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# PERIODIC REVIEW REPORT

# JUNE 29, 2012 TO JUNE 29, 2015

# REMINGTON RAND BUILDING

# SITE # C932142
# 184 SWEENEY STREET
# NORTH TONAWANDA, NEW YORK 14120

**Prepared for:**

**Remington Lofts on the Canal, LLC**
**298 Main Street**
**Suite 222**
**Buffalo, New York 14202**

**Prepared by:**

**Panamerican Environmental, Inc.**
**2390 Clinton Street**
**Buffalo, New York 14227**

**AUGUST 2015**

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# EXECUTIVE SUMMARY

The Remington Rand site is located in the City of North Tonawanda, County of Niagara, New York and is identified as Block 1 and Lot 21 on the Niagara County Tax Map (SBL # 185.09-1-21). The site is an approximately 1.8 acre area bounded by Tremont Street to the north, Sweeney Street to the south, New York Central Railroad property to the east, and Marion Street to the west. The boundaries of the site are more fully described on the ALTA Survey map provided herein. The 1.8-acre site includes a slab-on-grade four-story concrete block and brick building. Also, a one-story slab-on-grade brick building adjoins the four-story building on the south. The remainder of the property is occupied by asphalt/concrete and gravel parking areas with some green space. The building area occupies approximately 1.2 acres of the 1.8 acre property.

The following is a summary of the nature and extent of contamination from the remedial investigation and resulting remedial history:

**Sub-Slab Vapor Investigation -**The sub-slab vapor assessment program resulted in a number of VOC compounds detected in both the indoor/outdoor air samples and in the sub-slab vapor samples. To mitigate the sub slab vapors in an area of elevated VOCs a passive vapor mitigation system was installed under an IRM with provisions to make the system active (In-line fan installed). The vapor mitigation system was sampled per the SMP as part of this periodic inspection and the results are discussed in section 4.0.

**Exterior Soils Investigation** - Exterior surface and sub-surface soils exhibited elevated concentrations of PAHs and metals that exceeded Part 375 residential and restricted residential soil cleanup objectives. In order for the site to meet Part 375 restricted residential cleanup objectives the top two feet of existing soil across the site, exterior to the building, was removed as an IRM and replaced with clean fill material. The removed soil was disposed off-site at a NYSDEC approved landfill. Most of this open area was then covered with asphalt (driveways/parking), sidewalks and minimal additional landscaping.

**Sub-Slab Soils Investigation** - Sub-slab soils exhibited only a few PAH and metal compounds that slightly exceeded Part 375 residential and restricted residential soil cleanup objectives. Because of the very low level of contamination detected and the fact that the floor slab is to remain in place for the planned future development no further remediation was recommended for this area.

**Floor Drains/Pits Sediment Investigation** – The existing building first floor drain/trench system and elevator pits sediment samples exhibited in several samples significant elevated concentrations of a number of metal compounds that exceeded 375 residential and restricted residential soil cleanup objectives. The sediments were removed from the drains/trenches and pits under an IRM and disposed off-site at an

approved disposal facility.

**Transformer sampling** conducted as part of the RI indicated that three of the ten existing transformers and both fluid reservoirs did not have PCB containing oil. Results from the remaining seven transformers indicated various concentrations of PCBs (COC) with the highest being 250 ppm. Some minor staining of soil around specific transformers indicated elevated levels of PCBs in the surface stained areas. Under an IRM all transformers, contents and impacted soil were removed according to regulations and properly disposed of at an approved disposal facility.

Upon completion of the IRMs remnant contamination remained in site soil material below the two foot removal level. The final remedy for the site included the establishing of an environmental easement that restricts future development to restricted residential use and the establishing of engineering and institutional controls for the site as stipulated in the SMP.

**Site Wide Inspection** of the IC/EC's, was conducted on July 31, 2015. The inspection noted that all elements of the SMP were in compliance at the site i.e. IC/EC, the Monitoring Plan and the O & M Plan.

**Sub-slab soil vapor depressurization system sampling** was conducted on July 31, 2015. The sample analytical results were assessed using the Matrix I and 2 models from the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in NY State, 10/06. The 7/31/15 sample concentrations of the Matrix model guidance compounds were below the lowest criteria for the sub-slab vapor concentration column on each matrix chart. Therefore, per the Guidance document, Action1 "No further action" is recommended.

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## 1.0 SITE OVERVIEW

The Remington Rand Building site is located in the City of North Tonawanda, County of Niagara, New York and is identified as Block 1 and Lot 21 on the Niagara County Tax Map (SBL # 185.09-1-21). The site is an approximately 1.8 acre area bounded by Tremont Street to the north, Sweeney Street to the south, New York Central Railroad property to the east, and Marion Street to the west. The boundaries of the site are more fully described on the ALTA Survey map (see attachment). The 1.8-acre site includes a slab-on-grade four-story concrete block and brick building. Also, a one-story slab-on-grade brick building adjoins the four-story building on the south. The remainder of the property is occupied by asphalt/concrete and gravel parking areas with some green space. The building area occupies approximately 1.2 acres of the 1.8 acre property.

### 1.1 Nature and Extent of Contamination - RI Program

**Building sub-slab vapor assessment program** resulted in a number of VOC compounds detected in both the indoor/outdoor air samples and in the sub-slab vapor samples. Based on the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in NY State, only one sample had concentrations indicating follow-up remediation.

**Building exterior surface and sub-surface soils** analytical results confirmed the results of prior assessments completed on the property which indicated elevated concentrations of PAHs and metals (COCs) that exceeded Part 375 restricted residential soil cleanup objectives.

**Building sub-slab soils assessment** indicated only a few PAH and metal compounds that slightly exceeded Part 375 restricted residential soil cleanup objectives. Because of the very low level of contamination detected and the fact that the floor slab is to remain in place for the planned future development no further remediation was recommended for this area.

**Building first floor drain/trench and elevator pit sediment assessment** indicated elevated concentrations of a number of metal compounds (COCs) that exceeded 375 restricted residential soil cleanup objectives.

**Groundwater assessment** indicated that only two metal compounds were detected in two of the unfiltered samples which exceeded the TOGs groundwater standards. No metal compounds exceeded groundwater standards in the filtered samples. Since the site is served by municipal water supply, and groundwater is not planned to be used for the new development, no further action related to groundwater was recommended.

**Transformer sampling** indicated that three of the ten existing transformers and both fluid reservoirs did not have PCB containing oil. Results from the remaining seven transformers indicated various concentrations of PCBs (COC) with the

highest being 250 ppm. Some minor staining of soil around specific transformers indicated elevated levels of PCBs in the surface stained areas.

### 1.2 Remedial Program

The site was remediated in accordance with the remedy selected by the NYSDEC in its decision document dated November 2010. The components of the selected remedy included implementation of Interim Remedial Measures (IRMs) with an Environmental Easement and institutional and engineering controls (IC/EC).

#### IRMs

Based on the findings of the RI program (see above) the following IRMs were completed:

1. Installed a sub-slab vapor venting system beneath a portion of the ground floor slab of the structure (June and August 2010).

2. Removed the top two feet of impacted soil from outside the building foot print from across the site and replacement with two feet of clean fill and/or cement/asphalt paving sections (April and August 2010).

3. Removed sediments and cleaned building floor drains and elevator shafts (April and June 2010).

4. Removed and disposed of PCB transformer fluids, transformers/enclosures and any impacted soil/materials adjacent/below transformers (March 2010).

#### ICs/ECs

The final remedy for the site is defined as performing no additional cleanup activities at the Site beyond that which was already performed as IRMs with implementation of ICs and ECs as follows:

- Execution and recording of an Environmental Easement to restrict land use to restricted residential use per NYSDEC Part 375 regulations and prevent future exposure to any contamination remaining at the site along with restricted use of groundwater.

- Development and implementation of a Site Management Plan (SMP) for long term management of remaining contamination including operation, monitoring and maintenance of the sub-slab vapor venting system as required by the Environmental Easement, which includes plans for Institutional and Engineering Controls.

There have been no changes to the selected remedy since remedy selection.

## 2.0 EFFECTIVENESS/COMPLIANCE OF THE REMEDIAL PROGRAM

There have been no changes or modifications to the implemented remedy (IRMs) based on the Site Wide Inspection completed under this PRR. The current site use effectively meets, and is in compliance with, the ICs/ECs for the site as discussed in section 3.0.

## 3.0 IC/EC PLAN COMPLIANCE REPORT

### 3.1 Institutional Controls (IC)

The site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for restricted residential use provided that the long-term Engineering and Institutional Controls included in this SMP are employed;
- The property may not be used for a higher level of use, such as unrestricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater underlying the property is prohibited without testing and approval of the NYSDEC and NYSDOH; and
- Vegetable gardens and farming on the property are prohibited.

The current site use meets all of the IC requirements. There are no recommendations for changes to the ICs.

