

In the sun

20:20
INVESTOR SERIES

AFRICA DAY

Africa represents 20% of the world's land area but contains an estimated 30% of the mineral reserves by value

AS THE chairman of last week's 20:20 investment seminar in London noted, the continent's name is thought to have derived from the Phoenician name for dust ('afar') and the Roman suffix for country ('ca').

Chris Hinde reminded the more than 100 delegates that the continent's 53 nations have a combined area of over 30 million km² and contain 922 million people (in 2005), representing 14% of the world's total population. Dr Hinde (who is editorial director of Mining Communications Ltd, which organises the 20:20 events and also publishes *Mining Journal*) observed that despite its abundant natural resources, Africa is the world's poorest and most underdeveloped continent.

Development of Africa's natural resources offers its best chance of economic recovery, and six mining companies at 20:20 presented their contribution to this effort.



The first of these corporate presenters was Michel Cuilhé, who is president and chief executive officer of **La Mancha Resources Inc.** The Vancouver-based company acquired the gold assets of Areva SA in September 2006, and the French state-owned nuclear fuel and services

group still holds a 63% stake in La Mancha following this transaction. Mr Cuilhé noted that much of last year was spent in analysing the new assets and creating an appropriate development team. He told delegates that this year would be focused on development.

The company's assets include three operating mines: the 40%-owned Hassaï mine in Sudan, 45.9%-owned Ity in Côte d'Ivoire and the 51%-owned Frog's Leg underground operation in Kalgoorlie, Western Australia. The latter (of which Dioro Exploration NL holds 49%) poured its first gold in mid-May, and Mr Cuilhé expects it to produce 22,400oz this year (lifting the company's budgeted gold production for 2008 to 87,000oz).

Almost half of La Mancha's gold output in 2008 will come from the Hassaï open pit, which has produced 2Moz to-date. Mr Cuilhé noted that the operation is in the northeast of the Sudan, and a "long way" from the trouble spots. Indeed, he described the country as "safe,"

La Mancha's Ariab/Hassaï Mine, Sudan



and noted that the company has been there since 1992.

La Mancha has been active in Côte d'Ivoire since 1991, and the Ity operation (which has total production to date of 0.6Moz) is expected to yield 24,600oz this year. Exploration of the new Walter anomaly and Zin extension is ongoing, encouraged by good intersections earlier this year.

Mr Cuilhé expects La Mancha to be cash positive from August, and the company has an exploration budget of C\$10.6 million (US\$10 million) this year, with its partners contributing a further C\$8 million. A total of almost C\$3 million has been spent on a 7,000m drilling programme at Hassaï to explore the deposit's volcanogenic massive sulphide potential. The initial results are due in the September quarter. An update of the ore reserves at Frog's Leg is expected by end-December, and La Mancha will then update the existing feasibility study.

La Mancha has 30 exploration properties, including the wholly-owned White Foil project in Western Australia (acquired from Areva and Barrick Gold Corp), where a resource estimate is expected later this month.



The second speaker at the 20:20 investor seminar on Africa was Fergus Jockel, who is the business development manager for **Zambezi Resources Ltd.** Mr Jockel noted that some £20 million (US\$39 million) has been spent on copper exploration over the past four years, with a

focus on Zambia (despite its name, the company is also active in Mozambique).

Despite recent changes in Zambia's mining taxation, Mr Jockel said that Zambezi Resources was "managing the political risk". To help describe the company's African strategy, he referred to two of the continent's sayings: namely that a successful man must have the hide of a rhinoceros and the stomach of a hyena; and that a hunter must walk slowly and run quickly.

Zambezi Resources' properties in Zambia extend to 16,500km², with many of the projects being joint ventured with major mining companies. The main targets are Kanganluwi and Cheowa. The latter is a joint venture with Glencore, which is spending US\$10 million to earn a 51% stake. Discovered in 2005, the Cheowa deposit extends for 15km and drilling for a pre-feasibility study is almost complete.

The Kanganluwi deposit is described by Mr Jockel as the "most significant discovery in Zambia for 30 years". Nine drill rigs have been contracted for initial exploration this year but Mr Jockel expects a resource of "at least" 40Mt. The project is wholly owned but Mr Jockel admits that Zambezi Resources is looking for a partner to help develop the deposit.

