# Appendix K
# Asbestos Bridge Investigation and Assessment Survey

# ASBESTOS BRIDGE INVESTIGATION AND ASSESSMENT SURVEY

FOR THE

# I-81 VIADUCT PROJECT
# (NEW YORK STATE DOT D031085)
# PIN 3501.60
# SYRACUSE, NEW YORK

SEPTEMBER 2016

PREPARED FOR:

PARSONS TRANSPORTATION GROUP OF NEW YORK
100 BROADWAY
NEW YORK, NEW YORK

FOR SUBMISSION TO:

NEW YORK STATE DEPARTMENT OF TRANSPORTATION
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WATTS
ARCHITECTURE &
ENGINEERING

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## 1.0 Project Summary

Watts Architecture & Engineering D.P.C. (Watts), as a subconsultant to Parsons Transportation Group of New York (Parsons), performed an Asbestos Investigation and Assessment Survey for the identification of asbestos-containing materials (ACM) as part of the I-81 Viaduct project, D031085, PIN 3501.60, in the City of Syracuse, Onondaga County, New York. A discussion of the alternatives under consideration is found in Chapter 3 of the DEIS.

The purpose of the asbestos investigation and assessment survey was to determine the presence, location and quantity of ACM (defined as any material containing more than 1% of asbestos) that may be disturbed during future roadway and bridge demolition or rehabilitation activities. This report describes the work performed and the analytical results obtained. The survey was limited to materials that were exposed or accessible at the time of the inspection.

This report consists of information for 109 bridges. The bridge surveys were conducted between August 2013 and June 2016. The assessment for each of the bridges included in this report included:

- A review of bridge record plans that were made available by the New York State Department of Transportation (NYSDOT).
- A review of previous asbestos testing reports that were provided by NYSDOT.
- A review of the NYSDOT asbestos database.
- Field investigations for each bridge to visually identify suspect ACM. The field investigation included the collection of representative samples of each identified, accessible suspect ACM.
- Laboratory analysis of suspect materials for asbestos content.

This investigation and assessment was conducted by New York State Department of Labor (NYSDOL) certified asbestos inspectors. Access to the bridges for the assessment was granted by the NYSDOT. Watts performed the majority of the bridge investigations in conjunction with other bridge investigations being performed by C&S Companies and/or Popli Design Group. For the remainder of the bridges, Watts was on-site when NYSDOT was conducting their biennial inspections or was able to conduct the inspections without assistance.

In addition, in the future as necessary property acquisitions are completed and building structures targeted for demolition to facilitate roadway construction are identified, additional asbestos pre-demolition building surveys will be required. As currently scoped, twenty-six (26) buildings or building related structures are proposed to be impacted by the Viaduct

Alternative  and seven (7) structures are scheduled to be impacted in the future under the Community Grid  alternative.  The investigation of these buildings is outstanding at this time.

Once the preferred design alternative has been identified, a recommendation and action list will be prepared to address any outstanding work for bridges and roadway sections where access was not available and a survey of the structure/roadway or a portion of the structure/roadway (e.g., either the surface deck or the substructure) is still outstanding.  In addition, contact will be made with each of the utility companies where the preliminary design has identified that future impacts are anticipated to assess their knowledge about the presence of asbestos-containing materials associated with the composition of their underground utility lines.

## 2.0 Site Description

The I-81 Viaduct project is located in the City of Syracuse, New York. A total of one hundred and nine (109) bridges were assessed as part of the project and are summarized in this report. The bridges in Table 1 are listed sequentially by BIN. The bridge locations are indicated on the attached Site Location Map found in Appendix A.

Table 1 - Summary of Identified Asbestos-Containing Materials

| BIN | Location | ACM Identified | Estimated Amount |
|---|---|---|---|
| **I-481 NORTH STUDY AREA** | | | |
| 1031711 | I-481 Southbound over I-81 | No ACM identified | |
| 1031712 | I-481 Northbound over I-81 | No ACM identified | |
| 1072591 | I-481 Southbound over Northern Blvd. | No ACM identified | |
| 1072592 | I-481 Northbound over Northern Blvd. | No ACM identified | |
| 1072781 | I-481 Southbound over Totman Road | No ACM identified | |
| 1072782 | I-481 Northbound over Totman Road | No ACM identified | |
| 1072791 | I-481 Southbound over Thompson Road | No ACM identified | |
| 1072792 | I-481 Northbound over Thompson Road | No ACM identified | |
| **I-481 EAST STUDY AREA** | | | |
| 1002131 | I-481 Southbound over Genesee Street | No ACM identified | |
| 1002132 | I-481 Northbound over East Genesee Street | No ACM identified | |
| 1044440 | I-481 over Butternut Street | Outside the Study Area Limits – Was Not Investigated At This Time | |
| 1051081 | I-690 Westbound over CSX | Compressed asbestos sheet packing | 80 SF |
| 1051082 | I-690 Eastbound over CSX | Compressed asbestos sheet packing | 80 SF |
| 1051120 | I-481 Northbound over Service Road | Compressed asbestos sheet packing | 142.5 SF |
| 1051160 | South Midler Avenue over I-690 | Compressed asbestos sheet packing<br>Paper over tar wrap on drain pipe<br>Premoulded bituminous joint filler (assumed)<br>Waterstop (assumed) | 112 SF<br>762.36 LF<br>1173.04 SF<br>89.33 SF |
| 1064650 | Kinne Road over I-481 | Compressed asbestos sheet packing<br>Premoulded bituminous joint filler (assumed) | 82.5 SF<br>7 SF |
| 1064689 | Thompson Road over I-690 | Compressed asbestos sheet packing | 202 SF |
| 1064691 | I-690 Westbound over Bridge | Compressed asbestos sheet packing<br>Waterstop (assumed)<br>Premoulded bituminous joint filler (assumed) | 152.3 SF<br>86.98 SF<br>114.22 SF |

