

CREAMER MEDIA'S MINING WEEKLY

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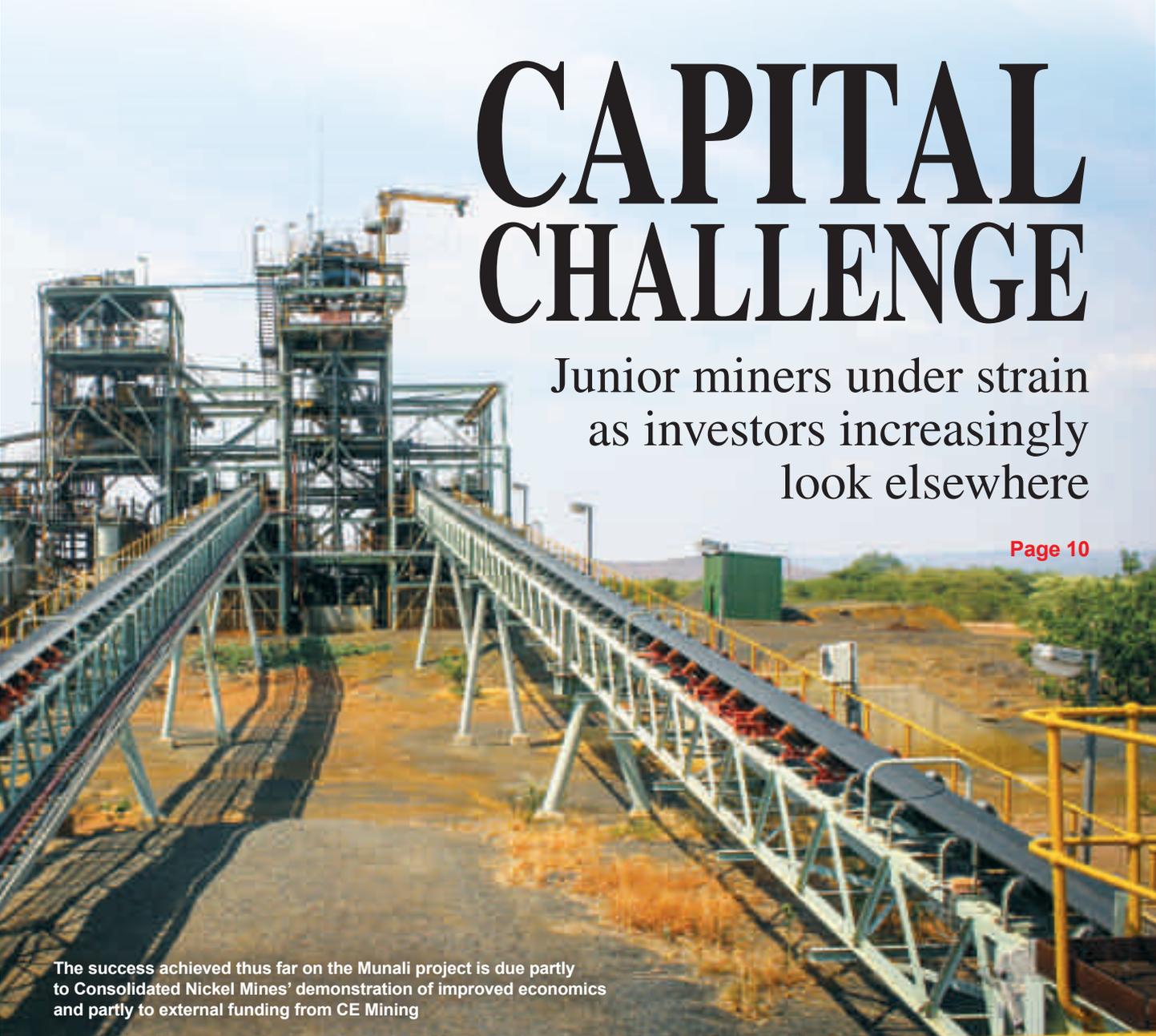
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CAPITAL CHALLENGE

Junior miners under strain
as investors increasingly
look elsewhere

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The success achieved thus far on the Munal project is due partly to Consolidated Nickel Mines' demonstration of improved economics and partly to external funding from CE Mining

Sonic drilling represents untapped potential Page 48

Local procurement targets achieved in 2016 Page 50

HEAVY MINERALS MINING

Compiled by TASNEEM BULBULIA

Fungoni springboard for larger-scale projects

TASNEEM BULBULIA | CREAMER MEDIA REPORTER

GOING GLOBAL

Fungoni is expected to produce high-quality titanium and zircon products for the global market

Mineral sands company Strandline Resources intends to use the knowledge and experience gained from the development of its Fungoni heavy mineral sands (HMS) project, in Tanzania, and the operation of an active mineral sands mine to springboard the development of a succession of larger-scale projects, including its “exciting” Tanga HMS project, in northern Tanzania.

Strandline MD and CEO **Luke Graham** tells *Mining Weekly* that Strandline has a rapid development plan for Fungoni, a relatively boutique high-grade, zircon-rich project, just south of Dar es Salaam, and is actively defining and derisking the project to prepare it for execution. The project, which in January announced a 45% increase on its previous mineral resource estimate of 11-million tons at 3.1% total heavy minerals (THM), is expected to produce high-quality titanium and zircon products for the global market.

