

October 19, 2017

Mr. David J. Chiusano, Project Manager  
New York State Department of Environmental Conservation  
Remedial Bureau E, Section A  
Division of Environmental Remediation  
625 Broadway 12<sup>th</sup> Floor  
Albany, New York 12233-7017

Dear Mr. Chiusano:

Enclosed please find the first Periodic Review Report for Clinton West/Ithaca West, Site No. 755015.

Should you have any questions or require additional information please contact me at 607-377-7990 or at [maser@maser-engineering.net](mailto:maser@maser-engineering.net).

Sincerely,



Marc Maser, P.E., PMP

cc. William Buchalter, VistaGroup  
Ronald S. Kossar, Esq., Representing Ithaca West, LLC  
Richard Jones, NYSDOH  
Margaret A. Sheen, Esq., NYSDEC

Enc.

**CLINTON WEST PLAZA  
TOMPKINS COUNTY, NEW YORK**

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**First Periodic Review Report**

**NYSDEC Site Number: 755015**

**Prepared for:**  
Ithaca West, LLC  
626 East Main Street  
Middletown, New York 10940

**Prepared by:**  
Maser Engineering  
112 N. Main Street  
Horseheads, New York 14845  
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**Revisions to Final Periodic Review Report:**

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

**OCTOBER 2017**

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## **1.0 INTRODUCTION AND BACKGROUND**

### **1.1 Introduction:**

This document is required by the executed Order on Consent and Administrative Settlement dated April 22, 2015, Section I. D. "Submission of Final Reports and Periodic Reports, and further, Section I. D. 3. "Site Management." It is performed in accordance with the "On-Site SSDS Operation and Monitoring Work Plan" prepared by Maser Engineering, dated November 2015.

Maser Engineering was tasked by Ithaca West, LLC to develop the Periodic Review Report (PRR) to present to the New York State Department of Environmental Conservation (NYSDEC) per the requirement described in the above.

### **1.2 Site Background:**

The 2.49-acre site is commercially developed with an active 36,254 ft<sup>2</sup> shopping plaza that was constructed in 1970 and is currently owned by Ithaca West, LLC. The site is surrounded by residential neighborhoods and a retail property. A laundromat, Clinton West Laundry, was located at 609 West Clinton Street within the Clinton West Plaza, Ithaca, New York, but is no longer operational and the space is vacant. Residential structures are located immediately southwest and east of the property. The site includes large parking areas paved with asphalt.

The Clinton West Plaza site was initially reported as a potential site with contamination after First Niagara Bank of Rochester, New York retained LCS, Inc. (LCS) of Buffalo, New York to conduct an Environmental Transaction Screening, Environmental Site Assessment Report in December 2005 (LCS 2006). The Environmental Site Assessment report concluded that a Phase II investigation was warranted to assess the environmental conditions on-site due to the former operational history of a dry cleaner at the site. LCS completed the Phase II subsurface investigation and supplemental subsurface investigations, and determined that soil and groundwater contamination associated with dry cleaning chemicals, notably tetrachloroethene (PCE), existed at the site. PCE is a solvent commonly used in the dry-cleaning process. Based on the findings of the Phase II investigation, the site was listed on the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites in New York State as a Class 2 site (Site No. 755015).

A Sub-Slab Depressurization System (SSDS) was installed to prevent exposure to indoor air impacted with VOCs within the site building. The system serves to reduce the pressure beneath the building slab by venting potentially impacted soil vapor to outside of the building.

### **1.3 Scope of Report:**

The scope of material required in this report per the SSDS Operation & Monitoring Work Plan is as follows:

- Perform indoor air sampling (two samples) according to Section 3.2 of the O&M Work Plan.
- Perform outdoor air sampling (one sample)
- Obtain a sub-slab soil vapor sample (one sample)
- Develop a maintenance report according to Section 4.0 of the O&M Work Plan.
- Perform a field inspection (Section 5.1) to ensure the following:
  - SSDS is in place, is performing properly and remains effective
  - The Monitoring Plan is being implemented
  - Operation and maintenance activities are being conducted properly

- The site remedy continues to be protective of public health and the environment and is performing as designed in the Remedial Action Work Plan (Conceptual Pilot Study Design Report) and Final Engineering Report.
- Provide reporting for the above inspection
- Provide a certification according to Section 5.2

#### **1.4 Summary of Current Renovations:**

The Owner currently has renovations underway at the site which will prepare it for an incoming tenant. John Snyder Architects of Ithaca, NY provided the construction documents and McPherson Builders of Ithaca, NY is the General Contractor. The building work in the old dry-cleaning facility will be conducted in one phase while the site work will be conducted in two phases. The scope of work for phase one includes:

##### Asbestos Abatement:

- Removal and disposal of approximately 2,400 square feet of floor tile and mastic.
- Removal and disposal of eight lineal feet of transite pipe.
- Removal and disposal of caulk around large windows, four exterior doors and a small window.
- Removal and disposal of window pane glazing from one small window.

##### Demolition:

- Removal of existing steel doors and door frames, windows, window frames, plumbing fixtures, interior stud walls with wall coverings, all dry-cleaning equipment and external brick veneer (surface will be prepped for replacement), existing lighting (temporary lighting will then be installed) and ceilings.

##### Envelope:

- Frame, insulate, drywall and finish a 56-foot demising wall to the underside of the existing deck.
- Shore, remove and replace steel columns at the building storefront.
- Partial infill frame, insulate and plywood exterior openings to match new elevation on drawing.
- At interior of exterior walls, install two-inch z-furring, two-inch rigid insulation, drywall and finish walls.
- New wood blocking at roof edge with new metal coping.
- New exterior storefront and two new aluminum entrance doors.
- Exterior siding.

##### HVAC:

- Removal of the HVAC unit and installation of a new HVAC unit with new ductwork.
- Relocation of the SSDS Sub Slab Depressurization System Exhaust Pipe (to be discussed in greater detail later in this section).

##### Site Work:

- Remove approximate 2,000 square feet of existing asphalt
- Install 4-foot diameter dry well with road duty frame and grate. Install pipe to existing storm sewer.
- Readjust the well monitoring caps to appropriate grade.
- Re-grade existing base gravel, add crusher run where necessary, and compact.
- Fine grade the entire area.
- Install 3.5-inches of Type #3 binder and compact.

- Shim low areas with Type #37 top to reduce trip hazards
  - Install new concrete parking stop bumpers
  - Re-stripe the parking lot per design
  - Cap sidewalk with Type #7 asphalt
- 

#### Monitoring Wells:

- In addition to the site work presented above, the monitoring well caps will be lowered slightly to ensure they're flush with the new asphalt elevation.
- Some caps have become loose as well due to vehicular traffic and plowing

#### Soil Disposal:

- Part of the interior utility work included installing new utility lines under the slab. To do this the contractor excavated approximately five cubic yards of soil. Soil tests were conducted to determine the level of VOCs in the soil. A letter was sent to the NYSDEC on March 3, 2017 showing the results of the soil test and requesting to dispose of the material as regular construction debris. The approval letter to do so was submitted to Maser on March 6, 2017. All correspondence, including the soil test report is included in Appendix D for reference.

#### SSDS:

- The PVC exhaust pipe for the SSDS was relocated. The pipe originally discharged to the front of the complex (west side of the building); the pipe now discharges to the south side of the building. Photos of the relocated pipe can be found in the SSDS Inspection report located in Appendix B

The scope of work will not affect any of the EC's or IC's currently installed on site except for what was discussed above. Any future work not presented above will also be relayed to the NYSDEC on a separate letter/report.

## **2.0 INDOOR AIR SAMPLING**

### **2.1 General Site Inspection**

Prior to collection of indoor air samples, an inspection of general site conditions was performed. The inspection included the following activities:

- Completion of the NYSDOH Indoor Air Quality Questionnaire and Building Inventory included in Indoor Air Sampling and Analysis Guidance (NYSDOH 2006b).
- Documentation of conditions inside.
- Ambient indoor air screening using field equipment (i.e., parts per billion photoionization detector).
- Selection of air sampling locations.

Appendix A-1 and A-2 includes the completed Daily Observation Report, the NYSDOH Indoor Air Quality Questionnaire, site sketches showing sampling locations, and the Chain of Custody form which includes the remainder of required information. Note that indoor air samples were obtained in the Fall of 2016 and the fall of 2017. Both results are presented in the Appendix and below.

### **2.2 Indoor Air Sampling and Results**

As part of the installation of the SSDS, indoor air sampling is to take place annually as required by the NYSDEC and NYSDOH to monitor effectiveness of the SSDS and potential soil VI. Samples were

analyzed by Keystone Environmental, an Environmental Laboratory Analytical Program (ELAP)-certified laboratory for VOCs. Keystone used the U.S. Environmental Protection Agency (EPA) Method, TO-15 SIM.

In accordance with the NYSDOH guidance for evaluating soil VI (2006a), the analysis for the indoor air samples was required to achieve detection limits of 0.25 ppbv for each compound. In this case, the lab reached a limit of 0.15 ppbv for each compound.

Keystone performed the air monitoring from Monday August 28, 2017 at 9:00 AM (EST) and terminated the tests on Tuesday August 29, 2017 at 9:00 AM (EST). The full report and results are found in Appendix A.

#### Indoor Air Sample #1 (IA-1): Canister #749

The specific location for this sample is shown in Appendix A. It was placed on the south side of the old dry-cleaning facility. As this space is now two storefronts, this sample was taken on the south storefront.

#### *South Side Results Summary:*

Compounds listed below are those presented in Table 1 of this report and are used to perform the main analyses. The following compounds are higher than the quantitation limit:

- Methylene Chloride 2.00  $\mu\text{g}/\text{m}^3$
- Tetrachloroethylene 1.40  $\mu\text{g}/\text{m}^3$

#### Indoor Air Sample #2 (IA-2): Canister #862

The specific location for this sample is shown in Appendix A. It was placed on the north side of the complex, outside of the dry-cleaning area.

#### *North Side Results Summary:*

Note that this sample was taken on the north side of the entire complex, not just the old dry-cleaning area. The other sample, IA-1 discussed above was taken in the old dry-cleaning space. This sample is shown for reference only and cannot be compared to historical results.

Compounds listed below are those presented in Table 1 of this report and are used to perform the main analyses. The following compounds are higher than the quantitation limit:

- Methylene Chloride 40.00  $\mu\text{g}/\text{m}^3$

### **2.3 Indoor Air Sampling Analysis**

The State of New York does not have any standards, criteria or guidance values for concentrations of volatile chemicals in subsurface vapors (either soil vapor or sub-slab vapor). The NYSDOH has, however, developed several guidelines for chemicals in air, and apply to specific situations. The follow is from Table 3.1, Air Guideline Values Derived by the NYSDOH, from the NYSDOH Guidance on Evaluation of Soil Vapor Intrusion.

**Table 3.1** Air guideline values derived by the NYSDOH

Chemical		Air Guideline Value (mcg/m <sup>3</sup> )	Reference
methylene chloride (also referred to as dichloromethane)	MeCl	60	1
polychlorinated biphenyls	PCBs	1*	2,3
tetrachlorodibenzo- <i>p</i> -dioxin equivalents	TCDD	0.00001*	3,4
tetrachloroethene	PCE	100	5
trichloroethene	TCE	5	6,7

\*The guideline is specific to indoor air.

References:

- [1] NYSDOH. 1988. Letter from N. Kim to T. Allen, Division of Air, New York State Department of Environmental Conservation. November 28, 1988.
- [2] NYSDOH. 1985. Binghamton State Office Building (BSOB) Re-Entry Guidelines: PCBs. Document 1330P. Albany, NY: Bureau of Toxic Substance Assessment.
- [3] NYSDOH. 1988. Letter from D. Axelrod to J. Egan, New York State Office of General Services. March 8, 1988.
- [4] NYSDOH. 1984. Re-Entry Guidelines. Binghamton State Office Building. Document 0549P. Albany, NY: Bureau of Toxic Substance Assessment.
- [5] NYSDOH. 1997. Tetrachloroethene Ambient Air Criteria Document. Albany, NY: Bureau of Toxic Substance Assessment.
- [6] NYSDOH. 2003. Letter from N. Kim to D. Desnoyers, Division of Environmental Remediation, New York State Department of Environmental Conservation. October 31, 2003. [Provided in Appendix D.]
- [7] NYSDOH. 2006. Final Report: Trichloroethene (TCE) Air Criteria Document. Center for Environmental Health, Bureau of Toxic Substance Assessment. Troy, NY.

Source: "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," October 2006

**Table No. 1: Air Guideline Values Derived by the NYSDOH**

The VOC's listed above are the only chemicals that have guideline values associated with them. It should be noted that the Department has provided new ambient air levels for Tetrachloroethene and Trichloroethene, issued September 2013 and August 2015, respectively. The new values are as follows:

- Tetrachloroethene
  - Guideline
    - Lowered from 100 µg/m<sup>3</sup> to 30 µg/m<sup>3</sup>
  - Recommended Immediate Action Level
    - Lowered from 1,000 µg/m<sup>3</sup> to 300 µg/m<sup>3</sup>
- Trichloroethene
  - Guideline
    - Lowered from 5 µg/m<sup>3</sup> to 2 µg/m<sup>3</sup>
  - Recommended Immediate Action Level
    - Developed and set at 20 µg/m<sup>3</sup>

Three comparisons will be made; current readings versus the NYSDOH acceptable guidelines and the current readings versus the actual historical readings taken on February 10, 2011 and in 2016. The following table presents this comparison:



Compound	February 2011 Ambient Air Reading	August 2016 Ambient Air Reading (North Side)	August 2016 Ambient Air Reading (South Side)	August 2017 Ambient Air Reading (IA-1)	NYSDOH Acceptable Level	Result
Methylene Chloride	1.70 $\mu\text{g}/\text{m}^3$	1.71 $\mu\text{g}/\text{m}^3$	1.14 $\mu\text{g}/\text{m}^3$	2.00 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$	OK
Tetrachloroethene	12.00 $\mu\text{g}/\text{m}^3$	1.36 $\mu\text{g}/\text{m}^3$	1.96 $\mu\text{g}/\text{m}^3$	1.40 $\mu\text{g}/\text{m}^3$	30 $\mu\text{g}/\text{m}^3$	OK
Trichloroethene	N/A	<1.07 $\mu\text{g}/\text{m}^3$	<1.07 $\mu\text{g}/\text{m}^3$	ND	2 $\mu\text{g}/\text{m}^3$	OK

**Table No. 2: Indoor Air Sample Analyses from 2011 to 2017**

Based on the analysis above, the current values are trending in the positive direction for PCE (Tetrachloroethene). The ambient indoor air level decreased by 84% (from 12.00  $\mu\text{g}/\text{m}^3$  to 1.96  $\mu\text{g}/\text{m}^3$ ) from 2011 to 2016 and then decreased another 29% (from 1.96  $\mu\text{g}/\text{m}^3$  to 1.40  $\mu\text{g}/\text{m}^3$ ) from 2016 to 2017. PCE is the VOC that was responsible for the contamination of the site due to historical dry-cleaning operations.

Methylene Chloride increased from both the 2011 and 2016 readings but are well below the NYSDOH acceptable level.

### 3.0 OUTDOOR AIR SAMPLING

#### 3.1 General Site Inspection

Prior to collection of outdoor air samples, an inspection of general site conditions was performed. The inspection included the following activities:

- Documentation of conditions outside.
- Ambient outdoor air screening using field equipment (i.e., parts per billion photoionization detector).
- Selection of air sampling locations.

Appendix A includes the completed Daily Observation Report, the NYSDOH Indoor Air Quality Questionnaire, site sketches showing sampling locations, and the Chain of Custody form which includes the remainder of required information.

#### 3.2 Outdoor Air Sampling and Results

As part of the installation of the SSDS, outdoor air sampling is to take place annually as required by the NYSDEC and NYSDOH to monitor effectiveness of the SSDS and potential soil VI. Samples were analyzed by Pace Analytical, an Environmental Laboratory Analytical Program (ELAP)-certified laboratory for VOCs. Pace used the U.S. Environmental Protection Agency (EPA) Method, TO-15 SIM.

In accordance with the NYSDOH guidance for evaluating soil VI (2006a), the analysis for the indoor air samples was required to achieve detection limits of 0.25 ppbv for each compound. In this case, the lab could reach a limit of 0.15 ppbv for each compound.

Keystone performed the air monitoring from Monday August 28, 2017 at 9:00 AM (EST) and terminated the tests on Tuesday August 29, 2017 at 9:00 AM (EST). The full report and results are found in Appendix A. A single outside air test was taken and the location was just outside of the old dry-cleaning facility in the parking lot.

#### Outdoor Air Sample #1 (OA-1): Canister #1121

Compounds presented in Table 1 of this report were less than the quantitation limit except for the following:

- Methylene Chloride:  $0.73 \mu\text{g}/\text{m}^3$

### **3.3 Air Sampling Analysis**

Using the table from Section 2.3 in this report, the following comparisons can be made:

Compound	February 2011 Actual Ambient Air Reading	August 2016 <i>Actual Outdoor Air Reading</i>	August 2017 Actual Ambient Air Reading (IA-1)	NYSDOH Acceptable Level	Result
Methylene Chloride	$0.81 \mu\text{g}/\text{m}^3$	<i>Not Taken</i>	<b><math>0.73 \mu\text{g}/\text{m}^3</math></b>	$60 \mu\text{g}/\text{m}^3$	OK
Tetrachloroethene	ND	<i>Not Taken</i>	<b><math>&lt;1.00 \mu\text{g}/\text{m}^3</math></b>	$30 \mu\text{g}/\text{m}^3$	OK
Trichloroethene	ND	<i>Not Taken</i>	<b>ND</b>	$2 \mu\text{g}/\text{m}^3$	OK

**Table No. 3: Outdoor Air Sample Analyses from 2011 to 2017**  
(ND – Not Detected)

Based on the analysis above, the current values are trending in the positive direction. The PCE (Tetrachloroethene) wasn't detected in 2011 and is also considered "non-detected" in 2017. The level of Methylene Chloride decreased 10% (from  $0.81 \mu\text{g}/\text{m}^3$  to  $0.73 \mu\text{g}/\text{m}^3$ ) from 2011 to 2017. No readings were taken in 2016. All readings were well below the NYSDOH acceptable level.

## **4.0 SUB-SLAB SOIL VAPOR SAMPLING**

### **4.1 General Site Inspection**

The same procedure for collecting indoor air samples was followed for the sub-slab soil vapor sample.

Appendix A includes the completed Daily Observation Report, the NYSDOH Indoor Air Quality Questionnaire, site sketches showing sampling locations, and the Chain of Custody form which includes the remainder of required information.

### **4.2 Sub-Slab Sampling and Results**

As part of the installation of the SSDS, indoor air sampling is to take place annually as required by the NYSDEC and NYSDOH to monitor effectiveness of the SSDS and potential soil VI. Samples were analyzed by Pace Analytical, an Environmental Laboratory Analytical Program (ELAP)-certified laboratory for VOCs. Pace used the U.S. Environmental Protection Agency (EPA) Method, TO-15 SIM.

