

**INDOOR AIR QUALITY SURVEY
OF**

**AUXILIARY SERVICES HIGH SCHOOL (X953) LEASE RENEWAL
BLOCK 5531, LOT 21
3450 EAST TREMONT AVENUE
BRONX, NEW YORK 10465**

**SCA PROJECT ID: 104998
SCA CONTRACT NO: C000013430
SCA SERVICE ID: X953-64802**

STV PROJECT NO.: 30-17079-0259

SEPTEMBER 1, 2016



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EXECUTIVE SUMMARY

At the request of the Industrial and Environmental Hygiene (IEH) Division of the New York City School Construction Authority (NYCSCA), STV Incorporated (STV) conducted an Indoor Air Quality (IAQ) Survey for the Auxiliary Services High School (X953), located at 3450 East Tremont Avenue, Bronx, New York 10465 (hereafter referred to as the “Site”). The legal description of the Site is Block 5531, Lot 21. The Site building is a three-story commercial office building with a basement constructed in 1925. The Site is defined as a portion of the ground floor (minus a separate commercial space and a covered parking area) and the second and third floors of the building. The Site is currently utilized as a public school facility and New York City Department of Education (NYCDOE) offices. The Site is located in an area that is primarily characterized by low-rise residential properties, commercial office buildings, the Cross Bronx-, Bruckner-, and Throgs Neck Expressways, and St. Raymond’s Cemetery.

The IAQ survey was performed to determine whether recognized environmental conditions (RECs) or vapor encroachment conditions (VECs) identified in STV’s Phase I Environmental Site Assessment (ESA) report (June 2016) have affected the indoor air quality in the Site building. The IAQ field activities were performed on July 30, 2016 and included a building inspection and chemical inventory for the sampled areas within the Site building, the collection and laboratory analysis of two (2) indoor air samples from the ground level of the building and an ambient air sample from roof of the building. The IAQ sampling was conducted in accordance with the New York State Department of Health (NYSDOH) Soil Vapor Intrusion Guidance Document, dated October 2006 and the NYCSCA approved scope of work, dated July 7, 2016.

The IAQ samples were analyzed for the following 26 volatile organic compounds (VOCs) utilizing United States Environmental Protection Agency (USEPA) Method TO-15: 1,1,1-trichloroethane (TCA), 1,1-dichloroethane, 1,1-dichloroethene, 1,2,4-trimethylbenzene, 1,2-dichlorobenzene, 1,2-dichloroethane, 1,2-dichloropropane, 1,3,5-trimethylbenzene, 1,3-dichlorobenzene, benzene, carbon tetrachloride, chlorobenzene, chloroethane, chloromethane, cis-1,2-dichloroethene, ethylbenzene, methyl tert-butyl ether (MTBE), methylene chloride, naphthalene, o-xylene, m&p-xylenes, tetrachloroethene (PCE), toluene, trans-1,2-dichloroethene, trichloroethene (TCE), and vinyl chloride. This suite of compounds is comprised of petroleum constituents, and chlorinated solvents and their breakdown products including those used at dry cleaners. Additionally, the IAQ samples were analyzed for formaldehyde by the National Institute of Safety and Health (NIOSH) Method 2016.

The results of the IAQ Survey indicate that, with the exception of naphthalene, no VOCs were detected in the indoor air samples at concentrations above the corresponding NYSDOH Air Guideline Values (AGVs). Naphthalene was detected in one indoor air sample at a concentration only slightly above the range of typical background levels presented in the NYSDOH Vapor Intrusion Guidance Document. PCE was detected at a concentration above the range of published background levels but below the AGV in the ambient air sample. The concentration of PCE in ambient air was attributable to a transient condition.

Based on the results of the IAQ Survey, STV concludes that the Site is suitable for continued use as a public school facility and NYCDOE offices. However, any asbestos-containing material (ACM), lead-based paint (LBP), and polychlorinated biphenyl (PCB)-containing materials affected by future renovations, repairs or demolition at the Site should be identified and properly managed during such activities. If the NYCSCA considers purchasing the property in the future, or if future development

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requires significant soil disturbance, a comprehensive Phase II Environmental Site Investigation should be conducted.

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1.0 INTRODUCTION

At the request of the Industrial and Environmental Hygiene (IEH) Division of the New York City School Construction Authority (NYCSCA), STV Incorporated (STV) conducted an Indoor Air Quality (IAQ) Survey for the Auxiliary Service High School, located at 3450 East Tremont Avenue, Bronx, New York 10465 (hereafter referred to as the “Site”). The legal description of the Site is Block 5531, Lot 21. The Site building is a three-story commercial office building with a basement constructed in 1925. The Site is defined as a portion of the ground floor (minus a separate commercial space and a covered parking area) and the second and third floors of the building. The Site is located in an area that is primarily characterized by low-rise residential properties, commercial office buildings, the Cross Bronx-, Bruckner-, and Throgs Neck Expressways, and St. Raymond’s Cemetery. The NYCSCA is considering renewing the lease to the Site for use as a public school facility.

A Site Location Map is provided in *Figure 1*. A Site Plan showing the Site and surrounding properties is provided in *Figure 2*.

2.0 DESCRIPTION OF IAQ FIELD ACTIVITIES

IAQ field activities were performed on July 30, 2016 in accordance with New York State Department of Health (NYSDOH) Soil Vapor Intrusion Guidance Document dated October 2006. The IAQ survey included the following:

- A pre-sampling building inspection and chemical inventory was performed and no odors or interfering conditions were noted;
- Collection and analysis of two (2) indoor air samples from the ground floor of the Site building; and
- Collection and analysis of one (1) ambient air sample from the roof.

The IAQ was conducted in accordance with STV's Indoor Air Quality Survey Scope of Work (SOW) dated July 7, 2016 and indoor air sampling procedures described in the NYSDOH guidance. The weather on the day of sample collection was cloudy with an average temperature of approximately 78 degrees Fahrenheit. *Figure 3* provides the sampling locations. The scope of the field activities and methods are described in the following sections.

2.1 Building Inspection and Chemical Inventory

On July 30, 2016, STV completed a pre-sampling chemical inventory of the indoor air sample locations and adjacent spaces to determine if any materials with the potential to affect the indoor air quality were present (i.e., equipment, cleaning supplies, etc.). The inventory identified sealing solution, hand sanitizer, and hand soap. A copy of the pre-sampling inventory is provided as *Appendix A*.

During the inspection, a ppbRAE™ 3000 photo-ionization detector (PID) capable of detecting volatile organic compounds (VOCs) in the parts per billion (ppb) range was used to screen indoor air for the presence of organic vapors. PID readings were at zero ppb during the inventory screening. No chemical odors were detected during the chemical inventory.

The basement floor was not accessible for inspection of cracks and/or other preferential pathways for soil vapor intrusion such as sumps. The Site is defined as only a portion of the ground floor and the second and third floors of the building.

2.2 Indoor and Ambient Air Sampling

The indoor air sampling program was performed on July 30, 2016 in conformance with the applicable procedures described in the NYSDOH Soil Vapor Intrusion Guidance Document. A total of two (2) indoor air quality samples and one (1) ambient air quality sample were collected from the Site. One indoor air quality sample was collected in the ground floor level Home Instruction Conference Room (sample ID: H.I. Conference Rm) and the other indoor air quality sample was collected in the ground floor level Institutional Staff Area (sample ID: Institutional Staff). The ambient air quality sample was collected on the roof of the school building (sample ID: Roof). The indoor and ambient sampling locations are shown on *Figure 3*.

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The two (2) indoor air quality samples and one (1) ambient air quality sample were collected using individually certified-clean, 6-liter capacity Summa® canisters, equipped with laboratory calibrated flow controllers. The samples were collected over an eight-hour time period [at 0.0125 liters per minute (L/min) flow rate]. The indoor air samples were collected at a height of approximately 3-5 feet above the floor surface to simulate a typical breathing zone. Immediately after opening each Summa® canister, the initial vacuum (inches of mercury) was noted at all the locations as shown on *Table 1*. After eight hours, final vacuum readings (inches of mercury) were noted and the Summa® canisters were closed. During sampling, there were no activities being performed which would interfere with the IAQ sampling.

**Table 1
 Summary of IAQ Sampling Field Data**

Sample ID	Vacuum at Start (inches Hg)	Vacuum at Completion (inches Hg)
H.I. Conference Rm	30+	9
Institutional Staff	30	9
Roof	30+	4

The IAQ samples were analyzed for the following 26 VOCs utilizing United States Environmental Protection Agency (USEPA) Method TO-15: 1,1,1-trichloroethane (TCA), 1,1-dichloroethane, 1,1-dichloroethene, 1,2,4-trimethylbenzene, 1,2-dichlorobenzene, 1,2-dichloroethane, 1,2-dichloropropane, 1,3,5-trimethylbenzene, 1,3-dichlorobenzene, benzene, carbon tetrachloride, chlorobenzene, chloroethane, chloromethane, cis-1,2-dichloroethene, ethylbenzene, methyl tert-butyl ether (MTBE), methylene chloride, naphthalene, o-xylene, m&p-xylenes, tetrachloroethene (PCE), toluene, trans-1,2-dichloroethene, trichloroethene (TCE), and vinyl chloride. The attached *Table 2* summarizes the rationale for selecting this list of compounds.

The air samples were collected for approximately eight (8) hours, to obtain a sufficient sample volume to utilize the USEPA Method TO-15 with a detection limit of approximately 1.0 microgram per cubic meter ($\mu\text{g}/\text{m}^3$). In accordance with the NYSDOH Vapor Intrusion Guidance Document, a detection limit of less than $0.25 \mu\text{g}/\text{m}^3$ was achieved for vinyl chloride, TCE, and carbon tetrachloride.

The Summa® canisters were properly labeled and transported via courier to York Analytical Laboratories (York) of Stratford, Connecticut for analysis of the 26 VOCs listed in *Table 2*. York is a NYSDOH Environmental Laboratory Approval Program (ELAP) certified analytical laboratory for air quality sample analyses by USEPA Method TO-15 (ELAP # NY10854). A summary of the analytical results is provided in *Table 3*, the analytical laboratory report is attached in *Appendix B*, and copy of the labs current ELAP certification is provided in *Appendix C*.

Additionally, the IAQ samples were analyzed for formaldehyde by the National Institute of Safety and Health (NIOSH) Method 2016. Formaldehyde samples were collected by placing a sorbent tube in line with soil vapor tubing and drawing the indoor and ambient outdoor air through the sorbent material (silica gel coated with 2,4-dinitrophenylhydrazine) using a low-flow sample pump.

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The NIOSH Method 2016 was utilized to achieve a detection limit of approximately 3.0 $\mu\text{g}/\text{m}^3$ (for a 30 liter sample). The formaldehyde samples were each collected for approximately 2.5 hours to obtain the required sample volume (150 minutes at 0.2 L/minute pump flow rate). The formaldehyde samples were properly labeled and shipped via FedEx priority overnight delivery to SGS Galson Laboratories (Galson) of Syracuse, New York. Galson is accredited by the American Industrial Hygiene Association (AIHA) Laboratory Accreditation Program (AIHA-LAP #100324). A summary of the analytical results is provided in *Table 4*, the analytical laboratory report is attached in *Appendix B*, and copy of the labs current AIHA certification is provided in *Appendix C*.

3.0 DISCUSSION OF FINDINGS

This section presents a discussion of the findings of the IAQ survey. Summaries of the laboratory results are presented in *Tables 3 and 4* at the end of this report. The complete laboratory analytical data report is included in *Appendix B*.

3.1 Applicable Regulatory Standards

This subsection identifies the Health Effects Institute (HEI), USEPA, and/or NYSDOH regulatory standards and guidelines used to evaluate the air quality analytical results.

3.1.1 *Indoor Air Sampling Guidelines*

Analytical results for the indoor air samples were compared to the NYSDOH Air Guideline Values (AGVs) and to background levels of VOCs in indoor air presented in the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006 (“NYSDOH Vapor Intrusion Guidance Document”), including Upper Fence Limit indoor air values from “Table C-1, NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes”, 90th Percentile indoor air values from “Table C-2, EPA 2001: Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method”; the 95th Percentile Indoor Air Values from “Table C-5, HEI 2005: Relationship of Indoor, Outdoor and Personal Air (RIOPA) published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C” (October 2006). Tetrachloroethene (PCE) levels were compared to the AGV presented in the NYSDOH Fact Sheet on Tetrachloroethene in Indoor and Outdoor Air, dated September 2013 (see <https://www.health.ny.gov/environmental/chemicals/tetrachloroethene/docs/perc.pdf>). Trichloroethene (TCE) levels were compared to the AGV presented in the NYSDOH Fact Sheet on Trichloroethene in Indoor and Outdoor Air, dated August 2015 (see https://www.health.ny.gov/environmental/investigations/soil_gas/svi_guidance/docs/fs_tce.pdf). Formaldehyde levels were compared to the concentration specified by the US Green Building Council for LEED Indoor Air Quality credit (33 µg/m³).

In addition, the results of the analyses of the indoor air samples were also compared to the Decision Matrices in the NYSDOH Vapor Intrusion Guidance Document for PCE.