| BIN | Location | ACM Identified | Estimated Amount |
|---|---|---|---|
| 1064692 | I-690 Eastbound over Bridge | Compressed asbestos sheet packing<br>Waterstop (assumed)<br>Premoulded bituminous joint filler (assumed) | 153.94 SF<br>154.97 SF<br>115.45 SF |
| 1072530 | Thruway Ramp over I-481 | No ACM identified | |
| 1072571 | I-481 Southbound over Collamer Road | No ACM identified | |
| 1072572 | I-481 Northbound over Collamer Road | No ACM identified | |
| 1072581 | I-481 Southbound over E. Taft Road | No ACM identified | |
| 1072582 | I-481 Northbound over E. Taft Road | No ACM identified | |
| 1093510 | I-690 Service over I-481 | Compressed asbestos sheet packing<br>Waterstop (assumed) | 88 SF<br>102.96 SF |
| 1093520 | I-690 Eastbound Ramp over I-481 Southbound | Compressed asbestos sheet packing<br>Waterstop (assumed) | 64 SF<br>132 SF |
| 1093530 | I-481 Southbound over I-690 Westbound | Compressed asbestos sheet packing<br>Waterstop (assumed) | 118 SF<br>142.5 SF |
| 1093540 | I-690 Eastbound over I-481 Northbound Ramp | Compressed asbestos sheet packing<br>Waterstop (assumed) | 64 SF<br>136 SF |
| 1093550 | I-481 Northbound over Service Road to I-690 | Waterstop (assumed) | 135 SF |
| 1093561 | I-481 Southbound over Manlius Center Road | Compressed asbestos sheet packing | 112 SF |
| 1093562 | I-481 Northbound over Manlius Center Road | Compressed asbestos sheet packing<br>Waterstop (assumed) | 112 SF<br>164 SF |
| 1093671 | I-481Southbound over Kirkville Road | Compressed asbestos sheet packing<br>Waterstop (assumed) | 108 SF<br>195 SF |
| 1093672 | I-481Northbound over Kirkville Road | Compressed asbestos sheet packing<br>Waterstop (assumed) | 108 SF<br>195 SF |
| 1093681 | I-481 Southbound over NYS Thruway 90 | Compressed asbestos sheet packing<br>Waterstop (assumed) | 86 SF<br>137 SF |
| 1093682 | I-481 Northbound over NYS Thruway 90 | Compressed asbestos sheet packing<br>Waterstop (assumed) | 86 SF<br>137 SF |
| I-481 SOUTH STUDY AREA | | | |
| 1031501 | I-81 Southbound over Route 173 Seneca Turnpike | No ACM identified | |
| 1031510 | East Glen Avenue over I-81 | Compressed asbestos sheet packing<br>White caulk in abutment joint<br>Grey caulk around railing supports | 67 SF<br>102.6 LF<br>252 LF |
| 1031529 | I-81over West Calthrop Road | No ACM identified | |
| 1031539 | I-81over East Brighton Avenue | No ACM identified | |
| 1069090 | I-481 Southbound over I-81 | No ACM identified | |
| 1069100 | East Brighton Avenue over I-481 Ramp | No ACM identified | |
| 1069110 | East Brighton Avenue over I-81 Ramps | Black fibrous wrap around water pipe insulation<br>Paper over fibrous coating inside aluminum pipe wrap<br>Waterstop (assumed)<br>Mastic duct sealing compound (assumed) | 577.25 LF<br>138 SF<br><br>138 SF<br>2 LF |

| BIN | Location | ACM Identified | Estimated Amount |
|---|---|---|---|
| 1069120 | East Brighton Avenue over I-481 Southbound | No ACM identified | |
| 1069131 | I-481 Southbound over Quarry Road | No ACM identified | |
| 1069132 | I-481 Northbound over Quarry Road | No ACM identified | |
| 1069141 | I-481 Southbound over E-L RR | No ACM identified | |
| 1069142 | I-481 Northbound over E-L RR | No ACM identified | |
| 1069151 | I-481Southbound over Jamesville Road | No ACM identified | |
| 1069152 | I-481Northbound over Jamesville Road | No ACM identified | |
| 1069160 | Ramp to I-481 South over Butternut Creek | No ACM identified | |
| 1069170 | Ramp to I-481 North over Butternut Creek | No ACM identified | |
| I-81 VIADUCT STUDY AREA | | | |
| 1008489 | I-81 Southbound over Route 173 | No ACM identified | |
| 1031549 | I-81over Colvin Street | Compressed asbestos sheet packing | 211.3 SF |
| 103156B | I-81Ramp to Adams Street | Compressed asbestos sheet packing | 180 SF |
| 1031559 | I-81over Castle Street | No ACM identified | |
| 1031569 | I-81over Adams Street | No ACM identified | |
| 1031570 | Butternut Street over I-81 | No ACM identified | |
| 1031580 | Spencer Street over I-81 | No ACM identified | |
| 1031590 | Court Street over I-81 | No ACM identified | |
| 1031600 | West Bear Street over I-81 | No ACM identified | |
| 1031610 | Hiawatha Boulevard West over I-81 | No ACM identified | |
| 1049659 | I-690 over Hiawatha Boulevard West | Compressed asbestos sheet packing<br>Premoulded bituminous joint filler (assumed)<br>Caulking Compound (assumed)<br>Waterproofing membrane (assumed) | 226 SF<br>831 SF<br>295.3 LF<br>15,012.8 SF |
| 1050001 | West Street Southbound over West Genesee Street | Compressed asbestos sheet packing | 95.41 SF |
| 1050002 | West Street Northbound over West Genesee Street | No ACM identified | |
| 1050010 | Herald Place over Onondaga Creek | No ACM identified | |
| 1050759 | I-690 over North Geddes Street | Compressed asbestos sheet packing | 195.7 SF |
| 1050779 | I-690 over Leavenworth Street | Compressed asbestos sheet packing | 244.3 SF |
| 1050780 | West Street Northbound Ramp BB to I-690 | Compressed asbestos sheet packing<br>Caulking compound<br>Roofing cement in joint between deck and NW wing wall | 106 SF<br>7.5 LF<br>0.6 SF |
| 1050790 | West Street Southbound Ramp DD to I-690 | Compressed asbestos sheet packing | 156 SF |
| 1050800 | Franklin Street to West Street Ramp | No ACM identified | |