In accordance with the NYSDOH guidance for evaluating soil VI (2006a), the analysis for the indoor air samples was required to achieve detection limits of  $0.25 \mu\text{g}/\text{m}^3$  for each compound. In this case, the lab could reach a limit of  $0.15 \mu\text{g}/\text{m}^3$  for each compound.

Keystone performed the air monitoring from Monday August 28, 2017 at 9:00 AM (EST) and terminated the tests on Tuesday August 29, 2017 at 9:00 AM (EST). The full report and results are found in Appendix A. A single outside air test was taken and the location was just outside of the old dry-cleaning facility in the parking lot.

#### Sub-Slab Soil Vapor Sample #1 (SS-1): Canister #1349

Compounds presented in Table 1 of this report were less than the quantitation limit except for the following:

- Methylene Chloride: 70.00  $\mu\text{g}/\text{m}^3$
- Tetrachloroethylene: 810.00  $\mu\text{g}/\text{m}^3$
- Trichloroethylene: 1.00  $\mu\text{g}/\text{m}^3$

#### **4.2 Sub-Slab Vapor Sampling Analysis**

Using the Table 1 in this report, the following comparisons can be made:

Compound	February 2011 Actual Sub Slab Reading	August 2016 Actual Sub Slab Reading	August 2017 Actual Sub Slab Reading SS-1	NYSDOH Acceptable Level	Result
Methylene Chloride	Not Taken	Not Taken	70 $\mu\text{g}/\text{m}^3$	60 $\mu\text{g}/\text{m}^3$	NG
Tetrachloroethene	Not Taken	Not Taken	810 $\mu\text{g}/\text{m}^3$	30 $\mu\text{g}/\text{m}^3$	NG
Trichloroethene	Not Taken	Not Taken	1.00 $\mu\text{g}/\text{m}^3$	2 $\mu\text{g}/\text{m}^3$	OK

**Table No. 4: Sub-Slab Soil Vapor Analyses from 2011 to 2017**

(ND – Not Detected)

Based on the analysis above, the current values of Methylene Chloride and PCE are higher than the NYSDOH acceptable levels. PCE is 27 times higher than the acceptable level. We couldn't find sub-slab samples from 2011 in the same area to compare to.

#### **5.0 SSDS SYSTEM MONITORING AND FIELD INSPECTION**

The following section focuses on the inspection of the installed Sub Slab Depressurization System. This inspection was performed by Marc Maser, P.E., of Maser Engineering on Tuesday August 29, 2017. The completed inspection report and photos can be found in Appendix B.

##### **5.1 Results of Field Inspection**

The existing SSDS is in place, in its original location, is performing properly and remains effective as a method to decrease levels of contamination on the site. Although construction operations have been ongoing all summer, the SSDS has been protected during this time.

The exhaust pipe discharge point was moved from the front of the building to the side over the past year to accommodate the façade changes.

The Monitoring Plan is being implemented and operation and maintenance activities are being conducted properly. The site remedy continues to be protective of public health and the environment and is performing as designed in the Remedial Action Work Plan (Conceptual Pilot Study Design Report) and Final Engineering Report.

An annual inspection will serve to verify that the system components are in working condition and are not compromised in any way. Annual indoor air sampling will serve to verify that the system is effectively mitigating vapor intrusion.

An annual inspection will be performed on the on-site systems. The inspection is to include the following:

- Inspect all visible system components, including the system piping, fans, manometer, etc. Note any cracks in piping or other operational issues.
- Inspect slab for cracks, noting location and size of gaps, or where seals have begun to fail
- Make sure that contact information on the SSDS is up to date
- Note changes in building use and changes in heating, ventilation and air conditioning.

## **5.2 Comments from Keystone Regarding the SSDS**

Per Keystone's report and follow up email, the existing SSDS does not meet current NYS or ASTM standards for soil vapor remediation standards for the following reasons (*Maser Engineering reply below in italics*):

- The biggest concern is that the fan is installed in an interior conditioned space. All SSDS fans need to be installed at the exterior of the building or inside of the building if the location is outside of an occupied space and above the conditioned space. The current fan is installed at the interior of the conditioned space. This poses risks of leaking contaminated air into the occupied spaces.
  - *The system was not modified in any way by the Owner and the system is in the same location as the original installation. We will defer to the NYSDEC on this comment.*
- The next issue is the electric. Fans need to be hard wired in to either a non-switched outlet or a dedicated breaker and not plugged into an outlet. There is risk of it being unplugged by accident.
  - *The SSDS will be modified so it is hard wired as required.*
- The interior piping is also not supported correctly as it has no vertical support. All vertical piping needs to be supported every 8 feet and currently the horizontal pipe is free standing.
  - *As previously discussed, the exhaust pipe was relocated to the side of the building. The Owner will ensure all vertical piping has supports every eight feet.*
- I was not able to see the exhaust at the rear exterior but it needs to be installed 18 inches above the roofline. Currently there is a temporary sheetrock insert where the system exits the building and light could be seen where it was not sealed. If the exhaust is not above the roofline it is possible that building pressures could cause the contaminated air to be pulled back into the conditioned building.
  - *This is confirmed. The exhaust pipe discharges over 18-inches above the roof line.*

## **6.0 OPERATIONS AND MAINTENANCE WORK PLAN**

No maintenance was performed on the SSDS during the past year.

## **7.0 CERTIFICATION**

After the last inspection of the reporting period, a New York State Professional Engineer is required to prepare a certification statement that certifies several conditions. The signed, stamped certification letter can be found in Appendix C.

# **APPENDIX A-1**

**2016**

INDOOR AIR SAMPLING  
INSPECTION REPORT  
LAB RESULTS  
CHAIN OF CUSTODY FORM  
SITE PLANS

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 JAMES MURPHY Date/Time Prepared 9/12/16  
Preparer's Affiliation PACE ANALYTICAL Phone No. (516) 860-9724  
Purpose of Investigation SITE INVESTIGATION

**1. OCCUPANT:**

Interviewed: Y / N

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

Address: 609 WEST CLINTON ST.

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

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

Number of Occupants/persons at this location 0 Age of Occupants \_\_\_\_\_

**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  
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) FORMER DRY CLEANERS

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

Other characteristics:

Number of floors 1

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

N/A

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 \_\_\_\_\_
- 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: \_\_\_\_\_ (feet)

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

1" DRAIN IN LEFT SIDE HAD PID READING OF 1.0

# 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  
Space Heaters  
Electric baseboard

Heat pump  
Stream radiation  
Wood stove

Hot water baseboard  
Radiant floor  
Outdoor wood boiler

Other NONE

The primary type of fuel used is:

Natural Gas  
Electric  
Wood

Fuel Oil  
Propane  
Coal

Kerosene  
Solar

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.

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

1<sup>st</sup> Floor

2<sup>nd</sup> Floor

3<sup>rd</sup> Floor

4<sup>th</sup> Floor

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage?

Y / ☒ N

b. Does the garage have a separate heating unit?

Y / N / ☒ NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car)

Y / N / ☒ NA

Please specify \_\_\_\_\_

d. Has the building ever had a fire?

Y / ☒ N When? \_\_\_\_\_

e. Is a kerosene or unvented gas space heater present?

Y / ☒ N Where? \_\_\_\_\_

f. Is there a workshop or hobby/craft area?

Y / ☒ N Where & Type? \_\_\_\_\_

g. Is there smoking in the building?

Y / ☒ N How frequently? \_\_\_\_\_

h. Have cleaning products been used recently?

Y / ☒ N When & Type? \_\_\_\_\_

i. Have cosmetic products been used recently?

Y / ☒ N When & Type? \_\_\_\_\_

- j. Has painting/staining been done in the last 6 months? Y / N Where & When? N/A
- 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? \_\_\_\_\_

Are there odors in the building?

If yes, please describe: \_\_\_\_\_

Y ☒ N

Do any of the building occupants use solvents at work? Y ☒ N

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

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

If yes, are their clothes washed at work?

Y ☒ N

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

Yes, use dry-cleaning regularly (weekly)

Yes, use dry-cleaning infrequently (monthly or less)

Yes, work at a dry-cleaning service

☒ No

Unknown

Is there a radon mitigation system for the building/structure? Y / ☒ N Date of Installation: \_\_\_\_\_

Is the system active or passive?

Active/Passive

## 9. WATER AND SEWAGE

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

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

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

a. Provide reasons why relocation is recommended: \_\_\_\_\_

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

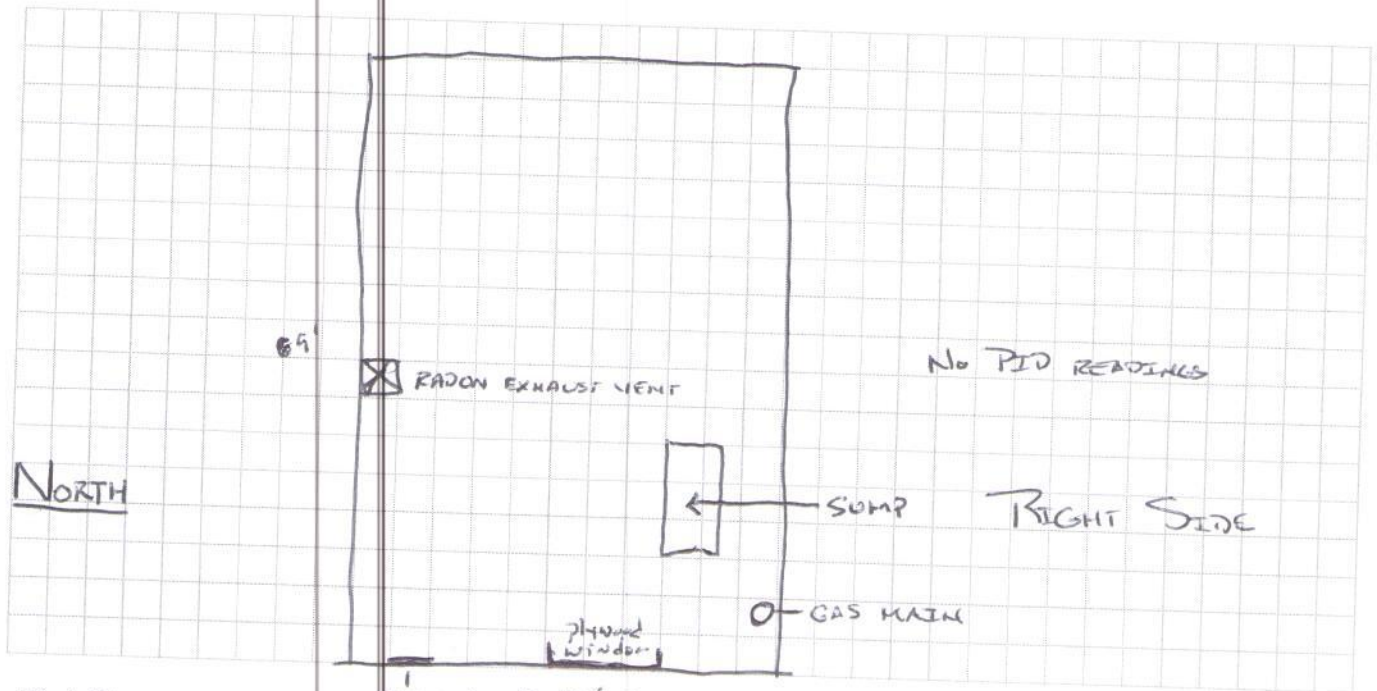
c. Responsibility for costs associated with reimbursement explained? Y / N

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

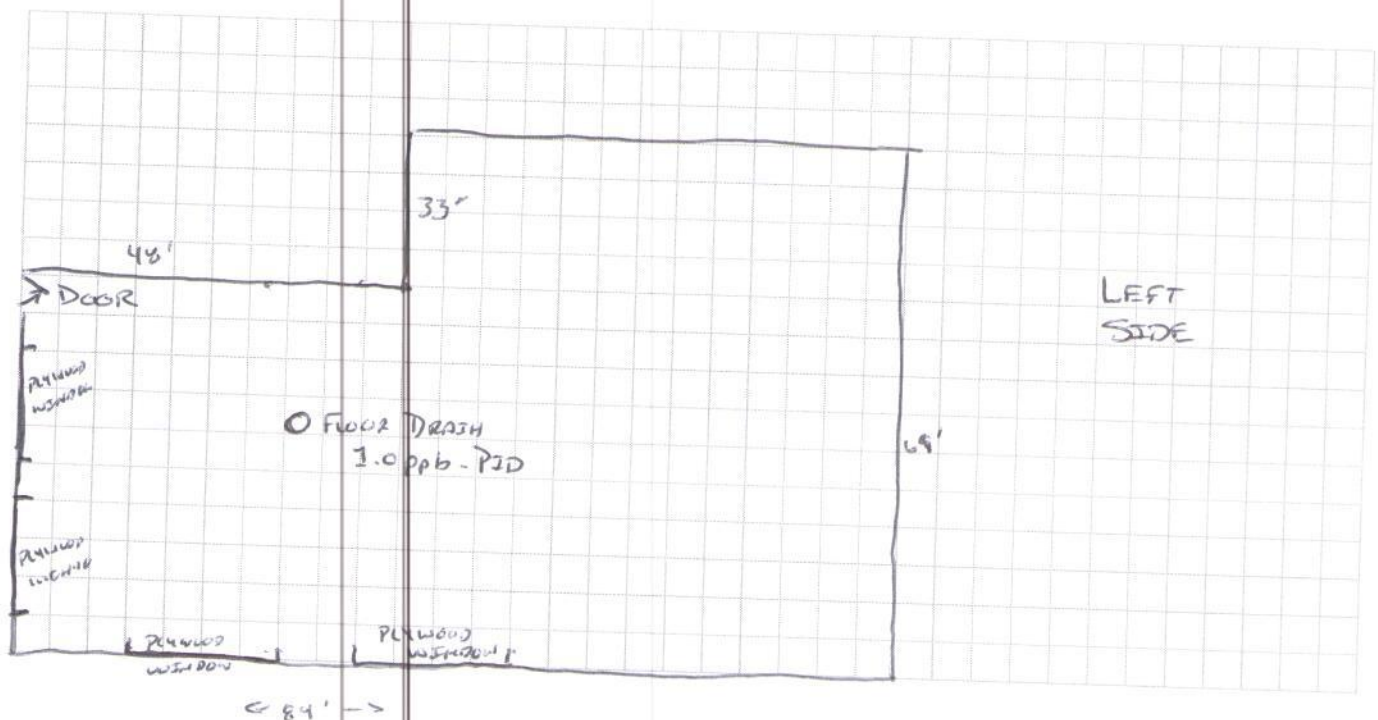
# 11. FLOOR PLANS

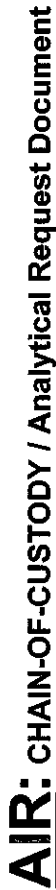
Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:





The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

SAMPLER NAME: AND SIGNATURE

PRINT Name of SAMPLER: James Murphy PAGE

SIGNATURE of SAMPLER: \_\_\_\_\_ DATE Signed (MM / DD / YY) \_\_\_\_\_

575 BROAD HOLLOW ROAD, MELVILLE, NY 11747 Air Technical Phone: 631.694.3040



## LABORATORY RESULTS

Results for the samples and analytes requested

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### Maser Engineering

112 North Main St  
 Horseheads, NY 14845

Attn To : Marc Maser

Collected : 9/14/2016 9:00:00 AM

Received : 9/16/2016 10:00:00 AM

Collected By JM03

Lab No. : 1609F02-001

Client Sample ID: RIGHT SIDE

### Sample Information:

Type : Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
1,1,1-Trichloroethane	< 0.20	ppbv		1	< 1.09	µg/m³	09/28/2016
1,1,2,2-Tetrachloroethane	< 0.20	ppbv		1	< 1.37	µg/m³	09/28/2016
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.20	ppbv		1	< 1.53	µg/m³	09/28/2016
1,1,2-Trichloroethane	< 0.20	ppbv		1	< 1.09	µg/m³	09/28/2016
1,1-Dichloroethane	< 0.20	ppbv		1	< 0.81	µg/m³	09/28/2016
1,1-Dichloroethene	< 0.20	ppbv		1	< 0.79	µg/m³	09/28/2016
1,2,4-Trichlorobenzene	< 0.20	ppbv		1	< 1.48	µg/m³	09/28/2016
1,2,4-Trimethylbenzene	< 0.20	ppbv		1	< 0.98	µg/m³	09/28/2016
1,2-Dibromoethane	< 0.20	ppbv		1	< 1.54	µg/m³	09/28/2016
1,2-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	09/28/2016
1,2-Dichloroethane	< 0.20	ppbv		1	< 0.81	µg/m³	09/28/2016
1,2-Dichloroethene (cis)	< 0.20	ppbv		1	< 0.79	µg/m³	09/28/2016
1,2-Dichloroethene (trans)	< 0.20	ppbv		1	< 0.79	µg/m³	09/28/2016
1,2-Dichloropropane	< 0.20	ppbv		1	< 0.92	µg/m³	09/28/2016
1,2-Dichlorotetrafluoroethane	< 0.20	ppbv		1	< 1.40	µg/m³	09/28/2016
1,3,5-Trimethylbenzene	< 0.20	ppbv		1	< 0.98	µg/m³	09/28/2016
1,3-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	09/28/2016
1,3-Dichloropropene (cis)	< 0.20	ppbv		1	< 0.91	µg/m³	09/28/2016
1,3-Dichloropropene (trans)	< 0.20	ppbv		1	< 0.91	µg/m³	09/28/2016
1,3-Hexachlorobutadiene	< 0.20	ppbv		1	< 2.13	µg/m³	09/28/2016
1,4-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	09/28/2016
Acetone	4.10	ppbv		1	9.73	µg/m³	09/28/2016
Benzene	< 0.20	ppbv		1	< 0.64	µg/m³	09/28/2016
Bromodichloromethane	< 0.20	ppbv		1	< 1.34	µg/m³	09/28/2016
Bromoform	< 0.20	ppbv		1	< 2.07	µg/m³	09/28/2016
Bromomethane	< 0.20	ppbv		1	< 0.78	µg/m³	09/28/2016
Carbon disulfide	< 0.20	ppbv		1	< 0.62	µg/m³	09/28/2016
Carbon tetrachloride	< 0.20	ppbv		1	< 1.26	µg/m³	09/28/2016
Chlorobenzene	< 0.20	ppbv		1	< 0.92	µg/m³	09/28/2016
Chloroethane	< 0.20	ppbv		1	< 0.53	µg/m³	09/28/2016
Chloroform	< 0.20	ppbv		1	< 0.98	µg/m³	09/28/2016
Chloromethane	0.36	ppbv	S	1	0.74	µg/m³	09/28/2016

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

c = Calibration acceptability criteria exceeded for this analyte. Value estimated

H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

P = Duplicate RPD outside of control limit

r = Reporting limit below calibration range. Value estimated.