### 3.2 Engineering Controls (EC)

The following Engineering Control systems were inspected for compliance to SMP requirements:

#### 3.2.1 Soil Cover

Exposure to remaining contamination in soil/fill at the site will be prevented by a soil cover system placed over the site. This cover system is comprised of a minimum of 24 inches of clean soil, asphalt/concrete pavement sections (12 inches minimum depth) and the existing concrete building slab. Before placement of cover material a geotextile fabric layer was placed as a demarcation between the clean fill and the existing soil. The Excavation Work Plan that appears in Appendix A of the SMP outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed and

any underlying remaining contamination is disturbed.

The soil cover was inspected and appears to be in place with no disturbances since its initial placement and is in compliance with the requirements of the SMP (refer to attached photos).

### 3.2.2 Sub-Slab Vapor Depressurization System

A passive sub-slab soil vapor depressurization system was installed below the first floor slab in the rear northeast end of the center section of the structure, south of the courtyard area. The system was designed to allow for conversion to an active sub-slab depressurization system by activating an in-line fan installed during the IRM. To evaluate the effectiveness of the vent system the SMP called for a sample to be collected from the vent stack sample port along with an ambient air sample (refer to the October 2012 PRR). The SMP calls for samples to be analyzed for TCL VOCs by EPA Method TO-15. Prior to each sampling event the in-line fan will be turned on to exert the necessary vacuum to collect a representative sub-slab air sample. The TO-15 sample will be collected using a Summa canister through the provided sample port in the vent stack.

The monitoring and sampling of the depressurization system are discussed in sect 4.0- Monitoring Plan Compliance Report.

## 4.0 MONITORING PLAN COMPLIANCE REPORT

### 4.1 Soil Cover System Monitoring

The soil cover was inspected (see Appendix A Inspection Report)and appears to be in place with no disturbances since its initial placement and is in compliance with the requirements of the SMP.

### 4.2 Sub-Slab Depressurization System Monitoring

A passive soil vapor depressurization system was installed in the rear northeast end of the center section of the structure, south of the courtyard area. The system was designed to allow for conversion to an active sub-slab depressurization system by activating an in-line fan installed during the IRM. To evaluate the effectiveness of the vent system a sample was collected from the vent stack sample port. The sample was analyzed by Accutest Laboratorys for TCL VOCs by EPA Method TO-15. Prior to sampling the in-line fan was turned on to exert the necessary vacuum to collect a representative sub-slab air sample. The TO-15 sample was collected using a Summa canister through the provided sample port in the vent stack.

The following sub-slab sampling procedures were followed per the SMP:

Remove the one inch plug from the sampling port and insert a ¼ inch Teflon or polyethylene tube through the port to the center of the 6 inch vent pipe. Seal the tubing at the port opening with a piece of modeling clay. Attach the sample tubing to the end of the flow controller/particulate filter assembly of a 6-liter Summa® canister using a ¼-inch Swagelok nut with appropriate ferrules. With the summa canister valve closed, close the knife valve in the vent line at the vent pipe by-pass and turn on the in-line fan and run for 15 minutes. Turn off the fan and turn on the valve built into the Summa canister. Sample collection will be terminated by shutting off the valve after the vacuum in the canister has reached approximately minus 3 inches of mercury.

The air vent sample was collected on July 31, 2015. The analytical results are presented in the attached Table 6 (Revised August 2015). The current analytical results are compared in the table to the previous sampling results. The analytical results have validated and the Data Usability Summary Report (DUSR) is provided in Appendix D.

Using the Matrix I and 2 models from the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in NY State, 10/06, the concentrations of the guidance selected VOCs detected at the site were evaluated even though no indoor samples were collected for this PRR per NYSDEC agreement as a result of the last PRR submission. The fact that the indoor area that would be sampled is used as a an underground parking garage could lead to the assumption that lingering auto fumes and possible oil/gas stain odors could account for a number of VOCs present in the ambient air and not necessarily attributable to the sub slab conditions. With this in mind, the four guidance VOCs values were assess using both the Matrix 1 and 2 models as follows:

Matrix 1 - Sub-slab concentrations from 7/31/15 sampling for both trichloroethene (3.3) and carbon tetrachloride (ND) were <5 the lowest criteria for the sub-slab vapor concentration column on Matrix 1.

Matrix 2 – Sub-slab vapor concentrations from 7/31/15 sampling for both tetrachlorothene (7.5) and 1,1,1-tricloroethane (11) were significantly below the <100, the lowest criteria for the sub-slab vapor concentration column on Matrix 2.

The 7/31/15 sample concentrations of the Matrix model guidance compounds were below the lowest criteria for the sub-slab vapor concentration column on each matrix. Therefore, per the Guidance document, Action1 “No further action” is recommended.

No corrective measures are proposed to the ICs/ECs. The IC/EC certification forms are attached to this report.

## 5.0 OPERATION & MAINTENENCE (O & M) PLAN COMPLIANCE REPORT

In general, the site remedy does not rely on any mechanical systems;

however, an in-line fan has been installed as part of the sub-slab venting system in the vent stack near the ceiling of the first floor of the building. The fan was used to draw a vacuum on the system during this sampling event for assessing the operating efficiency of the system. The in-line fan will also be used if the system is required to become an active system whereby the fan will operate continuously. A one inch sample port was installed during the IRM in the six inch PVC vertical vent pipe on the first floor. A vapor sample was collected through the sample port for analysis. The sub-slab sample was collected by using a 6-liter Summa® canister equipped with a pre-calibrated/certified 2-hour flow controller, and particulate filter.

During the inspection the knife value was manually closed and the fan turned on for a minimum of 15 minutes to assure it is operational. The caulking seals were also inspected and were deemed satisfactory.

No O & M deficiencies were noted during the inspection.

## 6.0 CONCLUSIONS

PEI conducted sub-slab vent sampling and a periodic site inspection of the Former Remington-Rand facility on July 31, 2015 to assess compliance with the Site Management Plan (SMP). Based upon inspection of the site cover system, sub-slab vapor system sample analytical results and discussions with the facility ownership PEI concludes that the site is in compliance with the SMP. The performance and effectiveness of the selected remedy appears to continue to achieve the remedial objectives for the site.

Also, attached in Appendix B is the executed NYSDEC Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form.