| BIN | Location | ACM Identified | Estimated Amount |
|---|---|---|---|
| 105080A | I-690 Westbound Ramp over West Street | Compressed asbestos sheet packing<br>Gray caulk at base of light pole on north parapet<br>Duct sealant compound around lighting conduit in joints on north parapet | 21 SF<br>1.5 LF<br>1.5 LF |
| 1050821 | I-690 Westbound over Onondaga Creek | Compressed asbestos sheet packing<br>Joint sealer (between deck and cheek walls, SW corner of bridge)<br>(2010 Survey Data) | 70 SF<br>N/A |
| 1050822 | I-690 Eastbound over Onondaga Creek | Compressed asbestos sheet packing<br>Joint sealer (between deck and cheek walls, NE, SW and North corners of bridge)<br>White caulking compound around guide rail base plates<br>(2010 Survey Data) | 67.6 SF<br>3 LF<br>6 LF |
| 1050840 | West Street to I-690 Eastbound Ramp | Compressed asbestos sheet packing<br>Grey joint sealer (between deck and cheek walls, NW corner of bridge)<br>(2010 Survey Data) | 48.4 SF<br>1 LF |
| 1050851 | I-690 Westbound over Franklin Street | Compressed asbestos sheet packing<br>Caulk around/under bearing pads | 550 SF<br>20 LF |
| 1050852 | I-690 Eastbound over Franklin Street | Compressed asbestos sheet packing | 487 SF |
| 1050910 | I-690 over Salina Street | Compressed asbestos sheet packing<br>Caulking compound around guide rail base plates – 6 locations<br>(2012 Survey Data) | 56 SF<br>0.6 SF |
| 1050921 | I-690 Westbound Ramp to I-81 over Willow Street | Compressed asbestos sheet packing<br>Caulking compound on west abutment vertical face | 84 SF<br>15 LF |
| 1050922 | I-690 over Willow Street | Compressed asbestos sheet packing<br>Caulking compound on west abutment vertical face | 159 SF<br>15 LF |
| 1050950 | I-690 over State Street | No ACM identified | |
| 1051000 | I-690 Eastbound over I-81 | Compressed asbestos sheet packing<br>(1997 Survey Data) | 46.28 SF |
| 1051030 | I-690 over Townsend Street | Compressed asbestos sheet packing | 171 SF |
| 1051050 | I-690 over McBride Street | No ACM identified | |
| 1051061 | I-690 Westbound over Catherine Street | No ACM identified | |
| 1051062 | I-690 Eastbound over Catherine Street | No ACM identified | |
| 1051063 | McBride Street on Ramp to I-690 Eastbound over Catherine Street | No ACM identified | |
| 1051091 | I-690 Westbound over Crouse Avenue | No ACM identified | |
| 1051092 | I-690 Eastbound over Crouse Avenue | No ACM identified | |
| 1051119 | I-690 over Lodi Street | Compressed asbestos sheet packing<br>Grey railing caulk | 332 SF<br>26 LF |

| BIN | Location | ACM Identified | Estimated Amount |
|---|---|---|---|
| 105113A | I-690 Eastbound Ramp to Teall Avenue | Compressed asbestos sheet packing<br>Gray caulk around railing mounts | 75 SF<br>40 LF |
| 1051139 | I-690 over Beech Street | Compressed asbestos sheet packing<br>Caulking compound around hand rail base plates on north and south parapets | 720 SF<br>72.5 LF |
| 1051149 | I-690 over Teall Avenue | Compressed asbestos sheet packing | 217.5 |
| 1051159 | I-690 over Peat Street | No ACM identified | |
| 1053840 | I-81 over Erie Street | Compressed asbestos sheet packing<br>Caulking compound<br>Gray conduit gasket | 125 SF<br>150 LF<br>1 SF |
| 1053860 | I-81 over North Townsend Street | Compressed asbestos sheet t packing<br>Caulking compound associated with control joint within the parapet wall<br>(1997 Survey Data) | N/A<br>N/A |
| 1053870 | I-81 Northbound over Townsend Street | Compressed asbestos sheet packing | 160 SF |
| 1053881 | I-81 Southbound over Willow, James, OGS and State | Compressed asbestos sheet packing<br>Caulk compound | 100 SF<br>48 LF |
| 1053882 | I-81 Northbound over Willow, James, OGS and State | Compressed asbestos sheet packing | 65 SF |
| 105388A | I-81 to I-690 Eastbound over James and OGS | No ACM identified | |
| 1053931 | I-690 Westbound over West Bear Street | Compressed asbestos sheet packing<br>Waterstop (assumed) | 96.75 SF<br>80.88 SF |
| 1053932 | I-690 Eastbound over West Bear Street | Compressed asbestos sheet packing | 116.43 SF |
| 1053941 | I-690 Westbound over Liberty Street | Compressed asbestos sheet packing<br>Bituminous joint filler (assumed) | 99 SF<br>153.08 SF |
| 1053942 | I-690 Eastbound over Liberty Street | Compressed asbestos sheet packing<br>Epoxy bonding compound (assumed)<br>Bituminous joint filler (assumed) | 98.34 SF<br>2780.51 SF<br>152.58 SF |
| 1053969 | I-690 over Van Rensselaer Street | Compressed asbestos sheet packing | 244.33 SF |
| 1054020 | I-690 over North Clinton Street | Compressed asbestos sheet packing<br>Bearing pad<br>Masonry coating | 26 SF<br>141 SF<br>3,740 SF |
| 1064590 | I-690 Westbound Ramp to I-81 Southbound | Compressed asbestos sheet packing<br>Caulking compound associated with the guide rail posts<br>(1997 Survey Data) | N/A<br>N/A |
| 1093571 | I-481 Southbound over CSX Yard | Compressed asbestos sheet packing<br>Waterstop (assumed)<br>Premoulded bituminous joint filler (assumed)<br>Caulking compound (believed to be removed) | 76 SF<br>107.2 SF<br>47 SF<br>123 LF |
| 1093572 | I-481 Northbound over CSX Yard | Compressed asbestos sheet packing<br>Waterstop (assumed)<br>Premoulded bituminous joint filler (assumed)<br>Caulking compound (believed to be removed) | 76 SF<br>107.2 SF<br>47 SF<br>150 LF |
| 1095510 | I-690 Westbound over I-81 | Was Not Investigated – Access Not Provided | |

