Butanone	0.95		ug/m³	0.30	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS



Sample Information

Client Sample ID: First Floor Auditorium

York Sample ID: 17D0591-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0591	17-36776	Indoor Ambient Air	April 11, 2017 3:00 pm	04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	0.83	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.41	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
67-64-1	Acetone	39		ug/m³	0.48	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.22	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
71-43-2	Benzene	0.55		ug/m³	0.32	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.52	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.67	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
75-25-2	Bromoform	ND		ug/m³	1.0	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
74-83-9	Bromomethane	ND		ug/m³	0.39	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
75-15-0	Carbon disulfide	5.1		ug/m³	0.31	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
56-23-5	Carbon tetrachloride	0.38		ug/m³	0.16	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.46	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
75-00-3	Chloroethane	ND		ug/m³	0.27	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
67-66-3	Chloroform	ND		ug/m³	0.49	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
74-87-3	Chloromethane	1.7		ug/m³	0.21	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.40	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.46	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.35	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	0.86	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
75-71-8	Dichlorodifluoromethane	2.0		ug/m³	0.50	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	0.73	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS



Sample Information

Client Sample ID:	First Floor Auditorium	York Sample ID:	17D0591-05	
York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0591	17-36776	Indoor Ambient Air	April 11, 2017 3:00 pm	04/14/2017

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
100-41-4	Ethyl Benzene	ND		ug/m³	0.44	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
67-63-0	Isopropanol	2.6		ug/m³	0.50	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.41	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.36	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
75-09-2	Methylene chloride	ND		ug/m³	0.70	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
142-82-5	n-Heptane	12		ug/m³	0.41	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
110-54-3	n-Hexane	0.89		ug/m³	0.35	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
95-47-6	o-Xylene	ND		ug/m³	0.44	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.87	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.50	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
115-07-1	* Propylene	6.1		ug/m³	0.17	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
100-42-5	Styrene	ND		ug/m³	0.43	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
127-18-4	Tetrachloroethylene	0.61		ug/m³	0.17	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.59	1.007	EPA TO-15 Certifications:	04/18/2017 04:38	04/18/2017 04:38	LDS
108-88-3	Toluene	2.1		ug/m³	0.38	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.40	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.46	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
79-01-6	Trichloroethylene	ND		ug/m³	0.14	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	1.6		ug/m³	0.57	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.35	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.44	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS



Sample Information

Client Sample ID: First Floor Auditorium

York Sample ID: 17D0591-05

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Indoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.26	1.007	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 04:38	04/18/2017 04:38	LDS
Surrogate Recoveries										
Surrogate: <i>p</i> -Bromofluorobenzene										
460-00-4		93.2 %			72-118					

Sample Information

Client Sample ID: Room 101

York Sample ID: 17D0591-06

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Indoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.69	1	EPA TO-15 Certifications:	04/18/2017 05:48	04/18/2017 05:48	LDS
71-55-6	1,1,1-Trichloroethane	3.9		ug/m³	0.55	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.69	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.77	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.55	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.40	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.40	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.74	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
95-63-6	1,2,4-Trimethylbenzene	8.1		ug/m³	0.49	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.77	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.60	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.40	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.46	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS



Sample Information

Client Sample ID: Room 101

York Sample ID: 17D0591-06

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Indoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

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
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.70	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
108-67-8	1,3,5-Trimethylbenzene	1.9		ug/m³	0.49	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.66	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.60	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.46	1	EPA TO-15 Certifications:	04/18/2017 05:48	04/18/2017 05:48	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.60	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.72	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
78-93-3	2-Butanone	1.5		ug/m³	0.29	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	0.82	1	EPA TO-15 Certifications:	04/18/2017 05:48	04/18/2017 05:48	LDS
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
108-10-1	4-Methyl-2-pentanone	3.3		ug/m³	0.41	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
67-64-1	Acetone	15		ug/m³	0.48	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.22	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
71-43-2	Benzene	0.64		ug/m³	0.32	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.52	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.67	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
75-25-2	Bromoform	ND		ug/m³	1.0	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
74-83-9	Bromomethane	ND		ug/m³	0.39	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
75-15-0	Carbon disulfide	0.34		ug/m³	0.31	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
56-23-5	Carbon tetrachloride	0.38		ug/m³	0.16	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.46	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
75-00-3	Chloroethane	ND		ug/m³	0.26	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS



