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## **Scaffold Erection Operation Week 17 to Week 20 Data Validation Report**

**Week 17 to Week 20 Sampling Period  
08/20/07 to 09/16/07**

**The Remediation and Deconstruction of Fiterman Hall  
30 West Broadway  
New York, New York**

**Prepared By:**

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**October 2, 2007**





## General:

This report provides a summary of the Week 17 to Week 20 (08-20-07 to 09-16-07) data validation conducted in support of the Scaffold Erection Operation (SEO) of the project being conducted at 30 West Broadway, New York, NY per the approved Environmental Community Air Monitoring Plan (ECAMP) dated March 16, 2007 and the associated Quality Assurance Project Plan (QAPP) dated March 16, 2007.

Week 17 to Week 20 include:

Week 17:	08-20-07 to 08-26-07
Week 18:	08-27-07 to 09-02-07
Week 19:	09-03-07 to 09-09-07
Week 20:	09-10-07 to 09-16-07

Per the ECAMP and QAPP, sampling has been conducted for the following parameters:

- Airborne Particulate PM-2.5
- Reference Method for PM-2.5
- Airborne Particulate PM-10
- Reference Method for PM-10
- Asbestos
- Mercury (Vapor and Total)
- Metals
- Silica
- Dioxins/Furans
- PAHs
- PCBs

## Project Quality Objectives:

The project quality objectives (POQs) detailed in the QAPP for the project were met in all cases, except for the following:

1. Asbestos – Six samples (FH-082907-01 to FH-082907-06) collected on 08/29/07, and all eight samples (FH-083007-01 to FH-083007-08) collected on 08/30/07 in Week 18 were overloaded with particulates and could not be analyzed with PCME and TEM methods. These samples were analyzed with Modified VDI-Richtlinien (VDI-3492) methods according to the protocol. The results indicated no asbestos was detected in the samples. The lab report for the VDI-3492 analysis results is attached with the SEO Week 17 to Week 20 Data Summaries.

## QA Reviews:

Data from the SEO Week 17 to Week 20 has been subjected to the following QA reviews:



Field Technician (Joseph Walsh): 100% of field sampling data and field analysis data have been reviewed and verified by the field technician recording the data. This includes review and signature on the chains-of-custody, and review and signature on the field calibration manual.

Field Sampling Coordinator (designee – Christine Chen): 100% field calibration manual notes, field sampling forms, and COCs reviewed/verified. Sample calibration, collection, handling, preservation, and storage procedures were reviewed for compliance with the protocols described in the QAPP. Deviations were documented and Project QA Officer notified.

Data Manager (designee – Christine Chen): 100% of documentation provided by each analytical laboratory supporting the project reviewed. Deviations are documented, Project QA Officer notified.

Fixed Laboratory QA Review: It is Airtek's belief that 100% of all fixed laboratory data has been subject to internal review as detailed in Section 16.1.3.1 of the QAPP.

Project QA Officer (Clifford Cooper, CIH): 100% evaluation of data and potential usability issues related to deviations and deficiencies documented by staff reviews as detailed in this document.

Project Manager (Benn Lewis): Overall review of field operations, field documentation, field equipment function, fixed laboratory performance, data collection and presentation.

#### Conclusions:

1. Per Section 16.2 of the QAPP, the following data usability parameters have been met:

Precision: No duplicate sample sets resulted in values above the quantitation limits of the methodologies employed. One duplicate sample (FH-082107-68) for silica was reported as an exceedance while the side-by-side sample was non-detect. No cause for this discrepancy was determined. Laboratory analytical procedures have been modified to retest when such discrepancies arise.

Accuracy: Where applicable, laboratory percent recoveries were within tolerance per the QAPP.

#### Completeness:

Both Field Data and Lab Data are 100% complete for the sampling period of Week 17 to Week 20.



2. Elevated Background Contaminant Levels:

Silica: The SEO Week 17 to Week 20 revealed that localized background levels of silica can exceed the USEPA Trigger and Target levels irrespective of site activity at Fiterman Hall. Four elevated background levels of Silica were recorded on the following date:

Week 17:

August 21 <sup>st</sup> , 2007 – Duplicate Station #1	= 13 ug/m <sup>3</sup>
August 22 <sup>nd</sup> , 2007 – Station #3	= 21 ug/m <sup>3</sup>
August 23 <sup>rd</sup> , 2007 – Station #8	= 14 ug/m <sup>3</sup>
August 24 <sup>th</sup> , 2007 – Station #3	= 20 ug/m <sup>3</sup>

**Contaminant-Specific Narratives:**

**Airborne Particulate PM-2.5:**

PM-2.5 particulate sampling was conducted using eight Met-One EBAM monitors, one at each of the community monitoring stations designated by the ECAMP/QAPP. All eight monitors were calibrated prior to Week 17 to Week 20 of the SEO. Data collected as ten-minute averages are attached. Summary sheets providing EBAM PM-2.5 24-hour averages are included in the attached SEO Week 17 to Week 20 Data Summaries.