3.1.2 *Ambient Air Sampling Guidelines*

Analytical results for the ambient air sample were compared to the NYSDOH AGVs and to background levels of VOCs in outdoor air presented in the NYSDOH Vapor Intrusion Guidance Document, including Upper Fence Limit outdoor air values from “Table C-1, NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes”; 90th Percentile outdoor air values from “Table C-2, EPA 2001: Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method”; and the 95th Percentile Outdoor Air Values from “Table C-5, HEI 2005: Relationship of Indoor, Outdoor and Personal Air (RIOPA) published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C” (October 2006). PCE levels were compared to the AGV presented in the NYSDOH Fact Sheet on Tetrachloroethene in Indoor and Outdoor Air, dated September 2013 (see <https://www.health.ny.gov/environmental/chemicals/tetrachloroethene/docs/perc.pdf>). Trichloroethene (TCE) levels were compared to the AGV presented in the NYSDOH Fact Sheet on Trichloroethene in

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Indoor and Outdoor Air, dated August 2015 (see https://www.health.ny.gov/environmental/investigations/soil_gas/svi_guidance/docs/fs_tce.pdf). In addition, the results were compared to the maximum values recorded in 2015 at the NYSDEC Ambient Air Monitoring Station at Pfizer Lab which is located approximately four (4) miles northwest of the Site at the New York Botanical Garden. Formaldehyde levels were compared to the concentration specified by the US Green Building Council for LEED Indoor Air Quality credit.

3.2 Indoor Air Sampling Findings

A review of the analytical results indicates that 6 of the 26 VOCs analyzed by USEPA Method TO-15 for the parameters listed in *Table 2* were detected at or above the laboratory method reporting limit in one or both of the indoor air samples. These compounds include benzene, chloromethane, methylene chloride, naphthalene, PCE and toluene. With the exception of naphthalene, none of these VOCs were detected in either of the samples at concentrations above the corresponding NYSDOH AGVs or above the range of anticipated background levels.

The sample results for PCE were compared to Matrix 2 of the NYSDOH Vapor Intrusion Guidance Document. The concentrations of PCE in the indoor air samples ranged from non-detect ($<0.73 \mu\text{g}/\text{m}^3$) to $2.3 \mu\text{g}/\text{m}^3$. Based on Matrix 2, no further action is required.

Naphthalene was detected in one indoor air sample (sample ID: H.I. Conference Rm) at a concentration ($7.0 \mu\text{g}/\text{m}^3$) only slightly above the range of typical background levels presented in the NYSDOH Vapor Intrusion Guidance Document.

Formaldehyde was detected in both indoor air samples at $0.007 \mu\text{g}/\text{m}^3$ which is below the US Green Building Council for LEED Indoor Air Quality credit of $0.027 \mu\text{g}/\text{m}^3$.

A summary of the analytical results for VOCs and formaldehyde is presented in *Tables 3* and *4*, respectively. The complete analytical data report is presented in *Appendix B*.

3.3 Ambient Air Sampling Findings

A review of the ambient air sample analytical results indicates that 5 of the 26 VOCs analyzed utilizing USEPA Method TO-15 for the parameters listed in *Table 2* were detected at or above the laboratory method reporting limit. These compounds include benzene, chloromethane, methylene chloride, PCE and toluene. PCE was detected at a concentration above the range of anticipated background levels but below the AGV. An adjacent dry cleaning facility (located approximately 126 feet east-southeast of the Site at 3468 East Tremont Avenue) was not operational during the sampling event and therefore this result can be considered to be attributable to a transient condition. None of the other VOCs were detected at concentrations above their corresponding AGVs or above the range of anticipated background levels.

Formaldehyde was not detected above the laboratory method reporting limit in the ambient air sample.

A summary of the analytical results for VOCs and formaldehyde in the ambient air sample is presented in *Tables 3* and *4*, respectively. The complete analytical data report is presented in *Appendix B*.

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3.4 Summary of Findings

STV performed an IAQ survey consisting of a building inspection and chemical inventory and the collection and laboratory analysis of two (2) indoor air samples and one (1) ambient air sample. The results of the IAQ Survey indicate that, with the exception of naphthalene, no VOCs were detected in the indoor air samples at concentrations above the corresponding NYSDOH AGVs. Naphthalene was detected in one indoor air sample at a concentration only slightly above the range of typical background levels presented in the NYSDOH Vapor Intrusion Guidance Document. PCE was detected at a concentration above the range of published background levels but below the AGV in the ambient air sample. The concentration of PCE in ambient air was attributable to a transient condition. Additionally, formaldehyde was not detected in any of the samples at concentrations exceeding the concentration specified by the US Green Building Council for LEED Indoor Air Quality credit.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the IAQ Survey, STV concludes that the Site is suitable for continued use as a public school facility and NYCDOE offices. However, any ACM, LBP, and PCB-containing materials affected by future renovations, repairs or demolition at the Site should be identified and properly managed during such activities. If the NYCSCA considers purchasing the property in the future, or if future development requires significant soil disturbance, a comprehensive Phase II Environmental Site Investigation should be conducted.

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5.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

STV has performed an Indoor Air Quality Survey for Auxiliary Service High School (X953), located at 3450 East Tremont Avenue, Bronx, New York 10465. The scope of the IAQ Survey was consistent with the NYSDOH Vapor Intrusion Guidance Document and the NYCSCA approved Scope of Work as stated in Section 2.0.

STV, INC.



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6.0 REFERENCES

Bureau of Toxic Substance Assessment, New York State Department of Health, *Tetrachloroethene (PERC) In Indoor and Outdoor Air September 2013 Fact Sheet*.

Bureau of Toxic Substance Assessment, New York State Department of Health, *Trichloroethene (TCE) In Indoor and Outdoor Air August 2015 Fact Sheet*.

American Society for Testing and Materials (ASTM), E 2600-10, Standard Practice for Assessment of Vapor Intrusion into Structures on Property Involved in Real Estate Transactions, West Conshohocken, PA, December 2010.

NIOSH Manual of Analytical Methods (NMAM), Fourth Edition, Formaldehyde: Method 2016, Issue 2, dated March 15, 2003.

New York State Department of Health, Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006.

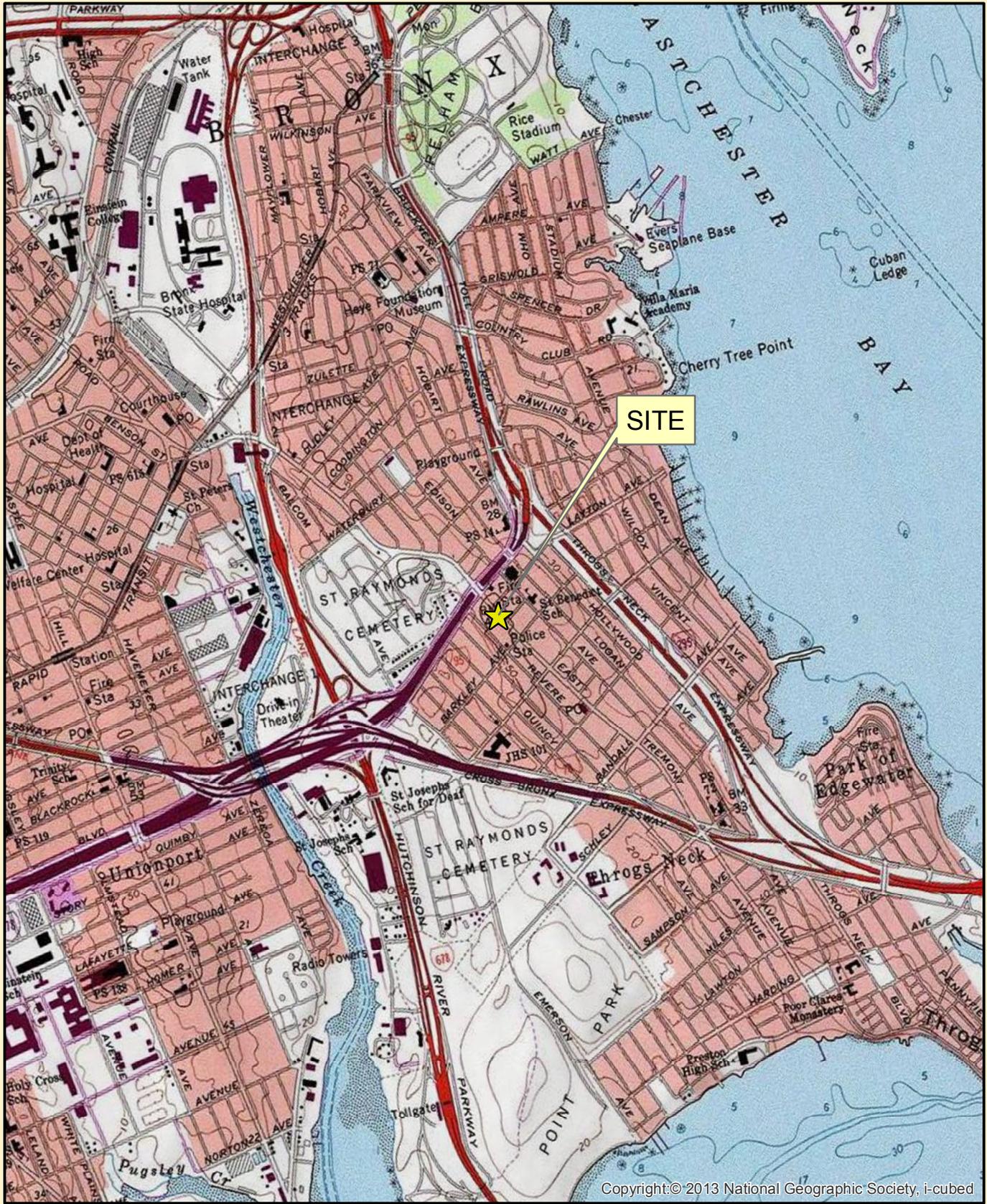
New York State Department of Health, Indoor Air Sampling & Analysis Guidance, dated February 1, 2005.

STV Incorporated, *Phase I Environmental Site Assessment (Lease Renewal), Auxiliary Services High School (X953), 3450 East Tremont Avenue, Bronx, NY 10465, Tax Block 5531, Lot 21, LLW#: 104998; Service ID: 64570, dated June 24, 2016*.

STV Incorporated, *Proposal/Scope of Work for Indoor Air Quality (IAQ) Investigation at Auxiliary Service High School (X953), 3450 East Tremont Avenue, Block 5531, Lot 21, Bronx, New York 10465, dated July 7, 2016*.

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FIGURES



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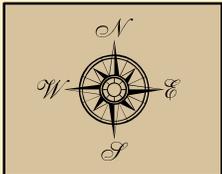


Figure 1
Site Location Map

Auxiliary Services H.S.
(X953)
3450 East Tremont Avenue
Bronx, NY 10465
Block 5531, Lot 21

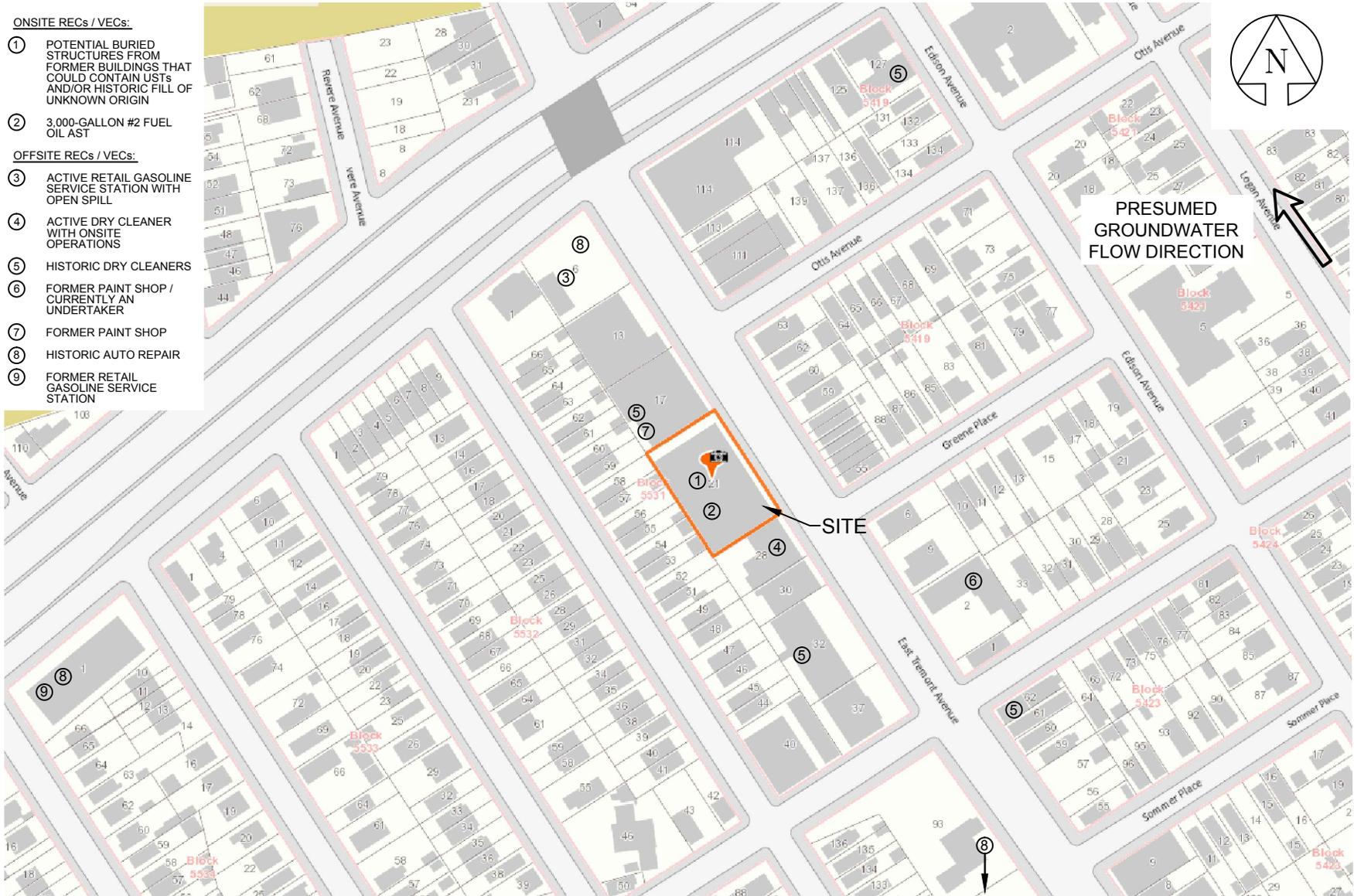
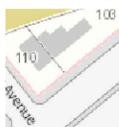
0 500 1,000 2,000 3,000 4,000
 Feet