Fungoni now boasts a 16-million-ton mineral resource, grading at 3.1% THM, with a mineral assemblage of 22% zircon, 40% ilmenite, 4% rutile and 1% leucoxene.

The project is part of Strandline’s 2015

acquisition of Tanzanian mineral sands explorer Jacana Resources, which was spun out of ASX-listed Syrah Resources in October 2014.

“Strandline is now well established in Tanzania and has forged strong in-country working relationships, aided by our growing appreciation for the cultural and social operating environment. Our focus is on continuing to build our reputation in the mineral sands industry and deepen our connection with Tanzania and its people.”

Graham avers that this has, to date, enabled the project team to effectively handle the various project challenges. Moreover, the team has benefited from supportive stakeholders, an easily accessible site and a favourable shallow orebody occurring from surface.

The company regards Fungoni as the first significant mineral sands operation to be developed in Tanzania and strategically important not only to the company but also the country.

Graham notes that, despite the relatively small scale of the project, its development will still “put the country on the map” in terms of mineral sands. Further, it will

serve as an endorsement to investors in Tanzania of the feasibility of mineral sands developments and demonstrate that the country does have a pipeline of attractive projects.

“The project will create exciting opportunities for the local community and Tanzania . . . as we forge new frontiers through the commercialisation and exportation of mineral sands to the global market,” he says, adding that the jobs created, and skills and knowledge gained will benefit future developments.

To redress the trend of declining ore grades and project quality in the mineral sands sector worldwide, Strandline is developing Fungoni with strong financial discipline and countercyclical development pursuits.

In line with this plan, Strandline has engaged financial advisory firm Argonaut Capital to support the company’s financial assessment and strategic planning, while engineering, consulting and contracting company GR Engineering Services has been appointed to manage and integrate the overall feasibility study (FS) packages.

The FS is under way and Strandline

Mineral sands merger to facilitate next phase of growth

The merger between mineral sands resources companies Sierra Rutile and Iluka demonstrates that Sierra Leone is open for business and able to attract investment from high-profile multinational companies that are keen to participate in the development and growth of the country, says former Sierra Rutile CEO **John Sisay**.

Iluka has, through the merger, assumed the net debt, about \$59-million, of Sierra Rutile, which will operate as a wholly owned subsidiary of Iluka.

The merger is posited to represent an exciting phase of development for Sierra Rutile and Iluka, which expects to invest

about \$60-million over the next two years to expand on recent improvements to Sierra Rutile's operations.

Sisay believes the merger, completed in December at a cost of A\$393-million, will ensure that the operations in Sierra Leone are optimised to their fullest potential, adding that Iluka is a financially strong, established operator in the mineral sands sector, with a successful record that ensures it is well placed to continue the development of Sierra Rutile's long-life assets.

Iluka plans to progress detailed feasibility studies for a number of mine development and expansion options that should

see a significant increase in rutile output. Expansion decisions will be dependent on the outcome of feasibility studies and market conditions, with consideration to other options, all in Sierra Leone, within the Iluka portfolio.

These expansion opportunities include the Lanti dry mining operation, where the current planned expansion targets an additional 250 t/h of ore throughput. Iluka is considering a larger expansion of 500 t/h.

At Gangama dry mining, the current planned expansion is for an additional 250 t/h throughput, but Iluka is again considering a larger expansion of 500 t/h. The final expansion opportunity noted by the companies deals with Sembehun dry mining, specifically the development of a new group of deposits with 1 000 t/h throughput.

"One of my key areas of focus will be on ensuring the continuity of operations and building positive, mutually beneficial relationships with the government of the Republic of Sierra Leone and its main agencies, with regional and community

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expects a final investment decision (FID) in the third quarter of 2017.

Following the FID and start of the project delivery phase, Graham posits that first production is expected within 14 to 18 months.

GR Engineering is also tasked with developing the most economical process plant and infrastructure solutions for the project, while mining consultancy AMC Consultants has been contracted to identify an optimised high-grade ore reserve, mine plan and mining method.

Engineering and environmental consultant Knight Piésold has started developing the auxiliary engineering packages on hydrogeology, hydrology, geotechnics and the tailings storage facility design.

Graham indicates that, regarding the metallurgy and process plant, the engineering design concept is based on a fit-for-purpose transportable modular process plant using proven mineral sands technology and safe design principles. Independent consulting company TZMI has started bulk metallurgical testwork at its Allied Minerals Laboratories in Perth, Australia, to define the best process flow sheet and produce product samples for marketing.

Project logistics, port infrastructure and transport options are being evaluated



RESOURCE RICH

Strandline's high-grade, zircon-rich Fungoni project has a mineral resources estimate of 16-million tons, grading at 3.1% total heavy minerals

to further define the most practical mine-to-market supply chain.

Strandline is also prioritising Fungoni's project approval process regarding the environmental approval and land access agreements.

The company has performed an environmental baseline survey and lodged a preliminary environmental impact assessment (EIA) with the Tanzanian

environmental regulatory authority in July 2016. Graham says the National Environment Management Council (NEMC) has progressed the Fungoni environmental evaluation process, and formal field inspections have been concluded by the Technical Audit Committee. Strandline is updating Fungoni's EIA for resubmission to the NEMC. ■■

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