

# MINING

REVIEW AFRICA

FOR WORLD CLASS EXPLOSIVES 

[NEWS](#)

[FEATURES](#)

[JOBS](#)

[TENDERS](#)

[MAGAZINE](#)

[EVENTS](#)

[REPORTS](#)

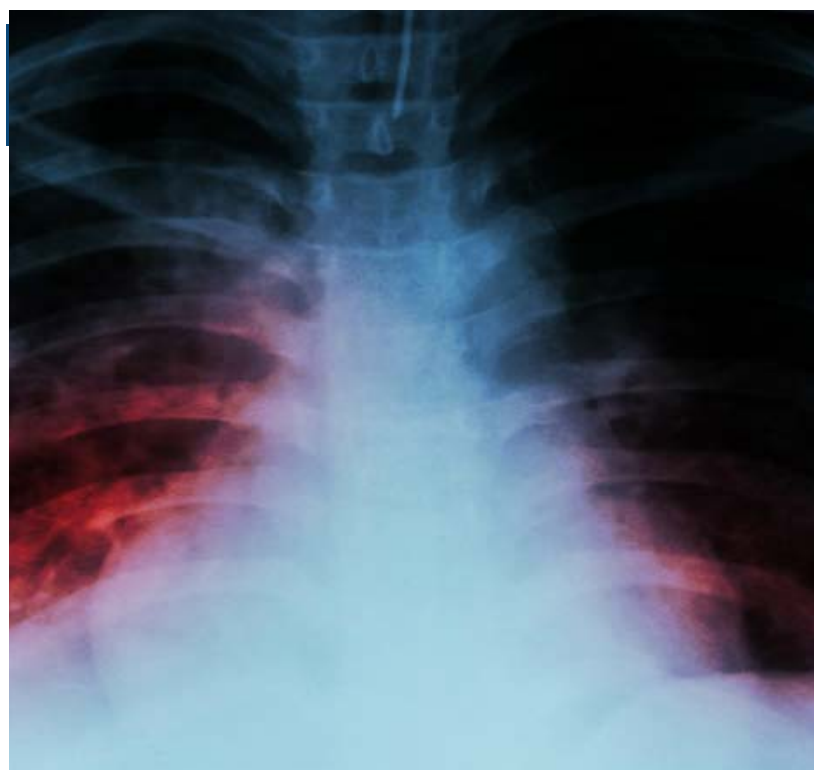
[MORE](#)



[LATEST ISSUE](#)

[ARCHIVE](#)

[MAGAZINE  
SUPPLEMENTS](#)



10 OCTOBER 2016

# Building capacity in dealing with the legacy of asbestos mining

**Applying a range of integrated specialist skills from across its national footprint of offices, SRK Consulting (SA) is assisting the Department of Mineral Resources (DMR), through one of its implementation agents, to rehabilitate several abandoned and derelict asbestos mine sites around the country.**

Appointed as principal consultant to conduct full rehabilitation design – as well as construction monitoring and project close-out services, the construction contracts were levered to assist with capacity development of numerous emerging contractors during implementation.

SRK was able to assist its client, MINTEK – which is the DMR’s implementing agent in this instance – to ensure that procurement was compliant with prescripts of the Construction Industry Development Board (CIDB); the CIDB’s mandate includes promoting efficient and effective construction procurement while transforming and improving the construction sector.

“Our designs for each of the rehabilitation projects – some of which were quite large – were prepared such that they facilitated access by smaller contractors, providing to them a manageable scope of work without risking the quality of their performance or their ability to maintain a safe working environment,” said SRK principal engineer Louis Kirsten. “This required us to ‘package’ the work in a particular way, being sensitive to the needs and capacity of this sector – while at the same time including a supportive, capacity-building element.”

Given the environmental sensitivity of the projects – and the risk posed by asbestos to health – the compliance levels required of Contractors were high and nonnegotiable; the work included, for instance, the containment of asbestos fibres in residue deposits at the old workings, as well as safe closure of the remaining adits and shafts.

“With this in mind, we were able to collaborate with the Client to improve the on-the-ground skills and capability of the service providers to become and remain compliant – not just in terms of the CIDB but also registration with the Department of Labour,” he said. “While SRK was not appointed as the health and safety agent on the projects, we were directly affected while assisting with the rehabilitation, which required rigorous internal personnel health and safety management and compliance.”

The conditions are particularly challenging, he said, and failure to comply with the various requirements at any stage during the performance of the contracts could not be taken lightly.

“There can be no ‘soft options’ for anyone working on these projects, so it has been extremely encouraging to see how so many emerging Contractors have responded so well to the support offered,” he said. “Most have stepped up to the plate and met the demands – complying with a range of ability based requirements to secure these contracts and to carry out the necessary functions.”

When it comes to the core aspects of SRK’s work, the company typically starts with an investigative phase on

each project site, in which a rehabilitation scoping process is conducted to broadly determine the extent of the rehabilitation that will be both necessary and practical.

“We conduct investigations to identify elements such as the degree of asbestos contamination on the sites, the characteristics of the abandoned material, the general dump conditions, as well as the suitability and amount of clean material which could be used in the rehabilitation process,” said SRK senior environmental scientist Raymond Mayne.

This inception phase is followed by a preliminary design phase in which a construction plan is developed. SRK undertakes an options analysis to assist with identification of the preferred option, after which preliminary designs and initial cost estimates are developed and presented for approval.

Detailed designs duly follow, from which bills of quantity are developed and priced by cost management consultancy Turner and Townsend, who also assisted SRK to prepare the construction specifications and compile the procurement documentation.

Construction monitoring – also part of SRK’s mandate under this agreement – is vital for quality control, and includes quality assurance, certification and contract management, according to Kirsten.

“As the designers of the engineering solutions, we place a high level of importance on quality assurance during the construction process,” he said. “This ensures that the project outcomes are achieved and that the Client gets good value for money while remaining strictly compliant with public finance management regulations.”

SRK offers a unique combination of skills to this area of work through a range of in-house services that are related to the process of rehabilitation and remediation, said Mayne; relevant disciplines include geology, geotechnical engineering, hydrology, hydrogeology, civil engineering, mining and social and environmental sciences. The company also harnesses experts from its offices around South Africa to optimise delivery levels.

“The project sites are located in various parts of the country, so we are able to draw on our broad range of skills in a number of our offices country-wide, making use of the most conveniently located expertise,” he said. “Also key to our success in these kinds of projects is the way we integrate the input of all these disciplines to ensure that the Client receives the best possible solutions for each site.”

For instance, SRK’s detailed understanding of environmental regulations – and its extensive experience in working within these frameworks – informs its selection of participants from various specialist disciplines and services to be applied to the project, said Mayne. “We are frequently involved in mine closure activities, which ideally have been planned and adapted by the mine itself during operations, as modern practice dictates,” he said. “But in the case of derelict and abandoned mines like these, the situation is more difficult. There is no opportunity to give advice on how to avoid or mitigate the impacts of mining – as we usually do; the damage has been done, and we simply have to appropriately address the consequences of that reality.”

Added to this challenge is the fact that the financial responsibility for this work has fallen to the State, in the absence of the party originally responsible for the damage. Government is making a commendable effort in this regard, he said, but the expenditure that can be committed to some of these projects is sometimes limited as it competes with a myriad of abandoned mines requiring closure as well as other pressing social needs that must also be addressed.