SCALE 1:24,000
 USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES

Prepared by: STV Inc.
 Prepared for: NYC School Construction Authority IEH

ONSITE RECs / VECs:

- ① POTENTIAL BURIED STRUCTURES FROM FORMER BUILDINGS THAT COULD CONTAIN USTs AND/OR HISTORIC FILL OF UNKNOWN ORIGIN
 - ② 3,000-GALLON #2 FUEL OIL AST
- OFFSITE RECs / VECs:**
- ③ ACTIVE RETAIL GASOLINE SERVICE STATION WITH OPEN SPILL
 - ④ ACTIVE DRY CLEANER WITH ONSITE OPERATIONS
 - ⑤ HISTORIC DRY CLEANERS
 - ⑥ FORMER PAINT SHOP / CURRENTLY AN UNDERTAKER
 - ⑦ FORMER PAINT SHOP
 - ⑧ HISTORIC AUTO REPAIR
 - ⑨ FORMER RETAIL GASOLINE SERVICE STATION



1" = 100'
 APPROX. SCALE

SOURCE: OASIS MAP



225 PARK AVENUE SOUTH, N.Y., N.Y. 10003

AUXILIARY SERVICES H.S. (X953)
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SCHOOL CONSTRUCTION AUTHORITY

**FIGURE 2
 SITE PLAN**

DATE:	AUGUST 2016
SCALE:	AS SHOWN
SHEET NO.:	1 OF 1

163'-6"

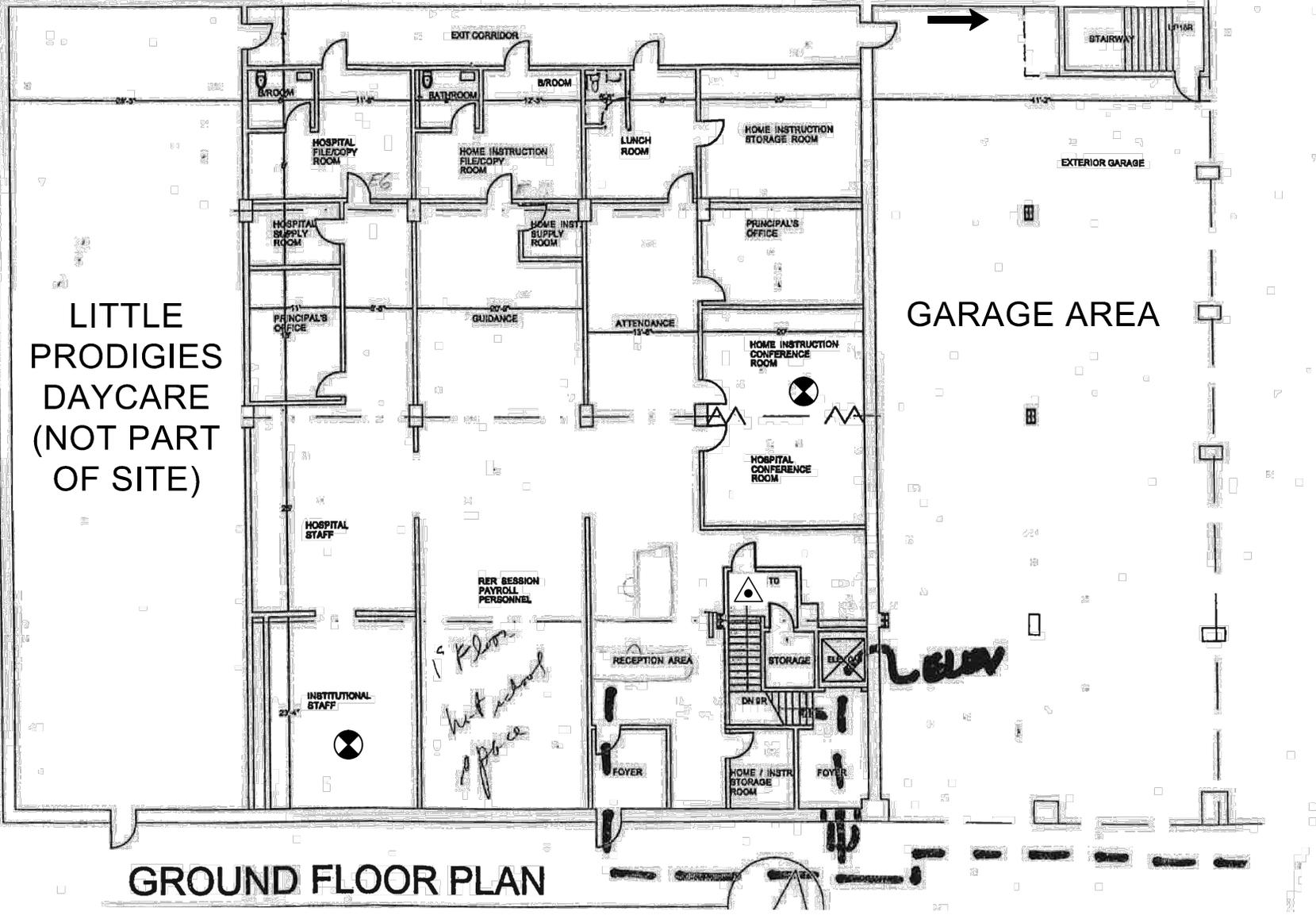
PRESUMED
GROUNDWATER FLOW
DIRECTION



100'

LITTLE
PRODIGIES
DAYCARE
(NOT PART
OF SITE)

GARAGE AREA



GROUND FLOOR PLAN

LEGEND:

 IAQ AIR SAMPLE LOCATION

 AMBIENT AIR SAMPLE ON ROOF



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SCHOOL CONSTRUCTION AUTHORITY
FIGURE 3
INDOOR AND AMBIENT AIR QUALITY SAMPLE
LOCATIONS

DATE:
AUGUST 2016

SCALE:
NOT TO SCALE

SHEET NO:
1 OF 1

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TABLES

Table 2
List of Analyzed Volatile Organic Compounds
plus Formaldehyde

	Compound	Rationale for Including in Parameter Suite
1	Benzene	Petroleum constituent
2	Carbon Tetrachloride	Historically used at dry cleaners
3	Chlorobenzene	Petroleum constituent
4	Chloroethane	Breakdown product of 1,1,1 TCA
5	Chloromethane	Breakdown product of carbon tetrachloride
6	1,2 Dichlorobenzene	Petroleum constituent
7	1,3 Dichlorobenzene	Petroleum constituent
8	1,1-Dichloroethane	Breakdown product of 1,1,1 TCA
9	1,2-Dichloroethane	Breakdown product of PCE and TCE
10	1,1-Dichloroethene	Breakdown product of PCE and TCE
11	Cis-1,2-Dichloroethene	Breakdown product of PCE and TCE
12	trans-1,2-Dichloroethene	Breakdown product of PCE and TCE
13	1,2-Dichloropropane	Unleaded gasoline additive
14	Ethylbenzene	Petroleum constituent
15	Methyl tert-butyl Ether (MTBE)	Gasoline additive
16	Methylene Chloride	Breakdown product of carbon tetrachloride, paint stripper and cleaning component
17	Naphthalene	Petroleum constituent
18	Tetrachloroethene (PCE)	Dry cleaning solvent
19	Toluene	Petroleum constituent
20	1,1,1 – Trichloroethane	Common degreasing solvent
21	Trichloroethene (TCE)	Breakdown product of PCE; Solvent
22	1,2,4-Trimethylbenzene	Petroleum constituent
23	1,3,5- Trimethylbenzene	Petroleum constituent
24	Vinyl Chloride	Breakdown product of PCE & TCE, used in PVC
25	m&p-Xylenes	Petroleum constituent
26	o-Xylene	Petroleum constituent
27	Formaldehyde	Embalming fluid

Table 3

**Summary of Indoor Air and Ambient Air Sampling Results
Volatile Organic Compounds
Auxiliary Service High School (X953)
3450 East Tremont Avenue
Bronx, New York 10465**

Sample ID	H.I. Conference Rm		Institutional Staff		Roof (Ambient)		NYSDOH AGV	NYSDOH Fuel Oil 2003 Upper Fence Limit ⁽¹⁾		USEPA BASE Data 90th Percentile ⁽¹⁾		HEI RIOPA 2005 95th Percentile Value ⁽¹⁾		NYSDEC Ambient Air Monitoring Station - Maximum Concentration ⁽²⁾
	Sample Date	7/30/16		7/30/16		7/30/16		Outdoor	Indoor	Outdoor	Indoor	Outdoor	Indoor	
COMPOUND	µg/m ³	Q	µg/m ³	Q	µg/m ³	Q	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³
1,1,1-Trichloroethane	<0.68		<0.58		<0.69		--	0.6	2.5	2.6	20.6	--	--	--
1,1-Dichloroethane	<0.50		<0.43		<0.51		--	--	0.4	<0.6	<0.7	--	--	0.008
1,1-Dichloroethene	<0.49		<0.42		<0.50		--	0.4	0.4	<1.4	<1.4	--	--	--
1,2,4-Trimethylbenzene	<0.61		<0.53		<0.62		--	1.9	9.8	5.8	9.5	--	--	0.143
1,2-Dichlorobenzene	<0.75		<0.64		<0.76		--	0.4	0.5	<1.2	<1.2	--	--	0.022
1,2-Dichloroethane	<0.50		<0.43		<0.51		--	0.4	0.5	<0.8	<0.9	--	--	--
1,2-Dichloropropane	<0.57		<0.49		<0.59		--	0.4	0.4	<1.6	<1.6	--	--	0.01
1,3,5-Trimethylbenzene	<0.61		<0.53		<0.62		--	0.7	3.9	2.7	3.7	--	--	0.043
1,3-Dichlorobenzene	<0.75		<0.64		<0.76		--	0.4	0.5	<2.2	<2.4	--	--	0.018
Benzene	0.40	D	0.34	D	0.45	D	--	4.8	13	6.6	9.4	5.16	10	0.675
Carbon tetrachloride	<0.20		<0.17		<0.20		--	1.2	1.3	0.7	<1.3	1.0	1.1	0.095
Chlorobenzene	<0.57		<0.49		<0.58		--	--	0.4	<0.8	<0.9	--	--	0.02
Chloroethane	<0.33		<0.28		<0.33		--	0.4	0.4	<1.2	<1.1	--	--	0.011
Chloromethane	1.5	D	1.2	D	1.2	D	--	4.3	4.2	3.7	3.7	--	--	0.632
cis-1,2-Dichloroethene	<0.49		<0.42		<0.50		--	0.4	0.4	<1.8	<1.9	--	--	0.005
Ethylbenzene	<0.54		<0.47		<0.55		--	1.0	6.4	3.5	5.7	3.04	7.62	0.114
m,p- Xylenes	<1.1		<0.93		<1.1		--	1.0	11	12.8	22.2	10	22.2	0.456
Methylene chloride	2.9	D	1.9	D	1.5	D	60	1.6	16	6.1	10	2.46	7.5	--
Methyl-tert-butyl-ether (MTBE)	<0.45		<0.39		<0.46		--	--	14	6.2	11.5	22.1	36	0.008
Naphthalene	7.0	D	<1.1		<1.3		--	--	--	4.9	5.1	--	--	--
o-Xylene	<0.54		<0.47		<0.55		--	1.2	7.1	4.6	7.9	3.23	7.24	0.175
Tetrachloroethene (PCE)	2.3	D	<0.73		12	D	30	0.7	2.5	6.5	15.9	3.17	6.01	--
Toluene	2.0	D	0.97	D	1.7	D	--	5.1	57	33.7	43.0	19.6	39.8	0.782
trans-1,2-Dichloroethene	<0.49		<0.42		<0.50		--	--	--	--	--	--	--	--
Trichloroethene (TCE)	<0.17		<0.14		<0.17		2	0.4	0.5	1.3	4.2	0.79	1.36	--
Vinyl Chloride	<0.079		<0.068		<0.081		--	0.4	0.4	<1.8	<1.9	--	--	0.013

NOTES:

µg/m³ = micrograms per cubic meter

< - Less than reporting limit

-- = Not Available

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

Bold and Shaded - Analyte concentration exceeds maximum background concentrations and AGVs, if applicable.**Bold - Indicates the analyte concentration exceeds maximum background concentrations of all criteria levels.**(1) Indoor and Outdoor Limits (µg/m³) - As per Appendix C of the Final NYSDOH Guidance document.(2) Maximum Concentration (µg/m³) - As per NYSDEC Botanical Gardens Ambient Air Quality Monitoring Site (Site No. 7094-06 and 7094-10) Annual VOC Data (2015).