Sample Information

<u>Client Sample ID:</u> Room 101	<u>York Sample ID:</u> 17D0591-06
<u>York Project (SDG) No.</u> 17D0591	<u>Client Project ID</u> 17-36776
	<u>Matrix</u> Indoor Ambient Air <u>Collection Date/Time</u> April 11, 2017 3:00 pm <u>Date Received</u> 04/14/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/m³	0.49	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
74-87-3	Chloromethane	1.7		ug/m³	0.21	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.40	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.45	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
110-82-7	Cyclohexane	0.83		ug/m³	0.34	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	0.85	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
75-71-8	Dichlorodifluoromethane	2.1		ug/m³	0.49	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
141-78-6	* Ethyl acetate	2.0		ug/m³	0.72	1	EPA TO-15 Certifications:	04/18/2017 05:48	04/18/2017 05:48	LDS
100-41-4	Ethyl Benzene	0.65		ug/m³	0.43	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
67-63-0	Isopropanol	8.0		ug/m³	0.49	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.41	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.36	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
75-09-2	Methylene chloride	ND		ug/m³	0.69	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
142-82-5	n-Heptane	89		ug/m³	0.41	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
110-54-3	n-Hexane	3.9		ug/m³	0.35	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
95-47-6	o-Xylene	1.0		ug/m³	0.43	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
179601-23-1	p- & m- Xylenes	2.3		ug/m³	0.87	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
622-96-8	* p-Ethyltoluene	4.7		ug/m³	0.49	1	EPA TO-15 Certifications:	04/18/2017 05:48	04/18/2017 05:48	LDS
115-07-1	* Propylene	0.86		ug/m³	0.17	1	EPA TO-15 Certifications:	04/18/2017 05:48	04/18/2017 05:48	LDS
100-42-5	Styrene	ND		ug/m³	0.43	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
127-18-4	Tetrachloroethylene	0.54		ug/m³	0.17	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS



Sample Information

Client Sample ID: Room 101

York Sample ID: 17D0591-06

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Indoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

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
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.59	1	EPA TO-15 Certifications:	04/18/2017 05:48	04/18/2017 05:48	LDS
108-88-3	Toluene	53		ug/m³	0.38	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.40	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.45	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
79-01-6	Trichloroethylene	0.16		ug/m³	0.13	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	1.5		ug/m³	0.56	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.35	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.44	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
75-01-4	Vinyl Chloride	ND		ug/m³	0.26	1	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 05:48	04/18/2017 05:48	LDS
Surrogate Recoveries		Result	Acceptance Range							
460-00-4	Surrogate: p-Bromofluorobenzene	96.7 %	72-118							

Sample Information

Client Sample ID: Outdoor Ambient

York Sample ID: 17D0591-07

York Project (SDG) No.

17D0591

Client Project ID

17-36776

Matrix

Outdoor Ambient Air

Collection Date/Time

April 11, 2017 3:00 pm

Date Received

04/14/2017

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.70	1.026	EPA TO-15 Certifications:	04/18/2017 06:58	04/18/2017 06:58	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.56	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.70	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.79	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.56	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS



Sample Information

Client Sample ID: Outdoor Ambient

York Sample ID: 17D0591-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0591	17-36776	Outdoor Ambient Air	April 11, 2017 3:00 pm	04/14/2017