| TABLE 6 - Remington Rand Sub Slab Vapor & Ambient Air Analytical Results REV 7/31/15 | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Number** | **RR-AA-01** | **RR-AA-02** | **RR-AA-03** | **RR-AA-04** | **RR-AA-05** | **RR-AMP-01** | **RR-SA-01** | **RR-SA-02** | **RR-SA-03** | **RR-SA-04** | **RR-SA-05** | **RR-SA-06** | **RR-SA-07** | **RR-PVC-01** | **JC573-1** | **NYSDOH (1)** | **NYSDOH (1)** |
| **Sample Date** | **5/12/2009** | **5/12/2009** | **5/12/2009** | **5/12/2009** | **5/12/2009** | **9/13/2012** | **5/12/2009** | **5/12/2009** | **5/12/2009** | **5/12/2009** | **5/12/2009** | **5/12/2009** | **5/12/2009** | **9/13/2012** | **7/31/2015** | **Soil Vapor/Indoor Air** | **Soil Vapor/Indoor Air** |
| **Sample Location** | **Outdoor** | **Indoor** | **Indoor** | **Indoor** | **Indoor** | **Indoor** | **SubSlab** | **SubSlab** | **SubSlab** | **SubSlab** | **SubSlab** | **SubSlab** | **SubSlab** | **Vent Port** | **Vent Port** | **Matrix 1 (Sub-Vapor)** | **Matrix 2 (Sub-Vapor)** |
| **Compounds** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** | **ug/m3** |
| **VOCs EPA T0-15** | | | | | | | | | | | | | | | | | |
| Ethylbenzcne | ND | ND | 0.38 | 0.44 | ND | 4.2 | 1.50. | 11.0 | 4.4 | 3.7 | 4.7 | 7.2 | 6.0 | 0.6 | 3.0 | | |
| Trichlorofluoromethane | 1.4 | I.4 | 2.2. | 1.9. | 2.1. | ND | 83.0. | 2.2. | 2.0 | 2,0 | 8.9 | 5.8 | 2.7. | ND | 1.7. | | |
| n-Hexane | ND | 0.82 | ND | 1.1. | ND | ND | 1.3. | 14.0. | 7.9 | 2.3 | 5.7 | 26.0 | 4.6. | ND | ND | | |
| tert-Butyl alcohol | ND | ND | ND | ND | ND | ND | L2 | 4.1. | 3.8 | 5.0 | 5.6 | 62.0 | 9.7. | ND | 0.7. | | |
| Methylene chloride | 9.3. | 1.2. | 2.2. | 12.0. | 2.1. | 1.2. | 13.0. | 3.4. | 6.3 | 2.1 | 11.0 | 3.4 | 1.5. | 0.2. | 1.9. | | |
| Benzene | 0.6. | 1.4. | 1.2. | 1.1. | 0.7. | 1.9. | 33.0. | 84 E | 2.9 | 1.4 | 3.7 | 5.8 | 1.5. | 0.5. | 9.3. | | |
| Styrene | ND | ND | 9.3. | ND | ND | 2.0. | ND | 1.7. | 0.6 | 1.6 | 470 E | 5.0 | 1.0. | 0.3. | 2.0. | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | 0.3. | 8.0. | 6.3. | 9.0 | 5.7 | 5.7 | 13.0 | ND | ND | 7.5. | | < 100 |
| Toluene | 1.6. | 2.6. | 2.6. | 2.5. | 1.4. | 42.0. | 1.0. | 55.0. | 62.0 | 6.0 | 5.5 | 23.0 | 7.9. | 3.0. | 50.9. | | |
| I ,1,1-Trichloroethane | ND | ND | ND | 0.5. | ND | ND | 1.5. | 8.2. | 670 E | 92.0 | 2.8 | 1.5 | 5.8 | ND | 11.0 | | < 100 |
| Trichloroethene | ND | 0.3. | ND | 0.7. | ND | 0.5. | 2.1. | ND | 4.0 | 3.8 | 0.6 | 0,37 | ND | 0.1 | 3.3 | < 5 | |
| 1,2,4-Trimethylbenzene | ND | ND | 0.6. | 0.5. | ND | 1.0. | 1.4. | 15.0. | 3. | 2.1 | 3.1 | 4.9 | 2.5 | 0.4 | 4.6 | | |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | 0.4. | 0.6. | 9.2. | 0.97 | 1.0 | 1.4 | 3.0 | 0.9 | 0.2 | 1.5 | | |
| o-Xylenc | ND | ND | 0.6. | 0.6. | ND | 1.9. | 1.9. | 2.4. | 9. | 5.7 | 5.0 | 8.7 | 9.6 | 0.3 | 4.3 | | |
| 1,1,2-Trichlorotritluoroethanc | ND | ND | 0.7. | ND | ND | ND | 0.7. | 0,63 | ND | 0.6 | 0.8 | 0.6 | 0.7 | ND | ND | | |
| 2,2,4-Trimethylpentane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.8 | | |
| m-Xylenc & p-Xylene | 0.9. | 0.6. | 1.5. | 1.4. | 0.7. | 6.4. | 8.2. | 48.0. | 18 | 17.0 | 18.0 | 35.0 | 27.0 | 1.4 | 11.0 | | |
| Bromodichloromethane | ND | ND | ND | ND | ND | ND | 0.6. | ND | ND | ND | 15.0 | 1.8 | ND | ND | ND | | |
| 2-Butanorte (MEK) | 1.6. | 1.0. | 1.2. | 2.0. | 3.7. | 80.0. | 4.3. | 16.0. | 8. | 8.7 | 7.4 | 12.0 | 13.0 | 4.6 | 3.2 | | |
| Methyl Isobutyl Ketone | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.9 | | |
| 4-Methyl-2-pentanone (MIBK) | ND | ND | ND | ND | ND | 4.7. | ND | 2.2. | ND | ND | ND | 2.9 | L2 | ND | ND | | |
| Carbon tetrachloride | 0.66 J | 0.67 J | 0.85 J | 0.82 J | 0.84 J | 0.2. | 0.75 J | 0.62 J | 0.84 J | 0.7 J | 1.5 J | 0.73 J | 1.4 J | 0.7 | ND | < 5 | |
| Dibromochloromethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.7 | | |
| Chloroform | ND | ND | ND | ND | ND | 0.2. | 3.2. | 0.5. | 2. | 2.8 | 120.0 | 9.5 | 0.4 | ND | ND | | |
| Chloromethane | 0.8. | 0.9. | 1.3. | 13.0. | 1.5. | 0.6. | ND | 0.8. | 4. | ND | ND | 0.5 | ND | 0.2 | 0.5 | | |
| Cyclohe Mine | ND | ND | ND | ND | ND | ND | 1.0. | ND | ND | ND | ND | ND | ND | ND | ND | | |
| Cyclohexane | ND | ND | ND | ND | ND | ND | ND | 17.0. | 19 | 12.0 | 5.0 | 15.0 | 34.0 | ND | 4.5 | | |
| Dichlorodifluoromethane | 2.2. | 23.0. | 2.6. | 2.6. | 2.8. | ND | 4.0. | 2.9. | 3. | 1.3 | 3.1 | 2.8 | 2.3 | ND | ND | | |
| 1,1-Dichloroethane | ND | ND | ND | ND | ND | 1.0. | ND | NO | 2. | 57.0 | ND | ND | ND | 0.2 | ND | | |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | 1.7. | ND | ND | ND | ND | ND | ND | ND | 0.19 | ND | | |
| 4-ethyltoluene | ND | ND | ND | ND | ND | 1.0. | ND | ND | ND | ND | ND | ND | ND | 0.22 | 1.20 | | |
| Acetone | ND | ND | ND | ND | ND | 360.0. | ND | ND | ND | ND | ND | ND | ND | 46 | 30 | | |
| Carbon disulfide | ND | ND | ND | ND | ND | 11.0. | ND | ND | ND | ND | ND | ND | ND | 1.1 | 0.9 | | |
| Ethyl acetate | ND | ND | ND | ND | ND | 4.6. | ND | ND | ND | ND | ND | ND | ND | 0.72 | ND | | |
| Freon 12 | ND | ND | ND | ND | ND | 0.6. | ND | ND | ND | ND | ND | ND | ND | 0.14 | ND | | |
| Heptane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.70 | 1.70 | | |
| Isopropyl alcohol | ND | ND | ND | ND | ND | 15.0. | ND | ND | ND | ND | ND | ND | ND | 1.8 | 4.9 | | |
| Methyl tert-butyl ether | ND | ND | ND | ND | ND | 1.4. | ND | ND | ND | ND | ND | ND | ND | 0.25 | ND | | |
| Tetrahydrofuran | ND | ND | ND | ND | ND | 2.6. | ND | ND | ND | ND | ND | ND | ND | 0.22 | 1.20 | | |
| Ethanol | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 53.5 | | |
| Hexane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 4.20 | | |
| Propylene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 5.50 | | |

N/A - Not Applicable ND - Non-detect
E - Estimated result due to exceeding calibration range

# APPENDIX A

# SITE WIDE INSPECTION FORM

Panamerican Environmental. Inc
2390 Clinton Street
Buffalo, New York

## SITE WIDE INSPECTION FORM

**Date: 7-31-15**

**Site Name: Remington Lofts - NYSDEC Site # C932142**

**Location:**
184 Sweeney Street in the City of North Tonawanda, New York

**General Site Conditions:**

Faculty and grounds are excellently maintained

**Weather Conditions: Sunny and 70-80°F**

**Compliance/Evaluation ICs and ECs :**

Property is in compliance with the ICs and ECs. The cover system is well maintained and in place. No excavations into the cover system have been made. The vapor system was sampled and is functioning (refer to sample results attached)

**Site management Activities (sampling, H & S Inspection, etc.):**

Vapor system was operational and sampled – refer to attached analytical results

**Compliance With Permits and O & M Plan:**

Site appears to be in compliance with O&M plan

**Records Compliance:**

No issues have occurred that would require the ned to generate any additional compliance records.

**General Comments:**

Property and compliance systems appear to be well maintained and functioning. No additional comments

**INSPECTOR'S NAME:** PETER J. GORTON

# APPENDIX B

# NYSDEC SITE MANGEMENTPERIODIC REVIEW REPORT NOTICE IC/EC CERTIFICATION FORM

Enclosure 2

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**
**Site Management Periodic Review Report Notice**
**Institutional and Engineering Controls Certification Form**

**Site Details** **Box 1**

**Site No.** **C932142**

**Site Name Remington Rand Building**

Site Address: 184 Sweeney Street Zip Code: 14120
City/Town North Tonawanda
County: Niagara
Site Acreage: 1.8

Reporting Period: June 29, 2012 to June 29, 2015

| | | YES | NO |
|---|---|---|---|
| 1 | Is the information above correct? | ☒ | ☐ |
| | If NO, include handwritten above or on a separate sheet. | | |
| 2. | Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? | ☐ | ☒ |
| 3. | Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1 11(d))? | ☐ | ☒ |
| 4. | Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? | ☐ | ☒ |
| | **If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.** | | |
| 5. | Is the site currently undergoing development? | ☐ | ☒ |

**Box 2**

| | | YES | NO |
|---|---|---|---|
| 6. | Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial | ☒ | ☐ |
| 7 | Are all ICs/ECs in place and functioning as designed? | ☒ | ☐ |

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

Signature of Owner, Remedial Party or Designated Representative

8/17/15
Date

**Box 2A**

| | YES | NO |
|---|---|---|
| 8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid? | G | G |

**If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.**

| | | |
|---|---|---|
| 9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years) | G | G |

**If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.**

**SITE NO. C932142** **Box 3**

**Description of Institutional Controls**

| Parcel | Owner | Institutional Control |
|---|---|---|
| **185.09-1-21** | Remington Lofts on the Canal, LLC | Monitoring Plan<br>O&M Plan<br>Ground Water Use Restriction<br>Landuse Restriction<br>Site Management Plan<br>IC/EC Plan |

Environmental easement approved 9/1/2010 restricting use of groundwater and placing a Restricted Residential use restriction on the property.