AGV - Air Guideline Value

BASE - Building Assessment and Survey Evaluation

HEI RIOPA - Health Effect Institute: Relationship of Indoor, Outdoor and Personal Air

Table 4

Summary of Indoor and Ambient Air Formaldehyde Results
 Auxiliary Service High School (X953)
 3450 East Tremont Avenue
 Bronx, New York 10465

Sample ID	1F (H.I. Conference Room)	2F (Institutional Staff)	3F (Ambient)	US Green Building Council for LEED Indoor Air Quality	NYSDEC Ambient Air Monitoring Station - Maximum Concentration ⁽¹⁾
Sample Date	7/30/16	7/30/16	7/30/16	Indoor	Outdoor
COMPOUND	ppm	ppm	ppm	ppm	ppm
Formaldehyde	0.007	0.007	<0.002	0.027	0.0067

NOTES:

ppm = parts per million

< - Less than reporting limit

(1) Maximum Concentration (µg/m³) - As per NYSDEC Botanical Gardens Ambient Air Quality Monitoring Site (Site No. 7094-06 and 7094-10) Annual VOC Data (2015).

Bold - Indicates the analyte concentration exceeds maximum background concentration levels.

**INDOOR AIR QUALITY SURVEY
AUXILIARY SERVICES HIGH SCHOOL (X953)
3450 EAST TREMONT AVENUE
BRONX, NEW YORK 10465**

**APPENDIX A
BUILDING INSPECTION, CHEMICAL INVENTORY,
& PHOTO LOG**

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

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

Preparer's Name Andrew Au Date/Time Prepared 8/9/16
Preparer's Affiliation STV Inc. Phone No. 347-880-5082
Purpose of Investigation IAQ Survey

1. OCCUPANT:

Interviewed: Y / N

Last Name: Welsh First Name: Tom

Address: Auxiliary Service HS: 3450 E. Tremont Ave, Bronx, NY

County: Bronx

Home Phone: N/A Office Phone: 201-463-0363

Number of Occupants/persons at this location N/A Age of Occupants High School / office space

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

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential
Industrial

School
Church

Commercial/Multi-use
Other: _____

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

- | | | |
|--------------|-----------------|-------------------|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other: _____ |

If multiple units, how many? N/A

If the property is commercial, type?

Business Type(s) school / office space

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

Other characteristics:

Number of floors 3 + basement Building age constructed in 1925

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight
Brick / sheetrock

4. AIRFLOW

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

Airflow between floors
stairwells / elevator

Airflow near source
N/A

Outdoor air infiltration
N/A

Infiltration into air ducts
N/A

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

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

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

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

N/A

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

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

- Hot air circulation Heat pump Hot water baseboard
- Space Heaters Stream radiation Radiant floor
- Electric baseboard Wood stove Outdoor wood boiler Other HVAC

The primary type of fuel used is:

- Natural Gas Fuel Oil Kerosene
- Electric Propane Solar
- Wood Coal

Domestic hot water tank fueled by: N/A

Boiler/furnace located in: Basement Outdoors Main Floor Other None

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y N

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

N/A

7. OCCUPANCY

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

Level General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement	<u>storage</u>
1 st Floor	<u>office</u>
2 nd Floor	<u>office / school</u>
3 rd Floor	<u>office / school</u>
4 th Floor	<u>None</u>

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

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

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

l. Have air fresheners been used recently? Y / N When & Type? _____

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? Exterminators
Monthly

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

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

If yes, what types of solvents are used? _____

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

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

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

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

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: N/A

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

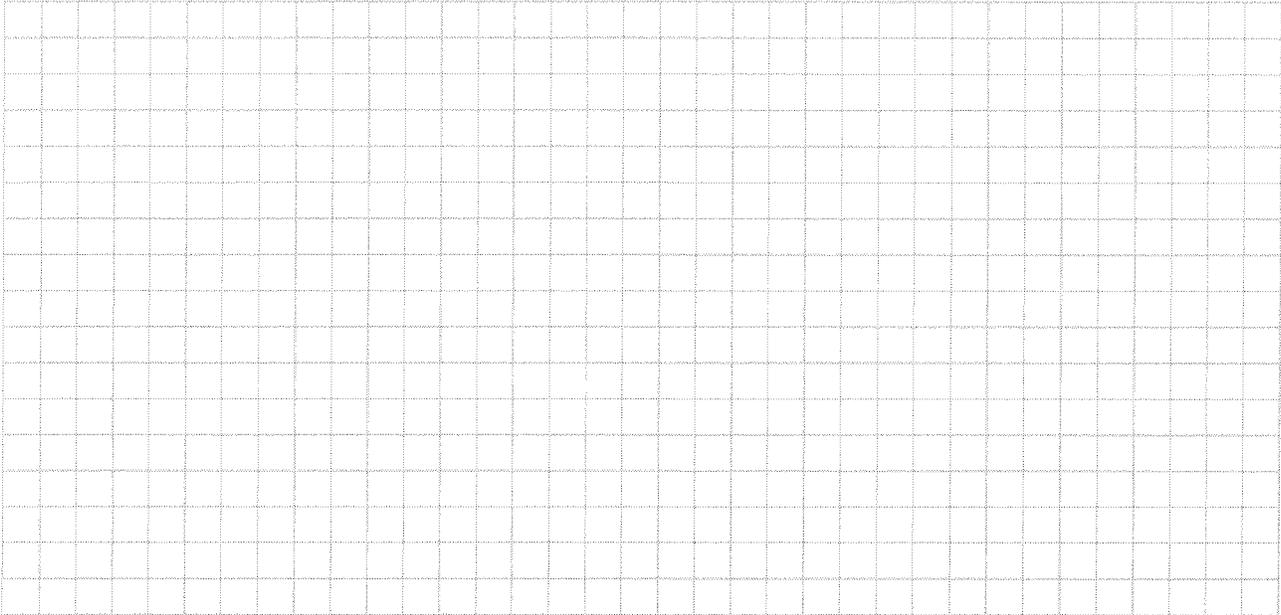
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

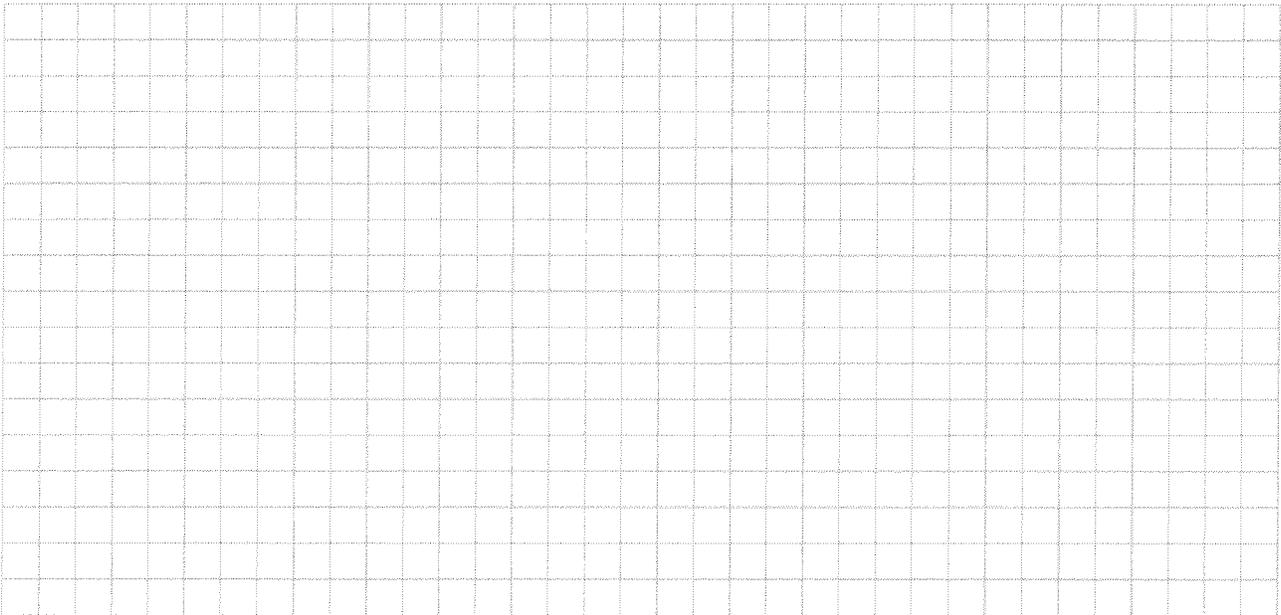
11. FLOOR PLANS

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

Basement: N/A



First Floor: see figures



12. OUTDOOR PLOT

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

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

See Appendices

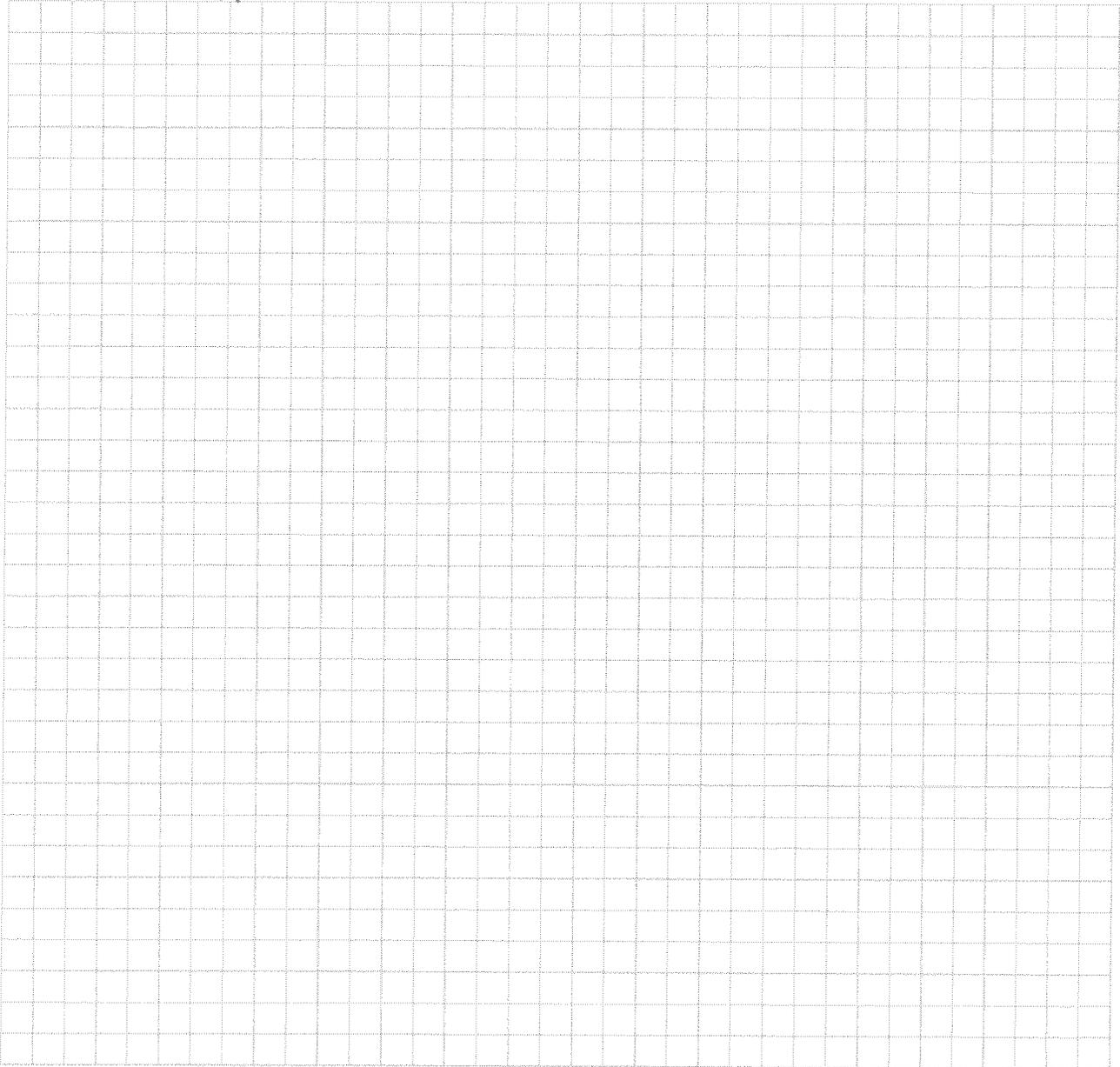


PHOTO LOG

SITE: 3450 East Tremont Avenue
PROJECT #: 3017079-0259

DATE OF PHOTOS: July 30, 2016
PHOTOGRAPHER: Andrew Au

PHOTO 1: View of building exterior (facing southwest).



PHOTO 2: View of the Summa canister at the 'H.I. Conference Rm' sample location.



PHOTO LOG

SITE: 3450 East Tremont Avenue
PROJECT #: 3017079-0259

DATE OF PHOTOS: July 30, 2016
PHOTOGRAPHER: Andrew Au

PHOTO 3: View of the Summa canister at the 'Institutional Staff' sample location.



PHOTO 4: View of the Summa canister and formaldehyde sorbent tube and sample pump at the 'H.I. Conference Rm' sample location.



PHOTO LOG

SITE: 3450 East Tremont Avenue
PROJECT #: 3017079-0259

DATE OF PHOTOS: July 30, 2016
PHOTOGRAPHER: Andrew Au

PHOTO 5: View of the Summa canister at the 'Roof' ambient sample location.



PHOTO 6: View sealing solution and hand sanitizer in the 'Document and Mail Center' room.



**INDOOR AIR QUALITY SURVEY
AUXILIARY SERVICES HIGH SCHOOL (X953)
3450 EAST TREMONT AVENUE
BRONX, NEW YORK 10465**

**APPENDIX B
LABORATORY ANALYTICAL DATA REPORTS**



Technical Report

prepared for:

STV Incorporated
225 Park Avenue South
New York NY, 10003
Attention: Andrew Au

Report Date: 08/04/2016
Client Project ID: X953 3017079-0259
York Project (SDG) No.: 16G0760

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Report Date: 08/04/2016
Client Project ID: X953 3017079-0259
York Project (SDG) No.: 16G0760

STV Incorporated
225 Park Avenue South
New York NY, 10003
Attention: Andrew Au

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 July 20, 2016 and listed below. The project was identified as your project: **X953 3017079-0259**.