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.42	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.41	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.76	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.50	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.79	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.62	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.42	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.47	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
76-14-2	1,2-Dichlortetrafluoroethane	ND		ug/m³	0.72	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.50	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	0.68	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.62	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.47	1.026	EPA TO-15 Certifications:	04/18/2017 06:58	04/18/2017 06:58	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.62	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	0.74	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
78-93-3	2-Butanone	0.73		ug/m³	0.30	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	0.84	1.026	EPA TO-15 Certifications:	04/18/2017 06:58	04/18/2017 06:58	LDS
107-05-1	3-Chloropropene	ND		ug/m³	1.6	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.42	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
67-64-1	Acetone	4.9		ug/m³	0.49	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.22	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
71-43-2	Benzene	0.49		ug/m³	0.33	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS



Sample Information

Client Sample ID: Outdoor Ambient		York Sample ID: 17D0591-07
<u>York Project (SDG) No.</u> 17D0591	<u>Client Project ID</u> 17-36776	<u>Matrix</u> Outdoor Ambient Air <u>Collection Date/Time</u> April 11, 2017 3:00 pm <u>Date Received</u> 04/14/2017

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-44-7	Benzyl chloride	ND		ug/m³	0.53	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	0.69	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
75-25-2	Bromoform	ND		ug/m³	1.1	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
74-83-9	Bromomethane	ND		ug/m³	0.40	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
75-15-0	Carbon disulfide	4.9		ug/m³	0.32	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
56-23-5	Carbon tetrachloride	0.39		ug/m³	0.16	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.47	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
75-00-3	Chloroethane	ND		ug/m³	0.27	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
67-66-3	Chloroform	ND		ug/m³	0.50	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
74-87-3	Chloromethane	1.4		ug/m³	0.21	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.41	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.47	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.35	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	0.87	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
75-71-8	Dichlorodifluoromethane	2.0		ug/m³	0.51	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	0.74	1.026	EPA TO-15 Certifications:	04/18/2017 06:58	04/18/2017 06:58	LDS
100-41-4	Ethyl Benzene	ND		ug/m³	0.45	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
67-63-0	Isopropanol	0.50		ug/m³	0.50	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.42	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.37	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
75-09-2	Methylene chloride	ND		ug/m³	0.71	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS



Sample Information

Client Sample ID: Outdoor Ambient		York Sample ID: 17D0591-07
<u>York Project (SDG) No.</u> 17D0591	<u>Client Project ID</u> 17-36776	<u>Matrix</u> Outdoor Ambient Air <u>Collection Date/Time</u> April 11, 2017 3:00 pm <u>Date Received</u> 04/14/2017

Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
142-82-5	n-Heptane	ND		ug/m³	0.42	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
110-54-3	n-Hexane	0.36		ug/m³	0.36	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
95-47-6	o-Xylene	ND		ug/m³	0.45	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.89	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.50	1.026	EPA TO-15 Certifications:	04/18/2017 06:58	04/18/2017 06:58	LDS
115-07-1	* Propylene	0.53		ug/m³	0.18	1.026	EPA TO-15 Certifications:	04/18/2017 06:58	04/18/2017 06:58	LDS
100-42-5	Styrene	ND		ug/m³	0.44	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
127-18-4	Tetrachloroethylene	0.84		ug/m³	0.17	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.61	1.026	EPA TO-15 Certifications:	04/18/2017 06:58	04/18/2017 06:58	LDS
108-88-3	Toluene	1.1		ug/m³	0.39	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.41	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.47	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
79-01-6	Trichloroethylene	ND		ug/m³	0.14	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	1.4		ug/m³	0.58	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.36	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.45	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
75-01-4	Vinyl Chloride	ND		ug/m³	0.26	1.026	EPA TO-15 Certifications: NELAC-NY10854-Queens,NJDEP-Queens	04/18/2017 06:58	04/18/2017 06:58	LDS
Surrogate Recoveries		Result	Acceptance Range							
460-00-4	Surrogate: <i>p</i> -Bromofluorobenzene	93.3 %								
					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. 17D0591

