

Proven proficiency benefits operations

ROBYN WILKINSON | CREAMER MEDIA WRITER

Globally, low commodity prices are putting pressure on mining companies to ensure that all aspects of their operations are performed at the highest standard possible, including the proficiency of their laboratories, says support services provider to laboratories in the mining sector Qotho Laboratory Services MD Dr **Hannelie de Beer**. She notes that, when businesses are facing a difficult market, they tend to take more care to ensure that tasks are performed accurately the first time, avoiding more time or resources being spent than necessary.

In the mining industry, this translates into mines ensuring the best mineral recoveries and product grades, and "they depend on their laboratories to provide the most accurate results . . . in the fastest possible time", De Beer says, adding that there is, thus, "added pressure on the quality and efficiency of the activities within the laboratory".

Although not unique to the iron-ore industry, this trend is notable in the mining sector, indicated by the increasing number of international participants in Qotho's iron-ore proficiency testing (PT) scheme. De Beer explains that this paid-for scheme, which involves six rounds of testing a year, enables iron-ore laboratories (mine and commercial) to check the quality of their performance against that of competitors and peers and to undertake in-house investigations and corrective actions where necessary. "This results in the improved overall quality of the product these mines provide to their clients," she says.

Notably, Africa's fourth-largest iron-ore producer, Kumba Iron Ore, recently discontinued its in-house PT scheme and joined the Qotho scheme this year. "This move has significantly increased the number of mine laboratories partici-

pating in the Qotho iron-ore PT scheme, which now has participants from across four continents," says De Beer.

She explains that PT schemes allow for organisation, development and evaluation tests to be conducted on the same material by several participating mine laboratories according to predefined conditions. PT testing is a requirement of ISO 17025, and De Beer highlights that any laboratory that needs to demonstrate the quality of its analytical results independently can do so by participating in PT schemes, as the quality of the analytical results is directly linked to the quality of the service or product the laboratory offers, as well as the business's market credibility and brand image.

De Beer further notes that each round of PT is conducted on a comparative basis. Qotho obtains geological material from one of the iron-ore mines participating in the round of testing, and prepares and homogenises the material in accordance with to ISO 17043 requirements. This ensures that, when material is sent to each of the participating laboratories to analyse, each laboratory receives a sample that is nearly identical. Each laboratory then analyses the sample and sends its results back to Qotho.

Using statistical analysis, Qotho processes the data it receives from the participating laboratories and can advise them on their performance in relation to competitors, based on the results of the analysis.

Laboratories that deviate significantly from the average analysis results on the sample material are then advised to investigate their operations and implement corrective actions and more stringent quality controls. An internal audit might reveal that their methods require improvement,



IMPROVING CREDIBILITY

Qotho's iron-ore proficiency testing scheme enables iron-ore laboratories (mine and commercial) to check the quality of their performance against that of competitors and peers

staff retraining or the servicing of equipment.

"Once the laboratory addresses whatever problems it has identified

through the internal investigation, its performance should improve," De Beer says. ■

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