**Box 4**

**Description of Engineering Controls**

| Parcel | Engineering Control |
|---|---|
| **185.09-1-21** | Vapor Mitigation<br>Cover System |

Soil cover and/or pavement placed over residual soil contamination. Sub-Slab passive depressurization system placed in a portion of the building to control potential vapor intrusion. Easement requires compliance with the Site Management Plan. Future intrusive activities and soil handling at the facility must be in accordance with the Excavation Work Plan found in the SMP

**Box 5**

**Periodic Review Report (PRR) Certification Statements**

1 I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) 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, and generally accepted engineering practices; and the information presented is accurate and compete.

| YES | NO |
|---|---|
| ☒ | ☐ |

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) 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;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

| YES | NO |
|---|---|
| ☒ | ☐ |

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

Signature of Owner Remedial Party or Designated Representative

9/17/15
Date

**IC CERTIFICATIONS**
**SITE NO. C932142**

**Box 6**

**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1,2, and 3 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 John B. Berry (print name) at Panamerican Environmental, Inc 2390 Clinton St. Buffalo, NY 14227 (print business address)

am certifying as Owner Designated Representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

John B Berry
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

12/17/15
Date

## IC/EC CERTIFICATIONS

**Box 7**

**Signature**

I certify that all information in Boxes 4 and 5 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 John B. Berry (print name) at Panamerican Environmental, Inc 2390 Clinton St. Buffalo, NY 14227 (print business address)

am certifying as a for the Owner Designated Representative (Owner or Remedial Party)

STATE OF NEW YORK
JOHN B. BERRY
No. 046600
LICENSED PROFESSIONAL ENGINEER

John B. Berry
Signature of , for the Owner or Remedial Party, Rendering Certification

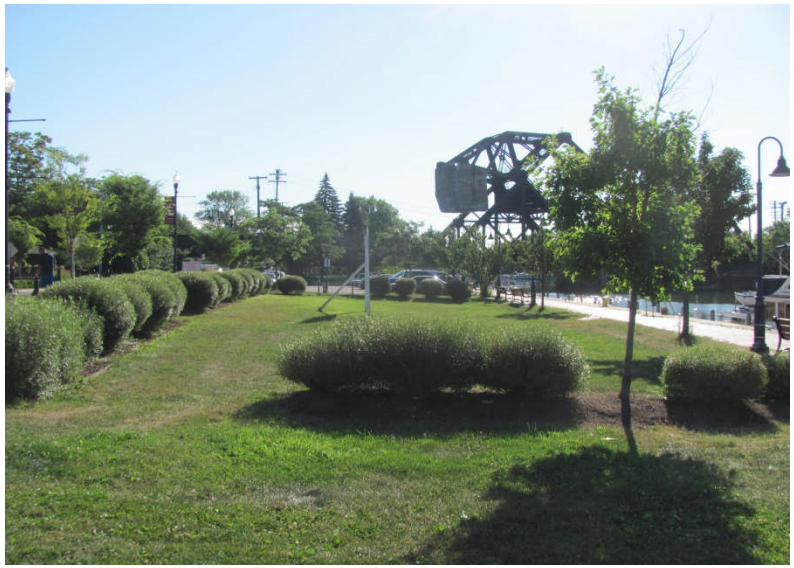
Stamp (Required for PE)

8/17/15
Date

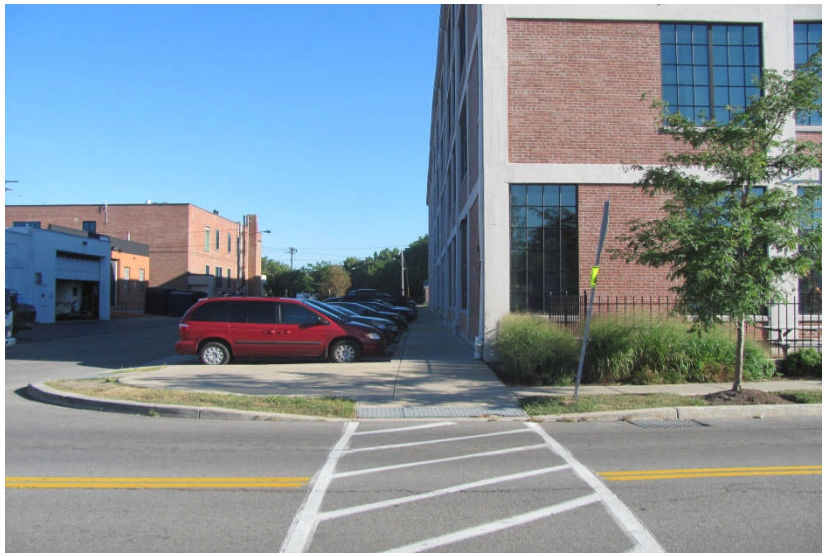
# APPENDIX C

# SITE PHOTOGRAPHS

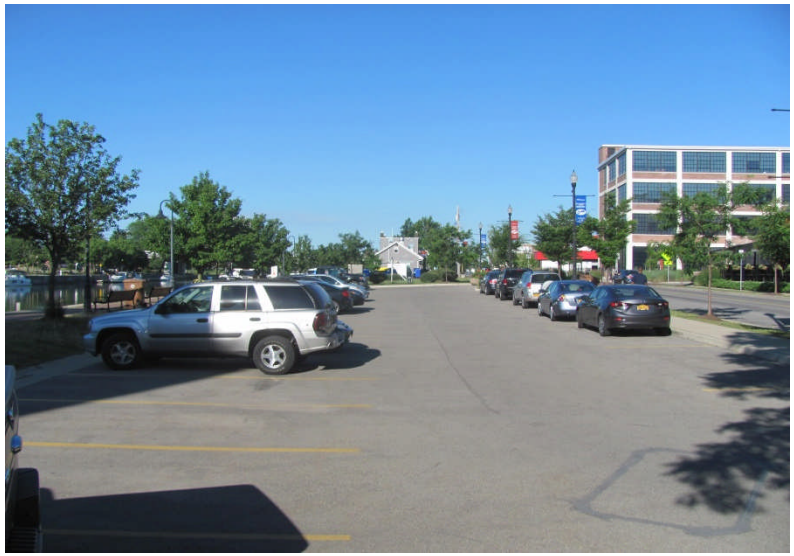
1. View of complex from south (Canal) facing north



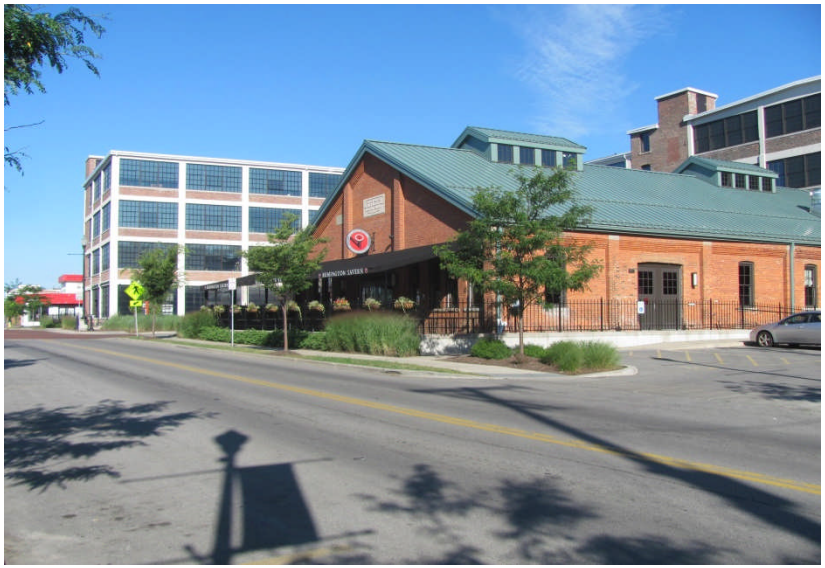
2. View of conditions along canal facing east