S = Recovery outside of control limits for this analyte

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method



Project Manager : Caitlin Panzarella

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Results for the samples and analytes requested

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### Maser Engineering

112 North Main St  
 Horseheads, NY 14845

Attn To : Marc Maser

Collected : 9/14/2016 9:00:00 AM

Received : 9/16/2016 10:00:00 AM

Collected By JM03

Lab No. : 1609F02-001

Client Sample ID: RIGHT SIDE

### Sample Information:

Type : Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
Dibromochloromethane	< 0.20	ppbv		1	< 1.70	µg/m <sup>3</sup>	09/28/2016
Dichlorodifluoromethane	0.30	ppbv		1	1.47	µg/m <sup>3</sup>	09/28/2016
Ethylbenzene	< 0.20	ppbv		1	< 0.87	µg/m <sup>3</sup>	09/28/2016
Isopropanol	1.31	ppbv		1	3.22	µg/m <sup>3</sup>	09/28/2016
Methyl butyl ketone	< 0.20	ppbv	+	1	< 0.82	µg/m <sup>3</sup>	09/28/2016
Methyl ethyl ketone	0.29	ppbv	S	1	0.86	µg/m <sup>3</sup>	09/28/2016
Methyl isobutyl ketone	< 0.20	ppbv		1	< 0.82	µg/m <sup>3</sup>	09/28/2016
Methyl tert-butyl ether	< 0.20	ppbv		1	< 0.72	µg/m <sup>3</sup>	09/28/2016
Methylene chloride	0.29	ppbv		1	1.14	µg/m <sup>3</sup>	09/28/2016
Styrene	< 0.20	ppbv		1	< 0.85	µg/m <sup>3</sup>	09/28/2016
Tetrachloroethene	0.29	ppbv		1	1.96	µg/m <sup>3</sup>	09/28/2016
Toluene	0.30	ppbv		1	1.13	µg/m <sup>3</sup>	09/28/2016
Trichloroethene	< 0.20	ppbv		1	< 1.07	µg/m <sup>3</sup>	09/28/2016
Trichlorofluoromethane	0.33	ppbv		1	1.83	µg/m <sup>3</sup>	09/28/2016
Vinyl acetate	< 0.20	ppbv		1	< 0.70	µg/m <sup>3</sup>	09/28/2016
Vinyl chloride	< 0.20	ppbv		1	< 0.51	µg/m <sup>3</sup>	09/28/2016
Xylenes (m&p)	< 0.20	ppbv		1	< 0.87	µg/m <sup>3</sup>	09/28/2016
Xylenes (o)	< 0.20	ppbv		1	< 0.87	µg/m <sup>3</sup>	09/28/2016
Surr: 4-Bromofluorobenzene	94.4	%Rec	Limit	70-130	No M.W. Data		09/28/2016

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

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H = Received/analyzed outside of analytical holding time

J = Estimated value - below calibration range

M-, M+ = Matrix Spike recovery below / above control limit

N = Indicates presumptive evidence of compound

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+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

Date Reported : 10/3/2016



Project Manager : Caitlin Panzarella

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112 North Main St  
 Horseheads, NY 14845

Attn To : Marc Maser

Collected : 9/14/2016 9:05:00 AM

Received : 9/16/2016 10:00:00 AM

Collected By JM03

Lab No. : 1609F02-002

Client Sample ID: LEFT SIDE

### Sample Information:

Type : Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
1,1,1-Trichloroethane	< 0.20	ppbv		1	< 1.09	µg/m³	09/28/2016 12:41 AM
1,1,2,2-Tetrachloroethane	< 0.20	ppbv		1	< 1.37	µg/m³	09/28/2016 12:41 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	< 0.20	ppbv		1	< 1.53	µg/m³	09/28/2016 12:41 AM
1,1,2-Trichloroethane	< 0.20	ppbv		1	< 1.09	µg/m³	09/28/2016 12:41 AM
1,1-Dichloroethane	< 0.20	ppbv		1	< 0.81	µg/m³	09/28/2016 12:41 AM
1,1-Dichloroethene	< 0.20	ppbv		1	< 0.79	µg/m³	09/28/2016 12:41 AM
1,2,4-Trichlorobenzene	< 0.20	ppbv		1	< 1.48	µg/m³	09/28/2016 12:41 AM
1,2,4-Trimethylbenzene	< 0.20	ppbv		1	< 0.98	µg/m³	09/28/2016 12:41 AM
1,2-Dibromoethane	< 0.20	ppbv		1	< 1.54	µg/m³	09/28/2016 12:41 AM
1,2-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	09/28/2016 12:41 AM
1,2-Dichloroethane	< 0.20	ppbv		1	< 0.81	µg/m³	09/28/2016 12:41 AM
1,2-Dichloroethene (cis)	< 0.20	ppbv		1	< 0.79	µg/m³	09/28/2016 12:41 AM
1,2-Dichloroethene (trans)	< 0.20	ppbv		1	< 0.79	µg/m³	09/28/2016 12:41 AM
1,2-Dichloropropane	< 0.20	ppbv		1	< 0.92	µg/m³	09/28/2016 12:41 AM
1,2-Dichlorotetrafluoroethane	< 0.20	ppbv		1	< 1.40	µg/m³	09/28/2016 12:41 AM
1,3,5-Trimethylbenzene	< 0.20	ppbv		1	< 0.98	µg/m³	09/28/2016 12:41 AM
1,3-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	09/28/2016 12:41 AM
1,3-Dichloropropene (cis)	< 0.20	ppbv		1	< 0.91	µg/m³	09/28/2016 12:41 AM
1,3-Dichloropropene (trans)	< 0.20	ppbv		1	< 0.91	µg/m³	09/28/2016 12:41 AM
1,3-Hexachlorobutadiene	< 0.20	ppbv		1	< 2.13	µg/m³	09/28/2016 12:41 AM
1,4-Dichlorobenzene	< 0.20	ppbv		1	< 1.20	µg/m³	09/28/2016 12:41 AM
Acetone	2.13	ppbv		1	5.06	µg/m³	09/28/2016 12:41 AM
Benzene	< 0.20	ppbv		1	< 0.64	µg/m³	09/28/2016 12:41 AM
Bromodichloromethane	< 0.20	ppbv		1	< 1.34	µg/m³	09/28/2016 12:41 AM
Bromoform	< 0.20	ppbv		1	< 2.07	µg/m³	09/28/2016 12:41 AM
Bromomethane	< 0.20	ppbv		1	< 0.78	µg/m³	09/28/2016 12:41 AM
Carbon disulfide	< 0.20	ppbv		1	< 0.62	µg/m³	09/28/2016 12:41 AM
Carbon tetrachloride	< 0.20	ppbv		1	< 1.26	µg/m³	09/28/2016 12:41 AM
Chlorobenzene	< 0.20	ppbv		1	< 0.92	µg/m³	09/28/2016 12:41 AM
Chloroethane	< 0.20	ppbv		1	< 0.53	µg/m³	09/28/2016 12:41 AM
Chloroform	< 0.20	ppbv		1	< 0.98	µg/m³	09/28/2016 12:41 AM
Chloromethane	< 0.20	ppbv		1	< 0.41	µg/m³	09/28/2016 12:41 AM

Qualifiers: E = Value above quantitation range, Value estimated.

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Project Manager : Caitlin Panzarella

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### Maser Engineering

112 North Main St  
 Horseheads, NY 14845

Attn To : Marc Maser

Collected : 9/14/2016 9:05:00 AM

Received : 9/16/2016 10:00:00 AM

Collected By JM03

Lab No. : 1609F02-002

Client Sample ID: LEFT SIDE

### Sample Information:

Type : Air

Origin:

Method: ETO-15 : Parameter(s)	Result	Units	Qualifier	D.F.	Result	Units	Date Analyzed
Dibromochloromethane	< 0.20	ppbv		1	< 1.70	µg/m³	09/28/2016 12:41 AM
Dichlorodifluoromethane	< 0.20	ppbv		1	< 0.99	µg/m³	09/28/2016 12:41 AM
Ethylbenzene	< 0.20	ppbv		1	< 0.87	µg/m³	09/28/2016 12:41 AM
Isopropanol	< 0.50	ppbv		1	< 1.23	µg/m³	09/28/2016 12:41 AM
Methyl butyl ketone	< 0.20	ppbv	+	1	< 0.82	µg/m³	09/28/2016 12:41 AM
Methyl ethyl ketone	0.24	ppbv	S	1	0.71	µg/m³	09/28/2016 12:41 AM
Methyl isobutyl ketone	< 0.20	ppbv		1	< 0.82	µg/m³	09/28/2016 12:41 AM
Methyl tert-butyl ether	< 0.20	ppbv		1	< 0.72	µg/m³	09/28/2016 12:41 AM
Methylene chloride	0.44	ppbv		1	1.71	µg/m³	09/28/2016 12:41 AM
Styrene	< 0.20	ppbv		1	< 0.85	µg/m³	09/28/2016 12:41 AM
Tetrachloroethene	< 0.20	ppbv		1	< 1.36	µg/m³	09/28/2016 12:41 AM
Toluene	< 0.20	ppbv		1	< 0.75	µg/m³	09/28/2016 12:41 AM
Trichloroethene	< 0.20	ppbv		1	< 1.07	µg/m³	09/28/2016 12:41 AM
Trichlorofluoromethane	< 0.20	ppbv		1	< 1.12	µg/m³	09/28/2016 12:41 AM
Vinyl acetate	< 0.20	ppbv		1	< 0.70	µg/m³	09/28/2016 12:41 AM
Vinyl chloride	< 0.20	ppbv		1	< 0.51	µg/m³	09/28/2016 12:41 AM
Xylenes (m&p)	< 0.20	ppbv		1	< 0.87	µg/m³	09/28/2016 12:41 AM
Xylenes (o)	< 0.20	ppbv		1	< 0.87	µg/m³	09/28/2016 12:41 AM
Surr: 4-Bromofluorobenzene	95.7	%Rec	Limit	70-130	No M.W. Data		09/28/2016 12:41 AM

Qualifiers: E = Value above quantitation range, Value estimated.

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S = Recovery outside of control limits for this analyte

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Date Reported : 10/3/2016



Project Manager : Caitlin Panzarella

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PACE ANALYTICAL  
575 Broad Hollow Road  
Melville, NY 11747  
TEL: (631) 694-3040 FAX: (631) 420-8436  
Website: [www.pacelabs.com](http://www.pacelabs.com)

## Sample Receipt Checklist

Client Name **MASER**

Date and Time Received: **9/16/2016 10:00:00 AM**

Work Order Number: **1609F02**

RcptNo: **1**

Received by **Edward Domaradzki**

Completed by:

*Paige Doherty*

Reviewed by:

*Caitlin Panzarella*

Completed Date: 9/19/2016 2:03:39 PM

Reviewed Date: 9/30/2016 1:30:35 PM

Carrier name: FedEx

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Are matrices correctly identified on Chain of custody?

Yes ☒

No ☐

Is it clear what analyses were requested?

Yes ☒

No ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

Samples in proper container/bottle?

Yes ☒

No ☐

Were correct preservatives used and noted?

Yes ☒

No ☐

NA ☐

Preservative added to bottles:

Sample Condition?

Intact ☒

Broken ☐

Leaking ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

Were container labels complete (ID, Pres, Date)?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

All samples received at a temp. of > 0° C to 6.0° C?

Yes ☐

No ☒

NA ☐

Response when temperature is outside of range:

Not required

Sample Temp. taken and recorded upon receipt?

Yes ☐

No ☒

To °

Water - Were bubbles absent in VOC vials?

Yes ☐

No ☐

No Vials ☒

Water - Was there Chlorine Present?

Yes ☐

No ☐

NA ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

No Water ☒

Are Samples considered acceptable?

Yes ☒

No ☐

Custody Seals present?

Yes ☐

No ☒

Airbill or Sticker?

Air Bil ☒

Sticker ☐

Not Present ☐

Airbill No:

8082 4000 8437

Case Number:

SDG:

SAS:

Any No response should be detailed in the comments section below, if applicable.

Client Contacted? ☐ Yes ☐ No ☒ NA

Person Contacted:

Contact Mode: ☐ Phone: ☐ Fax: ☐ Email: ☐ In Person:

Client Instructions:

Date Contacted:

Contacted By:

Regarding:

Comments:

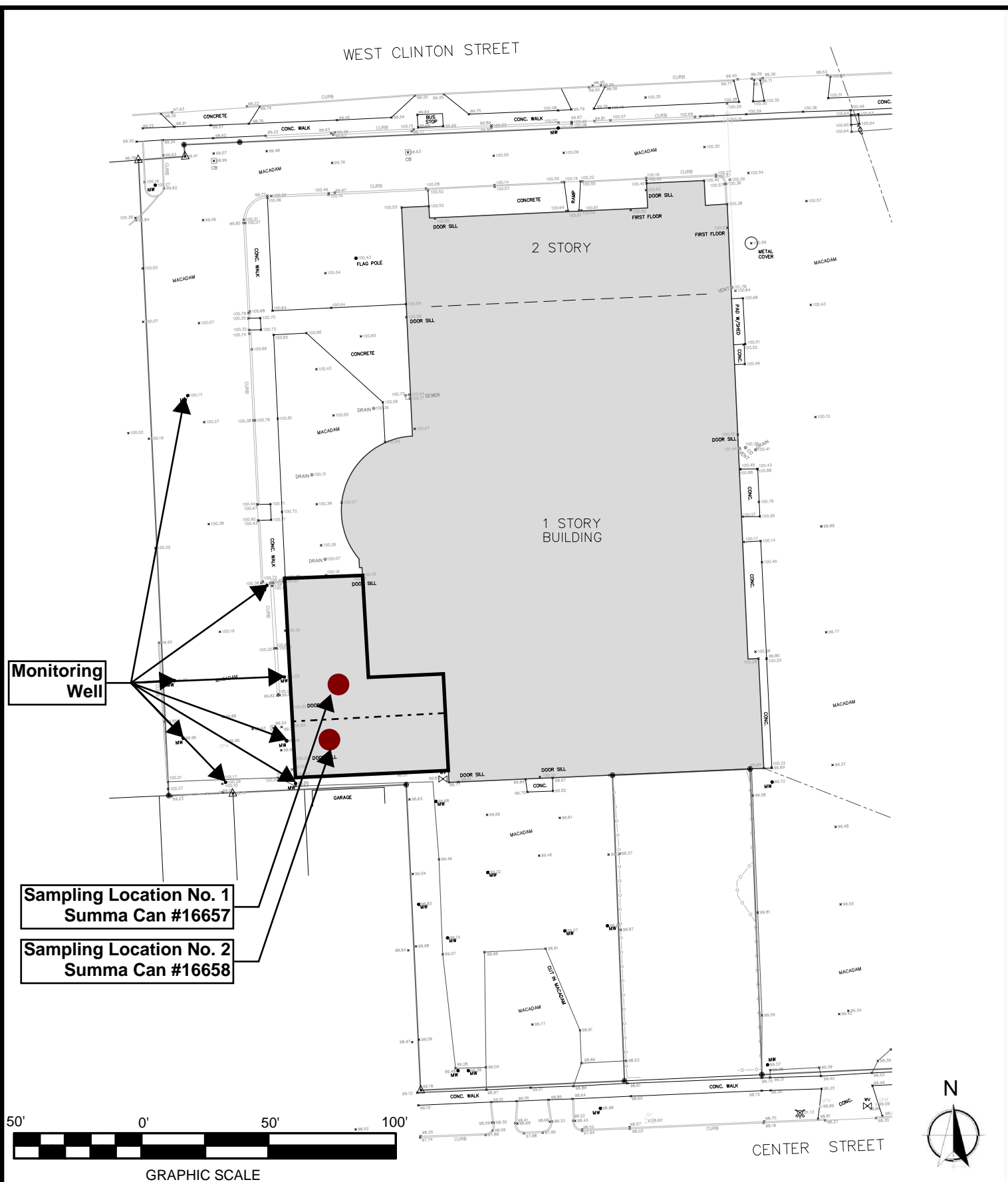
CorrectiveAction:

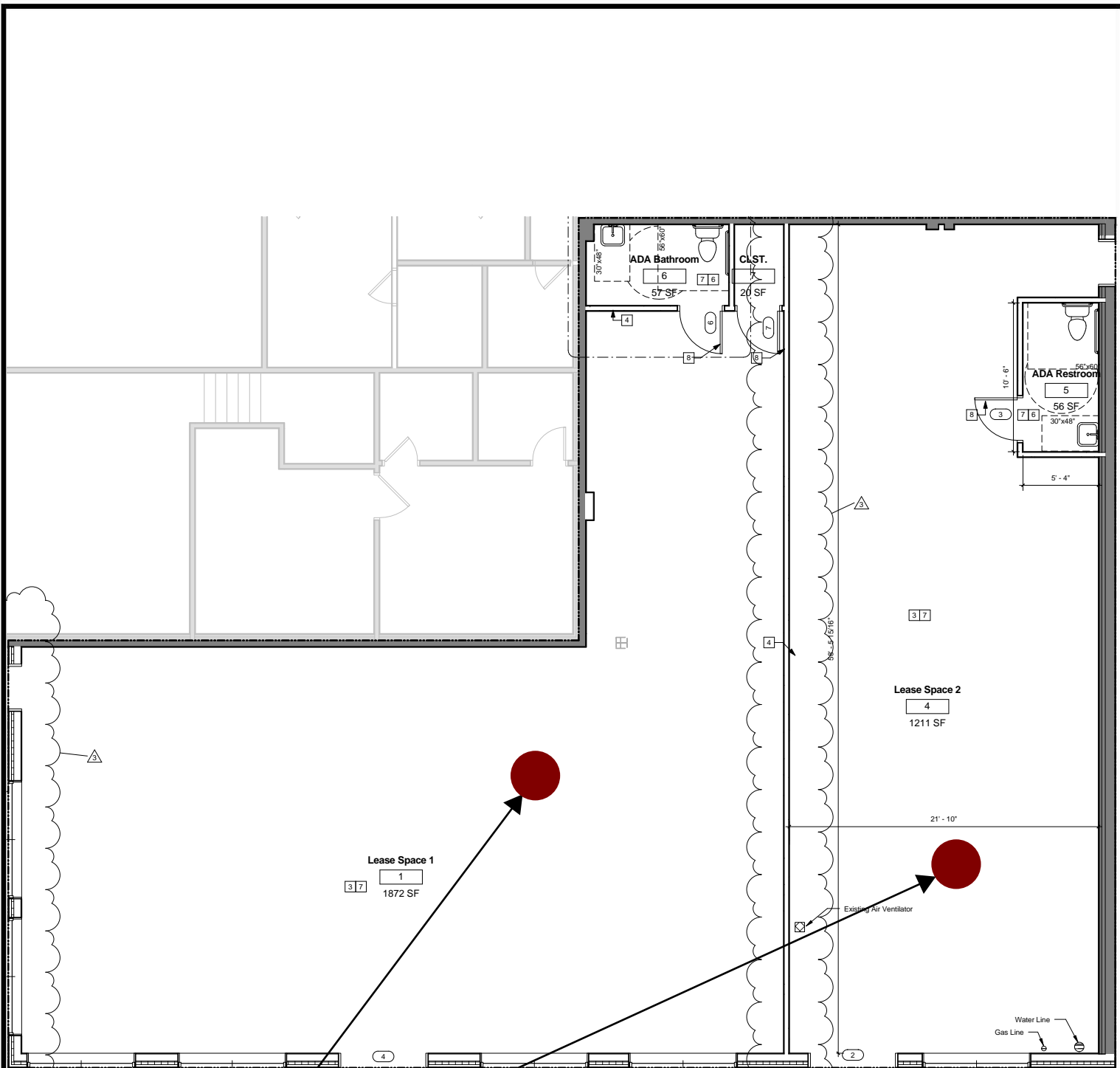
WorkOrder :  
1609F02

## Certifications

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STATE	CERTIFICATION #
NEW YORK	10478
NEW JERSEY	NY158
CONNECTICUT	PH-0435
MARYLAND	208
MASSACHUSETTS	MINY026
NEW HAMPSHIRE	2987
RHODE ISLAND	LAO00340
PENNSYLVANIA	68-00350





**MASER ENGINEERING**  
DEVELOPING A BETTER WORLD

607-377-7990 | 112 North Main Street, Horseheads, NY 14845  
maser@maser-engineering.net | www.maser-engineering.net

## First Floor Plan Sketch

Clinton West Plaza  
City of Ithaca, New York

Fig.1

## **APPENDIX A-2**

**2017**

INDOOR/OUTDOOR/SUB-SLAB AIR SAMPLING  
INSPECTION REPORT  
LAB RESULTS  
CHAIN OF CUSTODY FORM  
PHOTOS  
SITE PLANS

September 18, 2017

Mr. Marc Maser  
c/o Maser Engineering  
112 N. Main Street  
Horseheads, NY 14845

Re: T0-15 Sampling  
Clinton West Plaza  
609 West Clinton Street  
Ithaca, New York 14850  
KES Project No.: 0567.19517

Dear Mr. Maser:

Reference is made to our June 27, 2017 proposal to perform TO-15 sampling at the above noted project site.