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>
16G0760-01	16G0760-01	Air	07/20/2016	07/20/2016
16G0760-02	16G0760-02	Air	07/20/2016	07/20/2016
16G0760-03	16G0760-03	Air	07/20/2016	07/20/2016
16H0073-01	H.I. Conference Rm	Indoor Ambient Air	07/30/2016	08/02/2016
16H0073-02	Institutional Staff	Indoor Ambient Air	07/30/2016	08/02/2016
16H0073-03	Roof	Outdoor Ambient Ai	07/30/2016	08/02/2016

General Notes for York Project (SDG) No.: 16G0760

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.

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 08/04/2016





Sample Information

Client Sample ID: 16G0760-01

York Sample ID: 16G0760-01

<u>York Project (SDG) No.</u> 16G0760	<u>Client Project ID</u> X953 3017079-0259	<u>Matrix</u> Air	<u>Collection Date/Time</u> July 20, 2016 3:00 pm	<u>Date Received</u> 07/20/2016
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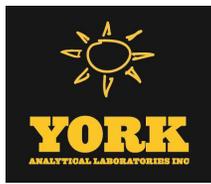
Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	0.74	0.74	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.70	0.70	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	0.66	0.66	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	0.72	0.72	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
78-93-3	2-Butanone	ND		ug/m ³	0.29	0.29	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	0.82	0.82	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
67-64-1	Acetone	ND		ug/m ³	0.48	0.48	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
71-43-2	Benzene	ND		ug/m ³	0.32	0.32	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS



Sample Information

Client Sample ID: 16G0760-01

York Sample ID: 16G0760-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16G0760

X953 3017079-0259

Air

July 20, 2016 3:00 pm

07/20/2016

Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-44-7	Benzyl chloride	ND		ug/m ³	0.52	0.52	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	0.67	0.67	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
75-25-2	Bromoform	ND		ug/m ³	1.0	1.0	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
74-83-9	Bromomethane	ND		ug/m ³	0.39	0.39	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
75-15-0	Carbon disulfide	ND		ug/m ³	0.31	0.31	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.16	0.16	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
75-00-3	Chloroethane	ND		ug/m ³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
67-66-3	Chloroform	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
74-87-3	Chloromethane	ND		ug/m ³	0.21	0.21	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
110-82-7	Cyclohexane	ND		ug/m ³	0.34	0.34	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	0.85	0.85	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	0.72	0.72	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
100-41-4	Ethyl Benzene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.1	1.1	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
67-63-0	Isopropanol	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.36	0.36	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
75-09-2	Methylene chloride	ND		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
142-82-5	n-Heptane	ND		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
110-54-3	n-Hexane	ND		ug/m ³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
95-47-6	o-Xylene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS



Sample Information

Client Sample ID: 16G0760-01

York Sample ID: 16G0760-01

<u>York Project (SDG) No.</u> 16G0760	<u>Client Project ID</u> X953 3017079-0259	<u>Matrix</u> Air	<u>Collection Date/Time</u> July 20, 2016 3:00 pm	<u>Date Received</u> 07/20/2016
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Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	ND		ug/m ³	0.87	0.87	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications:	07/21/2016 13:13	07/21/2016 16:03	LDS
115-07-1	* Propylene	ND		ug/m ³	0.17	0.17	1	EPA TO-15 Certifications:	07/21/2016 13:13	07/21/2016 16:03	LDS
100-42-5	Styrene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
127-18-4	Tetrachloroethylene	ND		ug/m ³	0.17	0.17	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.59	0.59	1	EPA TO-15 Certifications:	07/21/2016 13:13	07/21/2016 16:03	LDS
108-88-3	Toluene	ND		ug/m ³	0.38	0.38	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
79-01-6	Trichloroethylene	ND		ug/m ³	0.13	0.13	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	0.56	0.56	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:03	LDS
Surrogate Recoveries		Result	Acceptance Range								
460-00-4	Surrogate: p-Bromofluorobenzene	101 %	72-118								

Sample Information

Client Sample ID: 16G0760-02

York Sample ID: 16G0760-02

<u>York Project (SDG) No.</u> 16G0760	<u>Client Project ID</u> X953 3017079-0259	<u>Matrix</u> Air	<u>Collection Date/Time</u> July 20, 2016 3:00 pm	<u>Date Received</u> 07/20/2016
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Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS



Sample Information

Client Sample ID: 16G0760-02

York Sample ID: 16G0760-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16G0760

X953 3017079-0259

Air

July 20, 2016 3:00 pm

07/20/2016

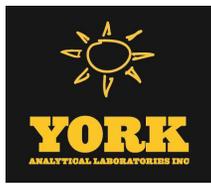
Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	0.74	0.74	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.70	0.70	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	0.66	0.66	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	0.72	0.72	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
78-93-3	2-Butanone	ND		ug/m ³	0.29	0.29	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	0.82	0.82	1	EPA TO-15 Certifications:	07/21/2016 13:13	07/21/2016 16:56	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
67-64-1	Acetone	ND		ug/m ³	0.48	0.48	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
71-43-2	Benzene	ND		ug/m ³	0.32	0.32	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	0.52	0.52	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	0.67	0.67	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
75-25-2	Bromoform	ND		ug/m ³	1.0	1.0	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS



Sample Information

Client Sample ID: 16G0760-02

York Sample ID: 16G0760-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16G0760

X953 3017079-0259

Air

July 20, 2016 3:00 pm

07/20/2016

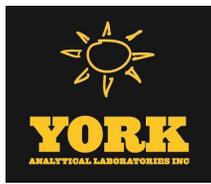
Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-83-9	Bromomethane	ND		ug/m ³	0.39	0.39	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
75-15-0	Carbon disulfide	ND		ug/m ³	0.31	0.31	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.16	0.16	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
75-00-3	Chloroethane	ND		ug/m ³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
67-66-3	Chloroform	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
74-87-3	Chloromethane	ND		ug/m ³	0.21	0.21	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
110-82-7	Cyclohexane	ND		ug/m ³	0.34	0.34	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	0.85	0.85	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	0.72	0.72	1	EPA TO-15 Certifications:	07/21/2016 13:13	07/21/2016 16:56	LDS
100-41-4	Ethyl Benzene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.1	1.1	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
67-63-0	Isopropanol	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.36	0.36	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
75-09-2	Methylene chloride	ND		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
142-82-5	n-Heptane	ND		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
110-54-3	n-Hexane	ND		ug/m ³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
95-47-6	o-Xylene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m ³	0.87	0.87	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications:	07/21/2016 13:13	07/21/2016 16:56	LDS
115-07-1	* Propylene	ND		ug/m ³	0.17	0.17	1	EPA TO-15 Certifications:	07/21/2016 13:13	07/21/2016 16:56	LDS



Sample Information

Client Sample ID: 16G0760-02

York Sample ID: 16G0760-02

<u>York Project (SDG) No.</u> 16G0760	<u>Client Project ID</u> X953 3017079-0259	<u>Matrix</u> Air	<u>Collection Date/Time</u> July 20, 2016 3:00 pm	<u>Date Received</u> 07/20/2016
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Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-42-5	Styrene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
127-18-4	Tetrachloroethylene	ND		ug/m ³	0.17	0.17	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.59	0.59	1	EPA TO-15 Certifications:	07/21/2016 13:13	07/21/2016 16:56	LDS
108-88-3	Toluene	ND		ug/m ³	0.38	0.38	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
79-01-6	Trichloroethylene	ND		ug/m ³	0.13	0.13	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	0.56	0.56	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 13:13	07/21/2016 16:56	LDS
Surrogate Recoveries		Result	Acceptance Range								
460-00-4	Surrogate: <i>p</i> -Bromofluorobenzene	102 %	72-118								

Sample Information

Client Sample ID: 16G0760-03

York Sample ID: 16G0760-03

<u>York Project (SDG) No.</u> 16G0760	<u>Client Project ID</u> X953 3017079-0259	<u>Matrix</u> Air	<u>Collection Date/Time</u> July 20, 2016 3:00 pm	<u>Date Received</u> 07/20/2016
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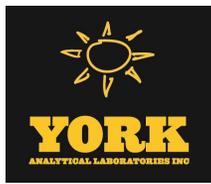
Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.55	0.55	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS



Sample Information

Client Sample ID: 16G0760-03

York Sample ID: 16G0760-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16G0760

X953 3017079-0259

Air

July 20, 2016 3:00 pm

07/20/2016

Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	0.74	0.74	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.77	0.77	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.70	0.70	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
106-99-0	1,3-Butadiene	ND		ug/m ³	0.66	0.66	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.60	0.60	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
123-91-1	1,4-Dioxane	ND		ug/m ³	0.72	0.72	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
78-93-3	2-Butanone	ND		ug/m ³	0.29	0.29	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
591-78-6	* 2-Hexanone	ND		ug/m ³	0.82	0.82	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
67-64-1	Acetone	ND		ug/m ³	0.48	0.48	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
71-43-2	Benzene	ND		ug/m ³	0.32	0.32	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
100-44-7	Benzyl chloride	ND		ug/m ³	0.52	0.52	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
75-27-4	Bromodichloromethane	ND		ug/m ³	0.67	0.67	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
75-25-2	Bromoform	ND		ug/m ³	1.0	1.0	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
74-83-9	Bromomethane	ND		ug/m ³	0.39	0.39	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
75-15-0	Carbon disulfide	ND		ug/m ³	0.31	0.31	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.16	0.16	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS



Sample Information

Client Sample ID: 16G0760-03

York Sample ID: 16G0760-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16G0760

X953 3017079-0259

Air

July 20, 2016 3:00 pm

07/20/2016

Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-90-7	Chlorobenzene	ND		ug/m ³	0.46	0.46	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
75-00-3	Chloroethane	ND		ug/m ³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
67-66-3	Chloroform	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
74-87-3	Chloromethane	ND		ug/m ³	0.21	0.21	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
110-82-7	Cyclohexane	ND		ug/m ³	0.34	0.34	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
124-48-1	Dibromochloromethane	ND		ug/m ³	0.85	0.85	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
75-71-8	Dichlorodifluoromethane	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
141-78-6	* Ethyl acetate	ND		ug/m ³	0.72	0.72	1	EPA TO-15 Certifications:	07/21/2016 16:19	07/21/2016 17:38	LDS
100-41-4	Ethyl Benzene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.1	1.1	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
67-63-0	Isopropanol	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.36	0.36	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
75-09-2	Methylene chloride	ND		ug/m ³	0.69	0.69	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
142-82-5	n-Heptane	ND		ug/m ³	0.41	0.41	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
110-54-3	n-Hexane	ND		ug/m ³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
95-47-6	o-Xylene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m ³	0.87	0.87	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m ³	0.49	0.49	1	EPA TO-15 Certifications:	07/21/2016 16:19	07/21/2016 17:38	LDS
115-07-1	* Propylene	ND		ug/m ³	0.17	0.17	1	EPA TO-15 Certifications:	07/21/2016 16:19	07/21/2016 17:38	LDS
100-42-5	Styrene	ND		ug/m ³	0.43	0.43	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
127-18-4	Tetrachloroethylene	ND		ug/m ³	0.17	0.17	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.59	0.59	1	EPA TO-15 Certifications:	07/21/2016 16:19	07/21/2016 17:38	LDS



Sample Information

Client Sample ID: 16G0760-03

York Sample ID: 16G0760-03

<u>York Project (SDG) No.</u> 16G0760	<u>Client Project ID</u> X953 3017079-0259	<u>Matrix</u> Air	<u>Collection Date/Time</u> July 20, 2016 3:00 pm	<u>Date Received</u> 07/20/2016
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Volatile Organics, EPA TO15 Canister Certification

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-88-3	Toluene	ND		ug/m ³	0.38	0.38	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.40	0.40	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.45	0.45	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
79-01-6	Trichloroethylene	ND		ug/m ³	0.13	0.13	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m ³	0.56	0.56	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
108-05-4	Vinyl acetate	ND		ug/m ³	0.35	0.35	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.26	0.26	1	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	07/21/2016 16:19	07/21/2016 17:38	LDS
Surrogate Recoveries		Result	Acceptance Range								
460-00-4	Surrogate: <i>p</i> -Bromofluorobenzene	103 %	72-118								

Sample Information

Client Sample ID: H.I. Conference Rm

York Sample ID: 16H0073-01

<u>York Project (SDG) No.</u> 16H0073	<u>Client Project ID</u> X953 3017079-0259	<u>Matrix</u> Indoor Ambient Air	<u>Collection Date/Time</u> July 30, 2016 3:00 pm	<u>Date Received</u> 08/02/2016
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Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.68	0.68	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.50	0.50	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
75-35-4	1,1-Dichloroethene	ND		ug/m ³	0.49	0.49	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.61	0.61	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.75	0.75	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.50	0.50	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.57	0.57	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.61	0.61	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS



Sample Information

Client Sample ID: H.I. Conference Rm

York Sample ID: 16H0073-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16H0073