## 3.0 Inspection Methodology

Watts' personnel conducted the field investigations for the bridges between August 2013 and June 2016. All asbestos investigation and sampling services were performed by NYSDOL certified and US Environmental Protection Agency (USEPA) accredited Asbestos Inspectors.

Due to the nature of the project corridor and the high amount of traffic that flows through on a daily basis, temporary lane restrictions and/or road closures were required for the majority of the bridge and ramp inspections. In addition, the height of many of the structures required the use of a JLG or similar lift to complete the inspection. Whenever possible the asbestos survey work was combined with work that was being performed by C&S Companies and/or Popli Design Group for structural bridge evaluations. Some of these inspections only involved a portion of the structure and did not include inspections of both the deck and substructure.

Lifts and ladders were utilized during some independently performed inspections to survey the underside of certain bridges. Watts also performed additional inspections in conjunction with NYSDOT personnel during biennial bridge inspections performed by DOT staff. However, schedule changes and conflicts, and restrictions with the ability to use State operated equipment, prevented some of these inspections.

Only accessible areas of the bridges were inspected. Inaccessible areas associated with the bridges, such as the bridge approaches and underneath pavement, were not included in this investigation. The presence of suspect ACM in these locations was noted if identified based on the review of record plan information.

Additionally, some bridges had materials that were assumed to be asbestos containing based on the review of record plan drawings but their presence could not be confirmed in the field because either the materials were not visible/could be located or were not identified due to weathering/erosion or previous bridge/roadway renovation work. These materials will continue to be listed in the summary table as assumed ACM based on the historical record plan information.

During the field survey Watts investigated each bridge and ramp for the presence of suspended utility lines and conduits. According to information provided by NYSDOT, there were several bridges that were part of this investigation that have electric utilities carried under the bridge. However, no electrical conduits that were observed were considered a suspect ACM. At some of the bridges, water, gas and/or cable utilities were also present, however no suspect ACM was observed to be associated with any of these utilities. It is recommended that all involved utility companies with the potential for buried utility lines within the project corridor be contacted once the preferred design alternative is determined and there is more accurate information regarding the scope of work for each bridge and the roadways within the project corridor. A copy of Watts' company's license and personnel certification is included in Appendix F.

## 4.0 Analytical Procedures

A NYSDOL-certified asbestos inspector from Watts collected bulk samples of all suspect ACM that was accessible for each bridge/ramp/roadway. Three (3) representative samples of each homogeneous material were collected in accordance with NYSDOT protocol. Bulk samples were collected using simple hand tools from each matrix identified as a suspect material.

Samples were delivered with the proper chain-of-custody forms to a New York State accredited laboratory that is a participant in the Environmental Laboratory Approval Program (ELAP) and National Voluntary Laboratory Approval Program (NVLAP). Watts utilized both EMSL Analytical in Depew, NY and AmeriSci in Richmond, VA for laboratory analysis. Laboratory accreditation documentation is included in Appendix G.

All bulk samples, except non-friable organically bound (NOB) materials, were analyzed using Polarized Light Microscopy (PLM) using Method 198.1. NOBs, which include, but are not limited to, bituminous coatings; paints; mastics; and caulks, underwent gravimetric reduction and were analyzed by PLM Method 198.6. NOB materials that were found to be negative under PLM were then analyzed by Transmission Electron Microscopy (TEM) Method 198.4. The NYSDOH protocol requires analysis of these materials by TEM if the PLM analysis does not confirm the presence of asbestos.

## 5.0 Results

The laboratory results indicated that ACM has been identified at the following bridges listed by BIN:

