

SGS MINERALS SERVICES IN AFRICA

SERVICES FOR THE EXPLORATION & MINING INDUSTRY

SGS Minerals Services in Africa specializes in geochemical, mineralogical, metallurgical, environmental support and trade support for the exploration and mining industry. Our technical expertise with the ores of Africa gives us the experience needed to generate innovative solutions to your technical problems. We have over 10 commercial labs and over 25 mine site labs in Africa that provide a wide range of capabilities. Our capabilities help you mitigate technical, environmental, health and safety, social and economic risk.

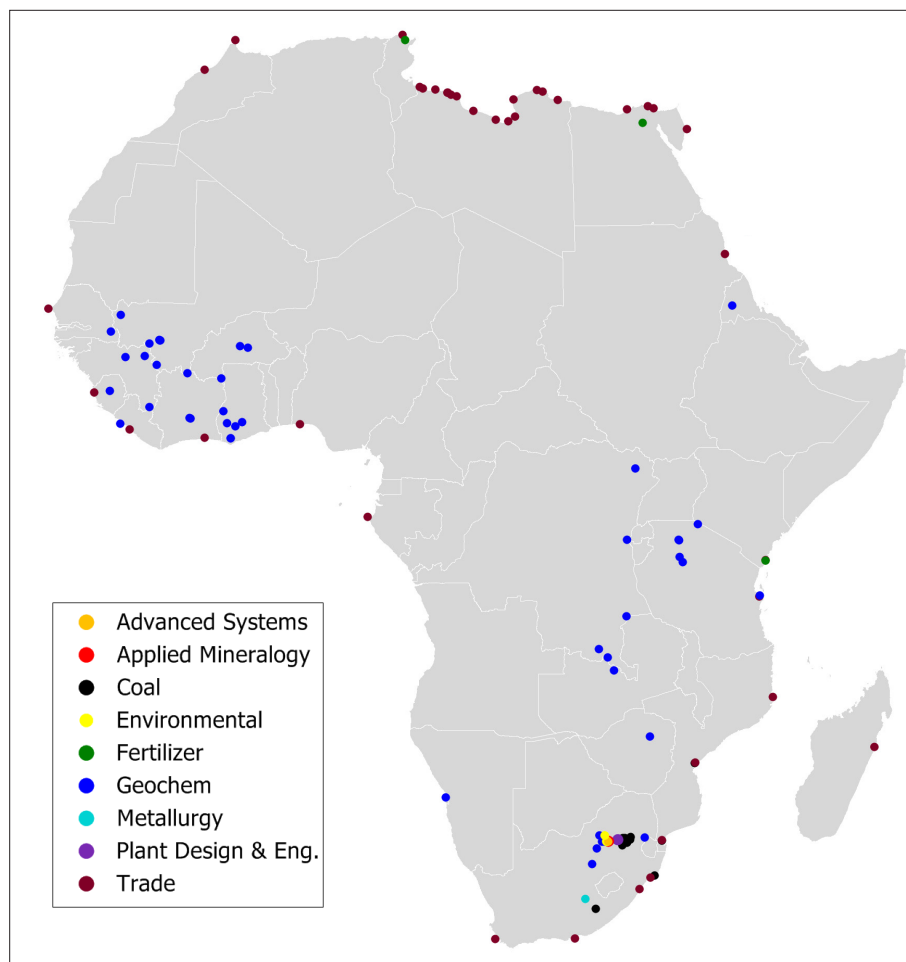
GEOCHEMICAL CAPABILITIES

COMMERCIAL FACILITIES

No matter what you want to analyze, what limits of detection, precision or accuracy you require, SGS Minerals Services is the unparalleled market leader in supplying chemical analysis for gold, iron ore and other minerals. We have the locations, technical strength, independence, consistency and ethical compliance you need. Our unmatched network, sample preparation facilities and mine-site labs link to form a uniform platform that extends into an unparalleled number of countries and mining camps.

ON-SITE LABS

On-site laboratories are niche technical areas that require specific expertise. Outsourcing mine-site laboratories allows you to allocate capital and staff more efficiently, concentrate on your core competencies and ensure that the data you base important decisions upon is accurate and consistent. We apply the same principles, procedures and quality standards in our on-site laboratories that we in to our commercial labs. Allowing SGS to design, staff and operate your lab ensures that you have at your disposal a



full scope of capabilities for the fast turn-around of accurate, reliable geochemical and assay data needed to run and optimize your operations.

MMI™ CAPABILITIES

The Mobile Metal Ion (MMI™) geochemical process is an exploration technique that indicates the presence of deeply buried mineral deposits. However, instead of conventional analysis of mineralization-depth ore samples, the MMI™ technique is applied to near-surface soil samples. The technique enables preliminary discovery and characterization of ore deposits with high accuracy, and can substantially reduce the cost of a definition drilling program.

METALLURGY

For decades, the minerals sector has looked to SGS Minerals Services for our experience in metallurgical flowsheet development, bankable feasibility studies and process control. Our demonstrated success in metallurgical testing has provided thousands of companies and mines with effective flowsheets and practical technical solutions to processing problems. We continue to carve new

ground in the processing industry with our innovative approaches to geometallurgy, process modeling, production forecasting and advanced control systems. SGS' bankable metallurgical services include:

- Flowsheet development
- Bankable pilot plants
- High Definition Mineralogy
- Geometallurgy
- Atmospheric, biological and pressure leaching
- Cyanide recovery, destruction and alternatives
- Comminution and flotation simulation using the Integrated Geometallurgical Simulator (IGS)
- Power consumption studies



ENVIRONMENTAL SERVICES

SGS provides a complete range of laboratory analyses to help you assess your environmental impact including:

- Physical and chemical analysis
- Static and kinetic acid rock drainage testing
- Column testing
- Standard and site specific metal leachate testing
- Water and effluent treatment

TRADE SERVICES

SGS provides inspection and supervision services involved in weight certification, sampling, chemical and quality analysis. SGS offers a full spectrum of trade support services focused on risk management for all mineral commodities including:

- Base metal concentrates
- Precious metals
- Secondaries and scrap
- Automotive and refining catalysts
- Fertilizers
- Coal and coke
- Wood pellets
- Iron ores

COAL CAPABILITIES

SGS works hand-in-hand with you to provide cost-effective solutions to minimize operational and financial risk. Our global technical leadership and industrial expertise provides an unrivalled global benchmark of experience and value to help you control your coal operations.

FERTILIZER CAPABILITIES

Let SGS help you establish your competitive advantage by offering trustworthy and unbiased support to all aspects of your fertilizer operations. SGS' team approach effectively puts the resources of our entire global network at your disposal. Allow our technical expertise to help you reduce your financial and operational risk.



CONTACT INFORMATION

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