X953 3017079-0259

Indoor Ambient Air

July 30, 2016 3:00 pm

08/02/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.75	0.75	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
71-43-2	Benzene	0.40	D	ug/m ³	0.40	0.40	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.20	0.20	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	0.57	0.57	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
75-00-3	Chloroethane	ND		ug/m ³	0.33	0.33	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
74-87-3	Chloromethane	1.5	D	ug/m ³	0.26	0.26	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
156-59-2	cis-1,2-Dichloroethene	ND		ug/m ³	0.49	0.49	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
100-41-4	Ethylbenzene	ND		ug/m ³	0.54	0.54	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
1634-04-4	Methyl-tert-butyl-ether (MTBE)	ND		ug/m ³	0.45	0.45	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
75-09-2	Methylene chloride	2.9	D	ug/m ³	0.86	0.86	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
91-20-3	Naphthalene	7.0	D	ug/m ³	1.3	1.3	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
95-47-6	o-Xylene	ND		ug/m ³	0.54	0.54	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
179601-23-1	m,p- Xylenes	ND		ug/m ³	1.1	1.1	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
127-18-4	Tetrachloroethene (PCE)	2.3	D	ug/m ³	0.84	0.84	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
108-88-3	Toluene	2.0	D	ug/m ³	0.47	0.47	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
156-60-5	trans-1,2-Dichloroethene	ND		ug/m ³	0.49	0.49	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
79-01-6	Trichloroethene (TCE)	ND		ug/m ³	0.17	0.17	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.079	0.079	1.244	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 15:52	LDS
	Surrogate Recoveries	Result			Acceptance Range						
460-00-4	Surrogate: p-Bromofluorobenzene	106 %			72-118						



Sample Information

Client Sample ID: Institutional Staff

York Sample ID: 16H0073-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16H0073

X953 3017079-0259

Indoor Ambient Air

July 30, 2016 3:00 pm

08/02/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.58	0.58	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.43	0.43	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
75-35-4	1,1-Dichloroethene	ND		ug/m ³	0.42	0.42	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.53	0.53	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.64	0.64	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.43	0.43	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.49	0.49	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.53	0.53	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.64	0.64	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
71-43-2	Benzene	0.34	D	ug/m ³	0.34	0.34	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.17	0.17	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	0.49	0.49	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
75-00-3	Chloroethane	ND		ug/m ³	0.28	0.28	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
74-87-3	Chloromethane	1.2	D	ug/m ³	0.22	0.22	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
156-59-2	cis-1,2-Dichloroethene	ND		ug/m ³	0.42	0.42	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
100-41-4	Ethylbenzene	ND		ug/m ³	0.47	0.47	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
1634-04-4	Methyl-tert-butyl-ether (MTBE)	ND		ug/m ³	0.39	0.39	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
75-09-2	Methylene chloride	1.9	D	ug/m ³	0.74	0.74	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
91-20-3	Naphthalene	ND		ug/m ³	1.1	1.1	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
95-47-6	o-Xylene	ND		ug/m ³	0.47	0.47	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
179601-23-1	m,p- Xylenes	ND		ug/m ³	0.93	0.93	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
127-18-4	Tetrachloroethene (PCE)	ND		ug/m ³	0.73	0.73	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
108-88-3	Toluene	0.97	D	ug/m ³	0.40	0.40	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS



Sample Information

Client Sample ID: Institutional Staff

York Sample ID: 16H0073-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16H0073

X953 3017079-0259

Indoor Ambient Air

July 30, 2016 3:00 pm

08/02/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
156-60-5	trans-1,2-Dichloroethene	ND		ug/m ³	0.42	0.42	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
79-01-6	Trichloroethene (TCE)	ND		ug/m ³	0.14	0.14	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.068	0.068	1.071	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 16:55	LDS
Surrogate Recoveries		Result	Acceptance Range								
460-00-4	Surrogate: <i>p</i> -Bromofluorobenzene	104 %	72-118								

Sample Information

Client Sample ID: Roof

York Sample ID: 16H0073-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16H0073

X953 3017079-0259

Outdoor Ambient Air

July 30, 2016 3:00 pm

08/02/2016

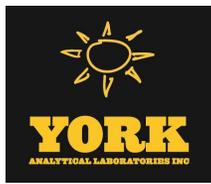
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.69	0.69	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.51	0.51	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
75-35-4	1,1-Dichloroethene	ND		ug/m ³	0.50	0.50	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.62	0.62	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.76	0.76	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.51	0.51	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.59	0.59	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.62	0.62	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.76	0.76	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
71-43-2	Benzene	0.45	D	ug/m ³	0.41	0.41	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.20	0.20	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
108-90-7	Chlorobenzene	ND		ug/m ³	0.58	0.58	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS



Sample Information

Client Sample ID: Roof

York Sample ID: 16H0073-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

16H0073

X953 3017079-0259

Outdoor Ambient Air

July 30, 2016 3:00 pm

08/02/2016

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/m ³	0.33	0.33	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
74-87-3	Chloromethane	1.2	D	ug/m ³	0.26	0.26	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
156-59-2	cis-1,2-Dichloroethene	ND		ug/m ³	0.50	0.50	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
100-41-4	Ethylbenzene	ND		ug/m ³	0.55	0.55	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
1634-04-4	Methyl-tert-butyl-ether (MTBE)	ND		ug/m ³	0.46	0.46	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
75-09-2	Methylene chloride	1.5	D	ug/m ³	0.88	0.88	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
91-20-3	Naphthalene	ND		ug/m ³	1.3	1.3	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
95-47-6	o-Xylene	ND		ug/m ³	0.55	0.55	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
179601-23-1	m,p- Xylenes	ND		ug/m ³	1.1	1.1	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
127-18-4	Tetrachloroethene (PCE)	12	D	ug/m ³	0.86	0.86	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
108-88-3	Toluene	1.7	D	ug/m ³	0.48	0.48	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
156-60-5	trans-1,2-Dichloroethene	ND		ug/m ³	0.50	0.50	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
79-01-6	Trichloroethene (TCE)	ND		ug/m ³	0.17	0.17	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.081	0.081	1.268	EPA TO-15 Certifications: NELAC-NY10854,NJDEP	08/03/2016 11:25	08/03/2016 17:57	LDS
Surrogate Recoveries		Result	Acceptance Range								
460-00-4	Surrogate: p-Bromofluorobenzene	104 %	72-118								



Analytical Batch Summary

Batch ID: BG60936 **Preparation Method:** EPA TO15 PREP **Prepared By:** LDS

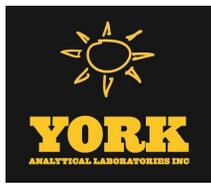
YORK Sample ID	Client Sample ID	Preparation Date
16G0760-03	16G0760-03	07/21/16
BG60936-BLK1	Blank	07/21/16
BG60936-BS1	LCS	07/21/16

Batch ID: BG60937 **Preparation Method:** EPA TO15 PREP **Prepared By:** LDS

YORK Sample ID	Client Sample ID	Preparation Date
16G0760-01	16G0760-01	07/21/16
16G0760-02	16G0760-02	07/21/16
BG60937-BLK1	Blank	07/21/16
BG60937-BS1	LCS	07/21/16

Batch ID: BH60211 **Preparation Method:** EPA TO15 PREP **Prepared By:** LDS

YORK Sample ID	Client Sample ID	Preparation Date
16H0073-01	H.I. Conference Rm	08/03/16
16H0073-02	Institutional Staff	08/03/16
16H0073-03	Roof	08/03/16
BH60211-BLK1	Blank	08/03/16
BH60211-BS1	LCS	08/03/16
BH60211-DUP1	Duplicate	08/03/16



Volatile Organic Compounds in Air by GC/MS - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60936 - EPA TO15 PREP

Blank (BG60936-BLK1)

Prepared & Analyzed: 07/21/2016

1,1,1-Trichloroethane	ND	0.55	ug/m ³								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.40	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.40	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60936 - EPA TO15 PREP

Blank (BG60936-BLK1)

Prepared & Analyzed: 07/21/2016

Tetrachloroethylene	ND	0.17	ug/m ³								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl Chloride	ND	0.26	"								

Surrogate: *p*-Bromofluorobenzene 10.0 ppbv 10.0 100 72-118

LCS (BG60936-BS1)

Prepared & Analyzed: 07/21/2016

1,1,1-Trichloroethane	10.4		ppbv	10.0	104	70-130					
1,1,2,2-Tetrachloroethane	10.9		"	10.0	109	70-130					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.38		"	10.0	93.8	70-130					
1,1,2-Trichloroethane	10.3		"	10.0	103	70-130					
1,1-Dichloroethane	9.91		"	10.0	99.1	70-130					
1,1-Dichloroethylene	10.5		"	10.0	105	70-130					
1,2,4-Trichlorobenzene	8.76		"	10.0	87.6	70-130					
1,2,4-Trimethylbenzene	12.0		"	10.0	120	70-130					
1,2-Dibromoethane	10.8		"	10.0	108	70-130					
1,2-Dichlorobenzene	10.7		"	10.0	107	70-130					
1,2-Dichloroethane	11.0		"	10.0	110	70-130					
1,2-Dichloropropane	10.9		"	10.0	109	70-130					
1,2-Dichlorotetrafluoroethane	9.17		"	10.0	91.7	70-130					
1,3,5-Trimethylbenzene	11.8		"	10.0	118	70-130					
1,3-Butadiene	9.26		"	10.0	92.6	70-130					
1,3-Dichlorobenzene	10.7		"	10.0	107	70-130					
1,4-Dichlorobenzene	10.9		"	10.0	109	70-130					
1,4-Dioxane	19.6		"	10.0	196	70-130					High Bias
2-Butanone	10.5		"	10.0	105	70-130					
2-Hexanone	12.6		"	10.0	126	70-130					
4-Methyl-2-pentanone	15.3		"	10.0	153	70-130					High Bias
Acetone	9.04		"	10.0	90.4	70-130					
Benzene	9.66		"	10.0	96.6	70-130					
Benzyl chloride	9.03		"	10.0	90.3	70-130					
Bromodichloromethane	11.7		"	10.0	117	70-130					
Bromoform	13.4		"	10.0	134	70-130					High Bias
Bromomethane	7.90		"	10.0	79.0	70-130					
Carbon disulfide	10.6		"	10.0	106	70-130					
Carbon tetrachloride	10.4		"	10.0	104	70-130					
Chlorobenzene	10.1		"	10.0	101	70-130					
Chloroethane	15.2		"	10.0	152	70-130					High Bias
Chloroform	9.76		"	10.0	97.6	70-130					
Chloromethane	8.85		"	10.0	88.5	70-130					
cis-1,2-Dichloroethylene	9.16		"	10.0	91.6	70-130					
cis-1,3-Dichloropropylene	13.3		"	10.0	133	70-130					High Bias
Cyclohexane	11.3		"	10.0	113	70-130					
Dibromochloromethane	10.8		"	10.0	108	70-130					
Dichlorodifluoromethane	10.9		"	10.0	109	70-130					
Ethyl acetate	14.0		"	10.0	140	70-130					High Bias
Ethyl Benzene	11.9		"	10.0	119	70-130					



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting	Units	Spike Level	Source*	%REC	%REC Limits	Flag	RPD	RPD	Flag
		Limit			Result					Limit	

Batch BG60936 - EPA TO15 PREP

LCS (BG60936-BS1)

Prepared & Analyzed: 07/21/2016

Hexachlorobutadiene	15.1		ppbv	10.0		151	70-130	High Bias			
Isopropanol	10.6		"	10.0		106	70-130				
Methyl tert-butyl ether (MTBE)	11.6		"	10.0		116	70-130				
Methylene chloride	8.95		"	10.0		89.5	70-130				
n-Heptane	11.2		"	10.0		112	70-130				
n-Hexane	10.3		"	10.0		103	70-130				
o-Xylene	12.8		"	10.0		128	70-130				
p- & m- Xylenes	23.9		"	20.0		119	70-130				
p-Ethyltoluene	12.3		"	10.0		123	70-130				
Propylene	9.04		"	10.0		90.4	70-130				
Styrene	11.0		"	10.0		110	70-130				
Tetrachloroethylene	11.5		"	10.0		115	70-130				
Tetrahydrofuran	10.4		"	10.0		104	70-130				
Toluene	11.1		"	10.0		111	70-130				
trans-1,2-Dichloroethylene	10.7		"	10.0		107	70-130				
trans-1,3-Dichloropropylene	12.8		"	10.0		128	70-130				
Trichloroethylene	11.1		"	10.0		111	70-130				
Trichlorofluoromethane (Freon 11)	9.93		"	10.0		99.3	70-130				
Vinyl acetate	7.48		"	10.0		74.8	70-130				
Vinyl Chloride	10.1		"	10.0		101	70-130				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.8</i>		<i>"</i>	<i>10.0</i>		<i>108</i>	<i>72-118</i>				

Batch BG60937 - EPA TO15 PREP

Blank (BG60937-BLK1)

Prepared & Analyzed: 07/21/2016

1,1,1-Trichloroethane	ND	0.55	ug/m ³								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.40	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60937 - EPA TO15 PREP

Blank (BG60937-BLK1)

Prepared & Analyzed: 07/21/2016

Carbon disulfide	ND	0.31	ug/m ³								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.40	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.17	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl Chloride	ND	0.26	"								

Surrogate: p-Bromofluorobenzene	9.97		ppbv	10.0		99.7	72-118				
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Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting		Spike	Source*	%REC	%REC	Limits	Flag	RPD	
		Limit	Units							Level	Result

Batch BG60937 - EPA TO15 PREP

LCS (BG60937-BS1)

