



ATHENICA ENVIRONMENTAL  
SERVICES, INC.

**E n v i r o n m e n t a l   C o n s u l t a n t s**

**SOIL VAPOR INTRUSION STUDY**  
**44-46 BROAD STREET**  
**PORT CHESTER, NEW YORK 10573**

**ATHENICA PROJECT NO**  
**14-132-0401**

**DATED:**  
**MAY 12, 2014**

**PREPARED FOR:**

**BELOS BROAD LLC**  
**144 LANGDON AVENUE**  
**DOBBS FERRY, NEW YORK 10522**

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## **1.0 INTRODUCTION**

This report presents the results of a soil vapor intrusion study conducted at 44-46 Broad Street in Port Chester, New York (the “Site”).

The soil vapor intrusion investigation was completed by Athenica Environmental Services (Athenica) in general accordance with our proposal dated January 29, 2014 and the New York State Department of Health (NYSDOH) Guidance Document titled “Guidance for Evaluating Soil Vapor Intrusion in the State of New York” dated October 2006 (the “NYSDOH Guidance Document”).

### **1.1 Purpose**

The objective of the vapor intrusion study was to evaluate the risk of soil vapor intrusion for current residential occupants of the Site in accordance with the NYSDOH Guidance Document.

### **1.2 Report Organization**

The remainder of this report is organized into the following sections:

- Section 2, Site Description/Background;
- Section 3, Scope and Methodologies;
- Section 4, Findings and Results;
- Section 5, Conclusions and Recommendations.

## **2.0 SITE DESCRIPTION/BACKGROUND**

The Site is located at 44-46 Broad Street in Port Chester, New York, and consists of a rectangular-shaped, 12,200-square foot parcel of land that is developed with a 3-story apartment building and a 2-story commercial building. The 3-story apartment building has a full basement, a ground floor occupied by commercial tenant spaces, and the second and third floors occupied by residential apartment units. The 2-story commercial building has no basement and is occupied by commercial tenants on the ground and second floors. The remaining open areas of the Site consist of an asphalt driveway and parking lot.

In August, 2013, Velocity Consulting Incorporated (Velocity) conducted a Phase I Environmental Site Assessment (Phase I ESA) that had identified recognized environment conditions (RECs) warranting testing of the subsurface soil and groundwater at the Site. These RECs included past use of the Site by auto repair operations, former presence of a gasoline underground storage tank (UST) at the Site, and use of surrounding and adjacent properties for auto repair and gasoline filling stations.

In October 2013, Athenica performed a focused subsurface investigation (SI) at the Site. Findings and results of Athenica's SI revealed that groundwater conditions at the Site had been adversely impacted by gasoline-related contamination. The likely source or sources of the gasoline contamination are the off-site and immediately upgradient properties to the north and to the west where gasoline filling stations and auto repair facilities had been present. Since gasoline-contaminated groundwater has the potential to off-gas into buildings, the final report of the focused SI recommended that a vapor intrusion study to evaluate risk to building occupants in the 3-story residential apartment building.

### **3.0 SCOPE AND METHODOLOGIES**

On April 22, 2014, the soil vapor intrusion investigation was performed at the Site and included the following activities:

- Pre-sampling building inspection,
- Installation of temporary sub-slab vapor sampling implants at two locations in the basement,
- Collection of two sub-slab vapor samples and two indoor air samples at co-located locations in the basement,
- Collection of one outdoor air sample at an upwind exterior location of the Site, and
- Analysis of the air samples for volatile organic compounds (VOCs) at a New York State ELAP certified laboratory.

The above scope of work was conducted in general accordance with the NYSDOH Guidance Document.

#### **3.1 Pre-sampling Inspection**

On April 22, 2014, a pre-sampling inspection was performed prior to sub-slab vapor and indoor air sampling, as described in the NYSDOH Guidance Document. The pre-sampling inspection included evaluation of the building, floor layout, air flows, prior storage or use of VOCs, and physical conditions of the building prior to testing. A photoionization detector (PID) was utilized to identify potential sources of VOCs in the building.

#### **3.2 Sub-slab Vapor /Indoor Air and Outdoor Air Quality Sampling**

Sub-slab vapor samples were collected from temporary sub-slab vapor implants installed at two locations in the basement. The sub-slab vapor and indoor air sampling locations are shown on Figure 1. A drill bit was utilized to core through the concrete floor slab of the basement and the storage closets to install the temporary implants. An Athenica field representative coordinated and directed the installation of the temporary sub-slab vapor implants and collected the sub-slab vapor samples from the temporary sub-slab vapor probes.

The temporary sub-slab vapor probes generally conformed to the design provided in the NYSDOH Guidance Document, and consisted of approximately ¼ inch outer diameter inert polyethylene tubing

extending no further than two inches into the sub-slab material. The annular space between the tubing and the concrete floor was sealed with cement grout.

After purging approximately three volumes of air from each temporary sub-slab vapor probe at a flow rate less than 200 milliliters per minute, a representative sub-slab vapor sample was collected for laboratory analysis utilizing a 6-liter SUMMA canister. The SUMMA canisters were submitted to York Analytical Laboratories, Inc. (York) of Stratford, Connecticut for analysis for VOCs utilizing United States Environmental Protection Agency (EPA) TO-15 method.

Concurrent with the sub-slab vapor sampling, two indoor air samples were collected from approximately the same locations in the basement. An outdoor air sample also was collected at an upwind exterior location of the Site. The indoor and outdoor air samples were collected for laboratory analysis utilizing 6-liter SUMMA canisters. The SUMMA canisters were submitted to York for analysis for VOCs utilizing EPA TO-15 method.

Concentration of tetrachlorethene (PCE) and trichloroethylene (TCE) in indoor air samples were evaluated by comparison to the Air Guidance Values presented in the NYSDOH Guidance Document. Concentrations of other VOCs in indoor air samples were evaluated by comparison to the upper fence value (i.e. difference between the 25<sup>th</sup> and 75<sup>th</sup> percentile values) of VOCs found in fuel heated homes according to the NYSDOH 2003 study, which was presented in the NYSDOH Guidance Document. Concentrations of VOCs in outdoor air samples were evaluated to the mean value of the aforementioned NYSDOH study. Based on NYSDOH Guidance document, there is no evaluation criterion for sub-slab vapor samples.

Risk of vapor intrusion was also evaluated by the NYSDOH Guidance document decision matrices for TCE and carbon tetrachloride (Matrix 1), and PCE and 1,1,1-Trichloroethane (Matrix 2). In this approach, the risk of vapor intrusion for these VOCs is evaluated by consideration of their concentration found in both indoor air and sub-slab.

## 4.0 FINDINGS/RESULTS

### 4.1 Pre-Sampling Inspection

On April 22, 2014, Athenica performed a pre-sampling inspection of the Site. The pre-sampling inspection identified potential sources of VOCs at the Site. In the basement, there was a storage room where various containers of paint, and maintenance chemicals were stored. No elevated PID readings were recorded in the breathing zone of the storage room or elsewhere in the basement.

The results of this pre-inspection were documented on the indoor air quality questionnaire and building inventory form and are presented in Appendix A of this report.

### 4.2 Sub-slab Vapor /Indoor Air and Outdoor Air Sampling

On April 22, 2014, Athenica performed sub-slab vapor, indoor air, and outdoor air sampling at the Site.. The results of the sub-slab (SS-1 and SS-2), indoor (IA-1 and IA-2) and outdoor air (OA-1) samples are presented in Table 1. Full laboratory results of the soil vapor intrusion investigation are included in Appendix B.

Concentrations of tetrachloroethylene (PCE), a chlorinated solvent commonly used by dry cleaners, ranged from 39 to 110 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) in the sub-slab vapor samples. The highest concentration of PCE was found in SSV-2 ( $110 \mu\text{g}/\text{m}^3$ ) in the basement of the building, followed by SSV-1 ( $39 \mu\text{g}/\text{m}^3$ ), which also was collected in the basement of the building. Another chlorinated solvent, trichloroethylene (TCE), was found at detectable concentrations in the sub-slab vapor samples. This compound also is commonly used by dry cleaners, and its concentration in the sub-slab samples ranges from 11 to 13  $\mu\text{g}/\text{m}^3$ . The highest concentration of TCE was found in SSV-1 ( $13 \mu\text{g}/\text{m}^3$ ), followed by SSV-2 ( $11 \mu\text{g}/\text{m}^3$ ), both of which were collected in the basement of the building.

Other non-chlorinated VOCs were detected in the sub-slab vapor samples, and these VOCs included 1,2,4-Trimethylbenzene, 1,3-Butadiene, 2-Butanone, acetone, benzene, bromodichloromethane, carbon disulfide, chloroform, cis-1,2-Dichloroethylene, cyclohexane, dichlorodifluoromethane, isopropanol, methylene chloride, n-Hexane, p-ethyltoluene, propylene, tetrahydrofuran, toluene, and trichlorofluoromethane. Except for 2-Butanone, xylenes, and tetrahydrofuran, none of these VOCs were found at concentrations above their indoor evaluation criteria. In the case of 2-Butanone and xylenes, these compounds were also detected in the outdoor air sample, which indicates that outdoor

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ambient air quality as a likely source for their presence in the indoor air. The majority of the other non-chlorinated VOCs (those below the evaluation criteria) was also present in the outdoor air sample or was not found at detectable concentrations in the sub-slab, which supports ambient air quality as the cause for their presence in indoor air.

The levels of TCE, PCE, carbon tetrachloride, and 1,1,1-TCA in the indoor air and sub-slab vapor samples, along with evaluation results in accordance with the NYSDOH Guidance Document for these compounds, are presented in Table 2 and shown in Figure 3. According to the decision matrices of the NYSDOH guidance document (see Table 2), no concentrations of these chlorinated solvents warrant mitigation. Concentrations of PCE in sub-slab SSV-2 warrant only monitoring; however, no detectable concentration of PCE was found at the co-located indoor air sample IA-2.

