

Buoyant take on Northern Cape's mining potential

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As the prospects for South Africa's minerals sector start to brighten, there was considerable mention of the Northern Cape's potential at the recent Joburg Indaba mining conference.

"It was encouraging to hear a similar message from major mining companies and juniors alike – that there is still considerable scope for exploration and mineral development in the Northern Cape province," said Joseph Mainama, principal mining engineer at SRK Consulting.

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Mainama noted that Anglo American chief executive officer Mark Cutifani mentioned in his conference address that the Northern Cape was considered to be under-explored, and that his company was interested in exploration opportunities for base metals like copper – within South Africa and in the rest of Africa.

“Kumba Iron Ore’s executive head of technical and projects, Glen Mc Gavigan, also spoke of the Northern Cape being under-explored in the Kolomela and Sishen areas,” said Mainama. At the same time, Mc Gavigan pointed to the Northern Cape’s potential for solar-generated electricity, as the region is the second most intense solar area in the world after the Nevada desert.”

This presents opportunities for mines to generate renewable energy for their operations, commented Mainama, an important step in addressing power issues that discourage mining investment.

“At the conference, Australia-listed Orion Minerals reported good progress on its brownfields Prieska copper-zinc project in the Northern Cape,” he said, “Managing director Errol Smart was also upbeat about government’s role in supporting exploration in the province, and he expected to see much more exploration there in the near future – which could bring a range of economic benefits even in the short-term.”

Mainama noted similar positive messages from Vedanta Zinc International’s business head, Laxman Shekhawat, who spoke about his company’s plans for a smelter in the Northern Cape. There was also encouraging news from a demand perspective.

Andre Joubert, chief executive of African Rainbow Minerals’ ferrous division, highlighted a current under-supply in the iron ore market – putting pressure on miners to find replacement ore from Northern Cape mines.

“Presentations like these suggest that the province certainly has much to offer in terms of mineral investigation,” said Mainama. “In his talk on the area’s geological potential, Council for Geosciences CEO Mosa Mabuza highlighted preliminary observations for potential in nickel, chrome, cobalt, pegmatite and lithium.”

He noted that infrastructure development remains a vital imperative for mineral development in the region, especially rail capacity for bulk minerals. The more efficient and cost-effective the infrastructure, the lower the grade of deposit that could be viably exploited.

SRK Consulting director and principal consultant Andrew van Zyl emphasised the importance of pro-



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active state interventions to constantly improve rail capacity, as lack of capacity can place mining projects in a Catch-22 situation.

“Without existing rail capacity at a defined cost, for instance, it becomes difficult to raise the equity required that would make the signature of take-or-pay agreements possible,” said Van Zyl.

There was good news for South Africa’s mining future from emerging technologies, however. He said the potential for underground mining is being enhanced by remote technologies and the improvement of underground communication and visualisation.

“This is important, as underground ounces tend to have a smaller carbon footprint and above-ground social and environmental impact,” said Van Zyl. “Remote technology has the potential to bring in a new generation of underground mines by addressing a key stumbling block: safety.”

He was also encouraged by the potential for mines to generate their own renewable energy.

“Along with the use of hydrogen for energy delivery and energy storage, renewables represent an exciting new frontier in cleaner and more efficient mining,” he said. “It could even become a cheaper source of energy for mines, which could arrest years of steadily increasing energy costs that mines have had to endure.”

The trialling of hydrogen-powered trucks at Anglo American’s Mogalakwena platinum mine was among the innovations highlighted at the Joburg Indaba.

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