



# EXPLORATION SERVICES

MINERALS SERVICES



# TRUSTED MINERAL EXPLORATION EXPERTISE

## GLOBAL SOLUTIONS TO ENHANCE VALUE AND REDUCE PROJECT RISK

SGS has a proven track record of providing trusted exploration services to projects. Our professionals blend geological and technical expertise with the latest computer and software technology. Mitigate your technical, environmental, strategic and, most importantly, financial risks.

### PROJECT MANAGEMENT

- Independent project management
- Exploration target ranking and assessment reports
- NI 43-101 Property of Merit Reports
- Data compilation, verification and safeguarding
- Reassessment of legacy data, projects or targets
- Due diligence and fairness reports

### GEOLOGY & GROUND SURVEYS

- Mapping, core logging and sampling
- Exploration mineralogy
- Geochemical and geophysical surveys
- Interactive GIS capabilities
- Geological interpretation

### GEOCHEMISTRY

- Comprehensive analytical testing
- Mobile on-site sample preparation laboratories
- Full on-site analytical laboratories
- Physical testing (grain size analysis, specific gravity, magnetic susceptibility, etc.)
- Indicator mineral analysis
- Mobile Metal Ion (MMI™) technology
- QMine™ secure web data-downloads
- Independent and secure database hosting
- Proficiency test programs

### RESOURCE & RESERVE

#### MODELING & ESTIMATION

- Orebody modeling
- Database review and verification
- Resource estimation, classification, modeling, reporting and auditing to NI 43-101 or JORC standards
- Geostatistical data handling and variability studies

#### SCOPING STUDIES

- Definition of fatal metallurgical flaws
- NI 43-101 Preliminary Economic Assessments
- Mineralogical characterization
- Preliminary flowsheet development
- Geometallurgical domain definition and sampling guidance

#### PRE-FEASIBILITY STUDIES

- NI 43-101 and JORC Technical Reports and audits
- Ore variability and geometallurgical domain characterization
- Metallurgical sampling assistance, audits and composite creation
- Metallurgical flowsheet development, testing and optimization
- Geometallurgical block models

### DIAMOND EXPLORATION

- Exploration sample processing
- Microdiamond recovery
- Indicator mineral selection
- Macrodiamond bulk sample processing
- Diamond evaluation

### FEASIBILITY STUDIES

- Bankable pilot plant testing
- Production of market samples
- Geometallurgical process and mine planning, simulation and design
- Water treatment strategies
- Power consumption studies
- Joint mining and metallurgical optimization, production and mine planning using geometallurgy
- Mine closure and rehabilitation planning

### ENVIRONMENTAL SERVICES

- Environmental analysis
- Environmental baseline studies, monitoring and auditing
- Water quality testing and treatment
- Acid rock drainage testing
- Environmental mineralogy

### AUDITING & CERTIFICATION

- ISO 9001:2008 (Quality)
- ISO 14001:2004 (Environmental)
- OHSAS 18001 (Health and Safety)
- BS EN 16001:2009 (Energy)
- SA 8000 (Social Accountability)

Many SGS laboratories operate with ISO/IEC 17025 Scopes of Accreditation.





### **MORE GROWTH**

**MORE** focuses on **GROWTH**. When it comes to helping you discover and develop market opportunities, SGS is the partner that can deliver.

### **LEAN EFFICIENCIES**

From improved **EFFICIENCY** to ensuring sustainability, in today's climate, one must reduce costs and be **LEAN**. SGS has proven approaches that work.

When you need **COMPETITIVE ADVANTAGE**, consider SGS as your strategic partner. We offer:

- Expertise
- Experience
- Speed-to-market
- Streamlined processes
- Technical depth
- Efficient logistics
- Bankability
- Transparency

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WHEN YOU NEED TO BE SURE

**SGS**