On August 28, 2017, we performed TO-15 sampling at the Clinton West Plaza in Ithaca, New York. Attached please find the following data packages documenting our sampling:

- Appendix A - TO-15 Indoor Air Sampling Results
- Appendix B - Structure Sampling and Building Inventory Field Forms
- Appendix C - Photograph Documentation

We hope that this information is beneficial and we appreciate the opportunity to provide our services to you on this project. If you have any questions regarding the enclosed documentation, please do not hesitate to contact our office.

Sincerely,



Richard J. Tarnowski, CEP, CEI  
Member/Director of Environmental Services

P:\Projects\2017\0567 - Maser Engineering\0567.19517\IAQ\Indoor Air Sampling 2017 Cover Letter.docx

**APPENDIX A**  
**TO-15 AIR SAMPLE RESULTS**



## CENTEK LABORATORIES, LLC

143 Midler Park Drive \* Syracuse, NY 13206

Phone (315) 431-9730 \* Emergency 24/7 (315) 416-2752

NYSDOH ELAP

Certificate No. 11830

### **Analytical Report**

Christian Tarnowski  
Keystone Environmental Service  
58 Exchange Street  
Binghamton, NY 13901

Friday, September 08, 2017  
Order No.: C1708116

TEL: 607-770-9098

FAX

RE: Clinton West Plaza

Dear Christian Tarnowski:

Centek Laboratories, LLC received 4 sample(s) on 8/31/2017 for the analyses presented in the following report.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness. Release of the data contained in this hardcopy data package and/or in the computer readable data submitted has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Centek Laboratories performs all analyses according to EPA, NIOSH or OSHA-approved analytical methods. Centek Laboratories is dedicated to providing quality analyses and exceptional customer service. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the case narrative. All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination.

We do our best to make our reporting format clear and understandable and hope you are thoroughly satisfied with our services. Please contact your client service representative at (315) 431-9730 or myself, if you would like any additional information regarding this report.

Thank you for using Centek Laboratories. This report can not be reproduced except in its entirety, without prior written authorization.

Sincerely,

William Dobbin  
Lead Technical Director

Disclaimer: The test results and procedures utilized, and laboratory interpretations of the data obtained by Centek as contained in this report are believed by Centek to be accurate and reliable



for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of Centek for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages. ELAP does not offer certification for the following parameters by this method at present time, they are: 4-ethyltoluene, ethyl acetate, propylene, tetrahydrofuran, 4-PCH, sulfur derived and silicon series compounds.

## Centek Laboratories, LLC Terms and Conditions

### Sample Submission

All samples sent to Centek Laboratories should be accompanied by our Request for Analysis Form or Chain of Custody Form. A Chain of Custody will be provided with each order shipped for all sampling events, or if needed, one is available at our website [www.CentekLabs.com](http://www.CentekLabs.com). Samples received after 3:00pm are considered to be a part of the next day's business.

### Sample Media

Samples can be collected in an canister or a Tedlar bag. Depending on your analytical needs, Centek Laboratories may receive a bulk, liquid, soil or other matrix sample for headspace analysis.

### Blanks

Every sample is run with a surrogate or tracer compound at a pre-established concentration. The surrogate compound run with each sample is used as a standard to measure the performance of each run of the instrument. If required, a Minican can be provided containing nitrogen to be run as a trip blank with your samples.

### Sampling Equipment

Centek Laboratories will be happy to provide the canisters to carry-out your sampling event at no charge. The necessary accessories, such as regulators, tubing or personal sampling belts, are also provided to meet your sampling needs. The customer is responsible for all shipping charges to the client's destination and return shipping to the laboratory. Client assumes all responsibility for lost, stolen and any damages of equipment.

### Turn Around time (TAT)

Centek Laboratories will provide results to its clients in one business-week by 6:00pm EST after receipt of samples. For example, if samples are received on a Monday they are due on the following Monday by 6:00pm EST. Results are faxed or emailed to the requested location indicated on the Chain of Custody. Non-routine analysis may require more than the one business-week turnaround time. Please confirm non-routine sample turnaround times.

### Reporting

Results are emailed or faxed at no additional charge. A hard copy of the result report is mailed within 24 hours of the faxing or emailing of your results. Cat "B" like packages are within 3-4 weeks from time of analysis. Standard Electronic Disk Deliverables (EDD) is also available at no additional charge.

### Payment Terms

Payment for all purchases shall be due within 30 days from date of invoice. The client agrees to pay a finance charge of 1.5% per month on the overdue balance and cost of collection, including attorney fees, if collection proceedings are necessary. You must have a completed credit

application on file to extend credit. Purchase orders or checks information must be submitted for us to release results

#### Rush Turnaround Samples

Expedited turn around times is available. Please confirm rush turnaround times with Client Services before submitting samples.

Applicable Surcharges for Rush Turnaround Samples:

Same day TAT = 200%

Next business day TAT by Noon = 150%

Next business day TAT by 6:00pm = 100%

Second business day TAT by 6:00pm = 75%

Third business day TAT by 6:00pm = 50%

Fourth business day TAT by 6:00pm = 35%

Fifth business day = Standard

#### Statement of Confidentiality

Centek Laboratories, LLC is aware of the importance of the confidentiality of results to many of our clients. Your name and data will be held in the strictest of confidence. We will not accept business that may constitute a conflict of interest. We commonly sign Confidential Nondisclosure Agreements with clients prior to beginning work. All research, results and reports will be kept strictly confidential. Secrecy Agreements and Disclosure Statements will be signed for the client if so specified. Results will be provided only to the addressee specified on the Chain of Custody Form submitted with the samples unless law requires release. Written permission is required from the addressee to release results to any other party.

#### Limitation on Liability

Centek Laboratories, LLC warrants the test results to be accurate to the methodology and sample type for each sample submitted to Centek Laboratories, LLC. In no event shall Centek Laboratories, LLC be liable for direct, indirect, special, punitive, incidental, exemplary or consequential damages, or any damages whatsoever, even if Centek Laboratories, LLC has been previously advised of the possibility of such damages whether in an action under contract, negligence, or any other theory, arising out of or in connection with the use, inability to use or performance of the information, services, products and materials available from the laboratory or this site. These limitations shall apply notwithstanding any failure of essential purpose of any limited remedy. Because some jurisdictions do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of liability for consequential or incidental damages, the above limitations may not apply to you. This is a comprehensive limitation of liability that applies to all damages of any kind, including (without limitation) compensatory, direct, indirect or consequential damages, loss of data, income or profit and or loss of or damage to property and claims of third parties.



**CEN TEK LABORATORIES, LLC**

**Date:** 12-Sep-17

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**CLIENT:** Keystone Environmental Service

**Project:** Clinton West Plaza

**Lab Order:** C1708116

## **CASE NARRATIVE**

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Samples were analyzed using the methods outlined in the following references:

Centek Laboratories, LLC SOP TS-80

Compendium of Methods for the Determination of Toxic Organic Compounds, Compendium Method TO-15, January 1999

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the corrective action report(s). All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination.

### **NYSDEC ASP samples:**

Canisters should be evacuated to a reading of less than or equal to 50 millitorr prior to shipment to sampling personnel. The vacuum in the canister will be field checked prior to sampling, and must read 28" of Hg ( $\pm 2$ ", vacuum, absolute) before a sample can be collected. After the sample has been collected, the pressure of the canister will be read and recorded again, and must be 5" of Hg ( $\pm 1$ ", vacuum, absolute) for the sample to be valid. Once received at the laboratory, the canister vacuum should be confirmed to be 5" of Hg,  $\pm 1$ ". Please record and report the pressure/vacuum of received canisters on the sample receipt paperwork. A pressure/vacuum reading should also be taken just prior to the withdrawal of sample from the canister, and recorded on the sample preparation log sheet. All regulators are calibrated to meet these requirements before they leave the laboratory. However, due to environmental conditions and use of the equipment Centek can not guarantee that this criteria can always be achieved.





# CENTEK LABORATORIES, LLC

## Sample Receipt Checklist

Client Name **KEYSTONE**

Date and Time Receive

8/31/2017

Work Order Number **C1708116**

Received by **JDS**

Checklist completed by

Signature

Date

Reviewed by

Initials

Date

Matrix:

Carrier name **FedEx Ground**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

Adjusted?

Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section below

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_



**CEN TEK LABORATORIES, LLC**

**Date: 12-Sep-17**

**CLIENT:** Keystone Environmental Service  
**Project:** Clinton West Plaza  
**Lab Order:** C1708116

### **Work Order Sample Summary**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Tag Number</b>	<b>Collection Date</b>	<b>Date Received</b>
C1708116-001A	OA-1	1121,1341	8/28/2017	8/31/2017
C1708116-002A	IA-1	749,1443	8/28/2017	8/31/2017
C1708116-003A	IA-2	862,1448	8/28/2017	8/31/2017
C1708116-004A	SS-1	1349,1340	8/28/2017	8/31/2017

# Centek Laboratories, LLC

12-Sep-17

Lab Order: C1708116  
 Client: Keystone Environmental Service  
 Project: Clinton West Plaza

## DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
C1708116-001A	OA-1	8/28/2017	Air	1ug/m3 w/ 0.25ug/M3 CT-TCE-VC			9/5/2017
C1708116-002A	IA-1			1ug/m3 w/ 0.25ug/M3 CT-TCE-VC			9/5/2017
C1708116-003A	IA-2			1ug/m3 w/ 0.25ug/M3 CT-TCE-VC			9/5/2017
C1708116-004A	SS-1			1ug/m3 w/ 0.25ug/M3 CT-TCE-VC			9/5/2017
				1ug/M3 by Method TO15			9/5/2017
				1ug/M3 by Method TO15			9/6/2017
				1ug/M3 by Method TO15			9/5/2017

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-001A

**Client Sample ID:** OA-1  
**Tag Number:** 1121,1341  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>		<b>FLD</b>		Analyst:		
Lab Vacuum In	-2			"Hg		8/31/2017
Lab Vacuum Out	-30			"Hg		8/31/2017
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>		<b>TO-15</b>		Analyst: RJP		
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,1-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,2,4-Trimethylbenzene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	9/5/2017 5:46:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Acetone	4.5	1.5		ppbV	5	9/5/2017 9:49:00 PM
Allyl chloride	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Benzene	0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Bromoform	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Carbon tetrachloride	< 0.040	0.040		ppbV	1	9/5/2017 5:46:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Chloroform	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Chloromethane	0.53	0.15		ppbV	1	9/5/2017 5:46:00 PM
cis-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Ethyl acetate	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM

<b>Qualifiers:</b>	** Quantitation Limit	.	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S Spike Recovery outside accepted recovery limits		



# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-001A

**Client Sample ID:** OA-1  
**Tag Number:** 1121,1341  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						
		<b>TO-15</b>				<b>Analyst: RJP</b>
Ethylbenzene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Freon 11	0.22	0.15		ppbV	1	9/5/2017 5:46:00 PM
Freon 113	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Freon 114	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Freon 12	0.48	0.15		ppbV	1	9/5/2017 5:46:00 PM
Heptane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Hexane	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Isopropyl alcohol	0.19	0.15		ppbV	1	9/5/2017 5:46:00 PM
m&p-Xylene	0.10	0.30	J	ppbV	1	9/5/2017 5:46:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	9/5/2017 5:46:00 PM
Methyl Ethyl Ketone	0.14	0.30	J	ppbV	1	9/5/2017 5:46:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	9/5/2017 5:46:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Methylene chloride	0.21	0.15		ppbV	1	9/5/2017 5:46:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Propylene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Styrene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Tetrachloroethylene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Toluene	0.24	0.15		ppbV	1	9/5/2017 5:46:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Trichloroethene	< 0.040	0.040		ppbV	1	9/5/2017 5:46:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	9/5/2017 5:46:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	9/5/2017 5:46:00 PM
Surr: Bromofluorobenzene	79.0	70-130		%REC	1	9/5/2017 5:46:00 PM

<b>Qualifiers:</b>	**	Quantitation Limit	.	Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits		

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-002A

**Client Sample ID:** IA-1  
**Tag Number:** 749,1443  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>		<b>FLD</b>		Analyst:		
Lab Vacuum In	-6			"Hg		8/31/2017
Lab Vacuum Out	-30			"Hg		8/31/2017
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>		<b>TO-15</b>		Analyst: RJP		
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,1-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,2,4-Trimethylbenzene	0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	9/5/2017 6:29:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
4-ethyltoluene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Acetone	2.3	0.60		ppbV	2	9/5/2017 10:27:00 PM
Allyl chloride	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Benzene	0.16	0.15		ppbV	1	9/5/2017 6:29:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Bromoform	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Carbon tetrachloride	< 0.040	0.040		ppbV	1	9/5/2017 6:29:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Chloroform	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Chloromethane	0.41	0.15		ppbV	1	9/5/2017 6:29:00 PM
cis-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Ethyl acetate	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM

<b>Qualifiers:</b>	**	Quantitation Limit	.	Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits		

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-002A

**Client Sample ID:** IA-1  
**Tag Number:** 749,1443  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						
		<b>TO-15</b>				<b>Analyst: RJP</b>
Ethylbenzene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Freon 11	0.61	0.15		ppbV	1	9/5/2017 6:29:00 PM
Freon 113	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Freon 114	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Freon 12	0.38	0.15		ppbV	1	9/5/2017 6:29:00 PM
Heptane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Hexane	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Isopropyl alcohol	0.49	0.15		ppbV	1	9/5/2017 6:29:00 PM
m&p-Xylene	0.21	0.30	J	ppbV	1	9/5/2017 6:29:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	9/5/2017 6:29:00 PM
Methyl Ethyl Ketone	0.20	0.30	J	ppbV	1	9/5/2017 6:29:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	9/5/2017 6:29:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Methylene chloride	0.58	0.15		ppbV	1	9/5/2017 6:29:00 PM
o-Xylene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Propylene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Styrene	0.20	0.15		ppbV	1	9/5/2017 6:29:00 PM
Tetrachloroethylene	0.20	0.15		ppbV	1	9/5/2017 6:29:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Toluene	0.31	0.15		ppbV	1	9/5/2017 6:29:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Trichloroethene	< 0.040	0.040		ppbV	1	9/5/2017 6:29:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	9/5/2017 6:29:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	9/5/2017 6:29:00 PM
Surr: Bromofluorobenzene	85.0	70-130		%REC	1	9/5/2017 6:29:00 PM

<b>Qualifiers:</b>	<b>**</b>	Quantitation Limit		Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits		

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-003A

**Client Sample ID:** IA-2  
**Tag Number:** 862,1448  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>		<b>FLD</b>		Analyst:		
Lab Vacuum In	-4			"Hg		8/31/2017
Lab Vacuum Out	-30			"Hg		8/31/2017
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>		<b>TO-15</b>		Analyst: RJP		
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,1-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,2,4-Trimethylbenzene	0.41	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,3,5-Trimethylbenzene	0.17	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	9/5/2017 7:09:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
4-ethyltoluene	0.10	0.15	J	ppbV	1	9/5/2017 7:09:00 PM
Acetone	23	3.0		ppbV	10	9/5/2017 11:04:00 PM
Allyl chloride	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Benzene	0.37	0.15		ppbV	1	9/5/2017 7:09:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Bromoform	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Carbon disulfide	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Carbon tetrachloride	< 0.040	0.040		ppbV	1	9/5/2017 7:09:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Chloroform	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Chloromethane	0.64	0.15		ppbV	1	9/5/2017 7:09:00 PM
cis-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Cyclohexane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Ethyl acetate	0.25	0.15		ppbV	1	9/5/2017 7:09:00 PM

<b>Qualifiers:</b>	**	Quantitation Limit	.	Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits		