- 1031510 - East Glen Avenue over I-81
- 1031549 - I-81 over Colvin Street
- 103156B - I-81Ramp to Adams Street
- 1049659 - I-690 over Hiawatha Boulevard
- 1050001 - West Street Southbound over West Genesee Street
- 1050759 - I-690 over North Geddes Street
- 1050779 - I-690 over Leavenworth Street
- 1050780 - West Street Northbound Ramp BB to I-690
- 1050790 - West Street Northbound Ramp DD to I-690
- 105080A - I-690 Westbound Ramp over West Street
- 1050821 – I-690 Westbound over Onondaga Creek (2010 Survey)
- 1050822 – I-690 Wastbound over Onondaga Creek (2010 Survey)
- 1050840 – West Street to I-690 Eastbound Ramp (2010 Survey)
- 1050851 - I-690 Westbound over Franklin Street
- 1050852 - I-690 Eastbound over Franklin Street
- 1050910 – I-690 over Salina Street (2012 Survey)
- 1050921 - I-690 Westbound Ramp to I-81over Willow Street
- 1050922 - I-690 over Willow Street
- 1051000 - I-690 Eastbound over I-81 (1997 Survey)
- 1051030 - I-690 over Townsend Street
- 1051081 - I-690 Westbound over CSX Railroad
- 1051082 - I-690 Eastbound over CSX Railroad
- 1051119 - I-690 over Lodi Street-
- 1051120 - I-481 Northbound over Service Road
- 105113A - I-690 Eastbound Ramp to Teall Avenue
- 1051139 - I-690 over Beech Street
- 1051149 - I-690 over Teall Avenue
- 1051160 - South Midler Avenue over I-690
- 1053840 - I-81 over Erie Street
- 1053860 – I-81 over North Townsend (1997 Survey)
- 1053870 - I-81 Northbound over Townsend
- 1053881 - I-81 Southbound over Willow, James, OGS and State
- 1053882 - I-81 Northbound over Willow, James, OGS and State
- 1053931 - I-690 Westbound over West Bear Street
- 1053932 - I-690 Eastbound over West Bear Street
- 1053941 - I-690 Westbound over Liberty Street
- 1053942 - I-690 Eastbound over Liberty Street
- 1053969 - I-690 over Van Rensselaer Street
- 1054020 - I-690 over North Clinton Street
- 1064590 – I-690 Westbound Ramp to I-81 Southbound (1997 Survey)
- 1064650 - Kinne Road over I-481
- 1064689 - Thompson Road over I-690
- 1064691 - I-690 Westbound over Bridge

- 1064692 - I-690 Eastbound over Bridge
- 1069110 - East Brighton Avenue over I-81 Ramps
- 1093510 - I-690 Service Road over I-481
- 1093520 - I-690 Eastbound Ramp over I-481 Southbound
- 1093530 - I-481 Southbound over I-690 Westbound
- 1093540 - I-690 Eastbound over I-481 Northbound Ramp
- 1093550 - I-481 Northbound over Service Road to I-690
- 1093561 - I-481 Southbound over Manlius Center Road
- 1093562 - I-481 Northbound over Manlius Center Road
- 1093571 - I-481 Southbound over CSX Yard
- 1093572 - I-481 Northbound over CSX Yard
- 1093671 - I-481 Southbound over Kirkville Road
- 1093672 - I-481 Northbound over Kirkville Road
- 1093681 - I-481 Southbound over NYS Thruway 90
- 1093682 - I-481 Northbound over NYS Thruway 90

Detailed information regarding the location, material, approximate quantities, determination of condition, removal options, NYSDOT specification numbers and figures for each bridge that was investigated can be found in the individual Bridge Asbestos Assessment reports located in Appendices B through E. The bridges have been placed into four distinct groups:

- I-481 North Study Area
- I-481 East Study Area
- I-481 South Study Area
- I-81 Viaduct Study Area

Removal, transport, and disposal of ACM would be performed in accordance with federal, state and local regulations, including but not limited to, those of the USEPA, Occupational Safety and Health Administration (OSHA), New York State Department of Environmental Conservation (NYSDEC), NYSDOT and NYSDOL. Applicable regulations include National Emission Standards for Hazardous Air Pollutants promulgated by USEPA and NYSDOL Industrial Code Rule 56.

## 6.0 Recommend NYSDOT Item Numbers

The identified ACM with the potential to be impacted by the rehabilitation or demolition work would be abated in accordance with applicable federal, state and local regulations. All abatement work should be conducted in accordance with NYSDOL ICR 56 and the appropriate NYSDOT Item Numbers. Based on the ACM that has been identified with these bridges, the following NYSDOT Item Numbers are recommended:

NYSDOT ITEM NUMBERS

Item 210.3411 – Removal and Disposal of Caulking ACM (BV14)

Item 210.3312 – Removal and Disposal of Bond Breaker or Filler ACM (BV14)

Item 210.4812XX – Removal and Disposal of Miscellaneous ACM (BV14) – multiple materials (where XX denotes that items should be serialized for each different material for each structure in accordance with Section 210 of the NYSDOT specifications)

## 7.0 Limitations

The services described in the report were performed consistent with generally accepted professional principles and practices. This report is for the use and information of our client, unless otherwise noted.

Opinions and recommendations contained in the report apply to conditions existing when services were performed and are intended for our client, within the purposes, conditions, timeframes, and project parameters indicated. Watts cannot be responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services without our further consultation.

The Asbestos Investigation and Assessment Survey assessed the presence of accessible and/or exposed suspect ACMs. Although due diligence was given during this assessment, suspect ACMs may exist behind abutment walls, within the bridge approaches or beneath the existing roadway that were not observed or sampled during the investigation.

# APPENDIX A

# SITE LOCATION MAP

Date: 11/6/2013

N

1031712
1031711
1072792
1072791
1072782
1072781
1072592
1072591
1072581
1072582
1072572
1072571
1072530
1093681
1093682

REFER TO APPENDIX B FOR BRIDGE ASBESTOS ASSESSMENT FOR BRIDGES NORTH OF NYS 90.

1050790
1050780
1050800
1050080A
1050821
1050851
1054020
1008489
1050910
1095510
1050921
1050922
1051030
1053882
1053870
1050950
1051050
1051061
1050095A
105388A
1051062
1051063
105384A
1053840
1051000
1053881
105100A
1053860
1064590
1050010
1050822
1050852
1050840
1050001
1050002

REFER TO APPENDIX D FOR BRIDGE ASBESTOS ASSESSMENT FOR BRIDGES NORTH OF NYS 90.