3. Site conditions west side from southwest corner

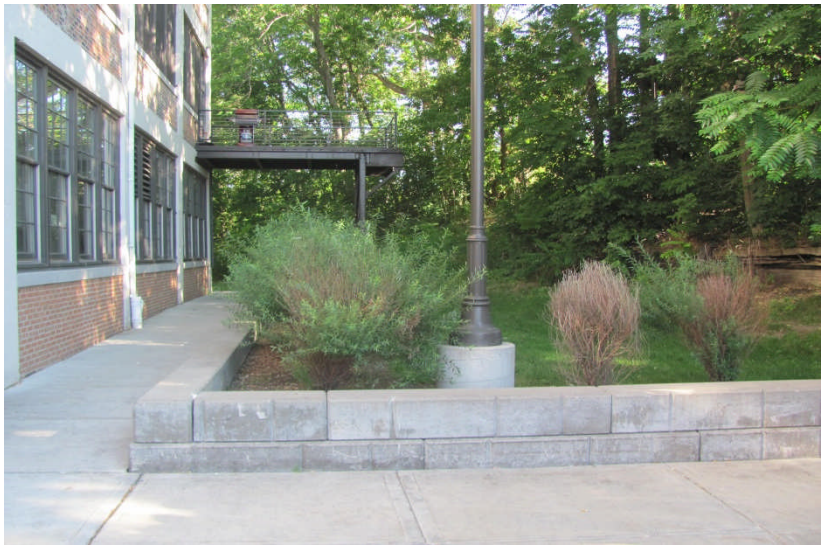


4. Parking along Canal from east facing west

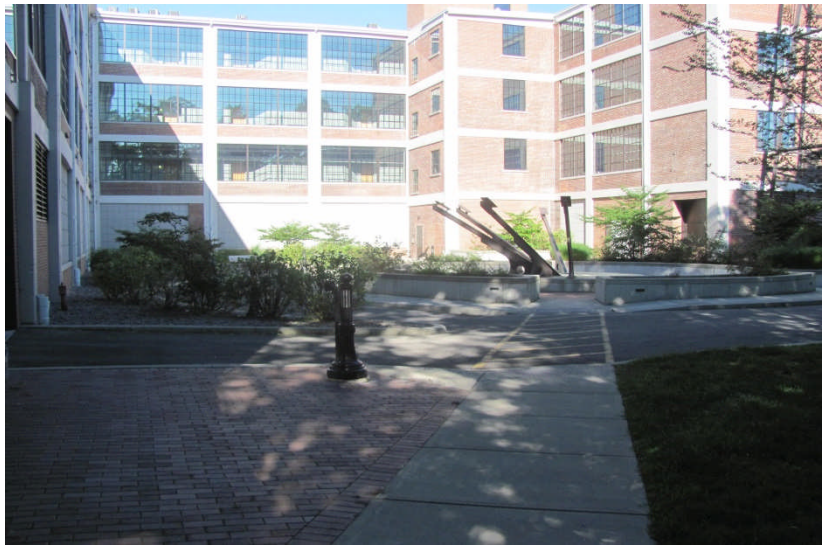


5. View of southeast area of complex facing northwest

6. Site Condition southeast corner parking area

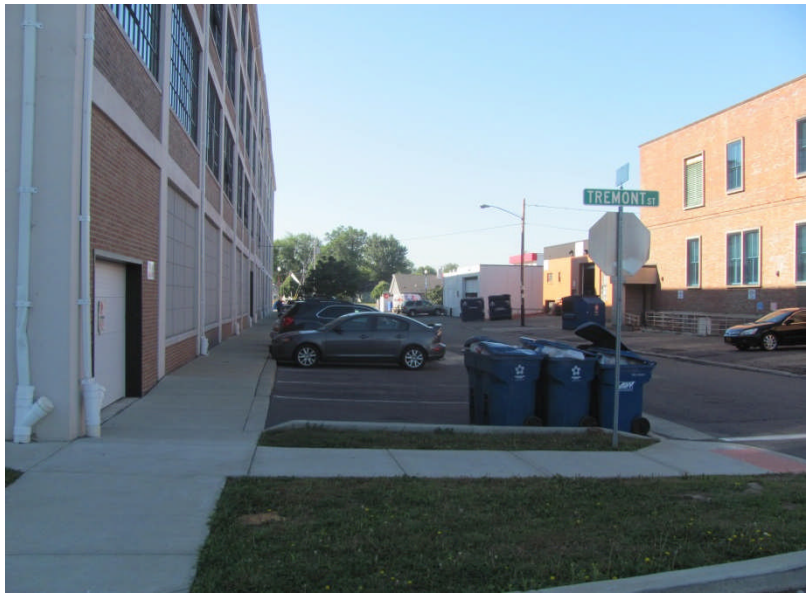


7. Site Condition east side

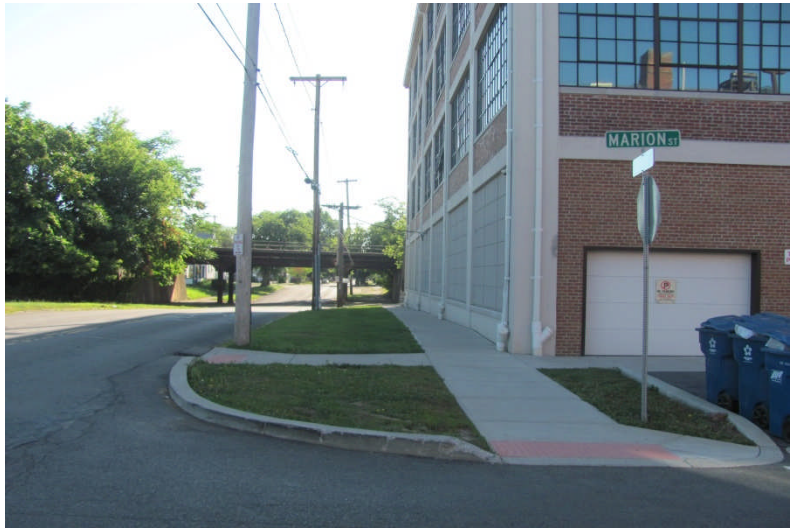


8. Site Condition courtyard rear of property from east facing west

9. Site Condition rear courtyard from west facing east




10. Site Condition west Side from northwest corner facing south along property line

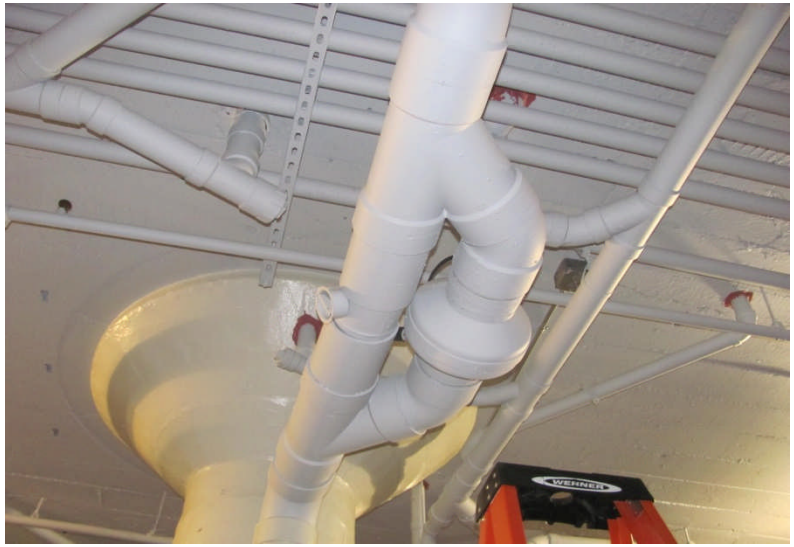



11. Site Condition -north side from northwest corner facing east

12. Site Condition northeast corner facing south

13. Sampling of vapor system


14. Vent Port Vapor Sampling




15. Ventilation System Fan

# APPENDIX D

# DUSR

# DATA USABILITY SUMMARY REPORT (DUSR)

**Remington Rand**
**Sweeney Street**
**North Tonawanda, NY 14120**
**NYSDEC BCP # C932142**

**SDG: JC573**

1 air sample

Prepared for:

**Panamerican Environmental, Inc.**
**2390 Clinton Street**
**Buffalo, NY 14227**

**August 2015**

# *Table of Contents*



## *Tables*

**REVIEWER'S NARRATIVE**
**SDG JC573**

The data associated with this Sample Delivery Group (SDG) JC573, analyzed by Accutest Laboratories have been reviewed in accordance with assessment criteria provided by the New York State Department of Environmental Conservation following the review procedures provided in the USEPA Functional Guidelines for evaluating organic and inorganic data.

All analytical results reported by the laboratory are considered valid and acceptable except results that have been qualified as rejected, "R". Results qualified as estimated "J", or as non-detects, "U", are considered usable for the purpose of evaluating water and/or soil quality. However, these qualifiers indicate that the accuracy and/or precision of the analytical result is questionable. A summary of all data that have been qualified and the reasons for qualification are provided in the following data usability summary report (DUSR).

Two facts should be noted by all data users. First, the "R" qualifier means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Values qualified with an "R" should not appear on the final data tables because they cannot be relied upon, even as the last resort. Second, no analyte concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

Reviewer's Signature: Michael K. Perry Date: 8/13/15

Michael K. Perry
Chemist

# 1.0 SUMMARY

| | |
|---|---|
| **SITE:** | Remington/Rand, Sweeney Street<br>North Tonawanda, NY |
| **SAMPLING DATE:** | August 03, 2015 |
| **SAMPLE TYPE:** | 1 air sample |
| **LABORATORY:** | Accutest Laboratories |
| **SDG No.:** | JC573 |

# 2.0 INTRODUCTION

This data usability summary report (DUSR) was prepared in accordance with guidance provided by the New York State Department of Environmental Conservation (NYSDEC). The DUSR is based on a review and evaluation of the laboratory analytical data package. Specifically, the NYSDEC guidance recommends review and evaluation of the following elements of the data package:

- Completeness of the data package as defined under the requirements of the NYSDEC Analytical Services Protocols (ASP) Category B or the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) deliverables,
- Compliance with established analyte holding times,
- Adherence to quality control (QC) limits and specifications for blanks, instrument tuning and calibration, surrogate recoveries, spike recoveries, laboratory duplicate analyses, and other QC criteria,
- Adherence to established analytical protocols,
- Conformance of data summary sheets with raw analytical data, and
- Use of correct data qualifiers.