## 5.0 CONCLUSIONS/RECOMMENDATIONS

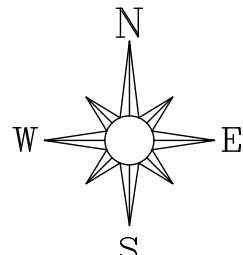
Based on the findings and results of this soil vapor intrusion study, the risk of soil vapor intrusion does not exist at the Site.

Specific conclusions are as follows:

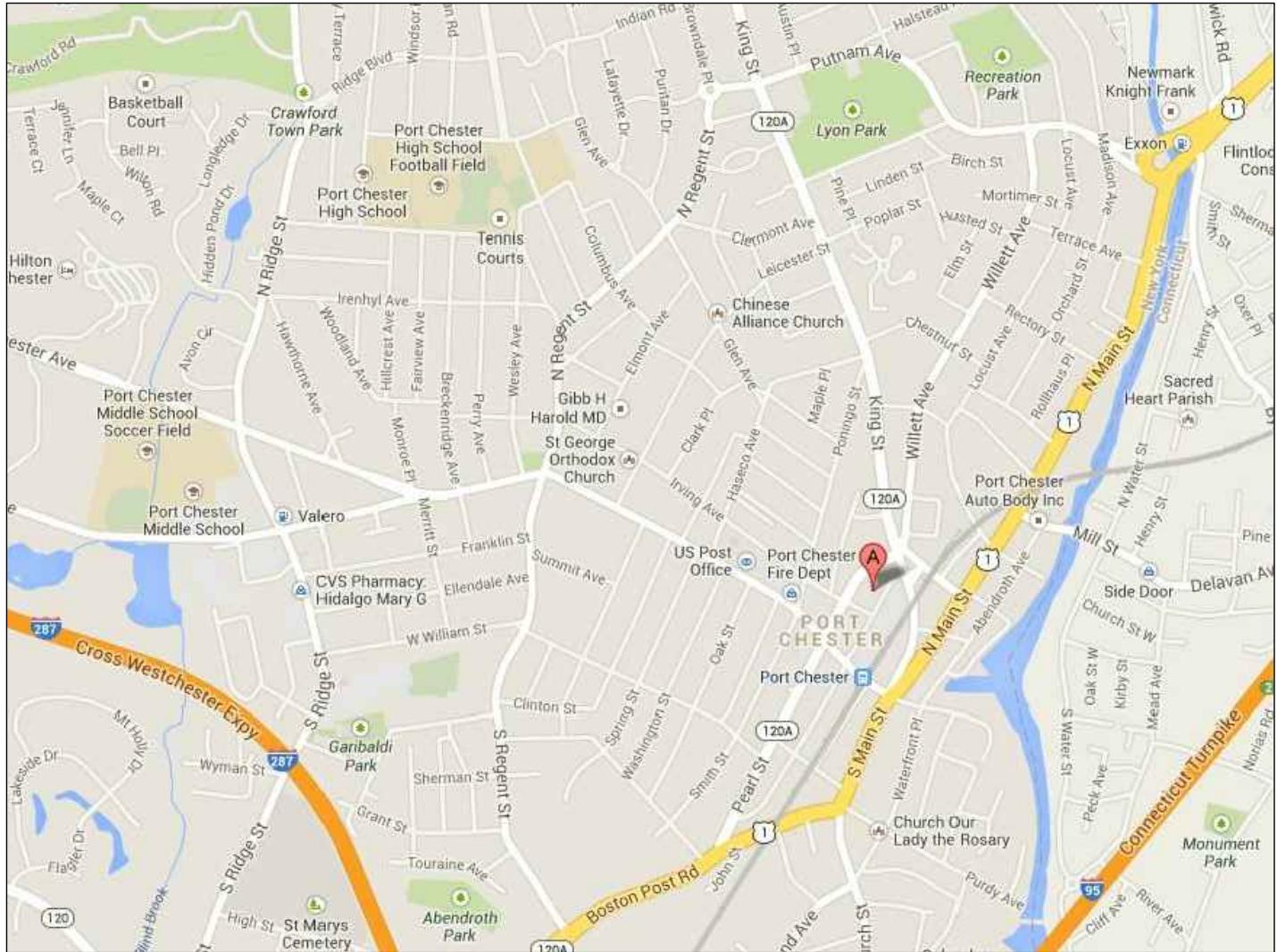
1. The gasoline contaminated groundwater derived from off-site source or sources has caused no significant impact to either sub-slab vapor or indoor air quality at the basement of the on-Site residential building.
2. The majority of the gasoline-related VOCs detected in the indoor air samples were also detected in the outdoor air sample and therefore their presence likely reflects air quality of the ambient outdoor air.
3. Concentrations of the chlorinated solvent PCE found in the sub-slab vapor at SSV-2 warrant only monitoring. The presence of PCE at SSV-2 is likely attributable to an off-site source since this chlorinated solvent was not found in any of the soil or groundwater. Due to the absence of any known PCE soil and/or groundwater contamination at the Site, appropriate monitoring measures would consist of evaluating the condition of the basement floor slab. Testing of the indoor air quality would only be required if there is a change in the condition of the basement floor slab.
4. Since no detectable concentrations of PCE or any other chlorinated solvent was found in the indoor air sample, vapor intrusion is not occurring at the Site.
5. Since the building lacks a central HVAC system, performing testing during the non-heating season is unlikely to have caused a significant effect on the results of this soil vapor investigation.
6. The presence of methylene chloride and acetone in the indoor air and sub-slab vapor samples is not of concern, as these compounds are common laboratory contaminants.

In summary, the findings and results of this vapor intrusion study warrant no further action other than monitoring the condition of the basement floor slab.

## **FIGURES**



TRUE NORTH



Legend:



SITE LOCATION



**ATHENICA  
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Environmental Consultants

Date: OCTOBER 23, 2013

Drawn by: ALEJANDRO MOREJON CORTINA

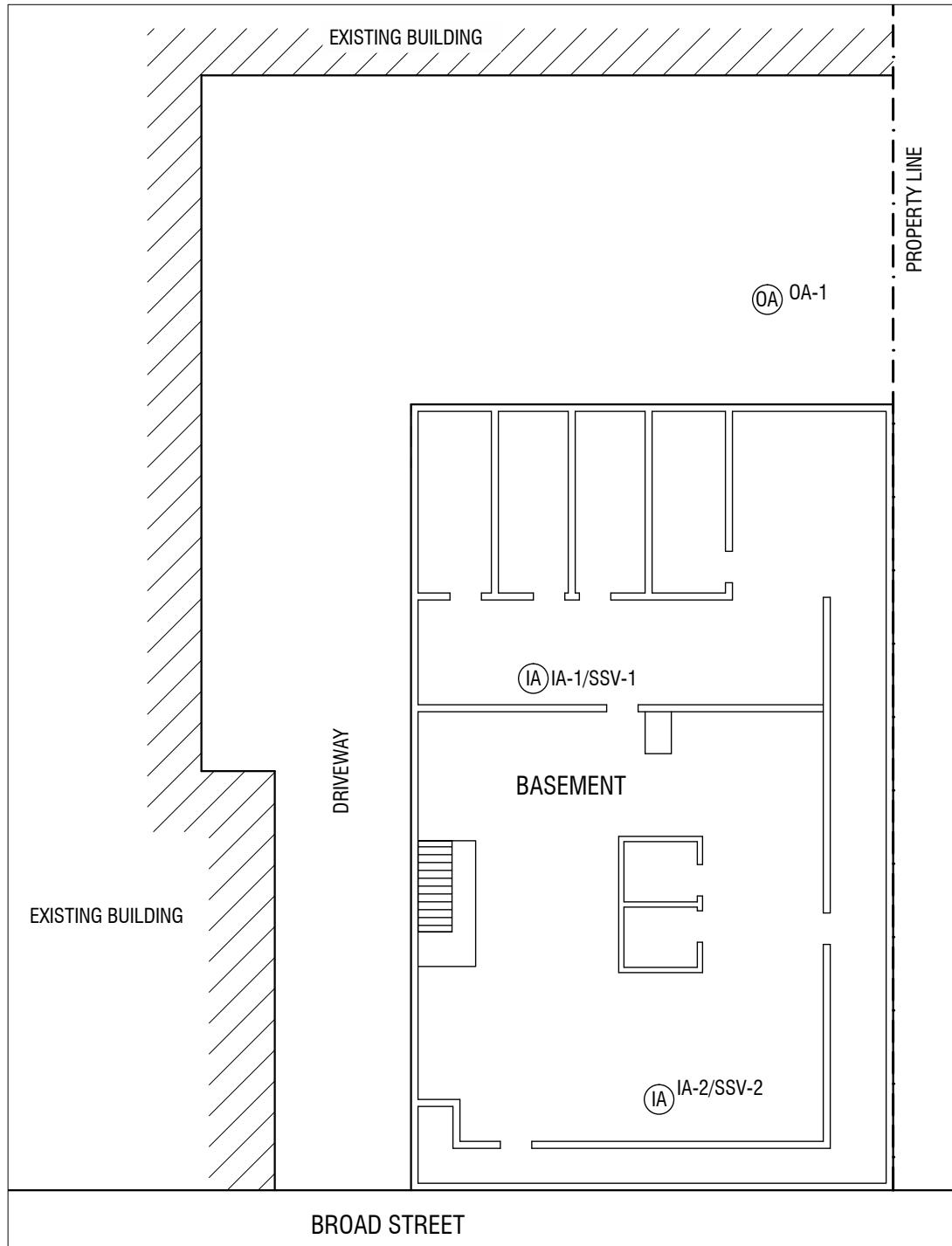
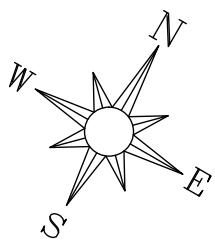
Checked by: WILLIAM SILVERI