1031610
1031600
1031590
1031580
1031570
1053932
1053942
1049659
1050759
1053931
1053941
1050779
1053939
1051092
105113A
1051139
1051149
1051159
1051091
1051119
1051081
1051082
1051160
1064689
1064691
1064692
1093530
1093540
1093550
1093520
1093510
1051120
1093671
1093672
1093571
1093572
1093561
1093562
1064650
1031560
1031560C
1031559
1031549
1031539
1031529
1031510
1031501
1069100
1069120
1069110
1069090
1069131
1069141
1069142
1069132
1069160
1069170
1069151
1069152
1002131
1002132
1044440

REFER TO APPENDIX E FOR BRIDGE ASBESTOS ASSESSMENT FOR BRIDGES on I-81.

REFER TO APPENDIX C FOR BRIDGE ASBESTOS ASSESSMENT FOR BRIDGES SOUTH OF NYS 90.

NYSDOT PIN 3501.60
I-81 VIADUCT
BRIDGE INSPECTION LOCATIONS

COLOR KEY

- C&S BRIDGE
- POPLI BRIDGE

1 in = 0.35 miles
(when printed on 44"X 34")

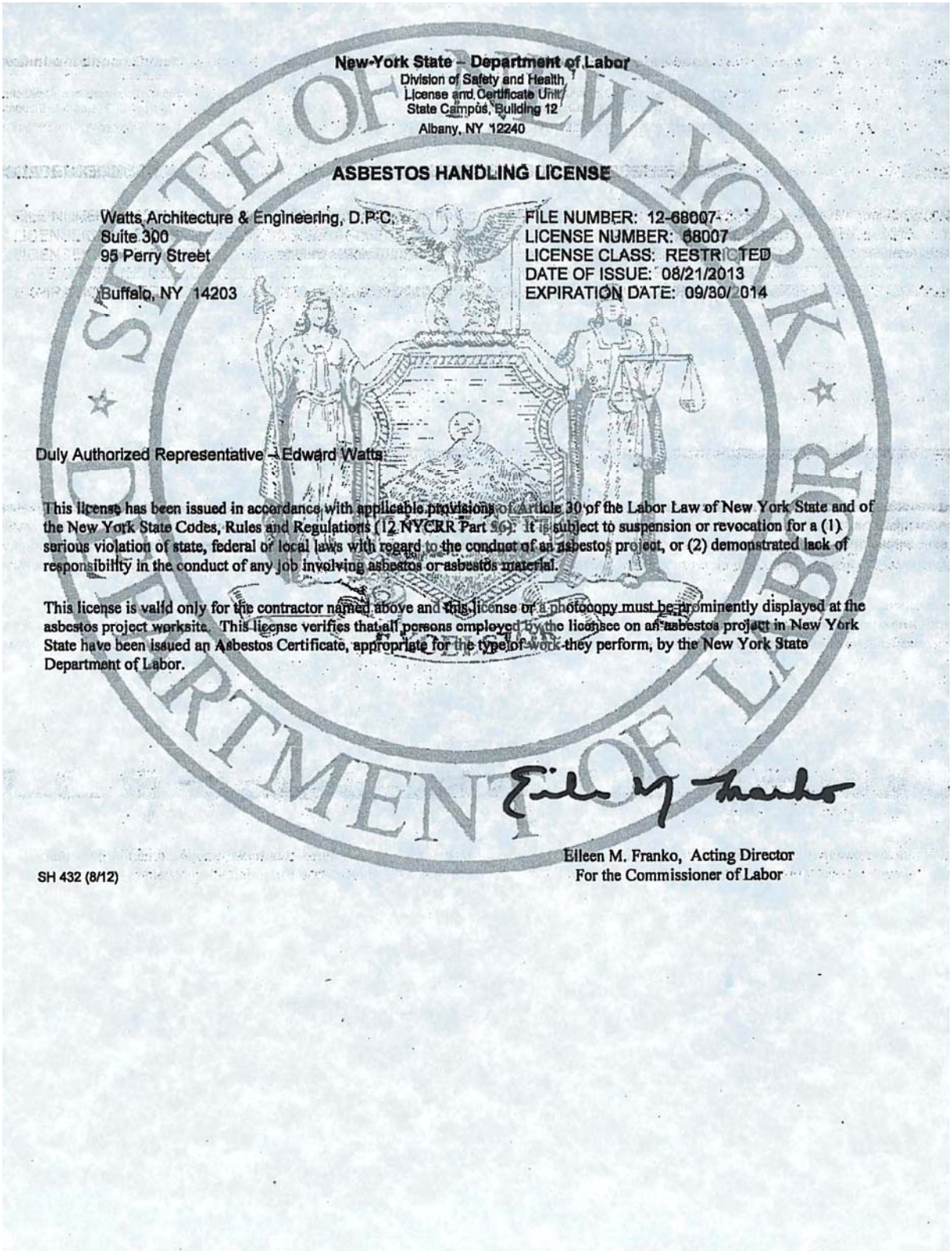
0 0.35 0.7 1.05 1.4 1.75 Miles

# APPENDIX F

# LICENSES AND CERTIFICATIONS

95 Perry Street, Suite 300
Buffalo, New York 14203

2610 South Salina Street, Suite 2B
Syracuse, New York 13205



New York State – Department of Labor
Division of Safety and Health
License and Certificate Unit
State Campus, Building 12
Albany, NY 12240

## ASBESTOS HANDLING LICENSE

Watts Architecture & Engineering, D.P.C.
Suite 300
95 Perry Street

Buffalo, NY 14203

FILE NUMBER: 12-68007
LICENSE NUMBER: 68007
LICENSE CLASS: RESTRICTED
DATE OF ISSUE: 08/21/2013
EXPIRATION DATE: 09/30/2014