Data deficiencies, analytical protocol deviations, and quality control problems identified using the review criteria above and their effect on the analytical results are discussed in this report.

## 3.0 SAMPLE AND ANALYSIS SUMMARY

The data package consists of analytical results for 1 air sample collected on August 03, 2015. This sample was analyzed for TO-15 volatile organic compounds.

All laboratory analyses were performed by Accutest Laboratories and analyzed as SDG JC573. The analytical results were provided in NYSDEC ASP Category B format, which includes all raw analytical data and laboratory QC data.

## 4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA

The guidance documents used for reviewing laboratory quality control (QC) data and assigning data qualifiers (flags) to analytical results are listed in Table 4-1. The QC limits established in the documents applicable to this data review were used to assess the quality of the analytical results. In some cases, however, QC limits established internally by the laboratory were taken into account to determine data quality.

The QC criteria considered for assessing the usability of the reported analytical results provided for each analyte type (i.e. VOCs, SVOCs, metals, etc.) are listed in Table 4-2. These criteria may vary with the analytical method utilized by the laboratory. These criteria comply with the guidance recommended in Section 2.0 above.

## 5.0 DATA VALIDATION QUALIFIERS

The letter qualifiers (flags) used to define data usability are described briefly below. These letters are assigned by the data validator to analytical results having questionable accuracy and/or precision as determined by reviewing the laboratory QC data associated with the analytical results.

The laboratory may also use various letters and symbols to flag analytical results generated when QC limits were exceeded. The meanings of these flags may differ from those used by the independent data validator. Those used by the laboratory are provided with the analytical results.

## TABLE 4-1

## DATA VALIDATION GUIDANCE DOCUMENTS

| Analyte Type | Validation Guidance |
|---|---|
| VOCs | USEPA, 2008, Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry; SW-846 Method 8260B; SOP # HW-24, Rev. 2.<br><br>USEPA, 2008, Statement of Work for Organic Analysis of Low/Medium Concentration of Volatile Organic Compounds SOM01.2; SOP HW-33, Rev. 2. |
| SVOCs | USEPA, 2007, Statement of Work for Organic Analysis of Low/Medium Concentration of Semivolatile Organic Compounds SOM01.2; SOP HW-35, Rev. 1. |
| Pesticides/PCBs | USEPA, 2006, CLP Organics Data Review and Preliminary Review (CLP/SOW OLMO 4.3); SOP # HW-6, Rev. 14, Part C. |
| Metals | USEPA, 2006, Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO 5.3 (SOP Revision 13), SOP # HW-2, Rev. 13. |
| Gen Chemistry | NYSDEC, 2005, Analytical Services Protocols (ASP) |
| VOCs (Ambient air) | USEPA, 2006, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canister by Method TO-15; SOP # HW-31, Rev. 4. |

## TABLE 4-2

## QUALITY CONTROL CRITERIA USED FOR VALIDATING LABORATORY ANALYTICAL DATA

| VOCs | SVOCs | Pesticides/PCBs | Metals | Gen Chemistry | Method TO-15 |
|---|---|---|---|---|---|
| Completeness of Pkg | Completeness of Pkg | Completeness of Pkg | Completeness of Pkg | Completeness of Pkg | Completeness of Pkg |
| Sample Condition | Sample Condition | Sample Condition | Sample Condition | Sample Condition | Sample Condition |
| Holding Time | Holding Time | Holding Time | Holding Time | Holding Times | Holding Time |
| System Monitoring Compounds | Surrogate Recoveries | Surrogate Recoveries | Initial/Continuing Calibration | Calibration | Canister Certification |
| Lab Control Sample | Lab Control Sample | Matrix Spikes | CRDL Standards | Lab Control Samples | Lab Control Sample |
| Matrix Spikes | Matrix Spikes | Blanks | Blanks | Blanks | Instrument Tuning |
| Blanks | Blanks | Instrument Calibration & Verification | Interference Check Sample | Spike Recoveries | Blanks |
| Instrument Tuning | Instrument Tuning | Analyte ID | Spike Recoveries | Lab Duplicates | Initial Calibration & System Performance |
| Internal Standards | Internal Standards | Lab Qualifiers | Lab Duplicate | | Daily Calibration |
| Initial Calibration | Initial Calibration | Field Duplicate | Lab Control Sample | | Field Duplicate |
| Continuing Calibration | Continuing Calibration | | ICP Serial Dilutions | | |
| Lab Qualifiers | Lab Qualifiers | | Lab Qualifiers | | |
| Field Duplicate | Field Duplicate | | Field Duplicate | | |

**NOTE:** The assignment of data qualifiers by the data reviewer (validator) to laboratory analytical results should not necessarily be interpreted by the data user as a measure of laboratory ability or proficiency. Rather, the qualifiers are intended to provide a measure of data accuracy and precision to the data user, which, for example, may provide a level of confidence in determining whether or not standards or cleanup objectives have been met.

**U** The analyte was analyzed for but was not detected at or above the sample quantitation limit.

**J** The analyte was positively identified; the associated numerical value is the *approximate* concentration of the analyte in the sample. (The magnitude of any ± value associated with the result is not determined by data validation).

**UJ** The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is *approximate* and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

**R** The sample result is rejected (i.e., is unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

**N** The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".

**JN** The analyte is considered to be "presumptively present." The associated numerical value represents its *approximate* concentration.

The validated analytical results are attached to this report. Validation qualifiers (flags) are indicated using red ink. Data sheets having qualified data are signed and dated by the data reviewer.

# 6.0 RESULTS OF THE DATA REVIEW

The results of the data review are summarized in Table 6-1. The table list the QC that criteria were found to exceed acceptable limits and the actions taken to qualify the associated analytical results.

# 7.0 TOTAL USABLE DATA

For SDG JC573, one sample was analyzed and results were reported for 68 target compound list (TCL) analytes. No results were qualified as a result of this usability assessment. All results are considered usable.

**Table 6-1 TO-15**

| SAMPLES AFFECTED | ANALYTES | ACTION | QC VIOLATION | COMMENTS |
|---|---|---|---|---|
| none | | none | | |

# *Appendix A*

---

## *Validated Analytical Results*

# Sample Summary

PanAmerican Environmental, Inc.

Job No: JC573

Remington/Rand, Sweeney Street, North Tonawanda, NY

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| JC573-1 | 07/31/15 | 11:10 | KEW | 08/03/15 | AIR | Indoor Air Comp. | VAPER VENTILATION SYSTEM |

ACCUTEST LABORATORIES

2

# CASE NARRATIVE / CONFORMANCE SUMMARY

| | | | |
|---|---|---|---|
| **Client:** | PanAmerican Environmental, Inc. | **Job No** | JC573 |
| **Site:** | Remington/Rand, Sweeney Street, North Tonawanda, NY | **Report Date** | 8/12/2015 12:13:00 P |

On 08/03/2015, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JC573 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

## Volatiles by GCMS By Method TO-15

**Matrix:** AIR **Batch ID:** V3W1868

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC571-1DUP were used as the QC samples indicated.
- RPD(s) for Duplicate for Carbon disulfide, Methylmethacrylate are outside control limits.

**Matrix:** AIR **Batch ID:** V3W1869

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC574-1DUP were used as the QC samples indicated.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

AIR

JC573

# CHAIN OF CUSTODY

ACCUTEST LABORATORIES

Air Sampling Field Data Sheet

FED-EX Tracking # 6285 6356 1206 | Bottle Order Control # 918-7/29/2015-3c | PAGE 1 OF 1

Lab Quote # | Lab Job # JC573

**Client / Reporting Information**

Company Name: Pan American Environmental
Address: 2390 Clinton ST.
City: Buffalo State: NY Zip: 14227
Project Contact: John Berry E-mail:
Phone # Fax #

Project Name: Remington / Rand
Street: Sweeney ST.
City: N. Tonawanda State: NY
Project #
Client Purchase Order #

**Weather Parameters**

Temperature (Fahrenheit) Start: 72° Maximum: Stop: 72° Minimum:
Atmospheric Pressure (inches of Hg) Start: Maximum: Stop: Minimum:
Other weather comment:

