



# ASBESTOS LAB SERVICES

EMSL Analytical, Inc. has over 40 years of experience in providing Asbestos Laboratory Services to Environmental/Asbestos Consultants, Engineering Companies, Remediation Contractors as well as Government Agencies and Authorities. Our asbestos laboratory network has the largest capacity for sample analysis in the world. This capability is a function of the collective strength of our nationwide network of individual laboratories located throughout North America.

Each laboratory has trained and experienced staff along with the necessary equipment and instrumentation to provide quality asbestos analysis for Air, Water, Bulk, Soil, and/or Dust samples by various methodologies (NIOSH, EPA, ISO, ASTM, etc.) utilizing Polarized Light Microscopy (PLM), Phase Contrast Microscopy (PCM), Transmission Electron Microscopy (TEM), and Scanning Electron Microscopy (SEM).

Each of our Asbestos Labs is accredited by NVLAP with additional certifications as needed per individual state certification programs and/or AIHA/A2LA accreditation. The laboratories maintain a five to seven day work week depending on the lab location and have emergency response plans for off hour and/or weekend work. Samples are received during work hours and turnaround times (TATs) are tracked accordingly. TATs offered include same day (3 hr. and 6 hr.), 1 day, 2 day, 3 day, 4 day, 1 week, and 2 week. Costs/rates are weighted based on the TAT requested with our 2 week rates being the most economically cost-effective for our customers.

Sample processing (log-in, analysis data-entry, reporting) is facilitated by our Laboratory Information Management System (LIMS) which tracks the samples and individual projects to meet our clients' specified due dates and any special instruction requirements. Additionally, the LIMS includes security controls to ensure that information is controlled and locked once the data has been entered by our analysts. Since all of our laboratories utilize the same LIMS, all reports are standardized which allows us to use multiple laboratories on large capacity projects while ensuring that work is complete and reported in a similar format. Asbestos reports are delivered at the choice of the customer by email, fax, and/or hard-copy regular mail. Additionally, all clients have 24/7 real-time access to their reports, Chains-of-Custody (COCs), and project invoices via our online account management system, LABConnect™. This is a security enabled online feature that provides various search options so that our clients can find all project results and invoicing information quickly and easily.



*Key tests include\* (but are not limited to) the following:*

#### **AIR by PCM**

- NIOSH 7400 (A or B Counting Rules)
- ASTM D7200 or ASTM D7201
- OSHA ID-160

#### **AIR by TEM**

- AHERA (40 CFR Part 763 Appendix A subpart E)
- EPA LEVEL II (Yamate)
- NIOSH 7402
- ASTM D6281
- ISO 10312
- ISO 13794 (Indirect Prep)

#### **BULK by PLM**

- EPA/600/R-93/116 (Calibrated Visual Estimate, reporting limit to <1%)
- EPA/600/R-93/116 (400 pt count, reporting limit to <0.25%)
- EPA/600/R-93/116 (1000 pt count, reporting limit to <0.1%)
- EPA/600/R-93/116 (1200 pt count, reporting limit to <0.08%)
- EPA/600/M4-82-020 Interim Method (400 pt count, reporting limit to <0.25%)
- NIOSH 9002 (reporting limit to <1%)
- PLM EPA NOB-EPA/600/R-93/116 (Calibrated Visual Estimate, reporting limit as low as <0.25%)
- PLM EPA NOB-EPA/600/R-93/116 (Gravimetric Reduction Prep 400 pt count, reporting limit to <0.25%)
- PLM EPA NOB-EPA/600/R-93/116 (Gravimetric Reduction Prep 1000 pt count, reporting limit to <0.1%)
- OSHA ID-191
- IRSS
- ISO 22262

#### **BULKS by NYS ELAP Methods**

- NY ELAP Method 198.1 (for friable samples)
- NY ELAP Method 198.6 (PLM with Gravimetric Prep)
- NY ELAP Method 198.4 (TEM with Gravimetric Prep)
- NYS ELAP Method 198.8 for Vermiculite Containing Materials

#### **WATER by TEM**

- EPA Method 100.2 (Long fibers >10 microns only)
- EPA Method 100.2 (All fiber sizes  $\geq 0.5$  microns)

#### **BULKS by TEM**

- TEM EPA NOB- EPA 600/R-93/116 Section 2.5.5.1
- TEM % by Mass- EPA 600/R-93/116 Section 2.5.5.2
- Chatfield Protocol (semi-quantitative)
- TEM Qualitative via Filtration Prep Technique
- TEM Qualitative via Drop Mount Prep Technique
- NY ELAP Method 198.4 (TEM NOB)

#### **SETTLED DUST by TEM**

- ASTM D6480 (Wipe)
- ASTM D5755 (MicroVac)
- Carpet/Textile Sonication EPA/600/J-93/167

#### **SOIL / ROCK / VERMICULITE METHODS**

- PLM/TEM Qualitative (Prep by: Milling/Jaw Crusher/etc.)
- ISM Incremental Sampling Methodology (ISM)
- PLM by EPA/600/R-93/116 (Milling Prep with calibrated visual estimation with reporting limit to 0.25%)
- CARB 435 PLM and/or TEM
- ASTM Soil Quantitative PLM and/or TEM
- ASTM D7521 Sieve Method for Soil
- Superfund EPA 540-R-97-028 (Elutriator Method)
- Fluidized Bed Asbestos Segregator (FBAS)

#### **SPECIALIZED ANALYSIS**

- German VDI-3492 (Asbestos and Fibrous Glass) by SEM
- Erionite via TEM/SEM/XRD
- Nanoparticle Analysis via TEM/STEM with EDXA
- PCMe Analysis
- SEM