

## ERITREA

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Exploration for minerals started in 1996 after the liberation of Eritrea and the event is recalled as a turning point towards the development of the mineral industry of the country. For many years mining activity had not existed. Prospecting for new deposits and investigation of known deposits continued with much energy and determination until 1998 when activity was curtailed, partly because of a general global decline in mining and partly because of the war with Ethiopia. The presence of mining companies in Eritrea during the war was principally to secure mineral title.

The situation has changed following the cessation of hostilities and border demarcation agreements signed between the Governments of Eritrea and Ethiopia in 2000. Exploration resumed in 2002, and the announcement of a new high-grade discovery at Bisha by Nevsun Resources Ltd encouraged financial support for those other junior exploration companies in Eritrea, eg Sunridge Gold Corp (Asmara project) and Northern Mining Explorations Ltd. The latter was able to allocate much more money to be spent on the ground. In addition, the Bisha discovery prompted a rush to acquire new areas along the main shear zone to the north and south. Currently, the total area under exploration licence is 9,363 km<sup>2</sup> and an additional 5,429 km<sup>2</sup> is being applied for, bringing the land area under exploration in Eritrea to about 12% of the total surface area.

So far Nevsun has accomplished a total of over 50,000 m of diamond and reverse circulation drilling at Bisha in western Eritrea. The more recent 30,000 m drilling programme (January-June 2004) was carried out using two Boart Longyear drilling rigs and was designed to delineate more fully the gold-bearing oxide and supergene massive sulphide copper over 1,200 m of strike length in the Bisha main deposit, with infill drilling on 25 m sections. A simplified model of mineralisation for the Bisha Main deposit shows that it is overlain by a gold enriched oxide cap (0-35 m), supergene copper-rich massive sulphides containing gold and silver (35-65 m) and primary massive sulphides containing significant copper and high-grade zinc with appreciable gold and silver (65-375+ m).

Nevsun has brought in an independent consultant and a volcanogenic massive sulphides expert to verify the results already reported and to determine mineable reserves. Based on the deposit model, theoretically there could be at least 25 Mt of ore. Results from drilling indicate that the metal content ranges from 1.56-52.88 g/t Au and 0.5-330 g/t Ag of silver in the oxide zone, from 0.01 to 28.53% Cu in the supergene zone and 0.2-21.5% Zn in the primary zone. An official resource statement is scheduled shortly. Base line data collection for environmental studies, hydrological study and preliminary site selection for processing plant and tailing dam have been carried out.

Starting in early October, after the rainy season, Nevsun is planning to mobilise a third diamond drill for metallurgical and geotechnical sampling. Since the Bisha main zone remains open to the north, south and at depth exploration and definition drilling will also take place. The proposed programme suggests drilling off the northwest zone and a number of other exploration targets, including the newly defined southwest (Herena) zone. Nevsun also has done the necessary preparations to drill on its other two properties located near Bisha, Okreb and Augara.

The next highly-promising project in Eritrea is the Asmara gold project, located close to the capital city Asmara, in the central highlands. It consists of four exploration licences: Debarwa, Adi Nefas, Medrizien and Adi Rassi. In August 2003, Sub-Sahara Resources NL and Africa Wide Resources Ltd signed an option agreement with Sunridge, which gives the latter the right to earn up to a 90% interest by financing the project through to mining. Sunridge has so far funded the project in two phases, over US\$1.15 million for September to December 2003, and around US\$3.45 million for the year 2004. In 2003, 54.8% of the money was spent on the Debarwa property, with the remainder almost equally distributed between Adi Nefas and Medrizien. In accordance with the work programme and the priorities given to each of the four licences, the budget allocated for the year 2004 is: US\$1.32 million for Debarwa, US\$1.1 million for Adi Nefas, US\$780,000 for Midrizien and 250,000 for Adi Rassi. (The Adi Rassi licence was granted to the JV on November 16, 2004.)

Exploration activity has been carried out on both a regional scale and on a prospect specific basis. At the end of 2003, an extensive 200 m line-spaced airborne EM survey was completed by Fugro Airborne Surveys Pty Ltd covering the entire project area. A total of 5,445 line km of EM was flown using the Fugro Tempest EM survey equipment. The survey was able to penetrate the Miocene basalt cap that covers up to one-third of the project area. Fugro also conducted an aeromagnetic survey. Interpretation of the EM survey was completed and ground truthing; follow-up ground geophysics and drilling is in progress. Ground gravity, sirotem, IP/resistivity and ground magnetics surveys are also taking place over known prospects throughout the project area.

