

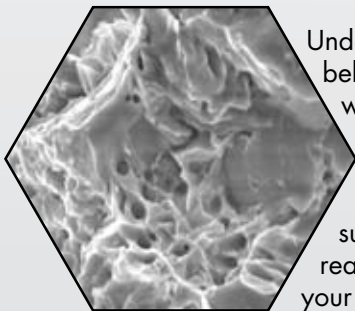
MATERIALS SCIENCE

C E N T E R



"Materials evaluation is essential for optimizing equipment life-management strategies."

Structural Integrity Associates, Inc. is well established as an industry leader in materials evaluation and failure analysis. By utilizing the broad capabilities at Structural Integrity's Materials Science Center in Austin, Texas, our metallurgical experts are consistently well-equipped to tackle the toughest industry problems affecting material performance.



Understanding material behavior and the reasons why materials fail is crucial for maintaining safe and reliable operation. Having such information readily available focuses your limited resources on mitigating the true root cause

of equipment failure, thus avoiding the downtime and costs associated with recurring problems.

To help optimize your resources, Structural Integrity rapidly responds to your materials issues using a well balanced solution that incorporates laboratory and on-site failure investigations, material evaluations, engineering analysis, and nondestructive testing.

Metallurgical Assessments

- Characterize the existing condition of materials
- Measure the effects of damage mechanisms such as thermal degradation, creep, oxidation, corrosion and embrittlement
- Predict future safe and reliable performance

Failure Analysis

- Identify active damage mechanisms and influencing factors
- Crucial step in implementing proper corrective actions
- Scope can range from failure mode determination to multi-disciplined root cause determinations

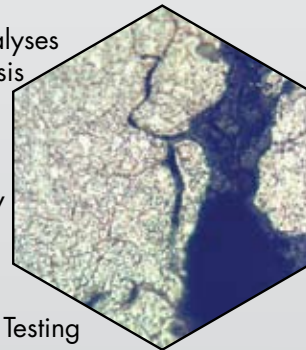


Materials Selection

- A complete system material review prior to installation or before a major process change reduces the likelihood of surprises after the system is placed into service and better predicts component lifespan and consequences of equipment failure

Laboratory Capabilities

- Optical Metallography
- Quantitative Microstructural Analyses
- Fractography
- Scale and Deposit Analyses
- Metal Chemical Analysis and Alloy Verification
- Cyro-Cracking
- Heat Treating
- In-place Metallography and Replication
- Hardness Testing
- Miniature Sampling
- Specialized Corrosion Testing



Materials Science



Structural Integrity Associates, Inc.

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