



# rpc

SCIENCE & ENGINEERING

921 College Hill Rd. Fredericton, NB Canada E3B 6Z9

## Metallurgy & Failure Analysis

**R**PC's metallurgists provide remedial assistance to industry on a broad range of material problems. Typical projects involve crack and failure analysis, condition monitoring, and corrosion control. Our metallurgical capability includes expertise in non-destructive testing, mechanical testing, materials identification, weld procedures, and metallography. You should consider a metallurgical investigation when service failures have major financial, safety, or legal implications. A metallurgical investigation determines or confirms the mechanics of service failure.

### Qualifications

RPC's senior metallurgists can evaluate failure causes as well as recommend steps to prevent a re-occurrence. RPC has performed lab and on-site metallurgical services for more than 40 years, working in the pulp and paper, nuclear, fossil plants, oil and gas, marine, aerospace and fabrication industries.

### Services

- Failure analysis
- Materials selection and identification
- Welding and corrosion consultations
- Videoscope inspection
- Charpy and tensile testing
- Hardness & Micro hardness testing
- Fracture toughness testing
- Liquid penetrate inspection
- Magnetic particle inspection
- Ultrasonic inspection
- Insurance Industry Service
- Field and In-Situ Metallography
- Life Extension Studies

### Facilities/Equipment

- Reichert Optical Light Metallograph
- Stereomicroscope
- Niton X-ray Fluorescence Analyzer Model XLP 818
- Instron Servo-hydraulic Tensile Tester Model 8800
- Instron Tensile Tester Model 3384
- Tinius Olsen Charpy Impact Tester
- Wrap-around Bend Testing Machine
- Fully Equipped Machine Shop
- Heat Treat Facilities
- SEM Services

### Contact

For further information regarding our services please contact:

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*RPC's Quality Management System is registered to ISO 9001:2008.*

[www.rpc.ca](http://www.rpc.ca)