Sampler(s) Name(s): Kevin Williamson

| Lab Sample # | Field ID / Point of Collection | Air Type: Indoor(I) Soil Vap(SV) Ambient(A) | Sampling Equipment Info: Canister Serial # | Canister Size 6L or 1L | Flow Controller Serial # | Start Sampling Information: Date | Time (24hr clock) | Canister Pressure ("Hg) | Interior Temp (F) | Sampler Init. | Stop Sampling Information: Date | Time (24hr clock) | Canister Pressure ("Hg) | Interior Temp (F) | Sampler Init. | Requested Analysis: Standard TO-15 Reporting List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | Vapor Ventilation System | I | A844 | 6L | FC160 | 7-31-15 | 0910 | 30 | 72 | KCW | 7-31-15 | 1110 | 3 | 72 | KCW | X |

**Turnaround Time (Business days)**

| | |
|---|---|
| Standard - 15 Days | |
| 10 Day | |
| 5 Day | X |
| 3 Day | |
| 2 Day | |
| 1 Day | |
| Other | |

Approved By: Date:

**Data Deliverable Information**

All NJDEP TO-15 is mandatory Full T1

| | |
|---|---|
| Comm A | |
| Comm B | |
| Reduced T2 | |
| Full T1 | |
| Other: | |

**Comments / Remarks**

SUMMA
INITIAL ASESSMENT BF 7/31
LABEL VERIFICATION BF

**Sample Custody must be documented below each time samples change possession, including courier delivery.**

| | Relinquished by Laboratory | Date Time | Received By | Relinquished By | Date Time | Received By |
|---|---|---|---|---|---|---|
| 1 | John Palumbo | 7/29/15 1530 | 1 FED EX | 2 FED EX | 7/31/15 0800 | 2 K. Williamson |
| 3 | K. Williamson | 7/31/15 1600 | 3 FEDEX | 4 FEDEX | 8-3-15 9:00 | 4 BF |
| 5 | | Date Time: | 5 | Custody Seal # 787, 2774 | | |

5.1

**JC573: Chain of Custody**
**Page 1 of 2**

Accutest Laboratories

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | VAPER VENTILATION SYSTEM | | |
| Lab Sample ID: | JC573-1 | Date Sampled: | 07/31/15 |
| Matrix: | AIR - Indoor Air Comp. Summa ID: A844 | Date Received: | 08/03/15 |
| Method: | TO-15 | Percent Solids: | n/a |
| Project: | Remington/Rand, Sweeney Street, North Tonawanda, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 3W49229.D | 1 | 08/04/15 | YMH | n/a | n/a | V3W1868 |
| Run #2 | 3W49250.D | 1.38 | 08/04/15 | YMH | n/a | n/a | V3W1869 |

| | Initial Volume |
|---|---|
| Run #1 | 400 ml |
| Run #2 | 50.0 ml |

VOA TO15 List

| CAS No. | MW | Compound | Result | RL | MDL | Units | Q | Result | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 67-64-1 | 58.08 | Acetone | 12.7 | 0.20 | 0.032 | ppbv | | 30.2 | 0.48 | 0.076 | ug/m3 |
| 106-99-0 | 54.09 | 1,3-Butadiene | ND | 0.20 | 0.031 | ppbv | | ND | 0.44 | 0.069 | ug/m3 |
| 71-43-2 | 78.11 | Benzene | 2.9 | 0.20 | 0.030 | ppbv | | 9.3 | 0.64 | 0.096 | ug/m3 |
| 75-27-4 | 163.8 | Bromodichloromethane | ND | 0.20 | 0.032 | ppbv | | ND | 1.3 | 0.21 | ug/m3 |
| 75-25-2 | 252.8 | Bromoform | ND | 0.20 | 0.020 | ppbv | | ND | 2.1 | 0.21 | ug/m3 |
| 74-83-9 | 94.94 | Bromomethane | ND | 0.20 | 0.022 | ppbv | | ND | 0.78 | 0.085 | ug/m3 |
| 593-60-2 | 106.9 | Bromoethene | ND | 0.20 | 0.020 | ppbv | | ND | 0.87 | 0.087 | ug/m3 |
| 100-44-7 | 126 | Benzyl Chloride | ND | 0.20 | 0.026 | ppbv | | ND | 1.0 | 0.13 | ug/m3 |
| 75-15-0 | 76.14 | Carbon disulfide | 0.28 | 0.20 | 0.029 | ppbv | | 0.87 | 0.62 | 0.090 | ug/m3 |
| 108-90-7 | 112.6 | Chlorobenzene | ND | 0.20 | 0.032 | ppbv | | ND | 0.92 | 0.15 | ug/m3 |
| 75-00-3 | 64.52 | Chloroethane | ND | 0.20 | 0.022 | ppbv | | ND | 0.53 | 0.058 | ug/m3 |
| 67-66-3 | 119.4 | Chloroform | ND | 0.20 | 0.031 | ppbv | | ND | 0.98 | 0.15 | ug/m3 |
| 74-87-3 | 50.49 | Chloromethane | 0.26 | 0.20 | 0.029 | ppbv | | 0.54 | 0.41 | 0.060 | ug/m3 |
| 107-05-1 | 76.53 | 3-Chloropropene | ND | 0.20 | 0.028 | ppbv | | ND | 0.63 | 0.088 | ug/m3 |
| 95-49-8 | 126.6 | 2-Chlorotoluene | ND | 0.20 | 0.033 | ppbv | | ND | 1.0 | 0.17 | ug/m3 |
| 56-23-5 | 153.8 | Carbon tetrachloride | ND | 0.20 | 0.025 | ppbv | | ND | 1.3 | 0.16 | ug/m3 |
| 110-82-7 | 84.16 | Cyclohexane | 1.3 | 0.20 | 0.032 | ppbv | | 4.5 | 0.69 | 0.11 | ug/m3 |
| 75-34-3 | 98.96 | 1,1-Dichloroethane | ND | 0.20 | 0.031 | ppbv | | ND | 0.81 | 0.13 | ug/m3 |
| 75-35-4 | 96.94 | 1,1-Dichloroethylene | ND | 0.20 | 0.028 | ppbv | | ND | 0.79 | 0.11 | ug/m3 |
| 106-93-4 | 187.9 | 1,2-Dibromoethane | ND | 0.20 | 0.035 | ppbv | | ND | 1.5 | 0.27 | ug/m3 |
| 107-06-2 | 98.96 | 1,2-Dichloroethane | ND | 0.20 | 0.026 | ppbv | | ND | 0.81 | 0.11 | ug/m3 |
| 78-87-5 | 113 | 1,2-Dichloropropane | ND | 0.20 | 0.050 | ppbv | | ND | 0.92 | 0.23 | ug/m3 |
| 123-91-1 | 88.12 | 1,4-Dioxane | ND | 0.20 | 0.063 | ppbv | | ND | 0.72 | 0.23 | ug/m3 |
| 75-71-8 | 120.9 | Dichlorodifluoromethane | 0.54 | 0.20 | 0.037 | ppbv | | 2.7 | 0.99 | 0.18 | ug/m3 |
| 124-48-1 | 208.3 | Dibromochloromethane | ND | 0.20 | 0.041 | ppbv | | ND | 1.7 | 0.35 | ug/m3 |
| 156-60-5 | 96.94 | trans-1,2-Dichloroethylene | ND | 0.20 | 0.020 | ppbv | | ND | 0.79 | 0.079 | ug/m3 |
| 156-59-2 | 96.94 | cis-1,2-Dichloroethylene | ND | 0.20 | 0.025 | ppbv | | ND | 0.79 | 0.099 | ug/m3 |
| 10061-01-5 | 111 | cis-1,3-Dichloropropene | ND | 0.20 | 0.035 | ppbv | | ND | 0.91 | 0.16 | ug/m3 |
| 541-73-1 | 147 | m-Dichlorobenzene | ND | 0.20 | 0.028 | ppbv | | ND | 1.2 | 0.17 | ug/m3 |
| 95-50-1 | 147 | o-Dichlorobenzene | ND | 0.20 | 0.030 | ppbv | | ND | 1.2 | 0.18 | ug/m3 |
| 106-46-7 | 147 | p-Dichlorobenzene | ND | 0.20 | 0.019 | ppbv | | ND | 1.2 | 0.11 | ug/m3 |
| 10061-02-6 | 111 | trans-1,3-Dichloropropene | ND | 0.20 | 0.020 | ppbv | | ND | 0.91 | 0.091 | ug/m3 |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | VAPER VENTILATION SYSTEM | | |
| Lab Sample ID: | JC573-1 | Date Sampled: | 07/31/15 |
| Matrix: | AIR - Indoor Air Comp. Summa ID: A844 | Date Received: | 08/03/15 |
| Method: | TO-15 | Percent Solids: | n/a |
| Project: | Remington/Rand, Sweeney Street, North Tonawanda, NY | | |