YOUR Information		Report To:	Invoice To:	YOUR Project ID	Turn-Around Time	Report Type/Deliverables
Company: <u>J.C. Schneiderick</u>	Address: <u>1775 Expressway Dr. N</u>	Company: <u>JCB</u>	Address: _____	<u>17-36776</u>	RUSH - Same Day <input type="checkbox"/>	Summary Report
Address: <u>Hempstead, NY 11788</u>	Phone No. <u>(631) 584-5442</u>	Phone No. _____	Phone No. _____		RUSH - Next Day <input type="checkbox"/>	Summary w/ QA Summary
Contact Person: <u>Steven Muller</u>	E-Mail Address: <u>Smueller@schneiderick.com</u>	Attention: _____	Attention: _____		RUSH - Two Day <input type="checkbox"/>	CT RCP Package
		E-Mail Address: _____	E-Mail Address: _____	Samples from: CT <input type="checkbox"/> NY <input checked="" type="checkbox"/> NJ <input type="checkbox"/>	RUSH - Three Day <input type="checkbox"/>	NY ASP A Package
					RUSH - Four Day <input type="checkbox"/>	NY ASP B/CLP Pkg
						NJDEP Reduced
						Electronic Deliverables:
						EDD (Specify Type) _____
						Standard Excel
						Regulatory Comparison Excel

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)
J. Dustin Dawson
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/m³

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 Subsurface	4/11/17	AS	29	1	14315	5628	TO-15 + Helium	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag
North Crawlspace		AI	30+	10	Y60	7609	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag
South Subsurface		AS	30+	13	20753	5119	TO-15 + Helium	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag
South Crawlspace		AI	29	4	23990	5629	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag
First Floor Auditorium		AI	30+	6	23198	Y1	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag
Room 101		AI	28	2	23800	5417	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag
Outdoor Ambient	±	AO	30+	6	483	Y28	TO-15	6 Liter canister <input checked="" type="checkbox"/> Tedlar Bag
								6 Liter canister _____ Tedlar Bag _____
								6 Liter canister _____ Tedlar Bag _____
								6 Liter canister _____ Tedlar Bag _____
								6 Liter canister _____ Tedlar Bag _____

Comments: "JFK Middle School" Bethpage	 Samples Relinquished By <u>James Gomes</u> Date/Time <u>4/11/17 21:45</u>	 Samples Received By <u>James Gomes</u> Date/Time <u>4-14-17 21:45</u>
	Samples Relinquished By <u>James Gomes</u> Date/Time <u>4-14-17 21:45</u>	Samples Received in LAB by <u>James Gomes</u> Date/Time <u>4-14-17 21:45</u>



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

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

<http://www.EMSL.com>

cinnaminsonradonlab@emsl.com

EMSL Order:	381703841
CustomerID:	JCBR50
CustomerPO:	17-36776
ProjectID:	

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

Phone: (631) 584-5492
Fax:
Received: 04/18/17 6:55 PM
Analysis Date: 4/19/2017
Collected: 4/12/2017

Project: **17-36776 / JFK Middle School**

Test Site: **JFK Middle School**
500 Broadway
Bohemia, NY 11716

Test Report: Radon in Air Test Results

Samples for EMSL Kit 165557

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
283725	Rm 0005	0.04	4/12/2017 3:15:00 PM	4/17/2017 7:13:00 AM	74	30	Blank
381703841-0001							
Sample Notes: Radon device exposed >96 hours							
283839	Rm 0005	1.9	4/12/2017 3:15:00 PM	4/17/2017 7:13:00 AM	74	30	Customer
381703841-0002							
Sample Notes: Radon device exposed >96 hours							

Samples for EMSL Kit 165558

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
283720	Rm 0004	2.7	4/12/2017 3:19:00 PM	4/17/2017 7:16:00 AM	74	30	Customer
381703841-0003							
Sample Notes: Radon device exposed >96 hours							
283790	Rm 0004	0.1	4/12/2017 3:19:00 PM	4/17/2017 7:16:00 AM	74	30	Blank
381703841-0004							
Sample Notes: Radon device exposed >96 hours							

