



CAPABILITIES AND PRICING

Chemical Analysis

This testing is usually performed to confirm whether elemental content meets the specification requirements. This testing can also be effective to determine the presence of surface contaminants.

XRF	\$50.00/sample
OES	\$85.00/sample
EDS.....	\$100.00/sample

Technical Photography

Close-up photography and other forms of technical photographic documentation can be provided.

\$100.00/hour

Field Examinations & Inspections

Inspections of equipment and facilities generally require on-site examinations. Therefore, failure investigators should be some of the first individuals to arrive on the scene of industrial incidents. Assignments that include travel to customer sites are billed based on portal-to-portal:

Technician.....	\$50.00/hour
Engineer.....	\$100.00/hour
Consultant.....	\$250.00/hour

Scanning Electron Microscopy

SEM allows close-up and high magnification/resolution viewing of various objects. It is commonplace in failure analysis, but also serves multiple purposes in materials characterization.

Engineer.....	\$75.00/hour
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Mechanical Testing

Mechanical testing can determine various strength, hardness, elastic and plastic deformation properties to compare to mill test reports or specification requirements.

Hardness Testing	\$25.00/sample*
Microhardness	\$75.00/sample*
Tensile Tests.....	\$60.00/sample*

*Prices are dependent on sample preparation required for testing.

Metallographic Evaluation

Sample preparation and photographic documentation of microstructural features. Pertinent features relating to grain size, microconstituents, fabrication and processing history can be revealed by metallographic examination.

General microstructural evaluation	\$265.00/sample
Inclusion rating (visual)	\$75.00/sample
Grain size (ASTM E112)	\$75.00/sample
Macro-examination of welds	\$125.00/sample

Metallographic Replication

This method is best applied when a non-destructive evaluation is required. This has been used successfully to assess service-induced alteration due to temperature and chemical conditions.

*Price on Request

Failure Analysis

A preliminary inspection will be performed and a proposal of work provided to the customer. The results and analysis are documented in a report, which includes recommendations to eliminate future failures.

*Price on Request

Materials Selection

With over 100,000 different materials available for engineered products, it is helpful to prioritize design/service requirements and optimize performance outcomes.

*Price on Request

Metallurgical Report Preparation

Includes examination of data compilation, research, writing and assembly of technical report.

Engineer	\$100.00/hour
Consultant	\$250.00/hour

Finite Element Analysis (FEA)

Stress modeling is very effective when used in concert with failure analysis techniques.

*Price on Request

***Price on Request - A personalized quote including all costs will be provided based on the size of materials and extent of the project. This helps ensure a cost effective analysis that provides the answers our clients require.**