Drawing Scale: NTS

Project No.: 13-1328

Site map: 44-46 BROAD STREET  
PORT CHESTER, NY 10573

Figure: 1  
Title: PROJECT SITE LOCATION



0 5' 10' 20' 30'

**Legend:**

IA-X / SSV-X CO-LOCATED INDOOR AIR /  
SUB-SLAB VAPOR SAMPLING  
LOCATION AND DESIGNATION  
NUMBER

OA-X OUTDOOR AIR SAMPLING  
LOCATION AND DESIGNATION  
NUMBER



Site map: 44-46 BROAD STREET,  
PORTCHESTER, NY 10573

Figure: 2  
Title: SUB-SLAB SOIL VAPOR, INDOOR AIR,  
AND OUTDOOR AIR SAMPLING

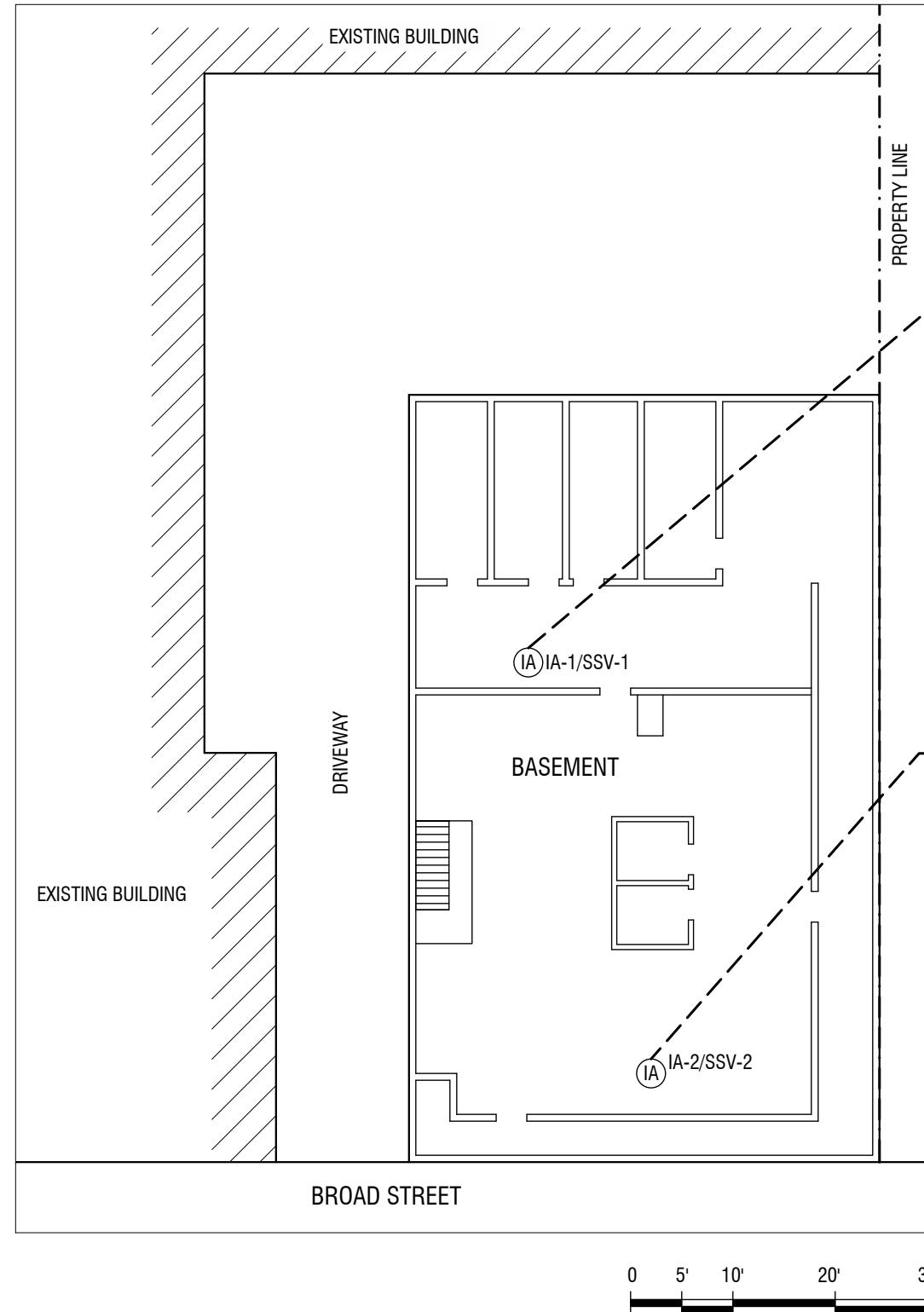
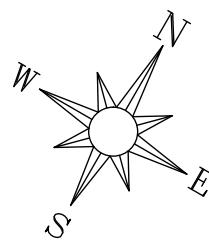
Date: May 5, 2014

Drawn by: ALEJANDRO MOREJON CORTINA

Checked by: JOHN DANKO

Drawing Scale:  $\frac{1}{16}$ " = 1'-0"

Project No.: 14-132-0401



Decision Matrix Compound	IA-1	SS-1
Carbon Tetrachloride	ND	ND
TCE	ND	13
MATRIX 1 ACTION	<b>No Further Action</b>	
PCE	ND	39
1,1,1-TCA	ND	ND
MATRIX 2 ACTION	<b>No Further Action</b>	

Decision Matrix Compound	IA-2	SS-2
Carbon Tetrachloride	ND	ND
TCE	ND	11
MATRIX 1 ACTION	<b>No Further Action</b>	
PCE	ND	110
1,1,1-TCA	ND	ND
MATRIX 2 ACTION	<b>Monitor</b>	

Legend:

( $\otimes$ ) IA-X / SSV-X CO-LOCATED INDOOR AIR / SUB-SLAB VAPOR SAMPLING LOCATION AND DESIGNATION NUMBER

TCE TRICHLOROETHYLENE

PCE TETRACHLOROETHYLENE



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Site map: 44-46 BROAD STREET,  
PORTCHESTER, NY 10573

Figure: 3  
Title: SUB-SLAB SOIL VAPOR, INDOOR AIR  
SAMPLING LOCATIONS AND EVALUATION

Date: May 8, 2014

Drawn by: ALEJANDRO MOREJON CORTINA

Checked by: WILLIAM SILVERI

Drawing Scale:  $\frac{1}{16}$ " = 1'-0"

Project No.: 14-132-0401

## **TABLES**

**Table 1**  
 Summary of Sub-slab Vapor, Indoor Air and Outdoor Air Sampling Results  
 44-46 Broad Street  
 Port Chester, New York 10573