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-003A

**Client Sample ID:** IA-2  
**Tag Number:** 862,1448  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						
		<b>TO-15</b>				<b>Analyst: RJP</b>
Ethylbenzene	0.12	0.15	J	ppbV	1	9/5/2017 7:09:00 PM
Freon 11	0.63	0.15		ppbV	1	9/5/2017 7:09:00 PM
Freon 113	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Freon 114	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Freon 12	0.51	0.15		ppbV	1	9/5/2017 7:09:00 PM
Heptane	0.20	0.15		ppbV	1	9/5/2017 7:09:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Hexane	0.22	0.15		ppbV	1	9/5/2017 7:09:00 PM
Isopropyl alcohol	7.9	1.5		ppbV	10	9/5/2017 11:04:00 PM
m&p-Xylene	0.34	0.30		ppbV	1	9/5/2017 7:09:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	9/5/2017 7:09:00 PM
Methyl Ethyl Ketone	0.41	0.30		ppbV	1	9/5/2017 7:09:00 PM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	9/5/2017 7:09:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Methylene chloride	12	1.5		ppbV	10	9/5/2017 11:04:00 PM
o-Xylene	0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Propylene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Styrene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Tetrachloroethylene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Toluene	0.72	0.15		ppbV	1	9/5/2017 7:09:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Trichloroethene	< 0.040	0.040		ppbV	1	9/5/2017 7:09:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	9/5/2017 7:09:00 PM
Vinyl chloride	< 0.040	0.040		ppbV	1	9/5/2017 7:09:00 PM
Surr: Bromofluorobenzene	90.0	70-130		%REC	1	9/5/2017 7:09:00 PM

<b>Qualifiers:</b>	<b>**</b>	Quantitation Limit		Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank		E Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded		J Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.		ND Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits		

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-004A

**Client Sample ID:** SS-1  
**Tag Number:** 1349,1340  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>		<b>FLD</b>		<b>Analyst:</b>		
Lab Vacuum In	-4			"Hg		8/31/2017
Lab Vacuum Out	-30			"Hg		8/31/2017
<b>1UG/M3 BY METHOD TO15</b>		<b>TO-15</b>		<b>Analyst: RJP</b>		
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,1-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,2,4-Trimethylbenzene	1.4	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,3,5-Trimethylbenzene	0.69	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,3-butadiene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,4-Dichlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
1,4-Dioxane	< 0.30	0.30		ppbV	1	9/5/2017 7:49:00 PM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
4-ethyltoluene	0.35	0.15		ppbV	1	9/5/2017 7:49:00 PM
Acetone	18	3.0		ppbV	10	9/5/2017 11:41:00 PM
Allyl chloride	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Benzene	0.48	0.15		ppbV	1	9/5/2017 7:49:00 PM
Benzyl chloride	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Bromodichloromethane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Bromoform	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Bromomethane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Carbon disulfide	0.16	0.15		ppbV	1	9/5/2017 7:49:00 PM
Carbon tetrachloride	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Chlorobenzene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Chloroethane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Chloroform	0.12	0.15	J	ppbV	1	9/5/2017 7:49:00 PM
Chloromethane	0.63	0.15		ppbV	1	9/5/2017 7:49:00 PM
cis-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Cyclohexane	0.20	0.15		ppbV	1	9/5/2017 7:49:00 PM
Dibromochloromethane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Ethyl acetate	0.33	0.15		ppbV	1	9/5/2017 7:49:00 PM

<b>Qualifiers:</b>	**	Quantitation Limit	.	Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits		

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-004A

**Client Sample ID:** SS-1  
**Tag Number:** 1349,1340  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>		<b>TO-15</b>		<b>Analyst: RJP</b>		
Ethylbenzene	0.23	0.15		ppbV	1	9/5/2017 7:49:00 PM
Freon 11	1.9	0.15		ppbV	1	9/5/2017 7:49:00 PM
Freon 113	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Freon 114	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Freon 12	0.55	0.15		ppbV	1	9/5/2017 7:49:00 PM
Heptane	0.32	0.15		ppbV	1	9/5/2017 7:49:00 PM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Hexane	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Isopropyl alcohol	2.0	0.15		ppbV	1	9/5/2017 7:49:00 PM
m&p-Xylene	1.2	0.30		ppbV	1	9/5/2017 7:49:00 PM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	9/5/2017 7:49:00 PM
Methyl Ethyl Ketone	0.84	0.30		ppbV	1	9/5/2017 7:49:00 PM
Methyl Isobutyl Ketone	0.11	0.30	J	ppbV	1	9/5/2017 7:49:00 PM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Methylene chloride	20	1.5		ppbV	10	9/5/2017 11:41:00 PM
o-Xylene	0.42	0.15		ppbV	1	9/5/2017 7:49:00 PM
Propylene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Styrene	0.85	0.15		ppbV	1	9/5/2017 7:49:00 PM
Tetrachloroethylene	120	6.0		ppbV	40	9/6/2017 12:18:00 AM
Tetrahydrofuran	0.21	0.15		ppbV	1	9/5/2017 7:49:00 PM
Toluene	1.6	0.15		ppbV	1	9/5/2017 7:49:00 PM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Trichloroethene	0.19	0.15		ppbV	1	9/5/2017 7:49:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Vinyl Bromide	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Vinyl chloride	< 0.15	0.15		ppbV	1	9/5/2017 7:49:00 PM
Surr: Bromofluorobenzene	111	70-130		%REC	1	9/5/2017 7:49:00 PM

<b>Qualifiers:</b>	** Quantitation Limit	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E Estimated Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limit
	JN Non-routine analyte. Quantitation estimated.	ND Not Detected at the Limit of Detection
	S Spike Recovery outside accepted recovery limits	

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-001A

**Client Sample ID:** OA-1  
**Tag Number:** 1121,1341  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>		<b>TO-15</b>		<b>Analyst: RJP</b>		
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	9/5/2017 5:46:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	9/5/2017 5:46:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	9/5/2017 5:46:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	9/5/2017 5:46:00 PM
1,1-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 5:46:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	9/5/2017 5:46:00 PM
1,2,4-Trimethylbenzene	< 0.74	0.74		ug/m3	1	9/5/2017 5:46:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	9/5/2017 5:46:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 5:46:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	9/5/2017 5:46:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	9/5/2017 5:46:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	9/5/2017 5:46:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	9/5/2017 5:46:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 5:46:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 5:46:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	9/5/2017 5:46:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	9/5/2017 5:46:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	9/5/2017 5:46:00 PM
Acetone	11	3.6		ug/m3	5	9/5/2017 9:49:00 PM
Allyl chloride	< 0.47	0.47		ug/m3	1	9/5/2017 5:46:00 PM
Benzene	0.48	0.48		ug/m3	1	9/5/2017 5:46:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	9/5/2017 5:46:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	9/5/2017 5:46:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	9/5/2017 5:46:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	9/5/2017 5:46:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	9/5/2017 5:46:00 PM
Carbon tetrachloride	< 0.25	0.25		ug/m3	1	9/5/2017 5:46:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	9/5/2017 5:46:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	9/5/2017 5:46:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	9/5/2017 5:46:00 PM
Chloromethane	1.1	0.31		ug/m3	1	9/5/2017 5:46:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 5:46:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	9/5/2017 5:46:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	9/5/2017 5:46:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	9/5/2017 5:46:00 PM
Ethyl acetate	< 0.54	0.54		ug/m3	1	9/5/2017 5:46:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	9/5/2017 5:46:00 PM
Freon 11	1.2	0.84		ug/m3	1	9/5/2017 5:46:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	9/5/2017 5:46:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	9/5/2017 5:46:00 PM

<b>Qualifiers:</b>	**	Quantitation Limit	.	Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits		



# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-001A

**Client Sample ID:** OA-1  
**Tag Number:** 1121,1341  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						
		<b>TO-15</b>				Analyst: RJP
Freon 12	2.4	0.74		ug/m3	1	9/5/2017 5:46:00 PM
Heptane	< 0.61	0.61		ug/m3	1	9/5/2017 5:46:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	9/5/2017 5:46:00 PM
Hexane	< 0.53	0.53		ug/m3	1	9/5/2017 5:46:00 PM
Isopropyl alcohol	0.47	0.37		ug/m3	1	9/5/2017 5:46:00 PM
m&p-Xylene	0.43	1.3	J	ug/m3	1	9/5/2017 5:46:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	9/5/2017 5:46:00 PM
Methyl Ethyl Ketone	0.41	0.88	J	ug/m3	1	9/5/2017 5:46:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	9/5/2017 5:46:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	9/5/2017 5:46:00 PM
Methylene chloride	0.73	0.52		ug/m3	1	9/5/2017 5:46:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	9/5/2017 5:46:00 PM
Propylene	< 0.26	0.26		ug/m3	1	9/5/2017 5:46:00 PM
Styrene	< 0.64	0.64		ug/m3	1	9/5/2017 5:46:00 PM
Tetrachloroethylene	< 1.0	1.0		ug/m3	1	9/5/2017 5:46:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	9/5/2017 5:46:00 PM
Toluene	0.90	0.57		ug/m3	1	9/5/2017 5:46:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 5:46:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	9/5/2017 5:46:00 PM
Trichloroethene	< 0.21	0.21		ug/m3	1	9/5/2017 5:46:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	9/5/2017 5:46:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	9/5/2017 5:46:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	9/5/2017 5:46:00 PM

<b>Qualifiers:</b>	** Quantitation Limit	.	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S Spike Recovery outside accepted recovery limits		

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-002A

**Client Sample ID:** IA-1  
**Tag Number:** 749,1443  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>		<b>TO-15</b>		<b>Analyst: RJP</b>		
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	9/5/2017 6:29:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	9/5/2017 6:29:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	9/5/2017 6:29:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	9/5/2017 6:29:00 PM
1,1-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 6:29:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	9/5/2017 6:29:00 PM
1,2,4-Trimethylbenzene	0.74	0.74		ug/m3	1	9/5/2017 6:29:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	9/5/2017 6:29:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 6:29:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	9/5/2017 6:29:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	9/5/2017 6:29:00 PM
1,3,5-Trimethylbenzene	< 0.74	0.74		ug/m3	1	9/5/2017 6:29:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	9/5/2017 6:29:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 6:29:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 6:29:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	9/5/2017 6:29:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	9/5/2017 6:29:00 PM
4-ethyltoluene	< 0.74	0.74		ug/m3	1	9/5/2017 6:29:00 PM
Acetone	5.6	1.4		ug/m3	2	9/5/2017 10:27:00 PM
Allyl chloride	< 0.47	0.47		ug/m3	1	9/5/2017 6:29:00 PM
Benzene	0.51	0.48		ug/m3	1	9/5/2017 6:29:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	9/5/2017 6:29:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	9/5/2017 6:29:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	9/5/2017 6:29:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	9/5/2017 6:29:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	9/5/2017 6:29:00 PM
Carbon tetrachloride	< 0.25	0.25		ug/m3	1	9/5/2017 6:29:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	9/5/2017 6:29:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	9/5/2017 6:29:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	9/5/2017 6:29:00 PM
Chloromethane	0.85	0.31		ug/m3	1	9/5/2017 6:29:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 6:29:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	9/5/2017 6:29:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	9/5/2017 6:29:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	9/5/2017 6:29:00 PM
Ethyl acetate	< 0.54	0.54		ug/m3	1	9/5/2017 6:29:00 PM
Ethylbenzene	< 0.65	0.65		ug/m3	1	9/5/2017 6:29:00 PM
Freon 11	3.4	0.84		ug/m3	1	9/5/2017 6:29:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	9/5/2017 6:29:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	9/5/2017 6:29:00 PM

<b>Qualifiers:</b>	<b>**</b> Quantitation Limit	.
	B Analyte detected in the associated Method Blank	E Estimated Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limit
	JN Non-routine analyte. Quantitation estimated.	ND Not Detected at the Limit of Detection
	S Spike Recovery outside accepted recovery limits	

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-002A

**Client Sample ID:** IA-1  
**Tag Number:** 749,1443  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						
		<b>TO-15</b>				<b>Analyst: RJP</b>
Freon 12	1.9	0.74		ug/m3	1	9/5/2017 6:29:00 PM
Heptane	< 0.61	0.61		ug/m3	1	9/5/2017 6:29:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	9/5/2017 6:29:00 PM
Hexane	< 0.53	0.53		ug/m3	1	9/5/2017 6:29:00 PM
Isopropyl alcohol	1.2	0.37		ug/m3	1	9/5/2017 6:29:00 PM
m&p-Xylene	0.91	1.3	J	ug/m3	1	9/5/2017 6:29:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	9/5/2017 6:29:00 PM
Methyl Ethyl Ketone	0.59	0.88	J	ug/m3	1	9/5/2017 6:29:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	9/5/2017 6:29:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	9/5/2017 6:29:00 PM
Methylene chloride	2.0	0.52		ug/m3	1	9/5/2017 6:29:00 PM
o-Xylene	< 0.65	0.65		ug/m3	1	9/5/2017 6:29:00 PM
Propylene	< 0.26	0.26		ug/m3	1	9/5/2017 6:29:00 PM
Styrene	0.85	0.64		ug/m3	1	9/5/2017 6:29:00 PM
Tetrachloroethylene	1.4	1.0		ug/m3	1	9/5/2017 6:29:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	9/5/2017 6:29:00 PM
Toluene	1.2	0.57		ug/m3	1	9/5/2017 6:29:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 6:29:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	9/5/2017 6:29:00 PM
Trichloroethene	< 0.21	0.21		ug/m3	1	9/5/2017 6:29:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	9/5/2017 6:29:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	9/5/2017 6:29:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	9/5/2017 6:29:00 PM

<b>Qualifiers:</b>	<b>**</b> Quantitation Limit	.	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S Spike Recovery outside accepted recovery limits		

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-003A

**Client Sample ID:** IA-2  
**Tag Number:** 862,1448  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						
		<b>TO-15</b>				<b>Analyst: RJP</b>
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	9/5/2017 7:09:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	9/5/2017 7:09:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	9/5/2017 7:09:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	9/5/2017 7:09:00 PM
1,1-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 7:09:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	9/5/2017 7:09:00 PM
1,2,4-Trimethylbenzene	2.0	0.74		ug/m3	1	9/5/2017 7:09:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	9/5/2017 7:09:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 7:09:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	9/5/2017 7:09:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	9/5/2017 7:09:00 PM
1,3,5-Trimethylbenzene	0.84	0.74		ug/m3	1	9/5/2017 7:09:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	9/5/2017 7:09:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 7:09:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 7:09:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	9/5/2017 7:09:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	9/5/2017 7:09:00 PM
4-ethyltoluene	0.49	0.74	J	ug/m3	1	9/5/2017 7:09:00 PM
Acetone	54	7.1		ug/m3	10	9/5/2017 11:04:00 PM
Allyl chloride	< 0.47	0.47		ug/m3	1	9/5/2017 7:09:00 PM
Benzene	1.2	0.48		ug/m3	1	9/5/2017 7:09:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	9/5/2017 7:09:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	9/5/2017 7:09:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	9/5/2017 7:09:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	9/5/2017 7:09:00 PM
Carbon disulfide	< 0.47	0.47		ug/m3	1	9/5/2017 7:09:00 PM
Carbon tetrachloride	< 0.25	0.25		ug/m3	1	9/5/2017 7:09:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	9/5/2017 7:09:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	9/5/2017 7:09:00 PM
Chloroform	< 0.73	0.73		ug/m3	1	9/5/2017 7:09:00 PM
Chloromethane	1.3	0.31		ug/m3	1	9/5/2017 7:09:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 7:09:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	9/5/2017 7:09:00 PM
Cyclohexane	< 0.52	0.52		ug/m3	1	9/5/2017 7:09:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	9/5/2017 7:09:00 PM
Ethyl acetate	0.90	0.54		ug/m3	1	9/5/2017 7:09:00 PM
Ethylbenzene	0.52	0.65	J	ug/m3	1	9/5/2017 7:09:00 PM
Freon 11	3.5	0.84		ug/m3	1	9/5/2017 7:09:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	9/5/2017 7:09:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	9/5/2017 7:09:00 PM

<b>Qualifiers:</b>	**	Quantitation Limit	.	Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits		

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-003A

**Client Sample ID:** IA-2  
**Tag Number:** 862,1448  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						Analyst: RJP
Freon 12	2.5	0.74		ug/m3	1	9/5/2017 7:09:00 PM
Heptane	0.82	0.61		ug/m3	1	9/5/2017 7:09:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	9/5/2017 7:09:00 PM
Hexane	0.78	0.53		ug/m3	1	9/5/2017 7:09:00 PM
Isopropyl alcohol	19	3.7		ug/m3	10	9/5/2017 11:04:00 PM
m&p-Xylene	1.5	1.3		ug/m3	1	9/5/2017 7:09:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	9/5/2017 7:09:00 PM
Methyl Ethyl Ketone	1.2	0.88		ug/m3	1	9/5/2017 7:09:00 PM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	9/5/2017 7:09:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	9/5/2017 7:09:00 PM
Methylene chloride	40	5.2		ug/m3	10	9/5/2017 11:04:00 PM
o-Xylene	0.65	0.65		ug/m3	1	9/5/2017 7:09:00 PM
Propylene	< 0.26	0.26		ug/m3	1	9/5/2017 7:09:00 PM
Styrene	< 0.64	0.64		ug/m3	1	9/5/2017 7:09:00 PM
Tetrachloroethylene	< 1.0	1.0		ug/m3	1	9/5/2017 7:09:00 PM
Tetrahydrofuran	< 0.44	0.44		ug/m3	1	9/5/2017 7:09:00 PM
Toluene	2.7	0.57		ug/m3	1	9/5/2017 7:09:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 7:09:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	9/5/2017 7:09:00 PM
Trichloroethene	< 0.21	0.21		ug/m3	1	9/5/2017 7:09:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	9/5/2017 7:09:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	9/5/2017 7:09:00 PM
Vinyl chloride	< 0.10	0.10		ug/m3	1	9/5/2017 7:09:00 PM

<b>Qualifiers:</b>	<b>**</b> Quantitation Limit	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E Estimated Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limit
	JN Non-routine analyte. Quantitation estimated.	ND Not Detected at the Limit of Detection
	S Spike Recovery outside accepted recovery limits	