Samples for EMSL Kit 165564

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
283935	Rm 0006	0.04	4/12/2017 3:20:00 PM	4/17/2017 7:28:00 AM	76	40	Blank
381703841-0005							
Sample Notes: Radon device exposed >96 hours							
283732	Rm 0006	3.1	4/12/2017 3:20:00 PM	4/17/2017 7:28:00 AM	76	40	Customer
381703841-0006							
Sample Notes: Radon device exposed >96 hours							



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EMSL Order:	381703841
CustomerID:	JCBR50
CustomerPO:	17-36776
ProjectID:	

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

Phone: (631) 584-5492
Fax:
Received: 04/18/17 6:55 PM
Analysis Date: 4/19/2017
Collected: 4/12/2017

Project: **17-36776 / JFK Middle School**

Test Site: **JFK Middle School**
500 Broadway
Bohemia, NY 11716

Test Report: Radon in Air Test Results

Samples for EMSL Kit 165561

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
283844	Hall A	0	4/12/2017 3:21:00 PM	4/17/2017 7:15:00 AM	76	30	Blank
381703841-0007							
Sample Notes: Radon device exposed >96 hours							
283914	Hall A	1.8	4/12/2017 3:21:00 PM	4/17/2017 7:15:00 AM	76	30	Customer
381703841-0008							
Sample Notes: Radon device exposed >96 hours							

Samples for EMSL Kit 165560

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
283739	Rm 0009	0.04	4/12/2017 3:22:00 PM	4/17/2017 7:17:00 AM	76	40	Blank
381703841-0009							
Sample Notes: Radon device exposed >96 hours							
283738	Rm 0009	1.7	4/12/2017 3:22:00 PM	4/17/2017 7:17:00 AM	76	40	Customer
381703841-0010							
Sample Notes: Radon device exposed >96 hours							

Samples for EMSL Kit 165567

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
283815	Rm 0010	0.4	4/12/2017 3:23:00 PM	4/17/2017 7:29:00 AM	72	70	Blank
381703841-0011							
Sample Notes: Radon device exposed >96 hours							
283817	Rm 0010	1.1	4/12/2017 3:23:00 PM	4/17/2017 7:29:00 AM	72	70	Customer
381703841-0012							
Sample Notes: Radon device exposed >96 hours							



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EMSL Order:	381703841
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CustomerPO:	17-36776
ProjectID:	

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

Phone: (631) 584-5492
Fax:
Received: 04/18/17 6:55 PM
Analysis Date: 4/19/2017
Collected: 4/12/2017

Project: **17-36776 / JFK Middle School**

Test Site: **JFK Middle School**
500 Broadway
Bohemia, NY 11716

Test Report: Radon in Air Test Results

Samples for EMSL Kit 165549

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
283826	Rm 0008	0.1	4/12/2017	4/17/2017	74	40	Blank
381703841-0013			3:24:00 PM	7:22:00 AM			
Sample Notes: Radon device exposed >96 hours							
283731	Rm 0008	4	4/12/2017	4/17/2017	74	40	Customer
381703841-0014			3:24:00 PM	7:22:00 AM			
Sample Notes: Radon device exposed >96 hours							

Samples for EMSL Kit 165559

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
283781	Rm 0012	0	4/12/2017	4/17/2017	70	45	Blank
381703841-0015			3:26:00 PM	7:21:00 AM			
Sample Notes: Radon device exposed >96 hours							
283870	Rm 0012	2.3	4/12/2017	4/17/2017	70	45	Customer
381703841-0016			3:26:00 PM	7:21:00 AM			
Sample Notes: Radon device exposed >96 hours							