Sample ID York ID Sampling Date Dilution Factor Client Matrix Unit of Measure	EPA TO-15 Parameters	CAS Number	Sub-slab Vapor Evaluation Criteria	Indoor Air Evaluation Criteria Value	IA-1 14D0908-02 4/22/2014 3:00:00 PM 4.382		SSV-1 14D0908-03 4/22/2014 3:00:00 PM 2.057		IA-2 14D0908-04 4/22/2014 3:00:00 PM 1.014		SSV-2 14D0908-05 4/22/2014 3:00:00 PM 2.191		OA-1 14D0908-01 4/22/2014 3:00:00 PM 1.378			
					Indoor Ambient Air ug/m <sup>3</sup>	Soil Vapor ug/m <sup>3</sup>	Indoor Ambient Air ug/m <sup>3</sup>	Soil Vapor ug/m <sup>3</sup>	Indoor Ambient Air ug/m <sup>3</sup>	Soil Vapor ug/m <sup>3</sup>	Indoor Ambient Air ug/m <sup>3</sup>	Soil Vapor ug/m <sup>3</sup>	Outdoor Ambient Air ug/m <sup>3</sup>	Result	Q	
1,1,1-Trichloroethane	71-55-6	1000		2.5	0.65	ND	1.10	ND	0.56	ND	1.20	ND	0.76	ND		
1,1,2-Tetrachloroethane	79-34-5	NC		0.4	0.82	ND	1.40	ND	0.71	ND	1.50	ND	0.96	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon)	76-13-1	NC		NC	0.91	ND	1.60	ND	0.79	ND	1.70	ND	1.10	ND		
1,1,2-Trichloroethane	79-00-5	NC		0.4	0.65	ND	1.10	ND	0.56	ND	1.20	ND	0.76	ND		
1,1-Dichloroethane	75-34-3	NC		0.4	0.48	ND	0.85	ND	0.42	ND	0.90	ND	0.57	ND		
1,1-Dichloroethylene	75-35-4	NC		0.4	0.47	ND	0.83	ND	0.41	ND	0.88	ND	0.56	ND		
1,2,4-Trichlorobenzene	120-82-1	NC		0.5	0.88	ND	1.60	ND	0.77	ND	1.70	ND	1	ND		
1,2,4-Trimethylbenzene	95-63-6	NC		9.8	5.20	D	1	ND	0.51	ND	1.80	D	0.76	D		
1,2-Dibromoethane	106-93-4	NC		0.4	0.91	ND	1.60	ND	0.79	ND	1.70	ND	1.10	ND		
1,2-Dichlorobenzene	95-50-1	NC		0.5	0.71	ND	1.30	ND	0.62	ND	1.30	ND	0.84	ND		
1,2-Dichloroethane	107-06-2	NC		0.4	0.48	ND	0.85	ND	0.42	ND	0.90	ND	0.57	ND		
1,2-Dichloropropane	78-87-5	NC		0.4	0.55	ND	0.97	ND	0.48	ND	1	ND	0.65	ND		
1,2-Dichlorotetrafluoroethane	76-14-2	NC		0.4	0.83	ND	1.50	ND	0.72	ND	1.60	ND	0.98	ND		
1,3,5-Trimethylbenzene	108-67-8	NC		3.9	1.50	D	1	ND	0.51	ND	1.10	ND	0.69	ND		
1,3-Butadiene	106-99-0	NC		NC	0.52	ND	0.91	ND	0.45	ND	2.30	ND	0.61	ND		
1,3-Dichlorobenzene	541-73-1	NC		0.5	0.71	ND	1.30	ND	0.62	ND	1.30	ND	0.84	ND		
1,4-Dichlorobenzene	106-46-7	NC		1.2	0.71	ND	1.30	ND	0.62	ND	1.30	ND	0.84	ND		
1,4-Dioxane	123-91-1	NC		NC	0.43	ND	0.75	ND	0.37	ND	0.80	ND	0.50	ND		
2-Butanone	78-93-3	NC		16	19	D	4.20	D	3.30	D	2.50	D	4.10	D		
2-Hexanone	591-78-6	NC		NC	0.97	ND	1.70	ND	0.84	ND	1.80	ND	1.10	ND		
4-Methyl-2-pentanone	108-10-1	NC		1.9	0.49	ND	0.86	ND	0.42	ND	0.91	ND	0.57	ND		
Acetone	67-64-1	NC		115	97	BD	18	BD	57	BD	15	BD	23	BD		
Benzene	71-43-2	NC		13	0.83	D	2	D	0.76	D	0.93	D	0.94	D		
Benzyl chloride	100-44-7	NC		NC	0.61	ND	1.10	ND	0.53	ND	1.20	ND	0.73	ND		
Bromodichloromethane	75-27-4	NC		NC	0.74	ND	1.30	ND	0.64	ND	4.60	D	0.87	ND		
Bromoform	75-25-2	NC		NC	1.20	ND	2.20	ND	1.10	ND	2.30	ND	1.40	ND		
Bromomethane	74-83-9	NC		0.5	0.46	ND	0.81	ND	0.40	ND	0.87	ND	0.54	ND		
Carbon disulfide	75-15-0	NC		NC	0.37	ND	2.30	D	0.74	D	2.80	D	0.44	ND		
Carbon tetrachloride	56-23-5	250		1.3	0.19	ND	0.33	ND	0.16	ND	0.35	ND	0.22	ND		
Chlorobenzene	108-90-7	NC		0.4	0.55	ND	0.96	ND	0.47	ND	1	ND	0.65	ND		
Chloroethane	75-00-3	NC		0.4	0.31	ND	0.55	ND	0.27	ND	0.59	ND	0.37	ND		
Chloroform	67-66-3	NC		1.2	0.70	D	2.30	D	0.76	D	250	D	0.68	ND		
Chloromethane	74-87-3	NC		4.2	1.40	D	0.43	ND	1.40	D	0.46	ND	1.40	D		
cis-1,2-Dichloroethylene	156-59-2	NC		0.4	0.47	ND	6.20	D	0.41	ND	0.88	ND	0.56	ND		
cis-1,3-Dichloropropylene	10061-01-5	NC		0.4	0.54	ND	0.95	ND	0.47	ND	1	ND	0.64	ND		
Cyclohexane	110-82-7	NC		6.3	0.90	D	1.20	D	0.43	D	0.77	ND	0.48	ND		
Dibromochloromethane	124-48-1	NC		NC	0.95	ND	1.70	ND	0.83	ND	1.80	ND	1.10	ND		
Dichlorodifluoromethane	75-71-8	NC		10	1.70	D	2	D	1.80	D	2.10	D	1.80	D		
Ethyl acetate	141-78-6	NC		NC	6.60	D	1.50	ND	1.20	D	1.60	ND	1	ND		
Ethyl Benzene	100-41-4	NC		6.4	4.10	D	0.91	ND	0.45	ND	0.97	ND	0.97	D		
Hexachlorobutadiene	87-68-3	NC		0.5	1.30	ND	2.20	ND	1.10	ND	2.40	ND	1.50	ND		
Isopropanol	67-63-0	NC		NC	17	D	5.80	D	28	D	3.90	D	7.80	D		
Methyl Methacrylate	80-62-6	NC		0.4	0.49	ND	0.86	ND	0.42	ND	0.91	ND	0.57	ND		
Methyl tert-butyl ether (MTBE)	1634-04-4	NC		14	0.43	ND	0.75	ND	0.37	ND	0.80	ND	0.50	ND		
Methylene chloride	75-09-2	NC		16	14	D	2.50	D	16	D	1.50	ND	1.70	D		
n-Heptane	142-82-5	NC		18	1.50	D	0.86	ND	0.72	D	0.91	ND	2	D		
n-Hexane	110-54-3	NC		14	4.90	D	1.30	D	4.30	D	0.79	ND	0.99	D		
o-Xylene	95-47-6	NC		7.1	5	D	0.91	ND	0.45	ND	0.97	ND	1.20	D		
p- & m- Xylenes	179601-23-1	NC		11	14	D	1.80	ND	0.90	ND	1.90	ND	3.30	D		
p-Ethyltoluene																

**Table 2**  
 Summary of Matrix Decision Outcomes  
 Sub-Slab / Indoor Air Sampling Results  
 44-46 Broad Street  
 Port Chester, New York 10573

Sample ID Lab Sample ID Sampling Date DilutionFactor Matrix Sample Location	SSV-1 14D0908-02 4/22/2014 4.382 Soil Vapor Basement	IA-1 14D0908-03 4/22/2014 2.057 Indoor Ambient Air Basement	Matrix Evaluation Outcome See Note 1	SSV-2 14D0908-04 4/22/2014 1.014 Soil Vapor Basement	IA-2 14D0908-05 4/22/2014 2.191 Indoor Ambient Air Basement	Matrix Evaluation Outcome See Note 1				
	ug/M <sup>3</sup>	ug/M <sup>3</sup>		ug/M <sup>3</sup>	ug/M <sup>3</sup>					
<b>MATRIX 1 COMPOUNDS</b>										
Carbon tetrachloride	0.33	ND	0.19	ND	No Further Action	0.35	ND	0.16	ND	No Further Action
Trichloroethylene	13	D	0.16	ND	No Further Action	11	D	0.14	ND	No Further Action
<b>MATRIX 2 COMPOUNDS</b>										
1,1,1-Trichloroethane	1.1	ND	0.65	ND	No Further Action	1.2	ND	0.56	ND	No Further Action
Tetrachloroethylene	39	D	0.81	ND	No Further Action	110	D	0.7	ND	Monitor

**Legend**

NC - No criterion for evaluation of analytical parameter

ND - Analyte not detected at or above the level indicated

D - Result is from an analysis that required a dilution

**Note**

1. Decision Evaluation Matrix Outcomes are based on those presented in the NYSDOH Soil Vapor Intrusion Guidance Document dated October 2006 for the indicated compounds

2. Elevated values for non-detected compounds (i.e. above evaluation criteria) are due to sample dilution caused by elevated concentrations of detected compounds

**APPENDIX A**  
**Pre-Sampling Inspection and Building Questionnaire**

**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 John Driscoll Date/Time Prepared 0821 4-22-14  
Preparer's Affiliation Athenica Environmental Phone No. 718 784 7490  
Purpose of Investigation Vapor Intrusion Study

**1. OCCUPANT:**

Interviewed: Y/N

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

Address: \_\_\_\_\_

County: \_\_\_\_\_

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

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

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

Interviewed: Y/N

Last Name: Eliopoulos First Name: Elias

Address: 144 Langdon Ave, Dobbs Ferry, NY 10522

County: \_\_\_\_\_

Home Phone: 212-547-5412 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  
Raised Ranch  
Cape Cod  
Duplex  
Modular

2-Family  
Split Level  
Contemporary  
Apartment House  
Log Home

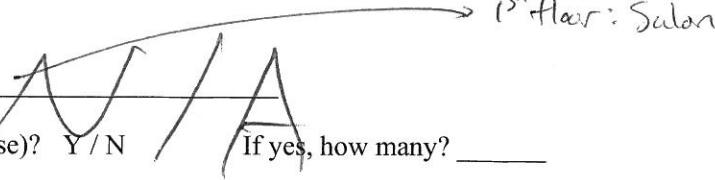
3-Family  
Colonial  
Mobile Home  
Townhouses/Condos  
Other: \_\_\_\_\_

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

If the property is commercial, type?