Duly Authorized Representative – Edward Watts

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

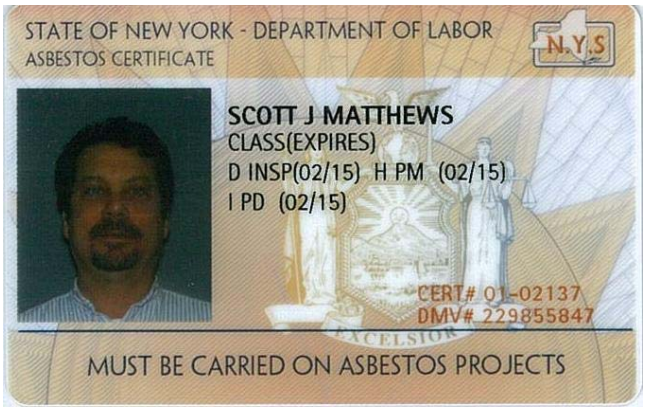
This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

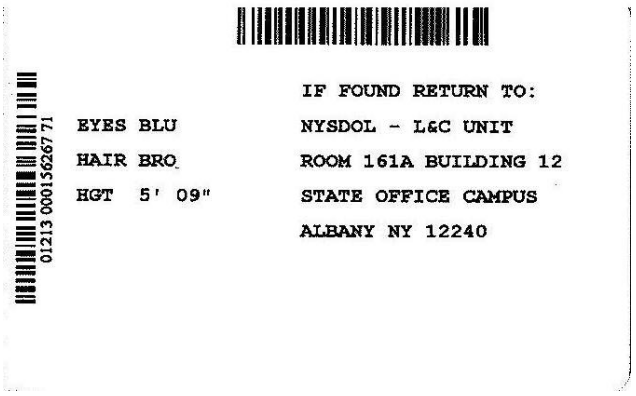
Eileen M. Franko, Acting Director
For the Commissioner of Labor

SH 432 (8/12)

95 Perry Street, Suite 300
Buffalo, New York 14203

2610 South Salina Street, Suite 2B
Syracuse, New York 13205



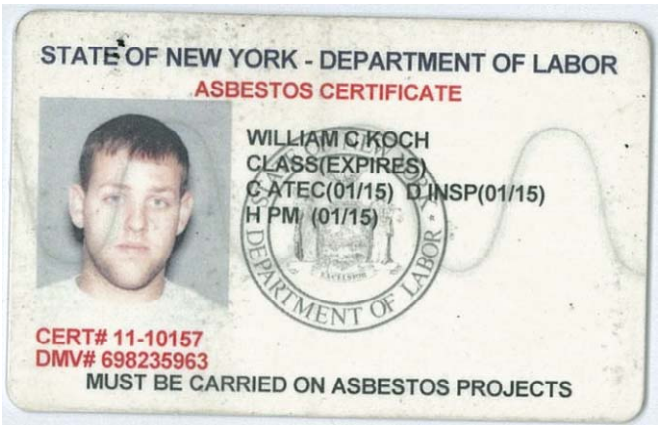



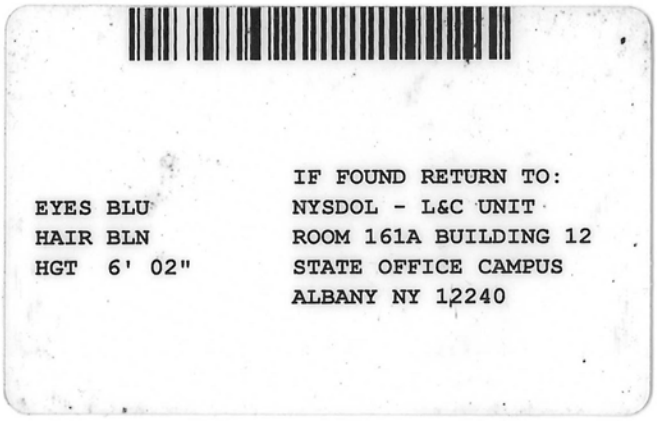

## Scott Matthews

C – Air Sampling Technician
D – Inspector
H – Project Monitor
I – Project Designer