Zambezi Resources is also drilling the Mulofive polymetallic deposit and an announcement is due shortly.



The third speaker was Joe Hamilton, the chief executive of **African Copper plc**, which he described as "an emerging story". The company is focused on Botswana (through wholly-owned Mortbury Ltd), which Mr Hamilton described as "probably the best place in Africa to do business".



Diamond drilling at Zambezi Resource's Cheowa project

The first ore from the new Mowana copper mine in Botswana passed through the crushers at the end of May, and Mr Hamilton expects the mine to reach commercial copper production in August.

Mowana has seen a tenfold increase in measured and indicated resources since the company's initial public offering in November 2004. These now amount to 88Mt at an average of 0.71% Cu in a 30m-wide vertical orebody. The open pit has reserves of 148Mt at 1.11% Cu and an operating life of seven to nine years, with an underground extension that will have a 15-year life.

The R665 million (US\$86 million) operation includes a 1Mt/y concentrator that can handle both oxide and sulphide ore. The plant was redesigned last year to improve protection from power outages (by constructing, for example, extra stockpile facilities). Mining started in July 2007 and a 300,000t ore stockpile has been built.

The capital cost per annual pound of production is roughly US\$3.50 and operating costs are given as US\$2.00/lb in 2009, which will fall to US\$1.50/lb once the underground mine starts up. With the soaring cost of diesel, Mr Hamilton noted that transportation costs have risen from US\$100/t in October 2007 to over US\$135/t now.

The project's 'upside', according to Mr Hamilton, is the underground mine which contains 68Mt of measured and indicated resources. Initial engineering designs and geotechnical work necessary to commence trial mining are expected to be completed shortly. An initial capital investment of US\$35 million is anticipated to access the initial mining blocks. On the current project schedule, the underground ore would be accessed in 2010 by a short ramp.



Vic King, the chief operating officer of **Volta Resources Inc.**, introduced a company that is only eight weeks old. Volta Resources was formed from a 50:50 merger between Birim Goldfields Inc and Goldcrest Resources Ltd, bringing together management expertise and field teams in

Ghana and Burkina Faso specifically to focus on these jurisdictions.

Volta Resources has a portfolio of 27 properties which includes a modest (but open) NI 43101-compliant gold resource, six advanced and nine drill-ready prospects. The company is exploring in the highly prospective Sefwi-Bibiani and Bui belts of Ghana that run parallel to the Ashanti belt. Mr King pointed out that in 1992 the Sefwi-Bibiani gold belt was known to host 3Moz gold. Thanks largely to the exploration efforts of

Newmont and others, this belt is now known to contain at least 20Moz.

Volta's tenements in the Sefwi-Bibiani belt are in the proximity of one of Newmont's major gold developments – Ahafo. To the northwest of Bibiani, Volta has 15 licences covering 2,150km² in the Bui belt, which Mr King expects to be "just as productive" as Bibiani-Sefwe.

An interesting prospect in the Bui belt is Chert Ridge, where anomalies of >0.1g/t gold have been discovered hosted in intense silica and carbonate alteration with associated sulphides and plunging pay shoots. Scout drilling has identified sections of around 20m at 1g/t and 14m at 2.63g/t. An aggressive drill programme totalling 4,750m (RC) and 300m (diamond) drilling is planned with the aim to make Chert Ridge JORC-compliant by late 2008.

Mr King described the Cu-Au Gaoua property in Burkina Faso as "an unusual beast", being a porphyry deposit in geological terrain older than the usual African porphyries. The project will be funded to feasibility stage by Freeport McMoRan Copper and Gold Inc, which will also provide project finance up until the development stage.

Some 12,000m of diamond core was drilled in 2007 and extensive copper-stained outcrops mapped along strike. Mr King believes that there is significant potential to find more porphyry plugs and higher-grade ore zones. Volta is moving towards completing an NI 43101-compliant estimate by end-2008.

The Kampti project, 100km west of Gaoua, is currently home to around 10,000 artisanal miners. First-round drilling has revealed good grades, and reverse-circulation drilling will commence immediately.