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

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



Other characteristics:

Number of floors 3

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

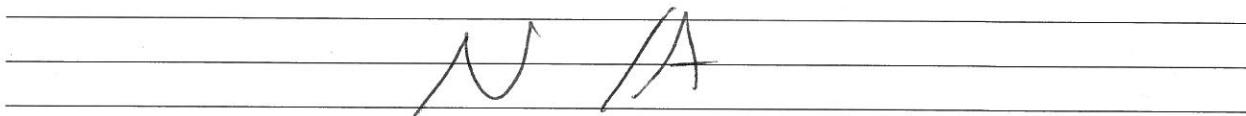
Is the building insulated? Y / N

How air tight? Tight / Average / Not Tight

#### 4. AIRFLOW

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

Airflow between floors



Airflow near source



Outdoor air infiltration



Infiltration into air ducts



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

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

Basement/Lowest level depth below grade: 10 (feet)

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

Sump, small hole in slab, pit to sewer

## 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 _____         |

The primary type of fuel used is:

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

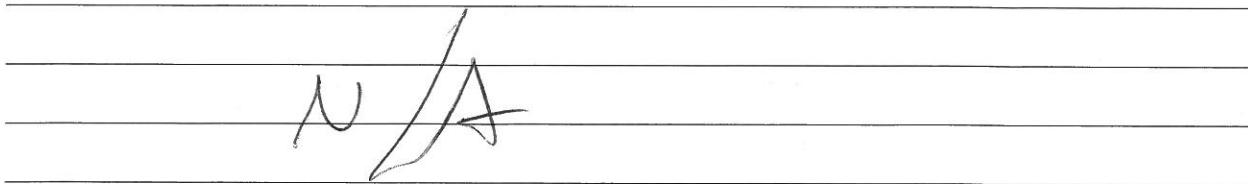
Domestic hot water tank fueled by: \_\_\_\_\_

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

Air conditioning: Central Air       Window units      Open Windows      None

Are there air distribution ducts present? Y  N

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



## 7. OCCUPANCY

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

<u>Level</u>	<u>General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)</u>
--------------	--

Basement	<u>Storage</u>
1 <sup>st</sup> Floor	<u>Commercial Space</u>
2 <sup>nd</sup> Floor	<u>Residential Apartments</u>
3 <sup>rd</sup> Floor	<u>Residential Apartments</u>
4 <sup>th</sup> Floor	

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

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

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

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

**Do any of the building occupants use solvents at work?** Y /   
(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)      No \_\_\_\_\_  
 Yes, use dry-cleaning infrequently (monthly or less)      Unknown \_\_\_\_\_  
 Yes, work at a dry-cleaning service

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

## 9. WATER AND SEWAGE

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

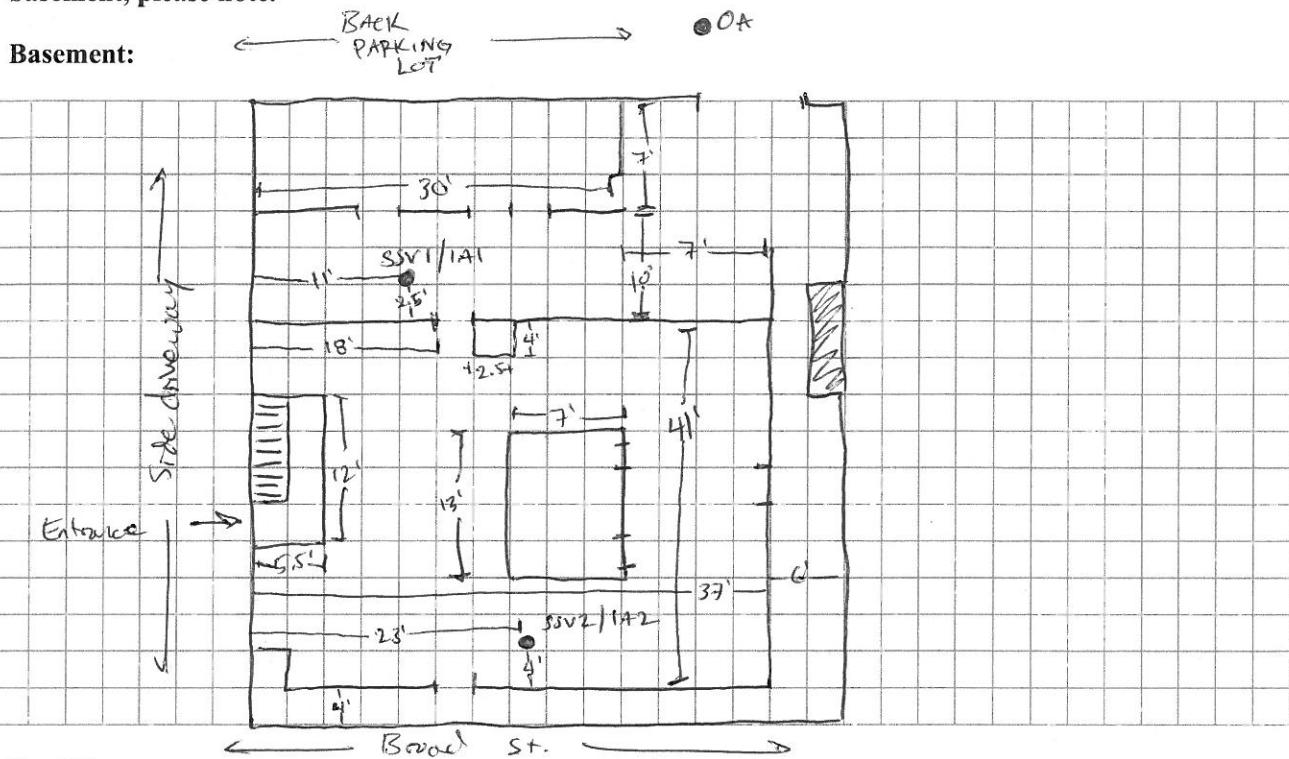
**Sewage Disposal:**  Public Sewer      Septic Tank      Leach Field      Dry Well      Other: \_\_\_\_\_

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

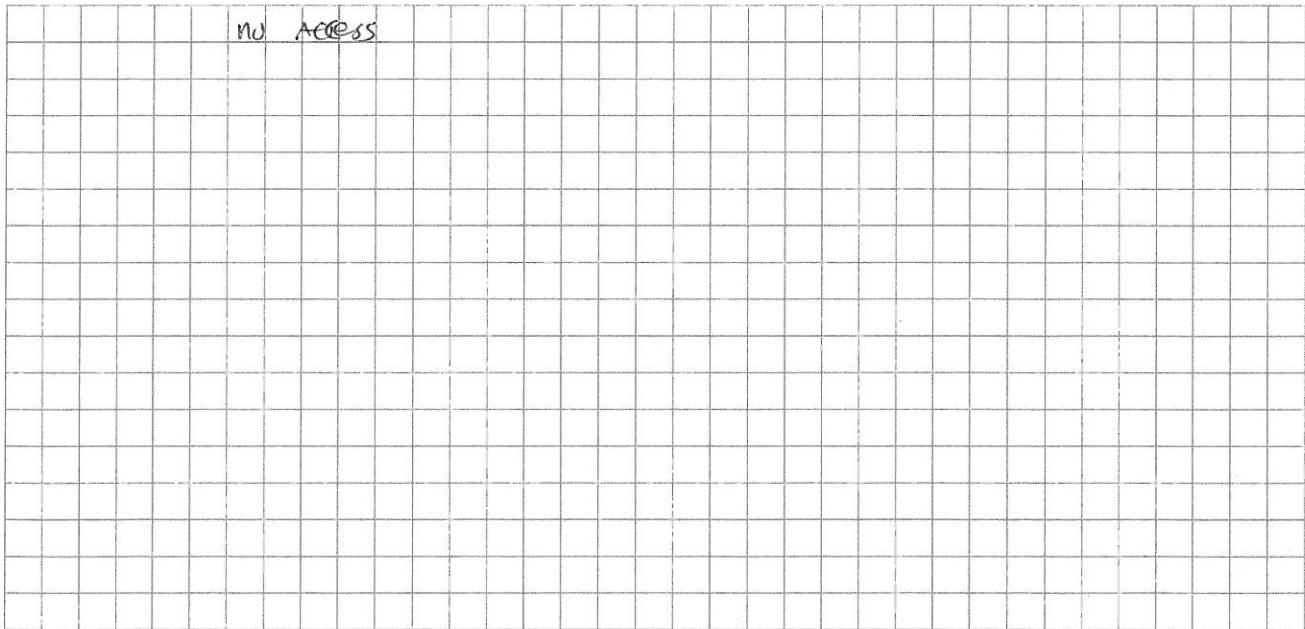
- a. Provide reasons why relocation is recommended: N/A
- b. Residents choose to: remain in home      relocate to friends/family      relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? Y / N
- d. Relocation package provided and explained to residents? Y / N

