

# BISHA MINING

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CORPORATE BROCHURE



# The golden horn

Eritrea's economic prospects are looking up with the approaching opening of Bisha Mining's operation. General manager Stan Rogers gives Ruari McCallion the lowdown

Eritrea, located in the north-east of the continent on the northern shore of the 'Horn of Africa', has had a troubled post-colonial history. Initially subsumed into Ethiopia, it finally achieved self-determination after decades of struggle in 1993. European powers and neighbouring states coveted its mineral deposits and deep-water access to the sea; ironically, the deposits remained essentially undisturbed for 70 years during the decades-long upheavals of the Second World War and the post-colonial period, so the object of exploitation was not achieved.

And every cloud has a silver lining, as the saying goes. Eritrea has had a stable government since independence and its attractiveness as a source of minerals is once more gathering attention. The new wave of exploration has a different aspect to it, however; it is a long way from the colonial era and from other models of foreign direct investment. The government, both directly and through the Eritrean National Mining

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The Bisha Project in Eritrea has been a momentous opportunity for SENET, furthering the company's reach throughout the African continent. SENET commenced work in 2007 on the initial design and engineering for Nevsun Resources Limited through its Eritrean subsidiary Bisha Mining Share Company (BMSC). Currently, Bisha is in the advanced construction stage of the oxide (gold) phase which is poised for completion late 2010. This will be closely followed by the supergene (copper) phase. SENET is privileged to be part of BMSC's Bisha Project as it sets the benchmark as the first modern day mine in this NE African country.

Corporation (ENAMCO), is able to take a share in all mining exploitation, as Stan Rogers, general manager of Bisha Mining, explains.

"In the case of Bisha Mining Share Company [BMSC], ten per cent of the company is owned by the state under 'free carry' interest and a further 30 per cent of Bisha is being purchased at fair value by ENAMCO from Nevsun Resources Ltd, which retains the other 60 per cent," he says. "We will go through an international assessment for the value of the property at first pour, when the balance will be paid. During the construction process, costs have been split two to one, between Nevsun and ENAMCO."

Rogers has been impressed with the way the partnership has worked thus far. "Trust has been the essential element. It was vital that both sides trusted



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each other, especially as this was a new experience for both sides,” he says. “All the way through, BMSC has found the government to have been very cooperative. They have stuck to every agreement. This is the most honest nation in Africa I have ever worked in. There are low levels of observable crime, the lowest levels of financial corruption I have ever come across and deals stick. It’s very straightforward—there are no hidden agendas and we have developed this very high degree of trust.”

The project has proceeded pretty rapidly since the exploration company (and Bisha Mining’s private-sector parent) Nevsun Resources completed its feasibility study in October 2006. The social and environmental impact assessment was completed the following December and the mining licence was granted a year later, after the state’s participation agreement was concluded in October 2007.

The Bisha mine is located about four hours’ drive (220 kilometres) west from Asmara, Eritrea’s capital, which is at an elevation of 7,000 feet—so the area enjoys a climate that isn’t beset by extremes of heat and cold. The project is in a large precious and base metal-rich volcanogenic massive sulphide (VMS) deposit, with a gold and silver oxide zone underlain by a copper supergene and then copper and zinc sulphide zones. It is planned to be a producer of gold for the first two years, by the end of which time it will have generated enough value to repay the initial costs, including construction, which commenced in 2008.

“The mine is being developed on the basis of a 10 year life, which is pretty standard,” says Rogers. “The reality is that there is more to find and things change. We know there are additional minerals at depth, which haven’t been taken into account—the deposits we will be exploiting are at relatively shallow depths and will

be extracted with open-cast methods.” And there are satellite deposits, as well. “The mine has no coarse gold—it is very fine grained, which makes it secure and unobservable until it reaches the gold room, after which it has to be refined. In the ore, the gold is within a matrix of other materials and yields about eight grams per tonne—which is actually very high; most people would love to have that concentration from open cast mining. We expect to produce around 500,000 ounces a year for two years, so over one million ounces in 24 months.” Which adds up to a lot of value. At the end of the initial gold extraction period, the emphasis will shift to copper extraction.

The price of copper has fallen dramatically since its high in September 2008. “Viability has never been an issue—metal prices change all the time,” Rogers explains. “We looked at the total package: we have gold at the top, then copper and zinc, plus silver to exploit. It ultimately depends on the market but the costs are relatively low and we anticipate making money throughout the project.”

Making money is important, for all parties. The Bisha mine will be a valuable earner of foreign currency for Eritrea—indeed, the only foreign exchange earner of any significance. It also acts as a catalyst for change in the country, for the raising of skills levels and the development of its rich mineral deposits, which have lain undisturbed for so long. But there are challenges, and skills are at the heart of them.

“We have, in effect, a clean sheet but that means we are trying to develop an entire system,” says Rogers. “We have to bring everything in to a relatively isolated area. There are skills in Eritrea but a degree of conversion is required, for engineering and administration. However, there are no mining people here so we have had to bring in expatriates for geology, control of basic functions and operation of specialist big machinery, which we have purchased from Caterpillar and Atlas Copco, for example.” Eritreans will eventually have to be sent for specialist training in mining to institutions in South Africa and other countries; and will return with higher skills and knowledge. BMSC currently employs around 1,000 people, of whom around 54 are expats. “When we have finished all phases of construction in about another five years, we expect there will be around 10 expats going forward,” says Rogers.

“This is a great project,” he concludes. “Our eyes are firmly set on starting production later this year and it will be fascinating to see how it, and Eritrea, develops in the years ahead.” [www.bishamining.com](http://www.bishamining.com)

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