Sub Sahara drilled nine holes in the last quarter of 2003 totalling 451 m to depth to test the gold and base metal potential of the oxide and supergene zones and the zinc-copper anomalies of the Debarwa deposit. Intensive reverse circulation and diamond core drilling have continued at Debarwa, to define the supergene mineralisation, test the potential of the primary mineralisation and calculate the resource. Five drill rigs, including three multi-purpose rigs (diamond/RC/RAB) are operating. The most recently drilled holes confirm the presence of high-grade supergene copper at the Debarwa main zone, with appreciably higher gold values. Drilling highlights include 18.89 m at 15.30% Cu, 9.69 g/t Au and 124 g/t Ag; 12.80 m at 12.83% Cu, 4.55 g/t Au and 69 g/t Ag; and 13.5 m at 12.33% Cu, 1.85 g/t Au and 59 g/t Ag from three holes in the supergene zone, and 16.92 m at 3.96% Cu, 1.13 g/t Au, 7.60 g/t Ag and 5.48% Zn; and 2.82 m at 2.31% Cu, 1.21 g/t Au and

32.2 g/t Ag from two holes in the primary zone. The company believes that the current copper grades are higher than the historic summaries estimated by the Japanese in the 1970s, by Western Mining Corp in 1996 and by Phelps Dodge Exploration Corp. Snowden Mining Industry Consultants was contracted to complete a scoping study on the Debarwa deposit.

Sub Sahara Resources NL's exploration activity also includes the Zara gold project situated 242 km northwest of Asmara. It has the option to earn up to a 70% interest in Dragon Mining's 66.66% interest in the project. Dragon's partner in the project is Africa Wide Resources Ltd. Sub Sahara has taken over as manager of the exploration programme and has planned to drill the various prospects. However, efforts to commence drilling have been thwarted by access problems and limited drill contractor availability. Most of the drill targets are perched on the side of steep mountains and access is by foot and camel only. Of some 180 rock-chip and channel samples collected, 64 have returned assays in excess of 1 g/t, including 20 in excess of 30 g/t and a peak value of 1,185 g/t Au. There has been artisanal activity in the area, with narrow pits excavated along the most prominent gold-bearing quartz vein. Three main groups of workings occur over a strike distance of 8 km and the gold mineralisation is contained in quartz-veined sericitic schist close to the contact with a metabasalt.

Sanu Resources Ltd has five exploration and four prospecting licences over approximately 4,900 km<sup>2</sup>, including shear-hosted gold and volcanogenic massive sulphide prospects. Sanu's field work is designed to identify precise drilling targets. In southern Eritrea, on its Fanco and Guluj licences, it has identified five prospective areas for shear-hosted gold mineralisation. The regional and detailed exploration work includes stream, soil and rock-chip sampling; mapping; infill soil geochemistry and trenching. Grab samples from quartz veins and artisanal waste dumps have returned values of 0.16-30.8 g/t Au.

Sanu's central licences, Kerkebet and Mogoraib, contain the Bisha north (north of Nevsun's Bisha deposit) and Mai Melih gossans. In addition to mapping, trenching, soil and rock-chip sampling, a 1,700 line km airborne Tempset electromagnetic and magnetic survey has been completed by Fugro Airborne Surveys over three areas. Preliminary results have identified two new anomalies under alluvial cover. The Bisha north and Mai Melih gossans are both anomalous in zinc, lead and copper. Gravity surveys to detect the presence of high-density massive sulphides at depth are being completed over Bisha north and Mai Melih by MWH Geo-Surveys.

In addition, Sanu continues regional exploration on its northern licences, with field teams working in the Hurum licence area and parts of the Dieba Satta and Kerkebet licences. The field-work includes regional and prospect mapping, soil, stream and rock chip sampling.

Eritrean Minerals Corp (EMC) and its JV partner, Northern Mining Explorations Ltd of Canada, have begun exploring the Harab Suit licence area, which covers an area of 420 km<sup>2</sup> in northwestern Eritrea. There are at

least three important shear zones, one of them hosting the abandoned Italian gold mine that operated in the 1930s. The main shear zone of interest outcrops for a strike distance of some 9 km, has an apparent width of 35-110 m and contains gold mineralisation at several intervals along its length. Previous work has include the mining operation of Tcmanti Co of Italy (1935 -39), geological mapping by the Mines Commission of the Eritrean People Liberation Front during the liberation struggle (1988) and EMC's diamond drilling following reconnaissance work in 2000, when of 563 m were drilled in seven holes. Recently, 1,002 rock-chip and grab samples have been collected from six localities within the concession area. The samples were collected by cutting a channel approximating to NQ drill core (about 4 cm in diameter). The channel is formed by two parallel diamond saw blades and the rocks in between are chiselled out. The samples are prepared in Eritrea by Africa Horn Laboratories and shipped to Australia for analysis. Results are pending.