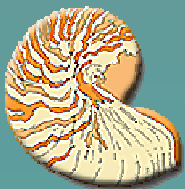




# Ammonite Corrosion Engineering Inc.



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[www.ammonite-corrosion.com](http://www.ammonite-corrosion.com)

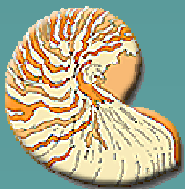
January, 2010

# Introduction

Ammonite Corrosion Engineering represents over 300 years of corrosion engineering experience in the oil and gas industry, with extensive experience in upstream, downstream, onshore and offshore facilities.

Ammonite Corrosion Engineering Inc. provides a comprehensive service in the field of corrosion management and integrity management to the oil and gas industry.

We were founded in 1998 and have recently expanded our operations to support the increasing activity in the oil and gas industry. We are active supporters of NACE International and participate in both organizational and technical activities of this important association.



# Vision

Our vision is to improve the safety and reliability of oil and gas facilities and pipelines.

One of our major aims in accomplishing our vision is to mentor junior engineers and technologists in the discipline of corrosion engineering and integrity management and prepare them for a career as a corrosion specialist.



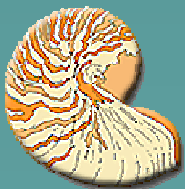
# Staff and Associates

- ◆ Sandy Williamson, P.Eng., Principal Engineer
- ◆ Budd Melvin, Pipeline and Chemical Treatment Specialist
- ◆ Norm Blatz, Integrity Management Specialist
- ◆ Rod Hailey, Integrity Management Specialist
- ◆ Beth Daniel, P.Eng., Integrity Management Engineer (Water Treatment)
- ◆ Ruth Derid, EIT, Integrity Management Engineer (Plants)
- ◆ Alex Georgiev, EIT, Quality Assurance Specialist
- ◆ John McIver, EIT, Integrity Management Engineer (Pipelines)
- ◆ Laura Cardenas, EIT, Integrity Management Engineer (Chemical Treatment)
- ◆ Kyle Johnston, Engineering Intern
- ◆ Rob Brown, Associate (Quality Assurance)
- ◆ Roy Baguley, P.Eng., Associate (Metallurgy)
- ◆ Mike Rogers, Associate (Water Treatment)
- ◆ John Baron, RET, Associate (Non-Metallics)
- ◆ Paul Manuel, P.Eng., Associate (Metallurgy)
- ◆ Jim Chmilar, P.Eng., Associate (Cathodic Protection)
- ◆ Carol Swabey, Office Manager



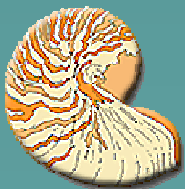
# Services & Support

- ◆ Consulting engineering in materials selection, corrosion prevention best practices, coating selection, corrosion inhibitor and specialty chemical program design, troubleshooting and consulting, and corrosion monitoring design.
- ◆ Preparation of integrity manuals for oil and gas pipelines, processing facilities, and refineries.
- ◆ Preparation of inspection plans for oil and gas pipelines, processing facilities, and refineries including use of risk-based inspection guidelines and implementation of inspection databases.
- ◆ Preparation of engineering guidelines and standards for oil and gas offshore and onshore field and plant operations, pressure equipment and pipeline design.
- ◆ Support to Operations regarding interpretation of inspection results and corrosion prevention.
- ◆ Corrosion failure analysis
- ◆ Inspectors (API 510, 570, and 653)
- ◆ Provision of QA/QC support services to oil and gas industry
- ◆ Training



# Client List

- ◆ Alberta Envirofuels
- ◆ BA Energy
- ◆ CNRL
- ◆ Conoco-Phillips
- ◆ Devon Energy
- ◆ East Coast Tubulars
- ◆ Encana
- ◆ ExxonMobil
- ◆ Gas Liquids Engineering
- ◆ Husky Energy
- ◆ InterPipeline Fund
- ◆ Nexen Canada Ltd.
- ◆ Noetic Engineering
- ◆ NRC
- ◆ Production Well Testing Companies
- ◆ Provident Energy
- ◆ Saipem International
- ◆ Shell Canada Ltd.
- ◆ Shell Chemical
- ◆ Spectra Energy
- ◆ Suncor Energy Inc.
- ◆ Syncrude Canada
- ◆ Synenco Energy Inc.
- ◆ Tenaris
- ◆ Total
- ◆ Veba
- ◆ Weatherford



# Typical Projects

- ◆ Provided materials selection and corrosion engineering support to a greenfield Upgrading facility. Prepared Equipment Integrity manuals and implementation of an equipment integrity inspection database for their Operations. Provided support to their corrosion monitoring and process chemical programs.
- ◆ Updated a major refinery's corrosion monitoring and inspection plans and integrating into their corrosion control manuals.
- ◆ Provided support to corrosion studies and RBI implementation for a major oil and gas company's facilities across Canada.
- ◆ Provided downhole and surface facilities corrosion engineering support for major SAGD projects.
- ◆ Providing corrosion engineering support towards the development of downhole tubular products for heavy oil recovery.
- ◆ Provided pipeline integrity manual for in-situ project and major transmission pipelines.
- ◆ Supporting ongoing integrity management operations for Canada's east coast offshore facilities including two FPSOs, fixed leg platforms and a gravity based structure. Leading RBI equipment and piping reassessments for some of these facilities.
- ◆ Completed a survey of current research initiatives and projects that are being carried out by industry, universities, and others regarding the use of water in the oilsands industry.
- ◆ Conducting quality management system audits to prepare clients for ISO 9001 : 2008.
- ◆ Qualifying sour, low temperature service portable well testing equipment to company and industry standards.



# Summary

Ammonite Corrosion Engineering has implemented integrity management programs for a number of clients. This includes facilitating the RBI assessments, setting up and integrating the information into an inspection database, and maintaining the quality of data.

We have also participated in the materials selection, coatings selection, standard/specification review, chemical treatment program selection, and corrosion monitoring requirements for a number of clients during early design, detailed engineering, and construction stages of oil and gas facilities and pipelines.