## 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.



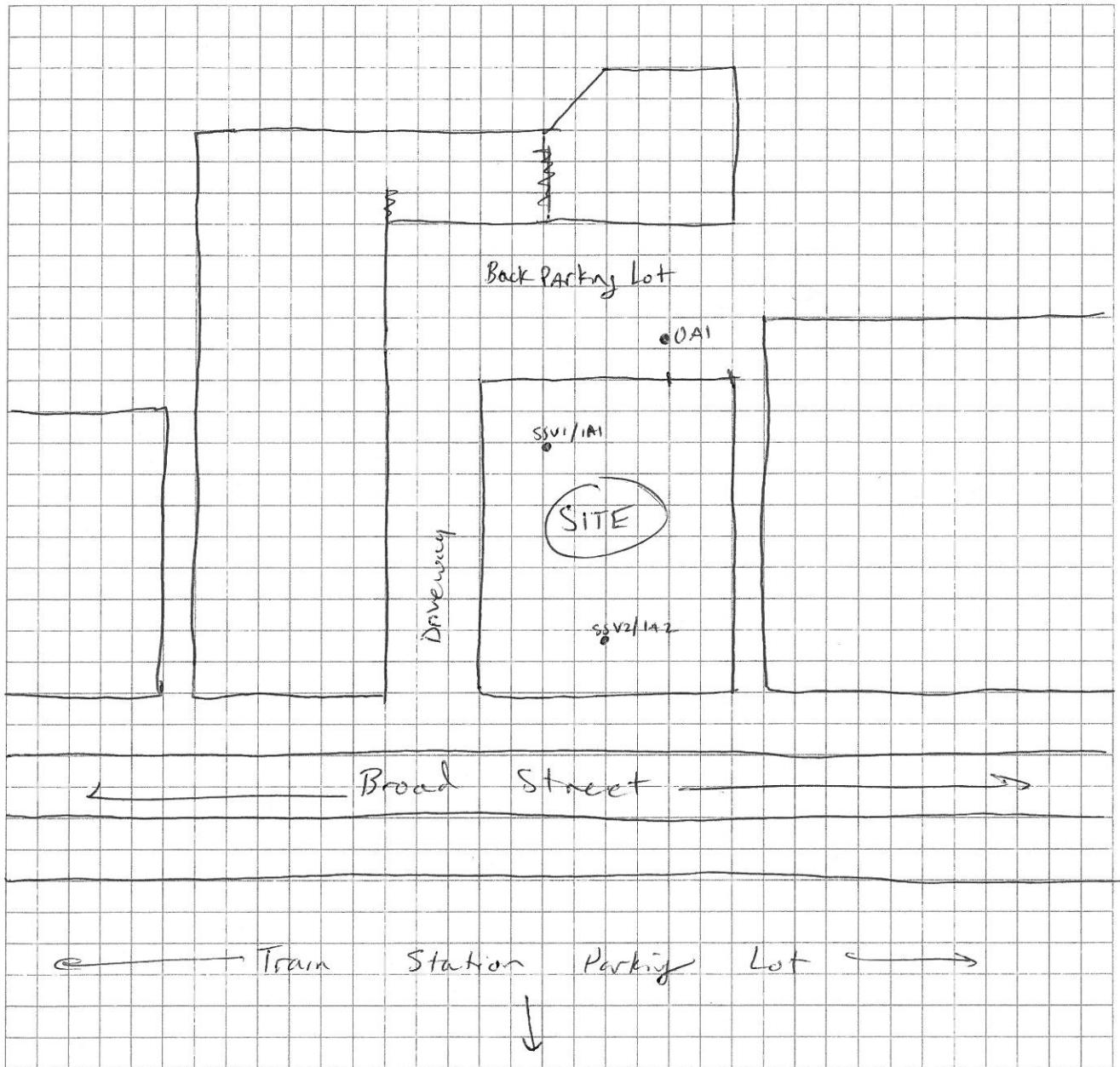
**First Floor:**



## 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.



### **13. PRODUCT INVENTORY FORM**

**Make & Model of field instrument used:** Minicore 3000

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

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

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

**APPENDIX B**  
**Sub-slab Vapor and Indoor/Outdoor Air Laboratory Results**



# Technical Report

prepared for:

**Athenica Environmental Services, Inc.**

45-09 Greenpoint Avenue

Long Island City NY, 11104

**Attention: William Silveri**

Report Date: 04/29/2014

**Client Project ID: 14-132-0401**

York Project (SDG) No.: 14D0908

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Report Date: 04/29/2014  
Client Project ID: 14-132-0401  
York Project (SDG) No.: 14D0908

**Athenica Environmental Services, Inc.**  
45-09 Greenpoint Avenue  
Long Island City NY, 11104  
Attention: William Silveri

---

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on April 23, 2014 and listed below. The project was identified as your project: **14-132-0401**.

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>
14D0908-01	OA-1	Outdoor Ambient Air	04/22/2014	04/23/2014
14D0908-02	IA-1	Indoor Ambient Air	04/22/2014	04/23/2014
14D0908-03	SSV-1	Soil Vapor	04/22/2014	04/23/2014
14D0908-04	IA-2	Indoor Ambient Air	04/22/2014	04/23/2014
14D0908-05	SSV-2	Soil Vapor	04/22/2014	04/23/2014

## **General Notes for York Project (SDG) No.: 14D0908**

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:**



**Date:** 04/29/2014

Benjamin Gulizia  
Laboratory Director





## Sample Information

**Client Sample ID:** OA-1

**York Sample ID:** 14D0908-01

York Project (SDG) No.

14D0908

Client Project ID

14-132-0401

Matrix

Outdoor Ambient Air

Collection Date/Time

April 22, 2014 3:00 pm

Date Received

04/23/2014

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.36	0.36	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
108-05-4	Vinyl acetate	ND		ug/m³	0.49	0.49	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
79-01-6	Trichloroethylene	ND		ug/m³	0.19	0.19	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.64	0.64	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.56	0.56	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
108-88-3	<b>Toluene</b>	<b>15</b>		ug/m³	0.53	0.53	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.41	0.41	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
127-18-4	Tetrachloroethylene	ND		ug/m³	0.95	0.95	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
100-42-5	Styrene	ND		ug/m³	0.60	0.60	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
115-07-1	* Propylene	ND		ug/m³	0.24	0.24	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.69	0.69	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
179601-23-1	<b>p- &amp; m- Xylenes</b>	<b>3.3</b>		ug/m³	1.2	1.2	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
95-47-6	<b>o-Xylene</b>	<b>1.2</b>		ug/m³	0.61	0.61	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
110-54-3	<b>n-Hexane</b>	<b>0.99</b>		ug/m³	0.49	0.49	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
142-82-5	<b>n-Heptane</b>	<b>2.0</b>		ug/m³	0.57	0.57	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
75-09-2	<b>Methylene chloride</b>	<b>1.7</b>		ug/m³	0.97	0.97	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.50	0.50	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.57	0.57	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
67-63-0	<b>Isopropanol</b>	<b>7.8</b>		ug/m³	0.69	0.69	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.5	1.5	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
100-41-4	<b>Ethyl Benzene</b>	<b>0.97</b>		ug/m³	0.61	0.61	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
141-78-6	* Ethyl acetate	ND		ug/m³	1.0	1.0	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
110-82-7	Cyclohexane	ND		ug/m³	0.48	0.48	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.64	0.64	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.56	0.56	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
74-87-3	<b>Chloromethane</b>	<b>1.4</b>		ug/m³	0.29	0.29	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
67-66-3	Chloroform	ND		ug/m³	0.68	0.68	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
75-00-3	Chloroethane	ND		ug/m³	0.37	0.37	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
56-23-5	Carbon tetrachloride	ND		ug/m³	0.22	0.22	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
75-15-0	Carbon disulfide	ND		ug/m³	0.44	0.44	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
74-83-9	Bromomethane	ND		ug/m³	0.54	0.54	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
75-25-2	Bromoform	ND		ug/m³	1.4	1.4	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
75-27-4	Bromodichloromethane	ND		ug/m³	0.87	0.87	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
100-44-7	Benzyl chloride	ND		ug/m³	0.73	0.73	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
71-43-2	<b>Benzene</b>	<b>0.94</b>		ug/m³	0.45	0.45	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
67-64-1	<b>Acetone</b>	<b>23</b>	B	ug/m³	0.33	0.33	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
591-78-6	* 2-Hexanone	ND		ug/m³	1.1	1.1	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
78-93-3	<b>2-Butanone</b>	<b>4.1</b>		ug/m³	0.41	0.41	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD



## Sample Information

Client Sample ID: OA-1

York Sample ID: 14D0908-01

York Project (SDG) No.

14D0908

Client Project ID

14-132-0401

Matrix

Outdoor Ambient Air

Collection Date/Time

April 22, 2014 3:00 pm

Date Received

04/23/2014

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
123-91-1	1,4-Dioxane	ND		ug/m³	0.50	0.50	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.84	0.84	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.84	0.84	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
106-99-0	1,3-Butadiene	ND		ug/m³	0.61	0.61	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.69	0.69	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.98	0.98	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.65	0.65	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.57	0.57	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.84	0.84	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>0.76</b>		ug/m³	0.69	0.69	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.0	1.0	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.56	0.56	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.57	0.57	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.4</b>		ug/m³	0.79	0.79	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.76	0.76	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.1	1.1	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.96	0.96	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.76	0.76	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
75-71-8	<b>Dichlorodifluoromethane</b>	<b>1.8</b>		ug/m³	0.69	0.69	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.1	1.1	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
124-48-1	Dibromochloromethane	ND		ug/m³	1.1	1.1	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
80-62-6	Methyl Methacrylate	ND		ug/m³	0.57	0.57	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
108-90-7	Chlorobenzene	ND		ug/m³	0.65	0.65	1.378	EPA TO-15	04/28/2014 08:53	04/28/2014 11:27	ALD
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
460-00-4	<i>Surrogate: p-Bromofluorobenzene</i>	88.2 %	72-118								

## Sample Information

Client Sample ID: IA-1

York Sample ID: 14D0908-02

York Project (SDG) No.

14D0908

Client Project ID

14-132-0401

Matrix

Indoor Ambient Air

Collection Date/Time

April 22, 2014 3:00 pm

Date Received

04/23/2014

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.30	0.30	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
108-05-4	Vinyl acetate	ND		ug/m³	0.42	0.42	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD

120 RESEARCH DRIVE

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(203) 325-1371

FAX (203) 357-0166



## Sample Information

Client Sample ID: IA-1

York Sample ID: 14D0908-02

York Project (SDG) No.