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-004A

**Client Sample ID:** SS-1  
**Tag Number:** 1349,1340  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>		<b>TO-15</b>		<b>Analyst: RJP</b>		
1,1,1-Trichloroethane	< 0.82	0.82		ug/m3	1	9/5/2017 7:49:00 PM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	9/5/2017 7:49:00 PM
1,1,2-Trichloroethane	< 0.82	0.82		ug/m3	1	9/5/2017 7:49:00 PM
1,1-Dichloroethane	< 0.61	0.61		ug/m3	1	9/5/2017 7:49:00 PM
1,1-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 7:49:00 PM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	9/5/2017 7:49:00 PM
1,2,4-Trimethylbenzene	6.8	0.74		ug/m3	1	9/5/2017 7:49:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	9/5/2017 7:49:00 PM
1,2-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 7:49:00 PM
1,2-Dichloroethane	< 0.61	0.61		ug/m3	1	9/5/2017 7:49:00 PM
1,2-Dichloropropane	< 0.69	0.69		ug/m3	1	9/5/2017 7:49:00 PM
1,3,5-Trimethylbenzene	3.4	0.74		ug/m3	1	9/5/2017 7:49:00 PM
1,3-butadiene	< 0.33	0.33		ug/m3	1	9/5/2017 7:49:00 PM
1,3-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 7:49:00 PM
1,4-Dichlorobenzene	< 0.90	0.90		ug/m3	1	9/5/2017 7:49:00 PM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	9/5/2017 7:49:00 PM
2,2,4-trimethylpentane	< 0.70	0.70		ug/m3	1	9/5/2017 7:49:00 PM
4-ethyltoluene	1.7	0.74		ug/m3	1	9/5/2017 7:49:00 PM
Acetone	42	7.1		ug/m3	10	9/5/2017 11:41:00 PM
Allyl chloride	< 0.47	0.47		ug/m3	1	9/5/2017 7:49:00 PM
Benzene	1.5	0.48		ug/m3	1	9/5/2017 7:49:00 PM
Benzyl chloride	< 0.86	0.86		ug/m3	1	9/5/2017 7:49:00 PM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	9/5/2017 7:49:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	9/5/2017 7:49:00 PM
Bromomethane	< 0.58	0.58		ug/m3	1	9/5/2017 7:49:00 PM
Carbon disulfide	0.50	0.47		ug/m3	1	9/5/2017 7:49:00 PM
Carbon tetrachloride	< 0.94	0.94		ug/m3	1	9/5/2017 7:49:00 PM
Chlorobenzene	< 0.69	0.69		ug/m3	1	9/5/2017 7:49:00 PM
Chloroethane	< 0.40	0.40		ug/m3	1	9/5/2017 7:49:00 PM
Chloroform	0.59	0.73	J	ug/m3	1	9/5/2017 7:49:00 PM
Chloromethane	1.3	0.31		ug/m3	1	9/5/2017 7:49:00 PM
cis-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 7:49:00 PM
cis-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	9/5/2017 7:49:00 PM
Cyclohexane	0.69	0.52		ug/m3	1	9/5/2017 7:49:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	9/5/2017 7:49:00 PM
Ethyl acetate	1.2	0.54		ug/m3	1	9/5/2017 7:49:00 PM
Ethylbenzene	1.0	0.65		ug/m3	1	9/5/2017 7:49:00 PM
Freon 11	11	0.84		ug/m3	1	9/5/2017 7:49:00 PM
Freon 113	< 1.1	1.1		ug/m3	1	9/5/2017 7:49:00 PM
Freon 114	< 1.0	1.0		ug/m3	1	9/5/2017 7:49:00 PM

<b>Qualifiers:</b>	<b>**</b> Quantitation Limit	.	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S Spike Recovery outside accepted recovery limits		

# Centek Laboratories, LLC

Date: 08-Sep-17

**CLIENT:** Keystone Environmental Service  
**Lab Order:** C1708116  
**Project:** Clinton West Plaza  
**Lab ID:** C1708116-004A

**Client Sample ID:** SS-1  
**Tag Number:** 1349,1340  
**Collection Date:** 8/28/2017  
**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>		<b>TO-15</b>				<b>Analyst: RJP</b>
Freon 12	2.7	0.74		ug/m3	1	9/5/2017 7:49:00 PM
Heptane	1.3	0.61		ug/m3	1	9/5/2017 7:49:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	9/5/2017 7:49:00 PM
Hexane	< 0.53	0.53		ug/m3	1	9/5/2017 7:49:00 PM
Isopropyl alcohol	5.0	0.37		ug/m3	1	9/5/2017 7:49:00 PM
m&p-Xylene	5.0	1.3		ug/m3	1	9/5/2017 7:49:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	9/5/2017 7:49:00 PM
Methyl Ethyl Ketone	2.5	0.88		ug/m3	1	9/5/2017 7:49:00 PM
Methyl Isobutyl Ketone	0.45	1.2	J	ug/m3	1	9/5/2017 7:49:00 PM
Methyl tert-butyl ether	< 0.54	0.54		ug/m3	1	9/5/2017 7:49:00 PM
Methylene chloride	70	5.2		ug/m3	10	9/5/2017 11:41:00 PM
o-Xylene	1.8	0.65		ug/m3	1	9/5/2017 7:49:00 PM
Propylene	< 0.26	0.26		ug/m3	1	9/5/2017 7:49:00 PM
Styrene	3.6	0.64		ug/m3	1	9/5/2017 7:49:00 PM
Tetrachloroethylene	810	41		ug/m3	40	9/6/2017 12:18:00 AM
Tetrahydrofuran	0.62	0.44		ug/m3	1	9/5/2017 7:49:00 PM
Toluene	6.1	0.57		ug/m3	1	9/5/2017 7:49:00 PM
trans-1,2-Dichloroethene	< 0.59	0.59		ug/m3	1	9/5/2017 7:49:00 PM
trans-1,3-Dichloropropene	< 0.68	0.68		ug/m3	1	9/5/2017 7:49:00 PM
Trichloroethene	1.0	0.81		ug/m3	1	9/5/2017 7:49:00 PM
Vinyl acetate	< 0.53	0.53		ug/m3	1	9/5/2017 7:49:00 PM
Vinyl Bromide	< 0.66	0.66		ug/m3	1	9/5/2017 7:49:00 PM
Vinyl chloride	< 0.38	0.38		ug/m3	1	9/5/2017 7:49:00 PM

<b>Qualifiers:</b>	** Quantitation Limit	.	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S Spike Recovery outside accepted recovery limits		

**APPENDIX B**

**STRUCTURE SAMPLING & BUILDING INVENTORY**

**FORMS**





# Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: Clinton West Plaza Site Code: 755015 Operable Unit: Yes  
Building Code: N/A Building Name: Clinton West Plaza  
Address: 609 West Clinton Street Apt/Suite No: \_\_\_\_\_  
City: Ithaca State: NY Zip: 14850 County: Tompkins

## Contact Information

Preparer's Name: Christian Tarnowski Phone No: 607-770-9098  
Preparer's Affiliation: Keystone Environmental Services Company Code: KES  
Purpose of Investigation: \_\_\_\_\_ Date of Inspection: 8/28-8/29/201  
Contact Name: Mr. Marc Maser Affiliation: MANAGER  
Phone No: 607-377-7990 Alt. Phone No: -- Email: maser@maser.engineerin  
Number of Occupants (total): Vacant Number of Children: \_\_\_\_\_  
☐ Occupant Interviewed? ☐ Owner Occupied? ☐ Owner Interviewed?  
Owner Name (if different): Unknown Owner Phone: n/a  
Owner Mailing Address: n/a

## Building Details

Bldg Type (Res/Com/Ind/Mixed): COMMERCIAL/MIXED Bldg Size (S/M/L): LARGE  
If Commercial or Industrial Facility, Select Operations: OFFICE/PROF BUILDING  
If Residential Select Structure Type: \_\_\_\_\_  
Number of Floors: 2 Approx. Year Construction: \_\_\_\_\_ ☒ Building Insulated? ☐ Attached Garage?  
Describe Overall Building 'Tightness' and Airflows(e.g., results of smoke tests):  
\_\_\_\_\_

## Foundation Description

Foundation Type: NO BASEMENT/SLAB Foundation Depth (bgs): 0 Unit: FEET  
Foundation Floor Material: POURED CONCRETE Foundation Floor Thickness: 6 Unit: INCHES  
Foundation Wall Material: CONCRETE BLOCK Foundation Wall Thickness: 12  
☒ Floor penetrations? Describe Floor Penetrations: Floor drain  
☒ Wall penetrations? Describe Wall Penetrations: Utilities  
Basement is: \_\_\_\_\_ Basement is: \_\_\_\_\_ ☒ Sumps/Drains? Water In Sump?: N/A  
Describe Foundation Condition (cracks, seepage, etc.) : Areas of cracking and deteriorating  
☒ Radon Mitigation System Installed? ☒ VOC Mitigation System Installed? ☒ Mitigation System On?

## Heating/Cooling/Ventilation Systems

Heating System: FORCED AIR Heat Fuel Type: GAS ☒ Central A/C Present?

## Vented Appliances

Water Heater Fuel Type: GAS Clothes Dryer Fuel Type: NO CLOTHES DRYER  
Water Htr Vent Location: OUTSIDE Dryer Vent Location: NONE



# Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

## PRODUCT INVENTORY

Building Name: Clinton West Plaza Bldg Code: N/A Date: 8/28-8/29/2017

Bldg Address: 609 West Clinton Street Apt/Suite No:

Bldg City/State/Zip: Ithaca NY, 14850

Make and Model of PID: MiniRAE3000, PGM-7320 Date of Calibration: 8/21/2017

Location	Product Name/Description	Size (oz)	Condition *	Chemical Ingredients	PID Reading	COCY/N?
2-story	Latex Paint	(10), 118	Bad	Crystalline Silica & Zinc	.5PPM	<input type="checkbox"/>
Bath (2 story)	Disinfectant Spray	19	Good	Sodium Nitrate, Ethyl Alcohol, Dimethyl Benzene	.1 PPM	<input type="checkbox"/>
Bath (2 story)	Raid Ant & Roach	17.5	Good	Amonia Chloride, Petroleum Distillates	.2PPM	<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

\* 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.

Product Inventory Complete? ☐ Yes Were there any elevated PID readings taken on site? ☐ No ☐ Products with COC?



# Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: Clinton West Plaza Site Code: 755015 Operable Unit: Yes  
Building Code: N/A Building Name: Clinton West Plaza  
Address: 609 West Clinton Street Apt/Suite No: \_\_\_\_\_  
City: Ithaca State: NY Zip: 14850 County: Tompkins

## Factors Affecting Indoor Air Quality

Frequency Basement/Lowest Level is Occupied?: ALMOST NEVER Floor Material: CEMENT

☐ Inhabited? ☐ HVAC System On? ☒ Bathroom Exhaust Fan? ☐ Kitchen Exhaust Fan?

Alternate Heat Source: NONE ☐ Is there smoking in the building?

☒ Air Fresheners? Description/Location of Air Freshener: N/A Vacant

☒ Cleaning Products Used Recently?: Description of Cleaning Products: N/A Vacant

☒ Cosmetic Products Used Recently?: Description of Cosmetic Products: N/A Vacant

☒ New Carpet or Furniture? Location of New Carpet/Furniture: N/A Vacant

☒ Recent Dry Cleaning? Location of Recently Dry Cleaned Fabrics: N/A Vacant

☒ Recent Painting/Staining? Location of New Painting: N/A Vacant

☒ Solvent or Chemical Odors? Describe Odors (if any): N/A Vacant

☒ Do Any Occupants Use Solvents At Work? If So, List Solvents Used: N/A Vacant

☒ Recent Pesticide/Rodenticide? Description of Last Use: N/A Vacant

Describe Any Household Activities (chemical use,/storage, unvented appliances, hobbies, etc.) That May Affect Indoor Air Quality:

The sampling site was vacant. The two story building was under renovation and had some paint container storage.

An existing soil vapor remediation system is installed at the south portion of the structure. The system is installed incorrectly and does not meet NYSDOH or ASTM Standards for soil vapor remediation systems. See Photos

☒ Any Prior Testing For Radon? If So, When?: unknown

☒ Any Prior Testing For VOCs? If So, When?: unknown

## Sampling Conditions

Weather Conditions: PARTLY CLOUDY Outdoor Temperature: 50-70 °F

Current Building Use: OFFICE/PROF BUILDING Barometric Pressure: 30.28 in(hg)

Product Inventory Complete? ☒ Yes ☐ Building Questionnaire Completed?



# Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Building Code: N/A Address: 609 West Clinton Street Ithaca, NY 14850

## Sampling Information

Sampler Name(s): Christian Tarnowski Sampler Company Code: KES  
Sample Collection Date: 8/28-8/29/2017 Date Samples Sent To Lab: 8/30/2017  
Sample Chain of Custody Number: \_\_\_\_\_ Outdoor Air Sample Location ID: OA-1

## SUMMA Canister Information

Sample ID:	<u>OA-1</u>	<u>IA-1</u>	<u>IA-2</u>	<u>SS-1</u>	
Location Code:	<u>OA-1</u>	<u>IA-1</u>	<u>IA-2</u>	<u>SS-1</u>	
Location Type:	<u>OUTDOOR</u>	<u>FIRST FLOOR</u>	<u>FIRST FLOOR</u>	<u>SUBSLAB</u>	
Canister ID:	<u>1221</u>	<u>749</u>	<u>862</u>	<u>1349</u>	
Regulator ID:	<u>1341</u>	<u>1443</u>	<u>1448</u>	<u>1340</u>	
Matrix:	<u>Ambient Outdoor</u>	<u>Indoor Air</u>	<u>Indoor Air</u>	<u>Subslab Soil</u>	
Sampling Method:	<u>SUMMA AIR SAMPLI</u>	<u>SUMMA AIR SA</u>	<u>SUMMA AIR SA</u>	<u>SUMMA AIR SA</u>	

## Sampling Area Info

Slab Thickness (inches):				<u>4" - 6"</u>	
Sub-Slab Material:				<u>DIRT</u>	
Sub-Slab Moisture:				<u>DRY</u>	
Seal Type:				<u>WAX</u>	
Seal Adequate?:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Sample Times and Vacuum Readings

Sample Start Date/Time:	<u>8/28/17 11:20</u>	<u>8/28 11:15</u>	<u>8/28 11:30</u>	<u>8/28 10:52</u>	
Vacuum Gauge Start:	<u>30</u>	<u>30</u>	<u>30</u>	<u>29</u>	
Sample End Date/Time:	<u>8/29/17 9:35</u>	<u>8/29 10:30</u>	<u>8/29 10:00</u>	<u>8/29 9:30</u>	
Vacuum Gauge End:	<u>4</u>	<u>6</u>	<u>4.5</u>	<u>4.5</u>	
Sample Duration (hrs):	<u>22.15</u>	<u>23.15</u>	<u>22.30</u>	<u>22.38</u>	
Vacuum Gauge Unit:	<u>in(hg)</u>	<u>in(hg)</u>	<u>in(hg)</u>	<u>in(hg)</u>	

## Sample QA/QC Readings

Vapor Port Purge:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Purge PID Reading:				<u>n/a</u>	
Purge PID Unit:				<u>ppm</u>	
Tracer Test Pass:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sample start and end times should be entered using the following format: MM/DD/YYYY HH:MM



# Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

## LOWEST BUILDING LEVEL LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the lowest building level .  
The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image

See Attached Master Engineering Site Plan

### Design Sketch

#### Design Sketch Guidelines and Recommended Symbolology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

<b>B or F</b>	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
<b>HW</b>	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
<b>FP</b>	Fireplaces	#####	Areas of broken-up concrete
<b>WS</b>	Wood Stoves	● SS-1	Location & label of sub-slab samples
<b>W/D</b>	Washer / Dryer	● IA-1	Location & label of indoor air samples
<b>S</b>	Sumps	● OA-1	Location & label of outdoor air samples
<b>@</b>	Floor Drains	● PFET-1	Location and label of any pressure field test holes.



# Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

## FIRST FLOOR BUILDING LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the first floor of the building.  
The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image

See Attached Master Engineering Site Plan

### Design Sketch

- Identify and label the location of all features on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

**B or F** Boiler or Furnace  
**HW** Hot Water Heater  
**FP** Fireplaces  
**WS** Wood Stoves  
**W/D** Washer / Dryer  
**S** Sumps  
**@** Floor Drains

**o** Other floor or wall penetrations (label appropriately)  
**xxxxxxx** Perimeter Drains (draw inside or outside outer walls as appropriate)  
**#####** Areas of broken-up concrete  
● SS-1 Location & label of sub-slab samples  
● IA-1 Location & label of indoor air samples  
● OA-1 Location & label of outdoor air samples  
● PFET-1 Location and label of any pressure field test holes.



# Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

## OUTDOOR PLOT LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the outdoor plot of the building as well as the surrounding area. The sketch should be in a standard image format (.jpg, .png, .tiff)

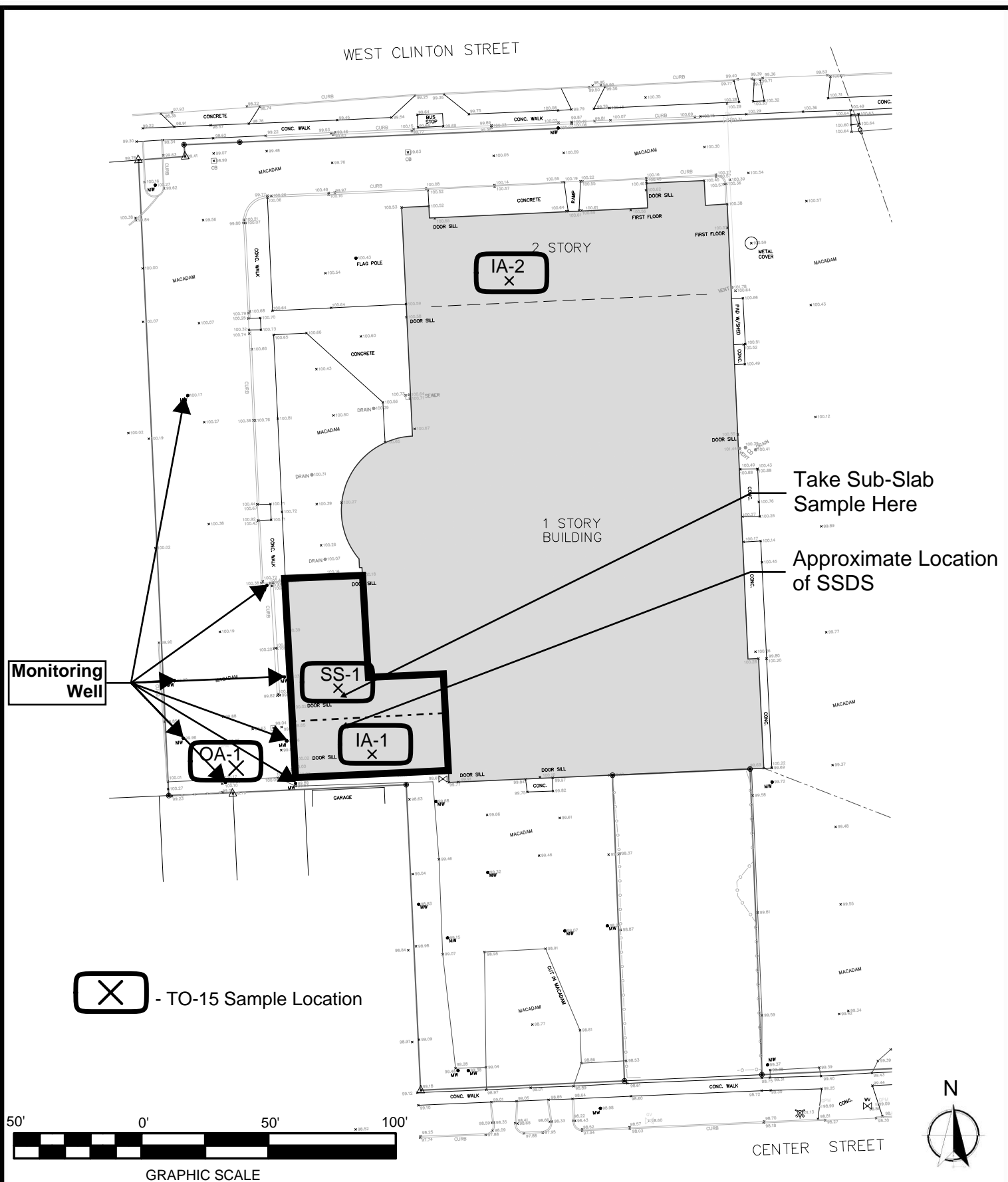
Clear Image

See Attached Master Engineering Site Plan

### Design Sketch

- Identify and label the location of all sample locations and identifiable features on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

<b>B or F</b>	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
<b>HW</b>	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
<b>FP</b>	Fireplaces	#####	Areas of broken-up concrete
<b>WS</b>	Wood Stoves	● SS-1	Location & label of sub-slab samples
<b>W/D</b>	Washer / Dryer	● IA-1	Location & label of indoor air samples
<b>S</b>	Sumps	● OA-1	Location & label of outdoor air samples
<b>@</b>	Floor Drains	● PFET-1	Location and label of any pressure field test holes.