**Reference Method for PM-2.5:**

A Rupprecht & Patashnick TEOM PM-2.5 monitor was collocated with the EBAM PM-2.5 monitor at Sampling Station #2 (Sidewalk Bridge Level SW Corner) and operated for SEO Weeks 17 to 18, and at Sampling Station #1 (Sidewalk Bridge Level NW Corner) and operated for SEO Weeks 19 and 20 to comply with the ECAMP/QAPP requirement for an EPA reference method for EBAM data. TEOM PM-2.5 data collected as thirty-minute averages is attached (TEOM PM-2.5 data August 20<sup>th</sup> to September 16<sup>th</sup>, 2007). Summary sheets providing TEOM PM-2.5 24-hour averages are included in the attached SEO Week 17 to Week 20 Data Summaries. Based on review of the data to date, it has been determined that application of a correction factor is not necessary at this time.

**Airborne Particulate PM-10:**

PM-10 particulate sampling was conducted using eight Met-One EBAM monitors, one at each of the community monitoring stations designated by the ECAMP/QAPP. All eight monitors were calibrated prior to Week 17 to Week 20 of the SEO. Data collected as ten-minute averages are attached. Summary sheets providing PM-10 24-hour averages are included in the attached SEO Week 17 to Week 20 Data Summary.



### Reference Method for PM-10:

A Rupprecht & Patashnick TEOM PM-10 monitor was collocated with the EBAM PM-10 monitor at Sampling Station #1 (Sidewalk Bridge Level NW Corner) and operated for SEO Weeks 17 and 18, and at Station #2 (Sidewalk Bridge Level SW Corner) and operated for SEO Weeks 19 to 20 to comply with the ECAMP/QAPP requirement for an EA reference method for EBAM data. TEOM PM-10 data collected as 30-minute averages is attached (TEOM PM-10 data August 20<sup>th</sup> to September 16<sup>th</sup>, 2007). Summary sheets providing TEOM PM-10 24-hour averages are included in the attached SEO Week 17 to Week 20 Data Summaries. Based on review of the data to date, it has been determined that application of a correction factor is not necessary at this time.

### Asbestos:

Asbestos air samples were collected as provided for in the ECAMP/QAPP. All samples were delivered in good condition to the contract Laboratory (EMSL). Analyses were conducted by TEM (AHERA) and PCMe methodologies. Field blanks are analyzed and reported only in the case where asbestos is detected in the field samples for the subject time period. No asbestos was detected during Week 17 to Week 20 of the SEO; no field blanks were analyzed or reported. Method blanks were provided by the laboratory as required by the methodology. Summaries of all asbestos data are included in the attached SEO Week 17 to Week 20 Data Summaries.

#### Notes:

1. Six samples (FH-082907-01 to FH-082907-06) collected on 08/29/07, and all eight samples (FH-083007-01 to FH-083007-08) collected on 08/30/07 in Week 18 were overloaded with particulates and could not be analyzed with PCMe and TEM methods. These samples were analyzed with Modified VDI-Richtlinien (VDI-3492) methods according to the protocol. The results indicated no asbestos was detected in the samples. The lab report for the VDI-3492 analysis results is attached with the SEO Week 17 to Week 20 Data Summaries.

### Mercury:

Per the ECAMP/QAPP, monitoring was conducted for both mercury vapor and mercury particulate (total) throughout Week 17 to Week 20 of the SEO.

**Mercury Vapor:** Mercury Vapor was monitored per the ECAMP/QAPP with an Ohio Lumex RA 915+ real-time monitor. Summaries of the data recorded in the field are included in the attached SEO Week 17 to Week 20 Data Summaries.





**Particulate Mercury:** Particulate mercury was monitored by the use of Iodated Carbon Traps (ICT). Per the ECAMP/QAPP, two (2) “Spike” samples were run during Week 17 to Week 20 of the SEO.

**Metals:**

Metals sample collection was conducted in accordance with the ECAMP/QAPP. All samples were received in good condition at Severn Trent Laboratories. All Lab QA criteria were met. No further qualification of data was required. Summaries of the data recorded in the field are included in the attached SEO Week 17 to Week 20 Data Summaries. Copies of the laboratory data packages are attached.

**Silica:**

Silica air sample collection was conducted in accordance with the ECAMP/QAPP. All samples were received in good condition at EMSL Laboratories. All Lab QA criteria were met. No further qualification of data was required. Summaries of the data recorded in the field are included in the attached SEO Week 17 to Week 20 Data Summaries. Copies of the laboratory data packages are attached.

Four (4) background exceedance levels for Silica were detected on 08/21/07, 08/22/07, 08/23/07 and 08/24/07 in Week 17 as follows:

FH-082107-68	= 13 ug/m <sup>3</sup>
FH-082207-31	= 21 ug/m <sup>3</sup>
FH-082307-36	= 14 ug/m <sup>3</sup>
FH-082407-31	= 20 ug/m <sup>3</sup>

**Organics:**

Samples were collected on 08/24/07, 08/30/07, 09/05/07, and 09/11/07 for Dioxins/Furans, PAHs and PCBs analyses. All samples were received in good condition at Severn Trent Laboratories. All Lab QA criteria were met. No further qualification of data was required. Summaries of the data recorded in the field are included in the attached SEO Week 17 to Week 20 Data Summaries. Copies of the laboratory data packages are attached.

