

# Lehigh Testing Laboratories, Inc.

308 West Basin Road, PO Box 903, New Castle, DE 19720  
302-328-0500 Fax: 302-328-0417

[www.lehightesting.com](http://www.lehightesting.com)

[sales@lehightesting.com](mailto:sales@lehightesting.com)

## Specialists in Product & Materials Problem Solving Metals, Plastics, Composites Testing & Analysis

### CHEMICAL ANALYSIS

- \* Inductively Coupled Plasma (ICP)
- \* Optical Emission Spectrometry (OES)
- \* Combustion Infrared: Leco – C & S
- \* Leco – Nitrogen & Oxygen  
Chemical Element Determination  
FTIR; Micro-FTIR; TGA; DSC
- \* X-Ray Diffraction (XRD)  
Ion Chromatography (Ion Specific Analysis)  
Insulation – Chemistry & Stress Corrosion  
Portable Alloy Analyzer (XRF), NITON
- \* Scanning Electron Microscope (SEM)
- \* Energy Dispersive Scanning (EDS)  
RoHS Testing; Coatings Consulting
- \* Lead in Paint & Children's Metal Products  
(CPSC Accredited)

### MECHANICAL TESTING

- \* Tensile/ Yield/ Elongation Testing
- \* Compression Testing
- \* Charpy V-Notch Impact Testing  
Drop Weight Testing
- \* Shear, Bend, Flex & Flare Testing  
Proof Load Tests of Fixtures, etc.  
Heat Treating of Sample Material
- \* Fastener Testing
- \* Weld Procedure & Performance Qualification  
(AWS, ASME, AASHTO, NYS, etc.)

### METALLOGRAPHY

- \* Microstructural Analysis
- \* Inclusion Rating (Micro Cleanliness)
- \* Grain Size & McQuaid GS Determination
- \* Coating Thickness
- \* Weld Evaluation
- \* Corrosion Testing & Evaluation
- \* Microhardness Testing (Knoop, Vickers)
- \* Hardness Testing - Rockwell, Brinell, Shore  
& Durometer  
Portable Leeb Hardness & Barcol Hardness
- \* Macrostructure Evaluation  
Quantitative Image Analysis  
Field Metallography

### NON-DESTRUCTIVE TESTING

- Radiographic Inspection
- Liquid Penetrant Inspection
- Magnetic Particle Inspection
- Ultrasonic Inspection & UT Thickness  
IRIS 9000 Inspection, Ultrasonic Testing  
for Heat Exchanger and Boiler Tubes  
API 653, 510, 570, CWI Inspection
- Remote Visual Inspection

### \* FAILURE ANALYSIS / MATERIALS ENGINEERING SERVICES

- Failure Investigation of Industrial Components
- Litigation Support Including Forensic Lab Examination, Depositions and Testimony
- Materials Recommendation for Specific Service
- Condition Assessment - SEM Fractography
- Boiler Tube Remaining Life