Prepared & Analyzed: 07/21/2016

1,1,1-Trichloroethane	10.2		ppbv	10.0		102	70-130				
1,1,2,2-Tetrachloroethane	10.2		"	10.0		102	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.33		"	10.0		93.3	70-130				
1,1,2-Trichloroethane	10.5		"	10.0		105	70-130				
1,1-Dichloroethane	10.2		"	10.0		102	70-130				
1,1-Dichloroethylene	9.29		"	10.0		92.9	70-130				
1,2,4-Trichlorobenzene	7.10		"	10.0		71.0	70-130				
1,2,4-Trimethylbenzene	10.6		"	10.0		106	70-130				
1,2-Dibromoethane	10.7		"	10.0		107	70-130				
1,2-Dichlorobenzene	10.7		"	10.0		107	70-130				
1,2-Dichloroethane	9.83		"	10.0		98.3	70-130				
1,2-Dichloropropane	10.9		"	10.0		109	70-130				
1,2-Dichlorotetrafluoroethane	9.33		"	10.0		93.3	70-130				
1,3,5-Trimethylbenzene	10.9		"	10.0		109	70-130				
1,3-Butadiene	8.51		"	10.0		85.1	70-130				
1,3-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,4-Dichlorobenzene	10.7		"	10.0		107	70-130				
1,4-Dioxane	9.69		"	10.0		96.9	70-130				
2-Butanone	9.95		"	10.0		99.5	70-130				
2-Hexanone	9.56		"	10.0		95.6	70-130				
4-Methyl-2-pentanone	10.2		"	10.0		102	70-130				
Acetone	9.45		"	10.0		94.5	70-130				
Benzene	9.19		"	10.0		91.9	70-130				
Benzyl chloride	7.64		"	10.0		76.4	70-130				
Bromodichloromethane	10.9		"	10.0		109	70-130				
Bromoform	10.8		"	10.0		108	70-130				
Bromomethane	9.02		"	10.0		90.2	70-130				
Carbon disulfide	10.6		"	10.0		106	70-130				
Carbon tetrachloride	10.3		"	10.0		103	70-130				
Chlorobenzene	10.6		"	10.0		106	70-130				
Chloroethane	9.96		"	10.0		99.6	70-130				
Chloroform	9.66		"	10.0		96.6	70-130				
Chloromethane	8.50		"	10.0		85.0	70-130				
cis-1,2-Dichloroethylene	9.93		"	10.0		99.3	70-130				
cis-1,3-Dichloropropylene	12.3		"	10.0		123	70-130				
Cyclohexane	10.1		"	10.0		101	70-130				
Dibromochloromethane	10.6		"	10.0		106	70-130				
Dichlorodifluoromethane	10.0		"	10.0		100	70-130				
Ethyl acetate	9.81		"	10.0		98.1	70-130				
Ethyl Benzene	11.0		"	10.0		110	70-130				
Hexachlorobutadiene	9.21		"	10.0		92.1	70-130				
Isopropanol	7.89		"	10.0		78.9	70-130				
Methyl tert-butyl ether (MTBE)	9.97		"	10.0		99.7	70-130				
Methylene chloride	10.1		"	10.0		101	70-130				
n-Heptane	10.3		"	10.0		103	70-130				
n-Hexane	10.1		"	10.0		101	70-130				
o-Xylene	11.3		"	10.0		113	70-130				
p- & m- Xylenes	22.2		"	20.0		111	70-130				
p-Ethyltoluene	11.3		"	10.0		113	70-130				
Propylene	3.98		"	10.0		39.8	70-130			Low Bias	
Styrene	11.1		"	10.0		111	70-130				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BG60937 - EPA TO15 PREP

LCS (BG60937-BS1)

Prepared & Analyzed: 07/21/2016

Tetrachloroethylene	9.58		ppbv	10.0		95.8	70-130				
Tetrahydrofuran	10.3		"	10.0		103	70-130				
Toluene	10.0		"	10.0		100	70-130				
trans-1,2-Dichloroethylene	10.3		"	10.0		103	70-130				
trans-1,3-Dichloropropylene	8.74		"	10.0		87.4	70-130				
Trichloroethylene	11.2		"	10.0		112	70-130				
Trichlorofluoromethane (Freon 11)	9.27		"	10.0		92.7	70-130				
Vinyl acetate	4.77		"	10.0		47.7	70-130	Low Bias			
Vinyl Chloride	8.76		"	10.0		87.6	70-130				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.2</i>		<i>"</i>	<i>10.0</i>		<i>102</i>	<i>72-118</i>				

Batch BH60211 - EPA TO15 PREP

Blank (BH60211-BLK1)

Prepared & Analyzed: 08/03/2016

1,1,1-Trichloroethane	ND	0.55	ug/m ³								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethene	ND	0.40	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Dichlorobenzene	ND	0.60	"								
Benzene	ND	0.32	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethene	ND	0.40	"								
Ethylbenzene	ND	0.43	"								
Methyl-tert-butyl-ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
Naphthalene	ND	1.0	"								
o-Xylene	ND	0.43	"								
m,p- Xylenes	ND	0.87	"								
Tetrachloroethene (PCE)	ND	0.68	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethene	ND	0.40	"								
Trichloroethene (TCE)	ND	0.13	"								
Vinyl Chloride	ND	0.064	"								
<i>Surrogate: p-Bromofluorobenzene</i>	<i>10.4</i>		<i>ppbv</i>	<i>10.0</i>		<i>104</i>	<i>72-118</i>				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting	Units	Spike Level	Source*	%REC	%REC Limits	Flag	RPD	RPD	Flag
		Limit			Result					Limit	

Batch BH60211 - EPA TO15 PREP

LCS (BH60211-BS1)

Prepared & Analyzed: 08/03/2016

1,1,1-Trichloroethane	9.26		ppbv	10.0		92.6	70-130				
1,1-Dichloroethane	9.43		"	10.0		94.3	70-130				
1,1-Dichloroethene	10.0		"	10.0		100	70-130				
1,2,4-Trimethylbenzene	12.4		"	10.0		124	70-130				
1,2-Dichlorobenzene	11.0		"	10.0		110	70-130				
1,2-Dichloroethane	10.2		"	10.0		102	70-130				
1,2-Dichloropropane	11.5		"	10.0		115	70-130				
1,3,5-Trimethylbenzene	11.6		"	10.0		116	70-130				
1,3-Dichlorobenzene	10.9		"	10.0		109	70-130				
Benzene	9.42		"	10.0		94.2	70-130				
Carbon tetrachloride	9.23		"	10.0		92.3	70-130				
Chlorobenzene	9.60		"	10.0		96.0	70-130				
Chloroethane	11.1		"	10.0		111	70-130				
Chloromethane	8.86		"	10.0		88.6	70-130				
cis-1,2-Dichloroethene	9.10		"	10.0		91.0	70-130				
Ethylbenzene	11.4		"	10.0		114	70-130				
Methyl-tert-butyl-ether (MTBE)	10.5		"	10.0		105	70-130				
Methylene chloride	8.78		"	10.0		87.8	70-130				
Naphthalene	9.53		"	10.0		95.3	70-130				
o-Xylene	12.4		"	10.0		124	70-130				
m,p- Xylenes	23.2		"	20.0		116	70-130				
Tetrachloroethene (PCE)	10.6		"	10.0		106	70-130				
Toluene	11.3		"	10.0		113	70-130				
trans-1,2-Dichloroethene	9.77		"	10.0		97.7	70-130				
Trichloroethene (TCE)	11.5		"	10.0		115	70-130				
Vinyl Chloride	9.08		"	10.0		90.8	70-130				
<i>Surrogate: p-Bromofluorobenzene</i>	<i>11.1</i>		<i>"</i>	<i>10.0</i>		<i>111</i>	<i>72-118</i>				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BH60211 - EPA TO15 PREP

Duplicate (BH60211-DUP1)

*Source sample: 16H0073-03 (Roof)

Prepared & Analyzed: 08/03/2016

1,1,1-Trichloroethane	ND	0.69	ug/m ³		ND						25
1,1-Dichloroethane	ND	0.51	"		ND						25
1,1-Dichloroethene	ND	0.50	"		ND						25
1,2,4-Trimethylbenzene	ND	0.62	"		ND						25
1,2-Dichlorobenzene	ND	0.76	"		ND						25
1,2-Dichloroethane	ND	0.51	"		ND						25
1,2-Dichloropropane	ND	0.59	"		ND						25
1,3,5-Trimethylbenzene	ND	0.62	"		ND						25
1,3-Dichlorobenzene	ND	0.76	"		ND						25
Benzene	0.45	0.41	"		0.45				0.00		25
Carbon tetrachloride	ND	0.20	"		ND						25
Chlorobenzene	ND	0.58	"		ND						25
Chloroethane	ND	0.33	"		ND						25
Chloromethane	1.5	0.26	"		1.2				21.0		25
cis-1,2-Dichloroethene	ND	0.50	"		ND						25
Ethylbenzene	ND	0.55	"		ND						25
Methyl-tert-butyl-ether (MTBE)	ND	0.46	"		ND						25
Methylene chloride	1.5	0.88	"		1.5				2.99		25
Naphthalene	ND	1.3	"		ND						25
o-Xylene	ND	0.55	"		ND						25
m,p- Xylenes	ND	1.1	"		ND						25
Tetrachloroethene (PCE)	12	0.86	"		12				0.00		25
Toluene	1.7	0.48	"		1.7				2.82		25
trans-1,2-Dichloroethene	ND	0.50	"		ND						25
Trichloroethene (TCE)	ND	0.17	"		ND						25
Vinyl Chloride	ND	0.081	"		ND						25
Surrogate: p-Bromofluorobenzene	10.5		ppbv	10.0		105	72-118				





Notes and Definitions

QL-03	This LCS analyte recovered outside of acceptance limits. The LCS contains approximately 70 compounds, a limited number of which may be outside acceptance windows.
D	The result reported is from a dilution of the sample due to levels of target compounds found
CCV-A	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>30% Difference for average Rf). This applies to detected analytes only.

*	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.





Air Sampling Media Request Form Rev 2.1 082514

Date Media needed to Log-in:
Thursday 7/21/16,

Order Completed on: _____
By: _____

Requested by: Lidya

DO # 1029451

* York Work Order No: 16G0760
(if applicable) (Individual cert)

Client: STV Date of Request: 7/20/19 Date to Client: FRID 7/21/16

Client Project ID: SCA - IFA VAPOR Contact Person: Doane Cafferty

Delivery Information: York Courier Client Pickup
Address for Courier Drop-off: offive Park Ave South NYC

Special Instructions/Additional Information:

<u>Rush Fees Apply</u>	<u>Data Pkg Deliverables</u>
YES _____	ASP A/B _____
NO _____	NJDEP Tier 1/2 _____
	NONE _____

Type of Samples Expected

Ambient Air _____ Soil Vapor _____ Vapor Extraction _____ Process Gas _____

Media Request

Type of Media	Quantity	Check Box if Indiv. Cert. Required
Summa Canister, 6 L	<u>(3)</u>	<input checked="" type="checkbox"/>
Summa Canister, 3 L		<input type="checkbox"/>
Tedlar Bag, 1 L		
Flow Controller, 1 hour		
Flow Controller, 2 hour		
Flow Controller, 4 hour		
Flow Controller, 6 hour		
Flow Controller, <u>8 hour</u>	<u>(3)</u>	
Flow Controller, 12 hour		
Flow Controller, 24 hour		
PUF Cartridges		

Assets Provided (for Air Group Use)		
Canister IDs	Cert (x)	Flow Cont. IDs
_____	<input type="checkbox"/>	_____



Field Chain-of-Custody Record - AIR

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. 16H0073

YOUR Information	Report To:	Invoice To:	YOUR Project ID	Turn-Around Time	Report Type/Deliverables
Company: <u>STV inc.</u>	Company: <u>SAME</u>	Company: <u>SAME</u>	<u>X953</u>	RUSH - Same Day <input type="checkbox"/>	Summary Report _____
Address: <u>225 Park Ave. S</u> <u>NY, NY 10003</u>	Address: _____	Address: _____	<u>3017079-0259</u>	RUSH - Next Day <input type="checkbox"/>	Summary w/ QA Summary <input checked="" type="checkbox"/>
Phone No. <u>347-880-9082</u>	Phone No. _____	Phone No. _____	Purchase Order No.	RUSH - Two Day <input type="checkbox"/>	CT RCP Package _____
Contact Person: <u>Andrew Au</u>	Attention: _____	Attention: _____		RUSH - Three Day <input type="checkbox"/>	NY ASP A Package _____
E-Mail Address: <u>Andrew.Au@stvinc.com</u>	E-Mail Address: _____	E-Mail Address: _____	Samples from: CT _____ NY <input checked="" type="checkbox"/> NJ _____	RUSH - Four Day <input type="checkbox"/>	NY ASP B/CLP Pkg _____
				Standard(5-7 Days) <input checked="" type="checkbox"/>	NJDEP Reduced _____

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.

Additional Notes:
See attached sheet for 26 VOC's per method TO-15.

Detection Limits Required

≤ 1 ug/m³

NYSDEC VI Limits _____
(VI = vapor intrusion)

NJDEP low level _____

Routine Survey _____

Other

Special Instructions

0.25 ug/m³ for Vinyl chloride, TCE, and Carbon Tetrachloride.

≤ 1 ug/m³ for all others.