VOA TO15 List

| CAS No. | MW | Compound | Result | RL | MDL | Units | Q | Result | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 64-17-5 | 46.07 | Ethanol | 28.4 | 0.50 | 0.17 | ppbv | | 53.5 | 0.94 | 0.32 | ug/m3 |
| 100-41-4 | 106.2 | Ethylbenzene | 0.70 | 0.20 | 0.048 | ppbv | | 3.0 | 0.87 | 0.21 | ug/m3 |
| 141-78-6 | 88 | Ethyl Acetate | 248 [a] | 2.2 | 0.70 | ppbv | | 893 [a] | 7.9 | 2.5 | ug/m3 |
| 622-96-8 | 120.2 | 4-Ethyltoluene | 0.24 | 0.20 | 0.022 | ppbv | | 1.2 | 0.98 | 0.11 | ug/m3 |
| 76-13-1 | 187.4 | Freon 113 | ND | 0.20 | 0.027 | ppbv | | ND | 1.5 | 0.21 | ug/m3 |
| 76-14-2 | 170.9 | Freon 114 | ND | 0.20 | 0.025 | ppbv | | ND | 1.4 | 0.17 | ug/m3 |
| 142-82-5 | 100.2 | Heptane | 0.42 | 0.20 | 0.029 | ppbv | | 1.7 | 0.82 | 0.12 | ug/m3 |
| 87-68-3 | 260.8 | Hexachlorobutadiene | ND | 0.20 | 0.033 | ppbv | | ND | 2.1 | 0.35 | ug/m3 |
| 110-54-3 | 86.17 | Hexane | 1.2 | 0.20 | 0.028 | ppbv | | 4.2 | 0.70 | 0.099 | ug/m3 |
| 591-78-6 | 100 | 2-Hexanone | ND | 0.20 | 0.044 | ppbv | | ND | 0.82 | 0.18 | ug/m3 |
| 67-63-0 | 60.1 | Isopropyl Alcohol | 2.0 | 0.20 | 0.12 | ppbv | | 4.9 | 0.49 | 0.29 | ug/m3 |
| 75-09-2 | 84.94 | Methylene chloride | 0.55 | 0.20 | 0.13 | ppbv | | 1.9 | 0.69 | 0.45 | ug/m3 |
| 78-93-3 | 72.11 | Methyl ethyl ketone | 1.1 | 0.20 | 0.049 | ppbv | | 3.2 | 0.59 | 0.14 | ug/m3 |
| 108-10-1 | 100.2 | Methyl Isobutyl Ketone | 0.46 | 0.20 | 0.027 | ppbv | | 1.9 | 0.82 | 0.11 | ug/m3 |
| 1634-04-4 | 88.15 | Methyl Tert Butyl Ether | ND | 0.20 | 0.026 | ppbv | | ND | 0.72 | 0.094 | ug/m3 |
| 80-62-6 | 100.12 | Methylmethacrylate | ND | 0.20 | 0.030 | ppbv | | ND | 0.82 | 0.12 | ug/m3 |
| 115-07-1 | 42 | Propylene | 3.2 | 0.50 | 0.081 | ppbv | | 5.5 | 0.86 | 0.14 | ug/m3 |
| 100-42-5 | 104.1 | Styrene | 0.48 | 0.20 | 0.026 | ppbv | | 2.0 | 0.85 | 0.11 | ug/m3 |
| 71-55-6 | 133.4 | 1,1,1-Trichloroethane | 2.0 | 0.20 | 0.032 | ppbv | | 11 | 1.1 | 0.17 | ug/m3 |
| 79-34-5 | 167.9 | 1,1,2,2-Tetrachloroethane | ND | 0.20 | 0.030 | ppbv | | ND | 1.4 | 0.21 | ug/m3 |
| 79-00-5 | 133.4 | 1,1,2-Trichloroethane | ND | 0.20 | 0.036 | ppbv | | ND | 1.1 | 0.20 | ug/m3 |
| 120-82-1 | 181.5 | 1,2,4-Trichlorobenzene | ND | 0.20 | 0.044 | ppbv | | ND | 1.5 | 0.33 | ug/m3 |
| 95-63-6 | 120.2 | 1,2,4-Trimethylbenzene | 0.93 | 0.20 | 0.023 | ppbv | | 4.6 | 0.98 | 0.11 | ug/m3 |
| 108-67-8 | 120.2 | 1,3,5-Trimethylbenzene | 0.30 | 0.20 | 0.030 | ppbv | | 1.5 | 0.98 | 0.15 | ug/m3 |
| 540-84-1 | 114.2 | 2,2,4-Trimethylpentane | 0.59 | 0.20 | 0.021 | ppbv | | 2.8 | 0.93 | 0.098 | ug/m3 |
| 75-65-0 | 74.12 | Tertiary Butyl Alcohol | 0.23 | 0.20 | 0.050 | ppbv | | 0.70 | 0.61 | 0.15 | ug/m3 |
| 127-18-4 | 165.8 | Tetrachloroethylene | 1.1 | 0.040 | 0.024 | ppbv | | 7.5 | 0.27 | 0.16 | ug/m3 |
| 109-99-9 | 72.11 | Tetrahydrofuran | 0.39 | 0.20 | 0.043 | ppbv | | 1.2 | 0.59 | 0.13 | ug/m3 |
| 108-88-3 | 92.14 | Toluene | 13.5 | 0.20 | 0.020 | ppbv | | 50.9 | 0.75 | 0.075 | ug/m3 |
| 79-01-6 | 131.4 | Trichloroethylene | 0.61 | 0.040 | 0.025 | ppbv | | 3.3 | 0.21 | 0.13 | ug/m3 |
| 75-69-4 | 137.4 | Trichlorofluoromethane | 0.30 | 0.20 | 0.020 | ppbv | | 1.7 | 1.1 | 0.11 | ug/m3 |
| 75-01-4 | 62.5 | Vinyl chloride | ND | 0.20 | 0.032 | ppbv | | ND | 0.51 | 0.082 | ug/m3 |
| 108-05-4 | 86 | Vinyl Acetate | ND | 0.20 | 0.055 | ppbv | | ND | 0.70 | 0.19 | ug/m3 |
| | 106.2 | m,p-Xylene | 2.5 | 0.20 | 0.043 | ppbv | | 11 | 0.87 | 0.19 | ug/m3 |
| 95-47-6 | 106.2 | o-Xylene | 1.0 | 0.20 | 0.026 | ppbv | | 4.3 | 0.87 | 0.11 | ug/m3 |
| 1330-20-7 | 106.2 | Xylenes (total) | 3.5 | 0.20 | 0.026 | ppbv | | 15 | 0.87 | 0.11 | ug/m3 |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 92% | 87% | 65-128% |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| Client Sample ID: | VAPER VENTILATION SYSTEM | | |
| Lab Sample ID: | JC573-1 | Date Sampled: | 07/31/15 |
| Matrix: | AIR - Indoor Air Comp. Summa ID: A844 | Date Received: | 08/03/15 |
| Method: | TO-15 | Percent Solids: | n/a |
| Project: | Remington/Rand, Sweeney Street, North Tonawanda, NY | | |

VOA TO15 List

| CAS No. | MW | Compound | Result | RL | MDL | Units | Q | Result | RL | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|---|

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# *Appendix B*

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# *Laboratory QC Documentation*

# *Appendix C*

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# *Validator Qualifications*

# MICHAEL K. PERRY
## Chemist/Data Validator

B.S. Chemistry, Georgia State University, Atlanta, GA

A.A.S., Chemical Technology, Alfred State College, Alfred, NY

Mr. Perry has over 30 years of experience in the analytical laboratory business. During his early career, he spent several years as a laboratory analyst performing the analysis of soil, water, and air samples for inorganic and organic chemical parameters. During his last 20 years in the environmental laboratory business, he managed and directed two major analytical laboratories in Rochester, NY. His management responsibilities included oversight of the daily operations of the lab, staff training and supervision, the selection, purchase, and maintenance of analytical instruments, the introduction of new laboratory methods, analytical quality assurance and quality control, data acquisition and management, and other business-related activities.

Mr. Perry has an extensive working knowledge of the methods and procedures used for sampling and analyzing both inorganic and organic analytes in soil, water, and air. He is an accomplished laboratory chemist and is familiar with the analytical methods and procedures established under the USEPA Contract Laboratory Protocols (CLP), the NYSDEC Analytical Services Protocols (ASP), and the NYSDOH Environmental Laboratory Approval Program (ELAP).

# KENNETH R. APPLIN
## Geochemist/Data Validator

Ph.D., Geochemistry and Mineralogy, The Pennsylvania State University

M.S., Geochemistry and Mineralogy, The Pennsylvania State University

B.A., Geological Sciences, SUNY at Geneseo, NY

Dr. Applin has over 35 years of experience working with the geochemistry of natural waters. His prior experience includes working as an Assistant Professor of Geology at the University of Missouri-Columbia and as Chief Hydrogeologist and Geochemist with a leading engineering firm in Rochester, NY. In 1993, he established KR Applin and Associates, a small consulting business that focuses on the geochemistry of natural waters, especially as applied to problems involving the contamination of groundwater and surface water.

Dr. Applin is also an experienced analytical data validator and has provided data validation services since 1994 to a variety of clients performing brownfield cleanup projects, hazardous waste remediation, groundwater monitoring at solid waste facilities, and other projects requiring third-party data validation. Dr. Applin has several years of hands-on experience with the laboratory analysis of natural waters and has successfully completed the USEPA Region II certification courses for performing inorganic and organic analytical data validation.