Samples for EMSL Kit 165568

Liquid Scintillation ID	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
283800	Hall 0016	0.1	4/12/2017	4/17/2017	74	30	Blank
381703841-0017			3:28:00 PM	7:20:00 AM			
Sample Notes: Radon device exposed >96 hours							
283852	Hall 0016	1.7	4/12/2017	4/17/2017	74	30	Customer
381703841-0018			3:28:00 PM	7:20:00 AM			
Sample Notes: Radon device exposed >96 hours							

The radon test was performed using a liquid scintillation radon detector/s and counted on a liquid scintillation counter using approved EPA testing protocols for Radon in Air testing. The EPA recommends fixing your home if the average of two short-term tests taken in the lowest lived-in level of the home show radon levels that are equal to or greater than 4.0pCi/L.

The EPA recommends retesting your home every two years.

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

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

Report Note

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

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

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Attn: **Ed McGuire**
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Phone: (631) 584-5492
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Received: 04/18/17 6:55 PM
Analysis Date: 4/19/2017
Collected: 4/12/2017

Project: **17-36776 / JFK Middle School**

Test Site: **JFK Middle School**
500 Broadway
Bohemia, NY 11716

Test Report: Radon in Air Test Results

Analyst(s)

Racquel Hafiz (18)

Laura Freeman, Radon Laboratory Manager &
Peixue Ma, Ph.D, NJ Radon Measurement Specialist NJ MES
13502

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

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ Accreditations: NRSB ARL6006, NJ DEP 03036, MEB 92525, PA 2573, IN 00455, IA L00032, RI RAS-024, ME 20200C, NE RMB-1083, NY ELAP 10872, NM 885-10L, FL RB2034, OH RL-39, NRPP #106178AL, KS-LB-0005, IL RNL2008202.

Initial report from 04/24/2017 16:39:16

Please visit www.radontestinglab.com



EMSL ANALYTICAL, INC.

JC-BR50

5 Day

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

M# 2

EMSL Job #:

381703841

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077

PHONE: 800-220-3675
FAX: 856-786-0327

Company InformationCompany Name: J.C. BRODENICK & ASSOC. INC.

EMSL Account #:

Contact: ED MC GUIREAddress: 1775 EXPRESWAY DR. NCity: HempsteadState: NY Zip Code: 11788Phone: 631-584-5492Fax: 631-584-3395Email: EMCGUIRE@JCBRODENICK.COM**Project / Property Information:**Name: JFK MIDDLE SCHOOLAddress: 500 BroadwayCity: BETHPAGE, NY 11714 17 APR 2017Municipality: _____ County: NISSAU RECEIVED
EMSL ANALYTICAL INC.State: NY Zip Code: 11788 11 APR 2017PO#/Project #: 17-36776 APR 6 2017
 Please check box if this is a Post Mitigation TestTechnician Name: STEVEN NUGENT 6:55

Technician Certification #:

Technician Signature:

Disclaimer

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

Box Number	Device Number	Location	Exposure Period Beginning Date and Time	Exposure Period Ending Date and Time	Temperature, °F	Humidity, %
165557	283725 283839	Rm 0005	4/12/17 3:15	4/12/17 7:13	74	30
165558	283720; 283790 283727	Rm 0004	3:19	7:16	74	30
165564	283935 283844 283732	Rm 0006	3:20	7:28	76	40
165561	283914	HALL A	3:21	7:15	76	30
165560	283739 283738	Rm 0009	3:22	7:17	76	40
165567	283815 283817	Rm 0010	3:23	7:29	72	80 10
165549	283826 283731	Rm 0008	3:24	7:22	74	40
165559	283791 283870	Rm 0012	3:26	7:21	70	17 APR 2017
165568	283800 283852	HALL 0016	3:28	7:20	74	30

* all samples in red processed as liquids * ~~all samples in red processed as liquids~~ *

Relinquished By:

Received By:

4/17/17 09:00
4/17/17 9:03 AM

CHANGE DUE TO
CALIBRATION FACTOR
4/18/17