Samples Collected/Authorized By (Signature)


Name (printed)
Andrew Au

Air Matrix Codes

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

Please enter the following Field Data

↓ ↓ ↓ ↓

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
<u>H.I. Conference Rm</u>	<u>7/30/16</u>	<u>AI</u>	<u>30+ 0751</u>	<u>9 1551</u>	<u>Y78</u>	<u>7360</u>	<u>26 VOC's Per TO-15</u>	<u>6 Liter canister</u> <input checked="" type="checkbox"/> <u>Tedlar Bag</u>
<u>Institutional Staff</u>	↓	<u>AI</u>	<u>30 0753</u>	<u>9 1553</u>	<u>17348</u>	<u>Y41</u>	↓	<u>6 Liter canister</u> <input checked="" type="checkbox"/> <u>Tedlar Bag</u>
<u>Roof</u>	↓	<u>AO</u>	<u>30+ 0804</u>	<u>4 1604</u>	<u>18315</u>	<u>Y18</u>	↓	<u>6 Liter canister</u> <input checked="" type="checkbox"/> <u>Tedlar Bag</u>
								<u>6 Liter canister</u> _____ <u>Tedlar Bag</u> _____
								<u>6 Liter canister</u> _____ <u>Tedlar Bag</u> _____
								<u>6 Liter canister</u> _____ <u>Tedlar Bag</u> _____
								<u>6 Liter canister</u> _____ <u>Tedlar Bag</u> _____
								<u>6 Liter canister</u> _____ <u>Tedlar Bag</u> _____
								<u>6 Liter canister</u> _____ <u>Tedlar Bag</u> _____
								<u>6 Liter canister</u> _____ <u>Tedlar Bag</u> _____
								<u>6 Liter canister</u> _____ <u>Tedlar Bag</u> _____

Comments 	<u>Pete Deloatch</u>	<u>8/2/16 8:58am</u>	<u>KDach 8-2-16 8:58am</u>
	Samples Relinquished By	Date/Time	Samples Received By
			<u>Porace 8-2-16 1835</u>
	Samples Relinquished By	Date/Time	Samples Received in LAB by



GALSON

Mr. Peter Helseth
STV Incorporated
225 Park Avenue South
New York, NY 10003

August 11, 2016

DOH ELAP #11626
AIHA-LAP #100324

Account# 30995

Login# L382297

Dear Mr. Helseth:

Enclosed are the analytical results for the samples received by our laboratory on August 04, 2016. All test results meet the quality control requirements of AIHA-LAP and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report, with the exception of IOMs, which will be cleaned and disposed of after seven calendar days.

Current Scopes of Accreditation can be viewed at www.galsonlabs.com in the accreditations section under the "about Galson" tab.

Please contact James Trainer at (888) 432-5227, if you would like any additional information regarding this report. Thank you for using SGS Galson Laboratories.

Sincerely,

SGS Galson Laboratories

Lisa Swab
Laboratory Director

Enclosure(s)

Galson Laboratories, Inc. is now a part of SGS, the world's leading inspection, verification, testing, and certification company. As part of our transition to SGS, you will begin to see some formatting changes with reports that will improve the presentation of data and allow for the transition to the new logo.



GALSON

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : STV Incorporated
Site : X953
Project No. : 3017079-0259-1259
Date Sampled : 30-JUL-16
Date Received : 04-AUG-16

Account No.: 30995
Login No. : L382297
Date Analyzed : 05-AUG-16
Report ID : 949901

Formaldehyde

<u>Sample ID</u>	<u>Lab ID</u>	<u>Air Vol</u> <u>liter</u>	<u>Front</u> <u>ug</u>	<u>Back</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u> <u>mg/m3</u>	<u>ppm</u>
SAMPLE 1F	L382297-1	30	0.3	<0.1	0.3	0.009	0.007
SAMPLE 2F	L382297-2	30	0.2	<0.1	0.2	0.008	0.007
SAMPLE 3F	L382297-3	34.96	<0.1	<0.1	<0.1	<0.003	<0.002

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: 0.1 ug	Submitted by: EAW	
Analytical Method : mod. NIOSH 2016; HPLC/UV	Approved by : MWJ	
OSHA PEL : 0.75 ppm (TWA)	Date : 11-AUG-16	NYS DOH # : 11626
Collection Media : ORB0555	Supervisor: MWJ	QC by: AMD

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms	NA -Not Applicable	ND -Not Detected
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified	ppm -Parts per Million	



GALSON

LABORATORY FOOTNOTE REPORT

6601 Kirkville Road
 East Syracuse, NY 13057
 (315) 432-5227
 FAX: (315) 437-0571
 www.galsonlabs.com

Client Name : STV Incorporated
 Site : X953
 Project No. : 3017079-0259-1259

Date Sampled : 30-JUL-16
 Date Received: 04-AUG-16
 Date Analyzed: 05-AUG-16

Account No.: 30995
 Login No. : L382297

This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise noted below, all quality control results associated with the samples were within established control limits or did not impact reported results.

Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process. The findings herein constitute no warranty of the samples' representativeness of any sampled environment and strictly relate to the samples as they were presented to the laboratory.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

Unless otherwise noted below, reported results have not been blank corrected for any field blank or method blank.

L382297 (Report ID: 949901):

Total ug corrected for a desorption efficiency of 101%.
 FORMALDEHYDE results have been corrected for the average background found on the media:
 front section = 0.0814 ug and back section = 0.0286 ug for lot #78141 (samples 1-3).
 SOPs: LC-SOP-4(16)

L382297 (Report ID: 949901):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples.

Parameter	Accuracy	Mean Recovery
Formaldehyde	+/-8.3%	97.8%

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms	ppm -Parts per Million	
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified	ND -Not Detected	NA -Not Applicable

555486480071
 Date: 08/04/16
 Shipper: FEDEX
 Initials: ZRK



Prep: UNKNOWN

L 382297

www.galsonlabs.com

New Client?

Report To*: Mr. Peter Helreth

Invoice To*: same

Client Account No.*:
 30995

STV Inc.

225 Park Avenue South

New York, NY 10003

Phone No.*: 212-614-3376

Phone No.:

Cell No.:

Email:

Email Results To: peter.helreth@stvinc.com

Purchase Order No.:

Email Address:

Credit Card: Credit Card on File Call for Credit Card Info

Need Results By* (surcharge)

Samples submitted using the FreePumpLoan™ Program.

Samples submitted using the FreeSamplingBadges™ Program.

Standard 0%

Site Name: X953

Project: 3017079-0259-1259

Sampled By: Andrew Au

4 Business Days 35%

Comments:

please provide a detection limit of 3 µg/m³

3 Business Days 50%

2 Business Days 75%

Next Day by 6pm 100%

List description of industry or process/interferences present in sampling area: *Ø*

State samples were collected in (ex. NY):

NY

Please indicate which OEL this data will be used for:

OSHA PEL

ACGIH TLV

Cal OSHA

Next Day by Noon 150%

MSHA

Other (specify):

Same Day 200%

Sample Identification*

(Maximum of 20 characters, ID's longer than 20 characters will be abbreviated.)

Date Sampled* (mm/dd/yy)

Collection Medium

Sample Volume, Sample Time, or Sample Area*

Sample Units*: L, ml, min., in2, cm2, ft2

Analysis Requested*

Method Reference^

Hexavalent Chromium Process (ex. welding, plating, painting, etc.)*

Example

01/01/11

2pc UW PVC

960

L

Hexavalent Chromium (Cr6)

mod. OSHA ID-215

Welding

Sample 1 F

07/30/16

ORBO555 DPNH

30.0L
137 min

4000 ft²

Formaldehyde

NIOSH 2016 HPLC/UV

Sample 2 F

07/30/16

ORBO555 DPNH

30.0L
120 min

4000 ft²

Formaldehyde

NIOSH 2016 HPLC/UV

Sample 3 F

07/30/16

ORBO555 DPNH

34.96L
152 min

Outdoor

Formaldehyde

NIOSH 2016 HPLC/UV

*Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ please indicate if the lower LOQ is required (only available for certain analytes see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:

Chain of Custody	Print Name/Signature	Date/Time	Print Name/Signature	Date/Time
Relinquished by:	Andrew Au	8/3/16 1200	Received by: Zachary King	8/4/16 9:31
Relinquished by:			Received by:	

Samples received after 3pm will be considered as next day's business. 11-AUG-16 08:55

*Required fields, failure to complete these fields may result in a delay in your samples being processed.

Page 1 of 1

LAB ORIGINAL

**INDOOR AIR QUALITY SURVEY
AUXILIARY SERVICES HIGH SCHOOL (X953)
3450 EAST TREMONT AVENUE
BRONX, NEW YORK 10465**

**APPENDIX C
CURRENT LABORATORY CERTIFICATIONS**

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2017
Issued April 01, 2016

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. ROBERT Q. BRADLEY
YORK ANALYTICAL LABORATORIES INC
120 RESEARCH DRIVE
STRATFORD, CT 06615

NY Lab Id No: 10854

*is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2003) for the category
ENVIRONMENTAL ANALYSES AIR AND EMISSIONS
All approved analytes are listed below:*

Acrylates

Acrylonitrile EPA TO-15
Methyl methacrylate EPA TO-15

Chlorinated Hydrocarbons

1,2,4-Trichlorobenzene EPA TO-14A
EPA TO-15
Hexachlorobutadiene EPA TO-14A
EPA TO-15
Hexachloroethane EPA TO-14A
EPA TO-15

Polynuclear Aromatics

Naphthalene EPA TO-14A
EPA TO-15

Purgeable Aromatics

1,2,4-Trimethylbenzene EPA TO-14A
EPA TO-15
1,2-Dichlorobenzene EPA TO-14A
EPA TO-15
1,3,5-Trimethylbenzene EPA TO-14A
EPA TO-15
1,3-Dichlorobenzene EPA TO-14A
EPA TO-15
1,4-Dichlorobenzene EPA TO-14A
EPA TO-15
Benzene EPA TO-14A

Purgeable Aromatics

Benzene EPA TO-15
Chlorobenzene EPA TO-14A
EPA TO-15
Ethyl benzene EPA TO-14A
EPA TO-15
Isopropylbenzene EPA TO-15
Styrene EPA TO-14A
EPA TO-15
Toluene EPA TO-14A
EPA TO-15
Total Xylenes EPA TO-14A
EPA TO-15

Purgeable Halocarbons

1,1,1-Trichloroethane EPA TO-14A
EPA TO-15
1,1,2,2-Tetrachloroethane EPA TO-14A
EPA TO-15
1,1,2-Trichloro-1,2,2-Trifluoroethane EPA TO-14A
EPA TO-15
1,1,2-Trichloroethane EPA TO-14A
EPA TO-15
1,1-Dichloroethane EPA TO-14A
EPA TO-15
1,1-Dichloroethene EPA TO-14A
EPA TO-15

Serial No.: 54050

Property of the New York State Department of Health. Certificates are valid only at the address shown, must be conspicuously posted, and are printed on secure paper. Continued accreditation depends on successful ongoing participation in the Program. Consumers are urged to call (518) 485-5570 to verify the laboratory's accreditation status.



NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



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Purgeable Halocarbons

1,2-Dibromoethane	EPA TO-14A
	EPA TO-15
1,2-Dichloroethane	EPA TO-14A
	EPA TO-15
1,2-Dichloropropane	EPA TO-14A
	EPA TO-15
3-Chloropropene (Allyl chloride)	EPA TO-15
Bromodichloromethane	EPA TO-14A
	EPA TO-15
Bromoform	EPA TO-15
Bromomethane	EPA TO-14A
	EPA TO-15
Carbon tetrachloride	EPA TO-14A
	EPA TO-15
Chloroethane	EPA TO-14A
	EPA TO-15
Chloroform	EPA TO-14A
	EPA TO-15
Chloromethane	EPA TO-14A
	EPA TO-15
cis-1,2-Dichloroethene	EPA TO-14A
	EPA TO-15
cis-1,3-Dichloropropene	EPA TO-14A
	EPA TO-15
Dibromochloromethane	EPA TO-15
Dichlorodifluoromethane	EPA TO-14A

Purgeable Halocarbons

Dichlorodifluoromethane	EPA TO-15
Methylene chloride	EPA TO-14A
	EPA TO-15
Tetrachloroethene	EPA TO-14A
	EPA TO-15
trans-1,2-Dichloroethene	EPA TO-14A
	EPA TO-15
trans-1,3-Dichloropropene	EPA TO-14A
	EPA TO-15
Trichloroethene	EPA TO-14A
	EPA TO-15
Trichlorofluoromethane	EPA TO-14A
	EPA TO-15
Vinyl bromide	EPA TO-15
Vinyl chloride	EPA TO-14A
	EPA TO-15

Volatile Chlorinated Organics

Benzyl chloride	EPA TO-15
-----------------	-----------

Volatile Organics

1,2-Dichlorotetrafluoroethane	EPA TO-14A
	EPA TO-15
1,3-Butadiene	EPA TO-14A
	EPA TO-15
1,4-Dioxane	EPA TO-15
2-Butanone (Methylethyl ketone)	EPA TO-15

Serial No.: 54050

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All approved analytes are listed below:*

Volatile Organics

4-Methyl-2-Pentanone	EPA TO-15
Acetone	EPA TO-15
Carbon Disulfide	EPA TO-15
Cyclohexane	EPA TO-15
Hexane	EPA TO-15
Isopropanol	EPA TO-15
Methyl tert-butyl ether	EPA TO-15
n-Heptane	EPA TO-15
Vinyl acetate	EPA TO-15

Serial No.: 54050

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AIHA Laboratory Accreditation Programs, LLC

acknowledges that

SGS Galson Laboratories, Inc.

6601 Kirkville Road, East Syracuse, NY 13057

Laboratory ID: 100324

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

- | | |
|---|--|
| <input checked="" type="checkbox"/> INDUSTRIAL HYGIENE | Accreditation Expires: October 1, 2016 |
| <input checked="" type="checkbox"/> ENVIRONMENTAL LEAD | Accreditation Expires: October 1, 2016 |
| <input checked="" type="checkbox"/> ENVIRONMENTAL MICROBIOLOGY | Accreditation Expires: October 1, 2016 |
| <input type="checkbox"/> FOOD | Accreditation Expires: |
| <input type="checkbox"/> UNIQUE SCOPES | Accreditation Expires: |

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Gerald Schultz, CIH
Chairperson, Analytical Accreditation Board

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 14: 03/26/2014

Date Issued: 02/24/2016