14D0908

Client Project ID

14-132-0401

Matrix

Indoor Ambient Air

Collection Date/Time

April 22, 2014 3:00 pm

Date Received

04/23/2014

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
79-01-6	Trichloroethylene	ND		ug/m³	0.16	0.16	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.54	0.54	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.47	0.47	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
108-88-3	Toluene	30		ug/m³	0.45	0.45	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
109-99-9	* Tetrahydrofuran	23		ug/m³	0.35	0.35	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
127-18-4	Tetrachloroethylene	ND		ug/m³	0.81	0.81	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
100-42-5	Styrene	ND		ug/m³	0.51	0.51	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
115-07-1	* Propylene	ND		ug/m³	0.20	0.20	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
622-96-8	* p-Ethyltoluene	5.1		ug/m³	0.58	0.58	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
179601-23-1	p- & m- Xylenes	14		ug/m³	1.0	1.0	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
95-47-6	o-Xylene	5.0		ug/m³	0.52	0.52	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
110-54-3	n-Hexane	4.9		ug/m³	0.42	0.42	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
142-82-5	n-Heptane	1.5		ug/m³	0.49	0.49	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
75-09-2	Methylene chloride	14		ug/m³	0.83	0.83	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.43	0.43	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.49	0.49	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
67-63-0	Isopropanol	17		ug/m³	0.58	0.58	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.3	1.3	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
100-41-4	Ethyl Benzene	4.1		ug/m³	0.52	0.52	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
141-78-6	* Ethyl acetate	6.6		ug/m³	0.86	0.86	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
110-82-7	Cyclohexane	0.90		ug/m³	0.41	0.41	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.54	0.54	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.47	0.47	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
74-87-3	Chloromethane	1.4		ug/m³	0.25	0.25	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
67-66-3	Chloroform	0.70		ug/m³	0.58	0.58	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
75-00-3	Chloroethane	ND		ug/m³	0.31	0.31	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
56-23-5	Carbon tetrachloride	ND		ug/m³	0.19	0.19	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
75-15-0	Carbon disulfide	ND		ug/m³	0.37	0.37	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
74-83-9	Bromomethane	ND		ug/m³	0.46	0.46	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
75-25-2	Bromoform	ND		ug/m³	1.2	1.2	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
75-27-4	Bromodichloromethane	ND		ug/m³	0.74	0.74	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
100-44-7	Benzyl chloride	ND		ug/m³	0.61	0.61	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
71-43-2	Benzene	0.83		ug/m³	0.38	0.38	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
67-64-1	Acetone	97	B	ug/m³	1.1	1.1	4.382	EPA TO-15	04/28/2014 08:53	04/29/2014 01:48	ALD
591-78-6	* 2-Hexanone	ND		ug/m³	0.97	0.97	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
78-93-3	2-Butanone	19		ug/m³	0.35	0.35	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
123-91-1	1,4-Dioxane	ND		ug/m³	0.43	0.43	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.71	0.71	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.71	0.71	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD



## Sample Information

<u>Client Sample ID:</u> IA-1		<u>York Sample ID:</u> 14D0908-02
<u>York Project (SDG) No.</u> 14D0908	<u>Client Project ID</u> 14-132-0401	<u>Matrix</u> Indoor Ambient Air <u>Collection Date/Time</u> April 22, 2014 3:00 pm <u>Date Received</u> 04/23/2014

### Volatile Organics, EPA TO15 Full List

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
106-99-0	1,3-Butadiene	ND		ug/m³	0.52	0.52	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
108-67-8	<b>1,3,5-Trimethylbenzene</b>	<b>1.5</b>		ug/m³	0.58	0.58	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.83	0.83	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.55	0.55	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.48	0.48	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.71	0.71	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>5.2</b>		ug/m³	0.58	0.58	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.88	0.88	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.47	0.47	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.48	0.48	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.7</b>		ug/m³	0.67	0.67	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.65	0.65	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.91	0.91	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.82	0.82	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.65	0.65	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
75-71-8	<b>Dichlorodifluoromethane</b>	<b>1.7</b>		ug/m³	0.59	0.59	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.91	0.91	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
124-48-1	Dibromochloromethane	ND		ug/m³	0.95	0.95	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
80-62-6	Methyl Methacrylate	ND		ug/m³	0.49	0.49	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
108-90-7	Chlorobenzene	ND		ug/m³	0.55	0.55	1.168	EPA TO-15	04/28/2014 08:53	04/28/2014 13:33	ALD
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
460-00-4	Surrogate: p-Bromofluorobenzene	89.1 %	72-118								

## Sample Information

<u>Client Sample ID:</u> SSV-1		<u>York Sample ID:</u> 14D0908-03
<u>York Project (SDG) No.</u> 14D0908	<u>Client Project ID</u> 14-132-0401	<u>Matrix</u> Soil Vapor <u>Collection Date/Time</u> April 22, 2014 3:00 pm <u>Date Received</u> 04/23/2014

### Volatile Organics, EPA TO15 Full List

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
75-01-4	Vinyl Chloride	ND		ug/m³	0.53	0.53	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
108-05-4	Vinyl acetate	ND		ug/m³	0.74	0.74	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
79-01-6	<b>Trichloroethylene</b>	<b>13</b>		ug/m³	0.28	0.28	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.95	0.95	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.83	0.83	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD



## Sample Information

Client Sample ID: SSV-1

York Sample ID: 14D0908-03

York Project (SDG) No.

14D0908

Client Project ID

14-132-0401

Matrix

Soil Vapor

Collection Date/Time

April 22, 2014 3:00 pm

Date Received

04/23/2014

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-88-3	Toluene	2.0		ug/m³	0.79	0.79	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
109-99-9	* Tetrahydrofuran	5.4		ug/m³	0.62	0.62	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
127-18-4	Tetrachloroethylene	39		ug/m³	1.4	1.4	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
100-42-5	Styrene	ND		ug/m³	0.89	0.89	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
115-07-1	* Propylene	ND		ug/m³	0.36	0.36	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
622-96-8	* p-Ethyltoluene	ND		ug/m³	1.0	1.0	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
179601-23-1	p- & m- Xylenes	ND		ug/m³	1.8	1.8	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
95-47-6	o-Xylene	ND		ug/m³	0.91	0.91	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
110-54-3	n-Hexane	1.3		ug/m³	0.74	0.74	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
142-82-5	n-Heptane	ND		ug/m³	0.86	0.86	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
75-09-2	Methylene chloride	2.5		ug/m³	1.5	1.5	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.75	0.75	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.86	0.86	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
67-63-0	Isopropanol	5.8		ug/m³	1.0	1.0	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
87-68-3	Hexachlorobutadiene	ND		ug/m³	2.2	2.2	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
100-41-4	Ethyl Benzene	ND		ug/m³	0.91	0.91	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
141-78-6	* Ethyl acetate	ND		ug/m³	1.5	1.5	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
110-82-7	Cyclohexane	1.2		ug/m³	0.72	0.72	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.95	0.95	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
156-59-2	cis-1,2-Dichloroethylene	6.2		ug/m³	0.83	0.83	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
74-87-3	Chloromethane	ND		ug/m³	0.43	0.43	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
67-66-3	Chloroform	2.3		ug/m³	1.0	1.0	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
75-00-3	Chloroethane	ND		ug/m³	0.55	0.55	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
56-23-5	Carbon tetrachloride	ND		ug/m³	0.33	0.33	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
75-15-0	Carbon disulfide	2.3		ug/m³	0.65	0.65	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
74-83-9	Bromomethane	ND		ug/m³	0.81	0.81	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
75-25-2	Bromoform	ND		ug/m³	2.2	2.2	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
75-27-4	Bromodichloromethane	ND		ug/m³	1.3	1.3	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
100-44-7	Benzyl chloride	ND		ug/m³	1.1	1.1	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
71-43-2	Benzene	2.0		ug/m³	0.67	0.67	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
67-64-1	Acetone	18	B	ug/m³	0.50	0.50	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
591-78-6	* 2-Hexanone	ND		ug/m³	1.7	1.7	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
78-93-3	2-Butanone	4.2		ug/m³	0.62	0.62	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
123-91-1	1,4-Dioxane	ND		ug/m³	0.75	0.75	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	1.3	1.3	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	1.3	1.3	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
106-99-0	1,3-Butadiene	ND		ug/m³	0.91	0.91	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	1.0	1.0	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.5	1.5	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD



## Sample Information

<u>Client Sample ID:</u> SSV-1	<u>York Sample ID:</u> 14D0908-03
<u>York Project (SDG) No.</u> 14D0908	<u>Client Project ID</u> 14-132-0401 <u>Matrix</u> Soil Vapor <u>Collection Date/Time</u> April 22, 2014 3:00 pm <u>Date Received</u> 04/23/2014

### Volatile Organics, EPA TO15 Full List

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
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.97	0.97	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.85	0.85	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	1.3	1.3	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	1.0	1.0	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.6	1.6	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.83	0.83	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.85	0.85	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.4</b>		ug/m³	1.2	1.2	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	1.1	1.1	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.6	1.6	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.4	1.4	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	1.1	1.1	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
75-71-8	<b>Dichlorodifluoromethane</b>	<b>2.0</b>		ug/m³	1.0	1.0	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.6	1.6	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
124-48-1	Dibromochloromethane	ND		ug/m³	1.7	1.7	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
80-62-6	Methyl Methacrylate	ND		ug/m³	0.86	0.86	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
108-90-7	Chlorobenzene	ND		ug/m³	0.96	0.96	2.057	EPA TO-15	04/28/2014 08:53	04/28/2014 22:18	ALD
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
460-00-4	Surrogate: p-Bromofluorobenzene	88.5 %									
<i>72-118</i>											

## Sample Information

<u>Client Sample ID:</u> IA-2	<u>York Sample ID:</u> 14D0908-04
<u>York Project (SDG) No.</u> 14D0908	<u>Client Project ID</u> 14-132-0401 <u>Matrix</u> Indoor Ambient Air <u>Collection Date/Time</u> April 22, 2014 3:00 pm <u>Date Received</u> 04/23/2014

### Volatile Organics, EPA TO15 Full List

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
75-01-4	Vinyl Chloride	ND		ug/m³	0.26	0.26	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
108-05-4	Vinyl acetate	ND		ug/m³	0.36	0.36	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
79-01-6	Trichloroethylene	ND		ug/m³	0.14	0.14	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.47	0.47	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.41	0.41	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
108-88-3	<b>Toluene</b>	<b>3.7</b>		ug/m³	0.39	0.39	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
109-99-9	* Tetrahydrofuran	<b>1.3</b>		ug/m³	0.30	0.30	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
127-18-4	Tetrachloroethylene	ND		ug/m³	0.70	0.70	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD



## Sample Information

Client Sample ID: IA-2

York Sample ID: 14D0908-04

York Project (SDG) No.