**APPENDIX C**

**PHOTOGRAPH DOCUMENTATION**



**PHOTO LOG**  
**TO-15 Sampling**  
**Clinton West Plaza**  
**KES Project # 0567.19517**



Photo No. 1

Date 08/28/2017

Location:  
609 West Clinton St  
Ithaca, NY 14850

Subject:  
View of the project work  
site.



Photo No. 2

Date 08/28/2017

Location:  
609 West Clinton St  
Ithaca, NY 14850

Subject:  
View of sub slab sampling  
(SS-1).



**PHOTO LOG**  
**TO-15 Sampling**  
**Clinton West Plaza**  
**KES Project # 0567.19517**



Photo No. 3

Date 08/28/2017

Location:  
609 West Clinton St  
Ithaca, NY 14850

Subject:  
View of indoor air sampling  
(IA-1).



Photo No. 4

Date 08/28/2017

Location:  
609 West Clinton St  
Ithaca, NY 14850

Subject:  
View of indoor air sampling  
(IA-2).





**PHOTO LOG**  
**TO-15 Sampling**  
**Clinton West Plaza**  
**KES Project # 0567.19517**



Photo No. 5

Date 08/28/2017

Location:  
609 West Clinton St  
Ithaca, NY 14850

Subject:  
View of outdoor air sampling  
(OA-1).



Photo No. 6

Date 08/28/2017

Location:  
609 West Clinton St  
Ithaca, NY 14850

Subject:  
View of stored paint  
products.



**PHOTO LOG**  
**TO-15 Sampling**  
**Clinton West Plaza**  
**KES Project # 0567.19517**



Photo No. 7

Date 08/28/2017

Location:  
 609 West Clinton St  
 Ithaca, NY 14850

Subject:  
 PID screening of stored paint products.



Photo No. 8

Date 08/28/2017

Location:  
 609 West Clinton St  
 Ithaca, NY 14850

Subject:  
 View of the existing SSDS.  
 Please note that the SSDS does not meet current NYS or ASTM standards for soil vapor remediation standards.

# **APPENDIX B-1**

**2016**

SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS) INSPECTION REPORT  
PHOTOGRAPHS



# Periodic Operations Visit Form

☐ Check box if new sys info

System ID:

Date of Visit:

Owner Name:

Date Installed:

System Address:

Telephone:

City:  Zip:

Alt. Telephone:

Performed By:

Site No:

Company:

Site Name:

Fan Operation Confirmation				
	Fan #1	Fan #2	Fan #3	
EXTERIOR	Fan Model No(s).	<input type="text" value="RP265"/>		
	Is Fan Operating (arrival)?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
	Confirmation Method	<input type="text" value="Visual"/>		
	Is Fan Operating (departure)?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Requested to inspect interior system components? <input type="radio"/> Yes <input type="radio"/> No				
If yes, when and by whom? <input type="text"/> Date: <input type="text"/>				
INTERIOR	Structural Review			Notes
	Change in building footprint since last inspection?	<input type="radio"/> Yes <input checked="" type="radio"/> No		<input type="text" value="Change in floor plan layout"/>
	Basement occupied (>4 hrs per day)?	<input type="radio"/> Yes <input type="radio"/> No		<input type="text" value="N/A"/>
	Heating/ventilation system modifications?	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="text" value="Ongoing"/>
	Crawlspace inspected?	<input type="radio"/> Yes <input type="radio"/> No		<input type="text" value="N/A"/>
	Large cracks in floor or near sumps?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
	Wall penetrations or cracks noted?	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="text" value="Doors/windows have been modified"/>
	Piping, Slab & Wall			
	Are system suction points sealed?	<input checked="" type="radio"/> Yes <input type="radio"/> No		
	Is piping system in need of repair?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
	Miscellaneous			
	Are manometer levels equal?	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Are system labels accurate and applied correctly?	<input checked="" type="radio"/> Yes <input type="radio"/> No			

Maintenance completed (check all that apply): ☐ Replace fan ☐ Seal pipe ☐ Electrical ☐ Other

Describe repairs made and any proposed actions requiring a subsequent visit (if necessary):





**Photo #1:** Photo of Fan Unit and Manufacturer Tag, Looking East

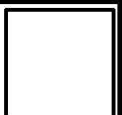


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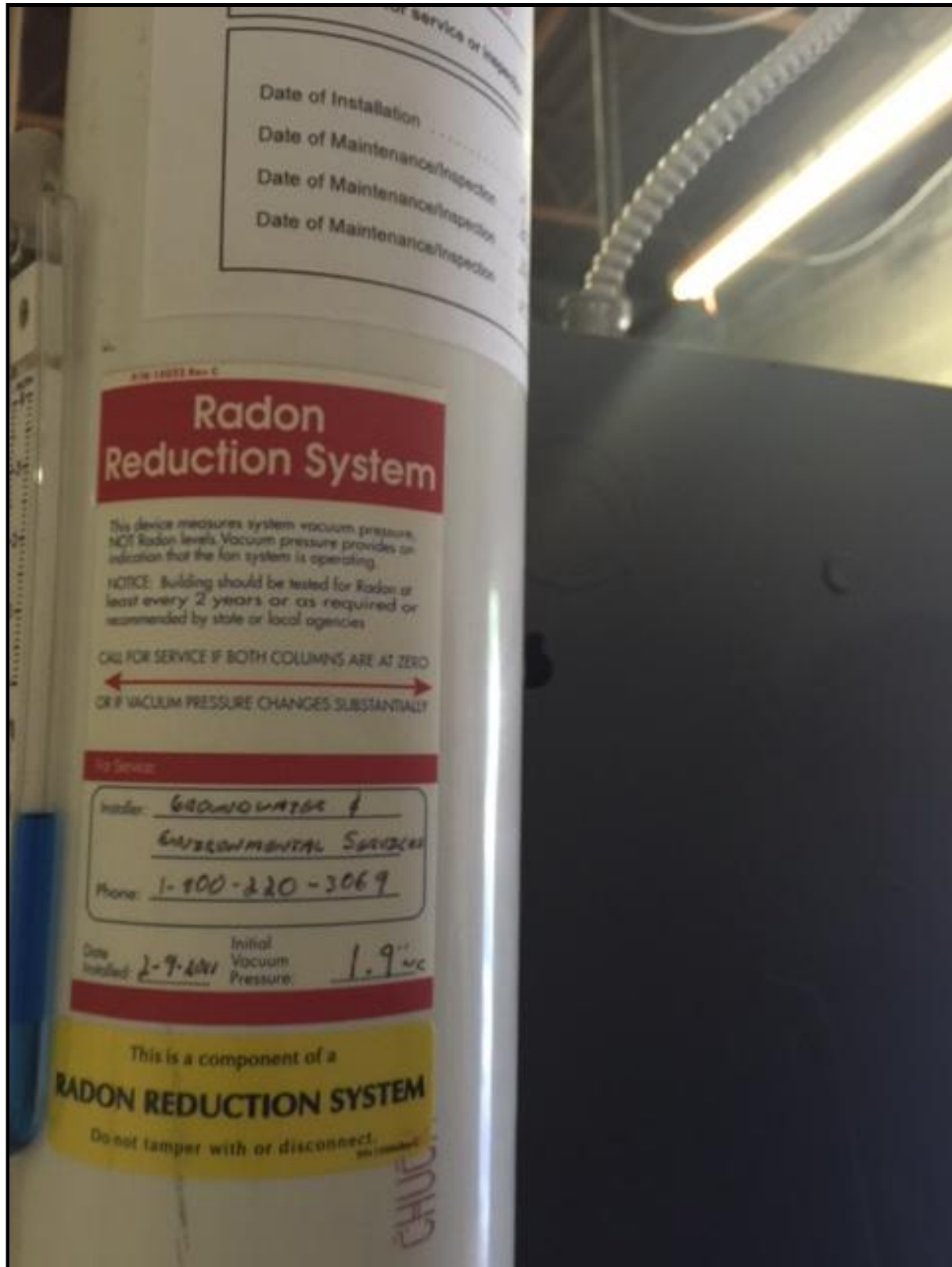
607-377-7990 | 112 North Main Street, Horseheads, NY 14845  
maser@maser-engineering.net | www.maser-engineering.net

SSDS Inspection - Photo #1

Clinton West Plaza  
City of Ithaca, New York







**Photo #2:** Photo of Installation Information



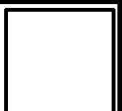
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**SSDS Inspection - Photo #2**

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**Photo #3: Manometer Reading**



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**SSDS Inspection - Photo #3**

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**Photo #4:** Photo of Electrical Panel and SSDS

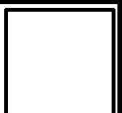


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**SSDS Inspection - Photo #4**

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**Photo #5:** Photo of Exhaust Pipe Exiting West Side of the Building

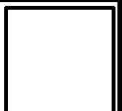


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SSDS Inspection - Photo #5

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**Photo #6:** Photo of Exhaust Pipe

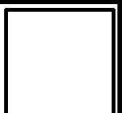


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**SSDS Inspection - Photo #6**

Clinton West Plaza  
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**Photo #7:** Photo of Exhaust Pipe and Riser

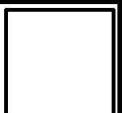


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**SSDS Inspection - Photo #7**

Clinton West Plaza  
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**Photo #8:** Photo of Exhaust Riser Pipe

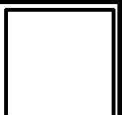


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**SSDS Inspection - Photo #8**

Clinton West Plaza  
City of Ithaca, New York



## **APPENDIX B-2**

**2017**

SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS) INSPECTION REPORT  
PHOTOGRAPHS





# Periodic Operations Visit Form

☐ Check box if new sys info

System ID:

Date of Visit: 08/29/2017

Owner Name: Ithaca West, LLC

Date Installed: 02/07/2011

System Address: 609 West Clinton Street

Telephone: 845-343-6463 (William Buchalter)

City: Ithaca Zip: 14850

Alt. Telephone:

Performed By: Marc Maser, P.E.

Site No: 755015

Company: Maser Engineering

Site Name: Clinton West Plaza

Fan Operation Confirmation				
	Fan #1	Fan #2	Fan #3	
EXTERIOR	Fan Model No(s).	<u>RP265</u>	<input type="text"/>	
	Is Fan Operating (arrival)?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
	Confirmation Method	<u>Visual</u>	<input type="text"/>	<input type="text"/>
	Is Fan Operating (departure)?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Requested to inspect interior system components? <input type="radio"/> Yes <input type="radio"/> No				
If yes, when and by whom? <input type="text"/> Date: <input type="text"/>				
INTERIOR	<b>Structural Review</b>		Notes	
	Change in building footprint since last inspection?	<input type="radio"/> Yes <input checked="" type="radio"/> No	<u>Change in floor plan layout</u>	
	Basement occupied (>4 hrs per day)?	<input type="radio"/> Yes <input type="radio"/> No	<u>N/A</u>	
	Heating/ventilation system modifications?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<u>Ongoing</u>	
	Crawlspace inspected?	<input type="radio"/> Yes <input type="radio"/> No	<u>N/A</u>	
	Large cracks in floor or near sumps?	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text"/>	
	Wall penetrations or cracks noted?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<u>Doors/windows have been modified</u>	
	<b>Piping, Slab &amp; Wall</b>			
	Are system suction points sealed?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="text"/>	
	Is piping system in need of repair?	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text"/>	
	<b>Miscellaneous</b>			
	Are manometer levels equal?	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text"/>	
Are system labels accurate and applied correctly?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="text"/>		

Maintenance completed (check all that apply): ☐ Replace fan ☐ Seal pipe ☐ Electrical ☐ Other

Describe repairs made and any proposed actions requiring a subsequent visit (if necessary):

The ongoing renovations have not impacted the installed system. The exhaust pipe discharge was relocated from the front, exterior parapet wall to the side of the building due to the facade renovations that were made. The pipe was inspected and is sealed properly.



**Photo #1:** Photo of Fan Unit and Manufacturer Tag, Looking East



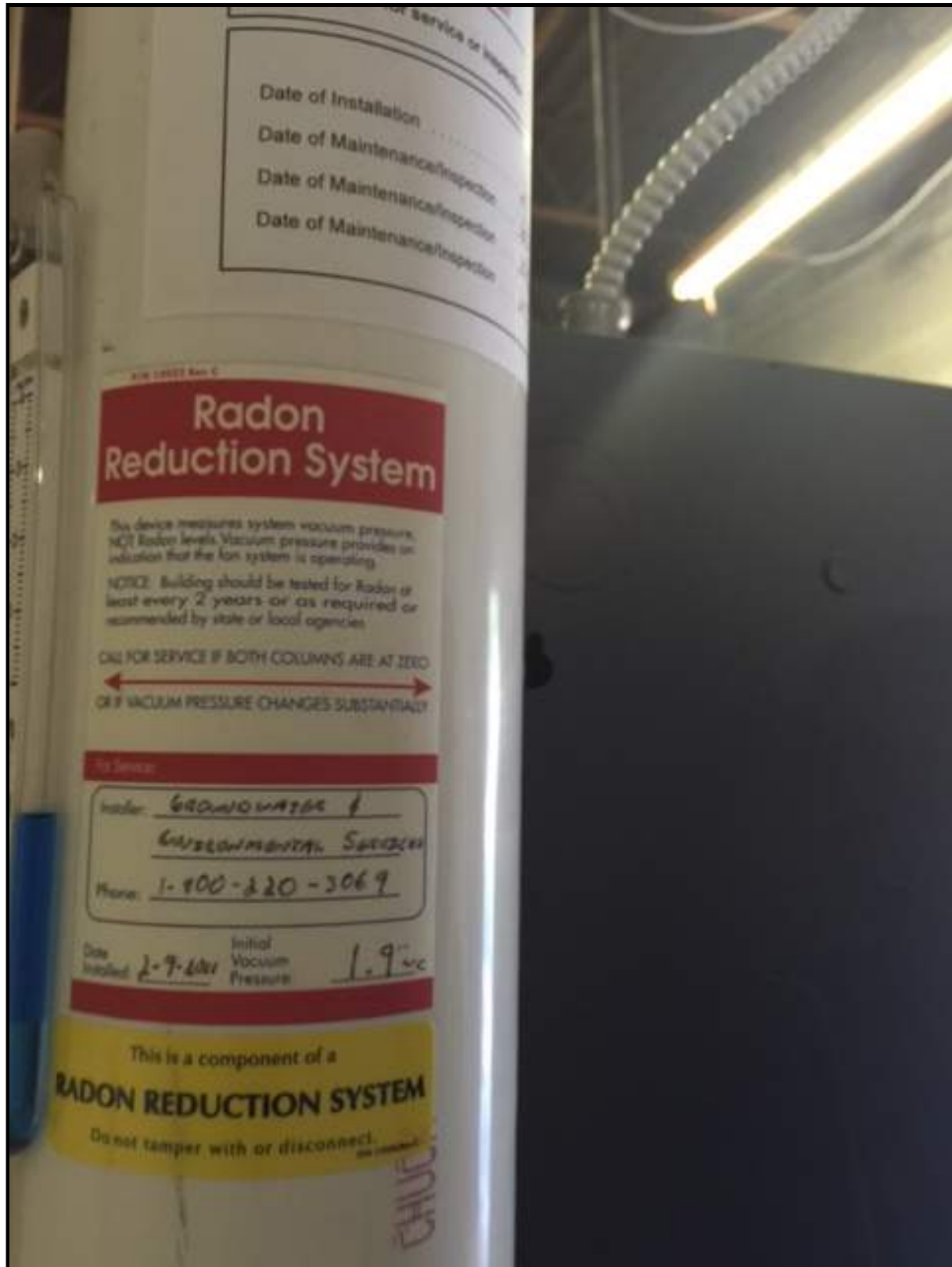
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SSDS Inspection - Photo #1

Clinton West Plaza  
City of Ithaca, New York





**Photo #2:** Photo of Installation Information



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**SSDS Inspection - Photo #2**

Clinton West Plaza  
City of Ithaca, New York





**Photo #3:** Photo of System



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**SSDS Inspection - Photo #3**

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City of Ithaca, New York





**Photo #4:** Photo of the Unit Base



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**SSDS Inspection - Photo #4**

