More than 60 years of experience

Comprehensive metallurgical services, with capabilities extending from test work and analysis, through feasibility studies and engineering design, to commercialization and plant optimization.

Specialists in
1 Pressure hydrometallurgy
2 Process development
3 Metallurgical test work
4 Project engineering
5 Commercial plant design
6 Process and plant support

Metallurgical services

Process Development and Test Work
1 Process development and flowsheet design
2 Batch and continuous test work
3 Feed, residue and product characterization
4 Process demonstration at bench and pilot scale
5 Materials selection
6 Capital and operating cost estimates, economic evaluations at conceptual, prefeasibility and feasibility levels

Project Engineering and Construction Support
1 Basic and detailed engineering design
2 Detailed design of specialized equipment
3 Inspection of specialized equipment during fabrication
4 Owner’s team support

Plant Commissioning and Operation
1 Preparation of operating manuals
2 Training of operations, maintenance, and analytical personnel
3 On-site assistance during plant commissioning, start-up and operation
4 Continuing research, engineering and operational assistance
5 Process, reliability, and safety reviews

Analytical Services
1 Process development work at Sherritt is supported by a dedicated analytical laboratory
2 The analytical laboratory is ISO 9001:2008 registered and provides comprehensive analytical services to clients

Approach to projects
1 Characterization and flowsheet amenability established through batch test work
2 Unit operation and integrated piloting to define design parameters
3 Integrated research, development, design, engineering and operating team
4 Provide a full suite of services to support commissioning and operation
**Technology for non-ferrous and precious metals**

**Refractory Gold**
Sherritt's process for treatment of refractory gold feed materials provides significantly increased gold recoveries while producing environmentally stable residues (particularly those with high arsenic), and is compatible with conventional cyanidation and other gold recovery processes.

**Metal-Bearing Sulphides**
Sherritt has developed technologies to recover non-ferrous and precious metals from sulphide concentrates and other feed materials which are not economically suitable for treatment in conventional smelters. These technologies offer high recoveries of the metal values while producing an environmentally stable residue.

**Zinc Concentrates**
Sherritt’s Zinc Pressure Leach technology allows for production of zinc and elemental sulphur from sulphide concentrates, alone or in combination with other feeds, without the simultaneous production of sulphur dioxide or sulphuric acid.

**Mattes**
Sherritt has developed and commercialized technologies to recover nickel, cobalt, copper and platinum-group metals from mattes and other feed materials.

**Nickel Laterites**
Sherritt’s technologies to recover nickel and cobalt from laterite ores have been applied in Sherritt’s own operations for more than 60 years and today is accepted as the preferred process for the commercial treatment of laterite feeds.

The Technologies Division of Sherritt is a recognized leader and pioneer in the development and application of pressure hydrometallurgy. In addition to supporting Sherritt’s existing business units, the division provides metallurgical services, including test work, analytical services, engineering and commercial operations support to existing and emerging clients in the metals industry. We provide a suite of services to help take projects from the process and flowsheet development stage, to piloting and demonstration and onto commercialization. Sherritt has more than 60 years of experience in the development and commercialization of hydrometallurgical technologies for the recovery of non-ferrous and precious metals. More than 40 operating plants worldwide have successfully applied Sherritt’s processing expertise.

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