14D0908

Client Project ID

14-132-0401

Matrix

Indoor Ambient Air

Collection Date/Time

April 22, 2014 3:00 pm

Date Received

04/23/2014

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-42-5	Styrene	ND		ug/m³	0.44	0.44	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
115-07-1	* Propylene	ND		ug/m³	0.18	0.18	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.51	0.51	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
179601-23-1	p- & m- Xylenes	ND		ug/m³	0.90	0.90	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
95-47-6	o-Xylene	ND		ug/m³	0.45	0.45	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
110-54-3	n-Hexane	<b>4.3</b>		ug/m³	0.36	0.36	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
142-82-5	n-Heptane	<b>0.72</b>		ug/m³	0.42	0.42	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
75-09-2	Methylene chloride	<b>16</b>		ug/m³	0.72	0.72	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.37	0.37	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.42	0.42	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
67-63-0	Isopropanol	<b>28</b>		ug/m³	0.51	0.51	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.1	1.1	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
100-41-4	Ethyl Benzene	ND		ug/m³	0.45	0.45	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
141-78-6	* Ethyl acetate	<b>1.2</b>		ug/m³	0.74	0.74	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
110-82-7	Cyclohexane	<b>0.43</b>		ug/m³	0.35	0.35	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.47	0.47	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.41	0.41	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
74-87-3	Chloromethane	<b>1.4</b>		ug/m³	0.21	0.21	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
67-66-3	Chloroform	<b>0.76</b>		ug/m³	0.50	0.50	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
75-00-3	Chloroethane	ND		ug/m³	0.27	0.27	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
56-23-5	Carbon tetrachloride	ND		ug/m³	0.16	0.16	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
75-15-0	Carbon disulfide	<b>0.74</b>		ug/m³	0.32	0.32	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
74-83-9	Bromomethane	ND		ug/m³	0.40	0.40	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
75-25-2	Bromoform	ND		ug/m³	1.1	1.1	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
75-27-4	Bromodichloromethane	ND		ug/m³	0.64	0.64	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
100-44-7	Benzyl chloride	ND		ug/m³	0.53	0.53	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
71-43-2	Benzene	<b>0.76</b>		ug/m³	0.33	0.33	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
67-64-1	Acetone	<b>57</b>	B	ug/m³	0.25	0.25	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
591-78-6	* 2-Hexanone	ND		ug/m³	0.84	0.84	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
78-93-3	2-Butanone	<b>3.3</b>		ug/m³	0.30	0.30	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
123-91-1	1,4-Dioxane	ND		ug/m³	0.37	0.37	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.62	0.62	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.62	0.62	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
106-99-0	1,3-Butadiene	ND		ug/m³	0.45	0.45	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.51	0.51	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.72	0.72	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.48	0.48	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.42	0.42	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.62	0.62	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD



## Sample Information

Client Sample ID: IA-2

York Sample ID: 14D0908-04

York Project (SDG) No.

14D0908

Client Project ID

14-132-0401

Matrix

Indoor Ambient Air

Collection Date/Time

April 22, 2014 3:00 pm

Date Received

04/23/2014

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.51	0.51	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.77	0.77	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.41	0.41	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.42	0.42	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.8</b>		ug/m³	0.58	0.58	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.56	0.56	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.79	0.79	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.71	0.71	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.56	0.56	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
75-71-8	<b>Dichlorodifluoromethane</b>	<b>1.8</b>		ug/m³	0.51	0.51	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.79	0.79	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
124-48-1	Dibromochloromethane	ND		ug/m³	0.83	0.83	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
80-62-6	Methyl Methacrylate	ND		ug/m³	0.42	0.42	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
108-90-7	Chlorobenzene	ND		ug/m³	0.47	0.47	1.014	EPA TO-15	04/28/2014 08:53	04/28/2014 14:35	ALD
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
460-00-4	Surrogate: p-Bromofluorobenzene	88.1 %					72-118				

## Sample Information

Client Sample ID: SSV-2

York Sample ID: 14D0908-05

York Project (SDG) No.

14D0908

Client Project ID

14-132-0401

Matrix

Soil Vapor

Collection Date/Time

April 22, 2014 3:00 pm

Date Received

04/23/2014

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/m³	0.57	0.57	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
108-05-4	Vinyl acetate	ND		ug/m³	0.78	0.78	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
79-01-6	<b>Trichloroethylene</b>	<b>11</b>		ug/m³	0.30	0.30	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	1.0	1.0	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.88	0.88	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
108-88-3	Toluene	<b>2.7</b>		ug/m³	0.84	0.84	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.66	0.66	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
127-18-4	<b>Tetrachloroethylene</b>	<b>110</b>		ug/m³	1.5	1.5	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
100-42-5	Styrene	ND		ug/m³	0.95	0.95	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
115-07-1	* Propylene	<b>5.3</b>		ug/m³	0.38	0.38	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
622-96-8	* p-Ethyltoluene	<b>1.3</b>		ug/m³	1.1	1.1	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD



## Sample Information

<u>Client Sample ID:</u> SSV-2	<u>York Sample ID:</u> 14D0908-05
<u>York Project (SDG) No.</u> 14D0908	<u>Client Project ID</u> 14-132-0401
	<u>Matrix</u> Soil Vapor <u>Collection Date/Time</u> April 22, 2014 3:00 pm <u>Date Received</u> 04/23/2014

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
179601-23-1	p- & m- Xylenes	ND		ug/m³	1.9	1.9	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
95-47-6	o-Xylene	ND		ug/m³	0.97	0.97	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
110-54-3	n-Hexane	ND		ug/m³	0.79	0.79	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
142-82-5	n-Heptane	ND		ug/m³	0.91	0.91	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
75-09-2	Methylene chloride	ND		ug/m³	1.5	1.5	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.80	0.80	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.91	0.91	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
67-63-0	<b>Isopropanol</b>	<b>3.9</b>		ug/m³	1.1	1.1	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
87-68-3	Hexachlorobutadiene	ND		ug/m³	2.4	2.4	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
100-41-4	Ethyl Benzene	ND		ug/m³	0.97	0.97	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
141-78-6	* Ethyl acetate	ND		ug/m³	1.6	1.6	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
110-82-7	Cyclohexane	ND		ug/m³	0.77	0.77	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	1.0	1.0	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.88	0.88	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
74-87-3	Chloromethane	ND		ug/m³	0.46	0.46	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
67-66-3	<b>Chloroform</b>	<b>250</b>		ug/m³	1.1	1.1	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
75-00-3	Chloroethane	ND		ug/m³	0.59	0.59	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
56-23-5	Carbon tetrachloride	ND		ug/m³	0.35	0.35	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
75-15-0	<b>Carbon disulfide</b>	<b>2.8</b>		ug/m³	0.69	0.69	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
74-83-9	Bromomethane	ND		ug/m³	0.87	0.87	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
75-25-2	Bromoform	ND		ug/m³	2.3	2.3	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
75-27-4	<b>Bromodichloromethane</b>	<b>4.6</b>		ug/m³	1.4	1.4	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
100-44-7	Benzyl chloride	ND		ug/m³	1.2	1.2	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
71-43-2	<b>Benzene</b>	<b>0.93</b>		ug/m³	0.71	0.71	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
67-64-1	<b>Acetone</b>	<b>15</b>	B	ug/m³	0.53	0.53	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
591-78-6	* 2-Hexanone	ND		ug/m³	1.8	1.8	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
78-93-3	<b>2-Butanone</b>	<b>2.5</b>		ug/m³	0.66	0.66	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
123-91-1	1,4-Dioxane	ND		ug/m³	0.80	0.80	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	1.3	1.3	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	1.3	1.3	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
106-99-0	<b>1,3-Butadiene</b>	<b>2.3</b>		ug/m³	0.97	0.97	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	1.1	1.1	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.6	1.6	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
78-87-5	1,2-Dichloropropane	ND		ug/m³	1.0	1.0	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.90	0.90	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	1.3	1.3	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>1.8</b>		ug/m³	1.1	1.1	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.7	1.7	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.88	0.88	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD



## Sample Information

<u>Client Sample ID:</u> SSV-2	<u>York Sample ID:</u> 14D0908-05			
<u>York Project (SDG) No.</u> 14D0908	<u>Client Project ID</u> 14-132-0401	<u>Matrix</u> Soil Vapor	<u>Collection Date/Time</u> April 22, 2014 3:00 pm	<u>Date Received</u> 04/23/2014

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst	
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.90	0.90	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.5</b>		ug/m³	1.3	1.3	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	1.2	1.2	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.7	1.7	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.5	1.5	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	1.2	1.2	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
75-71-8	<b>Dichlorodifluoromethane</b>	<b>2.1</b>		ug/m³	1.1	1.1	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.7	1.7	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
124-48-1	Dibromochloromethane	ND		ug/m³	1.8	1.8	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
80-62-6	Methyl Methacrylate	ND		ug/m³	0.91	0.91	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
108-90-7	Chlorobenzene	ND		ug/m³	1.0	1.0	2.191	EPA TO-15	04/28/2014 08:53	04/28/2014 23:14	ALD
Surrogate Recoveries		Result	Acceptance Range								
460-00-4	<i>Surrogate: p-Bromofluorobenzene</i>	88.4 %	72-118								



## Notes and Definitions

B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <10x the blank value as artifact.

\* 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.

YORK

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

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

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York Project No. 14/D0908

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

Financial services as you will authorization to work to proceed with the analyses requested and your nature binds you to York's Std. Terms & Conditions unless superseded by written contract.

Comments  
~~4/29/98~~  
4/4/98 Broad Street  
Port Chester, NY