95 Perry Street, Suite 300
Buffalo, New York 14203

2610 South Salina Street, Suite 2B
Syracuse, New York 13205



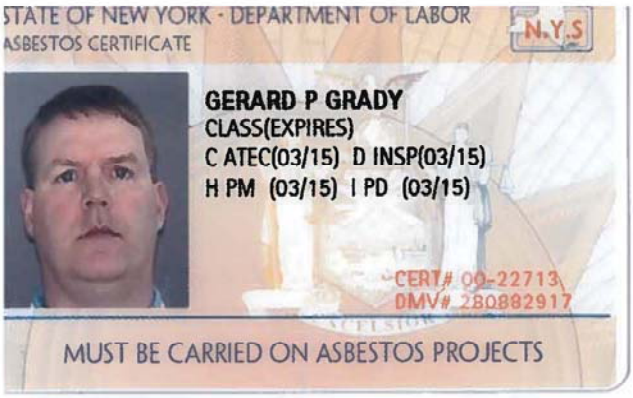



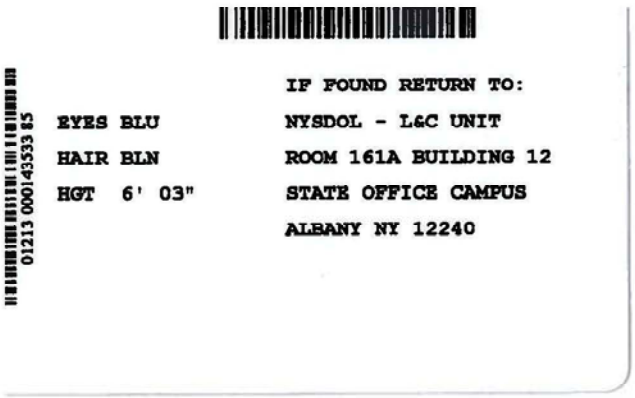

## Will Koch

C – Air Sampling Technician
D – Inspector
H – Project Monitor

95 Perry Street, Suite 300
Buffalo, New York 14203

2610 South Salina Street, Suite 2B
Syracuse, New York 13205



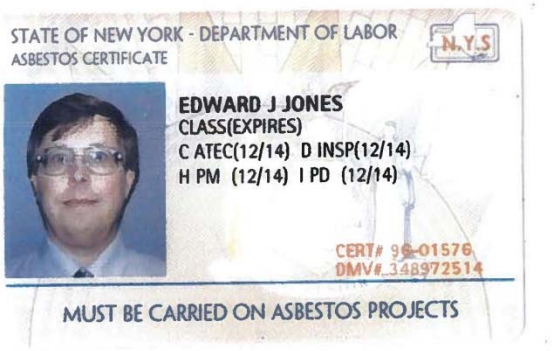



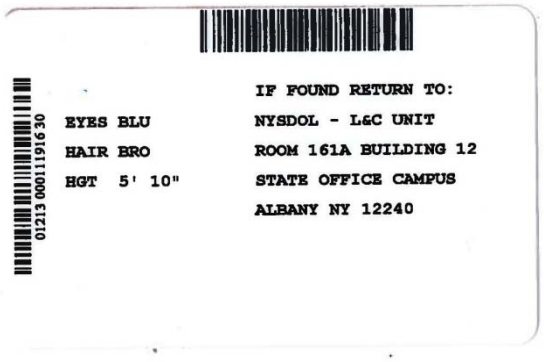

## Jerry Grady

C – Air Sampling Technician
D – Inspector
H – Project Monitor
I – Project Designer

95 Perry Street, Suite 300
Buffalo, New York 14203

2610 South Salina Street, Suite 2B
Syracuse, New York 13205




## Edward Jones

C – Air Sampling Technician
D – Inspector
H – Project Monitor
I – Project Designer

# APPENDIX G

# LABORATORY ACCREDITATION

**NEW YORK STATE DEPARTMENT OF HEALTH**
**WADSWORTH CENTER**

Expires 12:01 AM April 01, 2015
Issued April 01, 2014

## CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

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

*DR. THOMAS MCKEE*
*AMERISCI RICHMOND*
*13635 GENITO RD*
*MIDLOTHIAN, VA 23112*

*NY Lab Id No: 10984*

*is hereby APPROVED as an Environmental Laboratory for the category*
*ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE*
*All approved subcategories and/or analytes are listed below:*

**Miscellaneous**

| | |
|---|---|
| Asbestos in Friable Material | Item 198.1 of Manual |
| | EPA 600/M4/82/020 |
| Asbestos in Non-Friable Material-PLM | Item 198.6 of Manual (NOB by PLM) |
| Asbestos in Non-Friable Material-TEM | Item 198.4 of Manual |

Serial No.: 50469

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

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

# Certificate of Accreditation to ISO/IEC 17025:2005

**NVLAP LAB CODE: 101904-0**

## AmeriSci Richmond

Midlothian, VA

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:*

## BULK ASBESTOS FIBER ANALYSIS

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2013-07-01 through 2014-06-30

*Effective dates*

*For the National Institute of Standards and Technology*

NVLAP-01C (REV. 2009-01-28)

# National Voluntary Laboratory Accreditation Program

## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

**AmeriSci Richmond**
dba AmeriSci Richmond
13635 Genito Road
Midlothian, VA 23112
Mr. Thomas B. Keith
Phone: 804-763-1200 Fax: 804-763-1800
E-Mail: bkeith@amerisci.com
URL: http://www.amerisci.com

**BULK ASBESTOS FIBER ANALYSIS (PLM)** **NVLAP LAB CODE 101904-0**

| *NVLAP Code* | *Designation / Description* |
|---|---|
| 18/A01 | EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples |
| 18/A03 | EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials |

2013-07-01 through 2014-06-30

*Effective dates*

*For the National Institute of Standards and Technology*

**NEW YORK STATE DEPARTMENT OF HEALTH**
**WADSWORTH CENTER**

Expires 12:01 AM April 01, 2015
Issued April 01, 2014

## CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

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

*MS. RHONDA R. MCGEE*
*EMSL ANALYTICAL INC*
*490 ROWLEY ROAD*
*DEPEW, NY 14043*

*NY Lab Id No: 11606*

*is hereby APPROVED as an Environmental Laboratory for the category*
*ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE*
*All approved subcategories and/or analytes are listed below:*

**Miscellaneous**

| | |
|---|---|
| Asbestos in Friable Material | Item 198.1 of Manual |
| | EPA 600/M4/82/020 |
| Asbestos in Non-Friable Material-PLM | Item 198.6 of Manual (NOB by PLM) |
| Asbestos in Non-Friable Material-TEM | Item 198.4 of Manual |

Serial No.: 50708

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

# Certificate of Accreditation to ISO/IEC 17025:2005

**NVLAP LAB CODE: 200056-0**

## EMSL Analytical, Inc.

Depew, NY

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:*

## BULK ASBESTOS FIBER ANALYSIS

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2014-07-01 through 2015-06-30

*Effective dates*

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

*For the National Institute of Standards and Technology*

NVLAP-01C (REV. 2009-01-28)

NVLAP® National Voluntary Laboratory Accreditation Program

# SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

**EMSL Analytical, Inc.**
490 Rowley Road
Depew, NY 14043
Ms. Rhonda McGee
Phone: (716) 651-0030 Fax: (716) 651-0394
E-Mail: rmcgee@emsl.com
URL: http://www.emsl.com/

**AIRBORNE ASBESTOS FIBER ANALYSIS (TEM)** **NVLAP LAB CODE 200056-0**

| *NVLAP Code* | *Designation / Description* |
|---|---|
| 18/A02 | U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A. |

2014-07-01 through 2015-06-30

*Effective dates*

*For the National Institute of Standards and Technology*