

SGS GHANA

TESTING TIMES





TESTING TIMES

SGS is the world's leading inspection, verification, testing and certification company; and in West Africa, demand for its services is as high as ever, as Alan Swaby discovers



Advanced fire assay pouring system for commercial laboratories

Anyone working or simply taking an interest in gold mining will know full well that nothing can be said to potential investors about the value of a prospect that isn't backed up by independent verification. In fact, as service providers go, there can't be many that are as busy as those involved with testing and certification.

In West Africa alone, there is so much gold exploration taking place that the region's number one provider of gold analysis is not only having to work around the clock in many instances but is also having to open new facilities and train many more new technicians to keep up with demand.

SGS is not the only gold analysis organisation operating there by any means but it is the busiest. "Although SGS has had facilities here since the 1960s, SGS Laboratory Services was first established in West Africa in the 1990s," says regional manager Andrew Clavering, "and initially we had six testing facilities. But the demand has grown to such an extent that currently we have 20 facilities and by the middle of the year, after an investment of over \$10 million, another two will have been added and an additional three existing laboratories expanded."

Actually, not only is SGS the leading testing authority in West Africa, it is also the world's leading inspection, verification, testing and certification company. With more than 70,000 employees, and a network of more than 1,350 offices and laboratories around the world, the West African operation is small beer; but as SGS knows,

it's one of the fastest growing parts of the world for these services.

The origins of SGS go back to the 1870s, as a grain shipment inspection house based in the French city of Rouen. In 1919 Société Générale de Surveillance was registered in Geneva and in 1985 its shares were listed for the first time on the Swiss stock exchange.

Since that initial involvement with grain, the scope of the business has mushroomed and there can hardly be a high tech industrial sector where SGS doesn't have some involvement. Testing and certification remain at the cornerstone of operations but this has been augmented with many other forms of consultancy, from logistics to outsourcing. In the great variety of SGS laboratories, all forms of samples are analysed—coal, base metals ores, oils, iron ore, environmental analysis and a myriad of others.

In West Africa, though, the focus is largely on iron and gold ores. Exploration for iron ore is currently a growing market and several dedicated facilities have been established in West Africa expressly for the analysis of such ores. However, gold exploration remains a large part of laboratory work in West Africa. "We do provide analysis of bullion bars at mine site laboratories," says Clavering, "but



Minerals Academy 2012 intake and SGS personnel

the bulk of the work we do is the analysis of exploration samples, plant samples and additional analysis to provide information for gold extraction processes."

As such, test facilities are often attached to a particular exploration area. Speed is often of the essence in winning or losing new contracts: geologists want verification of what they think should be down below so that they can plan and continue

exploration work with the greatest efficacy. The problem is that the process is quite involved and with the best will in the world, the turnaround time for test results can take five or six days to process. Given

the current rate of exploration, lead times for all test houses often extend into weeks.

Test drilling provides geologists with rock samples around 40 mm in diameter. Generally, these are sawn along the axis to provide two semicircular halves. Geologists may pick and chose which sections of the drill core are to be sent for analysis or they may decide to send the whole lot. Either way, though, the samples have to be

70,000

.....
Number of SGS employees worldwide

carefully logged and marked in order to make sure that the data retains its integrity.

In the same way, material that passes through SGS must be equally well marshalled. In fact, a considerable part of the attraction of using SGS as

a test provider comes from the procedures it employs and the certainty customers have about the security of results.

The brief may be to test individual sections of the core or to treat the whole sample. Either way the first step for SGS after logging in the material is to crush it down to <2 mm particles from where it can be broken up into smaller lots if required and then put into a mill where batches of

“IT IS A MEASURE OF ITS FAITH IN THE FUTURE THAT SGS IS PREPARED TO MAKE CAPITAL INVESTMENTS WHEN MANY OTHERS ARE RELUCTANT”



XRF analysis of samples

“THE BULK OF THE WORK WE DO IS THE ANALYSIS OF EXPLORATION SAMPLES, PLANT SAMPLES AND ADDITIONAL ANALYSIS TO PROVIDE INFORMATION”

up to 1.5 kg of the 2 mm grains are ground down to the point where 85 per cent is less than 75 microns. From there, the pulp, as it is known, is fired in a fusion furnace to over 1,000°C, creating a fusion of slag and a lead button which contains the gold. The final part of the extraction process takes place in a cupellation furnace where the noble gold is released from the base metal. From there, the gold content of the ore is measured by an

instrumental technique such as an atomic absorption spectrometer.

Of course, while the rate of growth in West Africa might be outstripping other parts of the globe, it's a matter of relativity. The world over, the search for gold is vibrant and so too is the need for testing and certification. All along the supply chain, demand outstrips supply, so SGS is having to take exceptional steps

to satisfy its customers' expectations.

“Logistics for the entire SGS world,” says Clavering, “is managed from a global procurement infrastructure. We buy in bulk with a global perspective. We buy the most critical equipment in advance of specific applications and hold onto it until such time as a new test facility is to be opened.”

Also in short supply are the technicians needed to man new facilities. As such, the Geneva corporate headquarters of SGS has allocated over \$500,000 to create the first Minerals Academy in West Africa, which opened its doors in April this year. “A group of 15 young graduates,” says Clavering, “has been chosen on the basis of their academic knowledge and related industry experience. They are being given the opportunity of

progressively going through three tiers of training to learn all they need to work in or manage one of our test facilities.”

Clavering has a soft spot for Africa, having lived in several different parts of the continent, and wants to see it flourish. “Political life is volatile,” he admits, “but not always as much as it seems from the outside. The recent Mali coup disrupted logistics as the borders were closed but the labs worked right through. It is a measure of its faith in the future that SGS is prepared to make capital investments when many others are reluctant.” **BE**

For more information about
SGS Ghana visit:
www.sgs-ghana.com



SGS

SGS GHANA

14 Ridge Road, Roman Ridge

P.O. Box 732

Accra

Ghana

T +233 302 77 39 94 / 95

www.sgs-ghana.com

Produced by:

ACHIEVING BUSINESS EXCELLENCE ONLINE

BE Business Excellence

www.bus-ex.com