Clinton West Plaza  
City of Ithaca, New York







**Photo #5:** Interior Photo of Relocated Exhaust Pipe to South Side of the Building



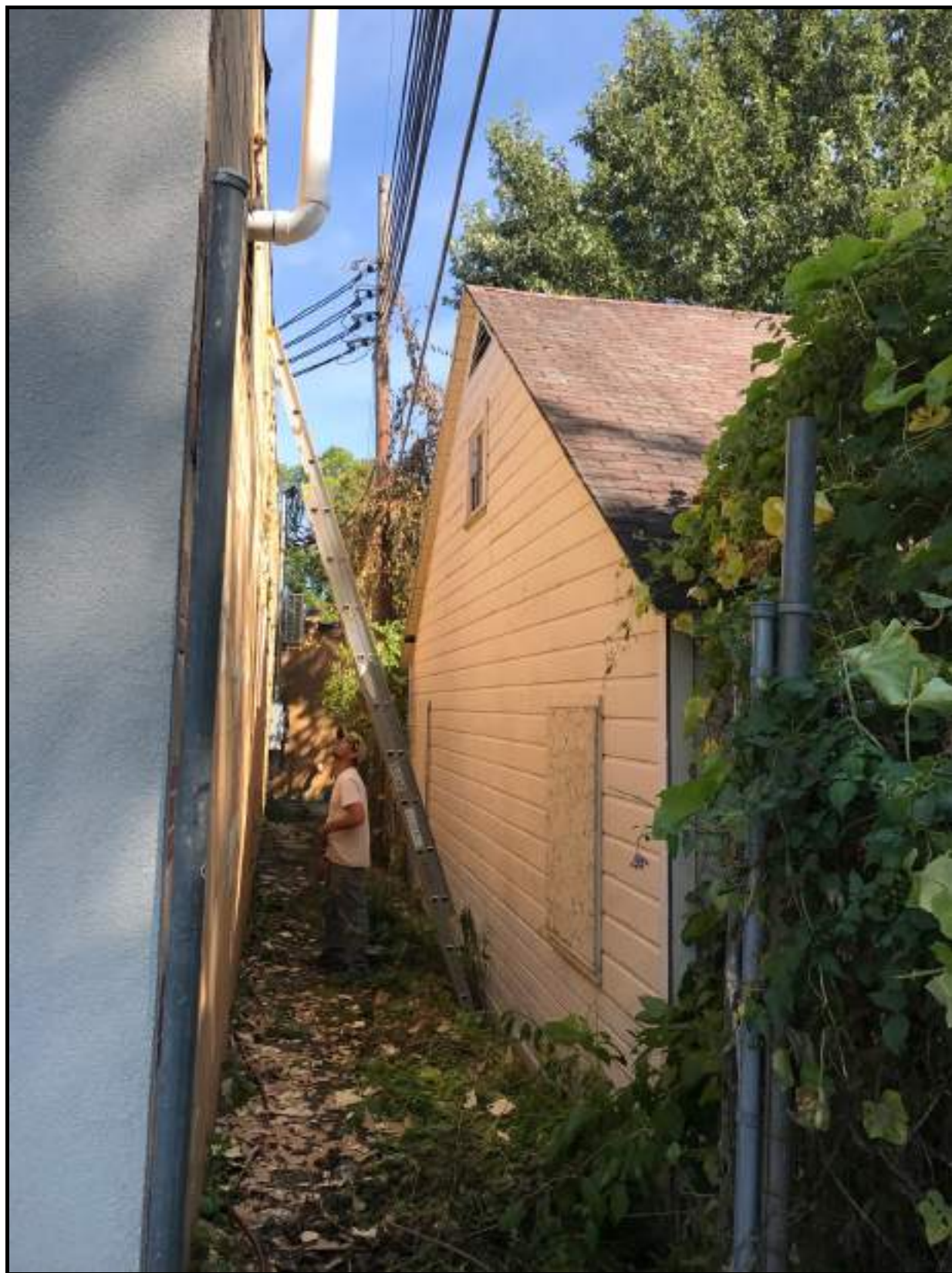
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SSDS Inspection - Photo #5

Clinton West Plaza  
City of Ithaca, New York





**Photo #6:** Exterior Photo of the Relocated Exhaust Pipe



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**SSDS Inspection - Photo #6**

Clinton West Plaza  
City of Ithaca, New York



## **APPENDIX C**

2017 CERTIFICATION STATEMENT



October 10, 2017

Mr. David J. Chiusano, Project Manager  
New York State Department of Environmental Conservation  
Remedial Bureau E, Section A  
Division of Environmental Remediation  
625 Broadway 12<sup>th</sup> Floor  
Albany, New York 12233-7017

Dear Mr. Chiusano:

The following certification is provided in accordance with the executed Order on Consent and Administrative Settlement dated April 22, 2015, and the "On-Site SSDS Operation and Monitoring Work Plan" prepared by Maser Engineering, dated November 2015.

For the SSDS installed on-site, I certify that all the following statements are true:

- The inspection of the site to confirm the effectiveness of the ICs/ECs required by the remedial program was performed under my direction.
- The IC/EC employed at this site is unchanged from the date the control was put in place, or last approved by the Department.
- Nothing has occurred that would impair the ability of the control to protect the public health and environment.
- Nothing has occurred that would constitute a violation or failure to comply with any SMP for this control.
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control.
- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document.
- Use of the site is compliant with the Environmental Easement/Notice.
- The EC systems are performing as designed and are effective.
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program.
- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Marc Maser, of Maser Engineering, 112 North Main Street, Horseheads, NY 14845, am certifying as Owner's Designated Site Representative.

Should you have any questions or require additional information please contact me at 607-377-7990 or at [maser@maser-engineering.net](mailto:maser@maser-engineering.net).

Sincerely,



Marc Maser, P.E., PMP



cc. William Buchalter, VistaGroup  
Ronald S. Kossar, Esq., Representing Ithaca West, LLC  
Richard Jones, NYSDOH  
Margaret A. Sheen, Esq., NYSDEC

# **APPENDIX D**

2017 SOIL TEST REPORT

February 28, 2017

Marc Maser  
Maser Engineering  
112 North Main St  
Horseheads, NY 14845

RE: Project: CLINTON WEST PLAZA  
Pace Project No.: 7012084

Dear Marc Maser:

Enclosed are the analytical results for sample(s) received by the laboratory on February 24, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Caitlin Panzarella  
caitlin.panzarella@pacelabs.com  
(631)694-3040  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: CLINTON WEST PLAZA

Pace Project No.: 7012084

---

### Long Island Certification IDs

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350

Connecticut Certification #: PH-0435

Maryland Certification #: 208

Rhode Island Certification #: LAO00340

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

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## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: CLINTON WEST PLAZA

Pace Project No.: 7012084

Sample: SOIL PILE Lab ID: 7012084001 Collected: 02/23/17 10:40 Received: 02/24/17 09:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C MSV 5035A-L Low Level</b>		Analytical Method: EPA 8260C Preparation Method: EPA 5035A-L						
1,1,1-Trichloroethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	71-55-6	
1,1,2,2-Tetrachloroethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	79-34-5	
1,1,2-Trichloroethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	79-00-5	
1,1,2-Trichlorotrifluoroethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	76-13-1	
1,1-Dichloroethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	75-34-3	
1,1-Dichloroethene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	75-35-4	
1,2,4-Trichlorobenzene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	120-82-1	
1,2-Dibromo-3-chloropropane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	96-12-8	
1,2-Dibromoethane (EDB)	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	106-93-4	
1,2-Dichlorobenzene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	95-50-1	
1,2-Dichloroethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	107-06-2	
1,2-Dichloropropane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	78-87-5	
1,3-Dichlorobenzene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	541-73-1	
1,4-Dichlorobenzene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	106-46-7	
2-Butanone (MEK)	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	78-93-3	
2-Hexanone	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	591-78-6	
4-Methyl-2-pentanone (MIBK)	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	108-10-1	
Acetone	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	67-64-1	
Benzene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	71-43-2	
Bromodichloromethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	75-27-4	
Bromoform	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	75-25-2	
Bromomethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	74-83-9	
Carbon disulfide	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	75-15-0	
Carbon tetrachloride	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	56-23-5	
Chlorobenzene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	108-90-7	
Chloroethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	75-00-3	
Chloroform	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	67-66-3	
Chloromethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	74-87-3	
Cyclohexane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	110-82-7	
Dibromochloromethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	124-48-1	
Dichlorodifluoromethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	75-71-8	
Ethylbenzene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	100-41-4	
Isopropylbenzene (Cumene)	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	98-82-8	
Methyl acetate	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	79-20-9	
Methyl-tert-butyl ether	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	1634-04-4	
Methylcyclohexane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	108-87-2	
Methylene Chloride	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	75-09-2	
Styrene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	100-42-5	
Tetrachloroethene	3.0	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	127-18-4	
Toluene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	108-88-3	
Trichloroethene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	79-01-6	
Trichlorofluoromethane	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	75-69-4	
Vinyl chloride	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	75-01-4	
Xylene (Total)	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	1330-20-7	
cis-1,2-Dichloroethene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	156-59-2	
cis-1,3-Dichloropropene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	10061-01-5	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: CLINTON WEST PLAZA

Pace Project No.: 7012084

**Sample: SOIL PILE**      **Lab ID: 7012084001**      Collected: 02/23/17 10:40      Received: 02/24/17 09:35      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260C MSV 5035A-L Low Level</b>		Analytical Method: EPA 8260C    Preparation Method: EPA 5035A-L						
trans-1,2-Dichloroethene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	156-60-5	
trans-1,3-Dichloropropene	<2.1	ug/kg	2.1	1	02/26/17 08:53	02/26/17 20:09	10061-02-6	
<b>Surrogates</b>								
Toluene-d8 (S)	121	%.	43-157	1	02/26/17 08:53	02/26/17 20:09	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	34-145	1	02/26/17 08:53	02/26/17 20:09	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%.	33-150	1	02/26/17 08:53	02/26/17 20:09	17060-07-0	
<b>Percent Moisture</b>		Analytical Method: ASTM D2216-92						
Percent Moisture	5.0	%	0.10	1		02/27/17 17:58		

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: CLINTON WEST PLAZA

Pace Project No.: 7012084

QC Batch:	15063	Analysis Method:	EPA 8260C
QC Batch Method:	EPA 5035A-L	Analysis Description:	8260 MSV 5035A-L Low Level
Associated Lab Samples:	7012084001		

METHOD BLANK: 73730 Matrix: Solid

Associated Lab Samples: 7012084001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/kg	<2.0	2.0	02/26/17 18:49	
1,1,2,2-Tetrachloroethane	ug/kg	<2.0	2.0	02/26/17 18:49	
1,1,2-Trichloroethane	ug/kg	<2.0	2.0	02/26/17 18:49	
1,1,2-Trichlorotrifluoroethane	ug/kg	<2.0	2.0	02/26/17 18:49	
1,1-Dichloroethane	ug/kg	<2.0	2.0	02/26/17 18:49	
1,1-Dichloroethene	ug/kg	<2.0	2.0	02/26/17 18:49	
1,2,4-Trichlorobenzene	ug/kg	<2.0	2.0	02/26/17 18:49	
1,2-Dibromo-3-chloropropane	ug/kg	<2.0	2.0	02/26/17 18:49	
1,2-Dibromoethane (EDB)	ug/kg	<2.0	2.0	02/26/17 18:49	
1,2-Dichlorobenzene	ug/kg	<2.0	2.0	02/26/17 18:49	
1,2-Dichloroethane	ug/kg	<2.0	2.0	02/26/17 18:49	
1,2-Dichloropropane	ug/kg	<2.0	2.0	02/26/17 18:49	
1,3-Dichlorobenzene	ug/kg	<2.0	2.0	02/26/17 18:49	
1,4-Dichlorobenzene	ug/kg	<2.0	2.0	02/26/17 18:49	
2-Butanone (MEK)	ug/kg	<2.0	2.0	02/26/17 18:49	
2-Hexanone	ug/kg	<2.0	2.0	02/26/17 18:49	
4-Methyl-2-pentanone (MIBK)	ug/kg	<2.0	2.0	02/26/17 18:49	
Acetone	ug/kg	<2.0	2.0	02/26/17 18:49	
Benzene	ug/kg	<2.0	2.0	02/26/17 18:49	
Bromodichloromethane	ug/kg	<2.0	2.0	02/26/17 18:49	
Bromoform	ug/kg	<2.0	2.0	02/26/17 18:49	
Bromomethane	ug/kg	<2.0	2.0	02/26/17 18:49	
Carbon disulfide	ug/kg	<2.0	2.0	02/26/17 18:49	
Carbon tetrachloride	ug/kg	<2.0	2.0	02/26/17 18:49	
Chlorobenzene	ug/kg	<2.0	2.0	02/26/17 18:49	
Chloroethane	ug/kg	<2.0	2.0	02/26/17 18:49	
Chloroform	ug/kg	<2.0	2.0	02/26/17 18:49	
Chloromethane	ug/kg	<2.0	2.0	02/26/17 18:49	
cis-1,2-Dichloroethene	ug/kg	<2.0	2.0	02/26/17 18:49	
cis-1,3-Dichloropropene	ug/kg	<2.0	2.0	02/26/17 18:49	
Cyclohexane	ug/kg	<2.0	2.0	02/26/17 18:49	
Dibromochloromethane	ug/kg	<2.0	2.0	02/26/17 18:49	
Dichlorodifluoromethane	ug/kg	<2.0	2.0	02/26/17 18:49	
Ethylbenzene	ug/kg	<2.0	2.0	02/26/17 18:49	
Isopropylbenzene (Cumene)	ug/kg	<2.0	2.0	02/26/17 18:49	
Methyl acetate	ug/kg	<2.0	2.0	02/26/17 18:49	
Methyl-tert-butyl ether	ug/kg	<2.0	2.0	02/26/17 18:49	
Methylcyclohexane	ug/kg	<2.0	2.0	02/26/17 18:49	
Methylene Chloride	ug/kg	<2.0	2.0	02/26/17 18:49	
Styrene	ug/kg	<2.0	2.0	02/26/17 18:49	
Tetrachloroethene	ug/kg	<2.0	2.0	02/26/17 18:49	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: CLINTON WEST PLAZA  
Pace Project No.: 7012084

METHOD BLANK: 73730

Matrix: Solid

Associated Lab Samples: 7012084001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene	ug/kg	<2.0	2.0	02/26/17 18:49	
trans-1,2-Dichloroethene	ug/kg	<2.0	2.0	02/26/17 18:49	
trans-1,3-Dichloropropene	ug/kg	<2.0	2.0	02/26/17 18:49	
Trichloroethene	ug/kg	<2.0	2.0	02/26/17 18:49	
Trichlorofluoromethane	ug/kg	<2.0	2.0	02/26/17 18:49	
Vinyl chloride	ug/kg	<2.0	2.0	02/26/17 18:49	
Xylene (Total)	ug/kg	<2.0	2.0	02/26/17 18:49	
1,2-Dichloroethane-d4 (S)	%	108	33-150	02/26/17 18:49	
4-Bromofluorobenzene (S)	%	104	34-145	02/26/17 18:49	
Toluene-d8 (S)	%	117	43-157	02/26/17 18:49	

LABORATORY CONTROL SAMPLE: 73731

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	50	49.5	99	59-134	
1,1,2,2-Tetrachloroethane	ug/kg	50	48.7	97	69-132	
1,1,2-Trichloroethane	ug/kg	50	46.2	92	73-135	
1,1,2-Trichlorotrifluoroethane	ug/kg	50	47.3	95	45-156	
1,1-Dichloroethane	ug/kg	50	43.7	87	53-160	
1,1-Dichloroethene	ug/kg	50	44.2	88	47-152	
1,2,4-Trichlorobenzene	ug/kg	50	49.2	98	52-140	
1,2-Dibromo-3-chloropropane	ug/kg	50	49.4	99	57-140	
1,2-Dibromoethane (EDB)	ug/kg	50	46.7	93	76-138	
1,2-Dichlorobenzene	ug/kg	50	50.8	102	67-125	
1,2-Dichloroethane	ug/kg	50	40.2	80	65-143	
1,2-Dichloropropane	ug/kg	50	45.8	92	72-131	
1,3-Dichlorobenzene	ug/kg	50	51.7	103	64-124	
1,4-Dichlorobenzene	ug/kg	50	51.2	102	61-127	
2-Butanone (MEK)	ug/kg	50	44.9	90	52-164	
2-Hexanone	ug/kg	50	43.2	86	66-151	
4-Methyl-2-pentanone (MIBK)	ug/kg	50	39.3	79	63-154	
Acetone	ug/kg	50	44.8	90	23-196	
Benzene	ug/kg	50	44.4	89	65-129	
Bromodichloromethane	ug/kg	50	49.6	99	74-141	
Bromoform	ug/kg	50	63.3	127	59-136	
Bromomethane	ug/kg	50	56.7	113	32-182	
Carbon disulfide	ug/kg	50	43.2	86	26-160	
Carbon tetrachloride	ug/kg	50	54.3	109	57-135	
Chlorobenzene	ug/kg	50	54.9	110	62-136	
Chloroethane	ug/kg	50	35.1	70	50-159	
Chloroform	ug/kg	50	46.3	93	71-135	
Chloromethane	ug/kg	50	36.9	74	44-139	
cis-1,2-Dichloroethene	ug/kg	50	46.6	93	75-130	
cis-1,3-Dichloropropene	ug/kg	50	47.7	95	74-140	

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## QUALITY CONTROL DATA

Project: CLINTON WEST PLAZA

Pace Project No.: 7012084

LABORATORY CONTROL SAMPLE: 73731

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyclohexane	ug/kg	50	40.2	80	21-139	
Dibromochloromethane	ug/kg	50	58.7	117	71-133	
Dichlorodifluoromethane	ug/kg	50	42.9	86	10-155	
Ethylbenzene	ug/kg	50	55.1	110	59-135	
Isopropylbenzene (Cumene)	ug/kg	50	51.4	103	56-129	
Methyl acetate	ug/kg	50	37.0	74	33-176	
Methyl-tert-butyl ether	ug/kg	50	45.8	92	25-171	
Methylcyclohexane	ug/kg	50	46.7	93	24-141	
Methylene Chloride	ug/kg	50	40.5	81	50-164	
Styrene	ug/kg	50	54.8	110	73-133	
Tetrachloroethene	ug/kg	50	57.9	116	10-176	
Toluene	ug/kg	50	46.9	94	66-131	
trans-1,2-Dichloroethene	ug/kg	50	45.7	91	53-157	
trans-1,3-Dichloropropene	ug/kg	50	47.7	95	66-144	
Trichloroethene	ug/kg	50	46.9	94	62-130	
Trichlorofluoromethane	ug/kg	50	43.3	87	38-166	
Vinyl chloride	ug/kg	50	37.6	75	45-137	
Xylene (Total)	ug/kg	150	165	110	62-135	
1,2-Dichloroethane-d4 (S)	%			103	33-150	
4-Bromofluorobenzene (S)	%			108	34-145	
Toluene-d8 (S)	%			116	43-157	

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## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: CLINTON WEST PLAZA

Pace Project No.: 7012084

QC Batch: 15064

Analysis Method: ASTM D2216-92

QC Batch Method: ASTM D2216-92

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 7012084001

SAMPLE DUPLICATE: 73732

Parameter	Units	7011967001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	10.2	10.3	1	

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## QUALIFIERS

Project: CLINTON WEST PLAZA

Pace Project No.: 7012084

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### SAMPLE QUALIFIERS

Sample: 7012084001

[1] Results may be biased low due to sample not being collected according to 5035A low level specifications.

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CLINTON WEST PLAZA

Pace Project No.: 7012084

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7012084001	SOIL PILE	EPA 5035A-L	15063	EPA 8260C	15113
7012084001	SOIL PILE	ASTM D2216-92	15064		

## REPORT OF LABORATORY ANALYSIS

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WO#: 7012084

PM: CNP Due Date: 02/27/17

CLIENT: MASER

## Sample Condition Upon Rec

Face Analytical

Client Name: MaserCourier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace OtherTracking #: 7785 0266 4916Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ noPacking Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☒ Other ziplockThermometer Used: TH077 TH078 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begunCooler Temperature: 3.2Date and Initials of person examining contents: 2/24/17 JR

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>Due 2/27</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix <u>SL</u> WT OIL		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Initial when completed:
		Lot # of added preservative:
		Date and Time preservative added:
Exceptions: VOA, micro, TOC, O&G		
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.00