Mr King described Volta's portfolio as "exceptional" with the opportunity "significantly to grow" the resource base within the next year. To this end, the company has an US\$8 million budget this year.



The penultimate speaker was Jon Forster, the head of exploration for **Axmin Mining Inc.** Dr Forster opened by highlighting the company's gold credentials – 2.9Moz of indicated and 1.76Moz of inferred metal across projects in the Central African Republic (CAR), Mali and Sierra Leone.

The company's main project is at Passendro in the CAR. Dr Forster noted that there is no formal mining sector in the CAR, and that the government is very keen to develop mining projects. However, mining contracts are still being negotiated with the government.

Dr Forster commented that Axmin is in the CAR because of its exceptional geological potential. This remains essentially untested (very little exploration has been conducted in the country) with virtually no regional modern geophysical work having been done.

Passendro is in classical Archaean greenstone geology and extends over 120km of strike, described as "a



African Copper's Mowana mine, Botswana

classical African-style gold deposit" with several open pits located a few kilometres from the central plant site. Passendro has a total reserve (statistics derived from measured and indicated resource) of 16.8Mt at 2.4g/t Au for a total 1.28Moz of contained gold.

Axmin is the owner and operator of both mining and power generation at the site. The main problems faced in developing the resource are described as logistical, as the deposit is at distance from the coast and rail facilities.

This means that operating costs are sensitive to fuel prices – for each US\$1 rise in the oil price, Dr Forster estimates a US\$1.50 hike in operating expenses. As a result, the company is focused on optimising power generation alongside alternative energy investments.

The next steps at Passendro involve awaiting governmental approval for recently-submitted feasibility/environmental impact assessment studies, and positive interest for project financing.

Also described was the Topa iron-ore project in the CAR, a high-grade iron-ore ridge up to 30km long from which 116 samples average grade 64% iron have been taken. A 9,000m drilling programme will commence before 2009.



The final speaker was Christopher Davies, who is the operations director of **African Eagle Resources plc.** The company is focused in Zambia, Tanzania and Mozambique with projects at all stages of development.

Mr Davies detailed advanced projects moving towards resource definition, for example the Mkushi copper project in Zambia and the Miyabi gold project in Tanzania, and advanced exploration projects Ndola/Mokambo copper and Eagle Eye in Zambia. Additionally, the company has 18 precious metal, 13 base metal and eight uranium earlier-stage projects.

In February the company received a positive pre-feasibility study for Mkushi. A definitive feasibility study will be completed by the end of this year. The Mkushi deposits' current resource estimate stands at 107Mt at 1.1% Cu.



Core drilling at Axmin's Kofi SW Zone C, Kofi Project, Mali

Mkushi was described by Mr Davies as having "significant exploration upside", with 40+ IP targets identified in the 467km² area around the deposit. The location benefits from good infrastructure and the metallurgy is described by Mr Davies as "straightforward". Mining is planned for the March quarter of 2010.

The company's Mokambo project has potentially up to 12km of mineralised strike in the form of the Lower Roan group on the eastern limb of the Mufulira Syncline, which historically has been a very prospective area.

Exploration at the Ndola project (where Phelps Dodge Mining Zambia Ltd is financing exploration under an earn-in agreement) continues with drilling and following-up work on IP anomalies. Roan Consolidated Miners drilled the prospect in the 1960s and a resource estimate of 40Mt at 0.8% Cu with untested oxide potential was made.

The 1,017km² licence at the Eagle Eye property has a JORC-inferred resource on the Mweze prospect of 1.4Mt at 1.2% copper. Mr Davies highlighted that iron-oxide copper-gold targets made for difficult exploration, but could have significant exploration upside in the form of sandstone-hosted uranium.

The Miyabi project in Tanzania was discovered by African Eagle in an Archaean shear-hosted gold system, part of a gold-bearing corridor of 7km x 2km. Miyabi has an initial JORC gold resource of 520,000oz (71% in the indicated category). Metallurgical test work indicates gold recoveries of better than 95%.



Drilling at African Eagle's Munshiwemba pit, Zambia



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