

Early number crunching comes up trumps

Scoping work on what is expected to be one of the world's next big sources of zircon has given a Queensland-based explorer enough encouragement to take the project through to the next phase of due diligence.

During early March Diatreme Resources Ltd told the market its Cyclone deposit – which sits in the Western Australian section of the Eucla Basin – indicated a potential for a profitable mine producing about 280,000 tonnes of concentrate annually at a throughput rate of 9 million tonnes of ore per annum.

Diatreme executive chairman Tony Fawdon said the scoping study forecast an annual average profit of \$50 million for 10 years, with a projected capital expenditure of \$311 million.

Cyclone contains an attractive mineral assemblage of 33% zircon, 12% rutile and 27% leucosene in addition to 17% altered ilmenite. There are only minor amounts of slimes such as clay.

These features, Fawdon said, made it one of a rare number of new, high quality sources of heavy minerals potentially available to the global industry.

Diatreme has conducted more than

42,500 metres of drilling on site, with the mineralisation covering an area up to 5 kilometres long and 2.5 km wide.

The deposit is believed amenable to typical mineral sands mining methods, and is low in slimes and induration (thereby reducing mining costs).

Costs are expected to be further reduced with the recent discovery of mineralisation grading up to 4% heavy minerals in the overburden.

Fawdon said recent zircon prices achieved by producers of more than US\$900/t showed the value of the resource, with analyst forecasts of constrained supply from 2013 set to result in significant price rises.

“Current rutile prices average US\$550/t, with leucosene up to US\$300/t and ilmenite around US\$100/t, depending on titanium content and impurity levels,” he explained.

“Zircon prices are forecast to rise above US\$1,200/t by 2014.

“China has become the world's biggest consumer of zircon, and with its consistent double digit economic growth and forecast growth in urban population to nearly 1 billion people in the next 15 years,

the outlook for zircon demand from ceramics and other applications remains strong.”

During the recent RIU Explorers Conference in WA, Fawdon pointed out that Diatreme held about 40,000 square km in the Eucla Basin and were the second biggest player after Iluka Resources Ltd in the region.

“When we look at our holdings ... we've got over 1,000 linear km of strand systems and we've only explored about one third of it,” he said.

“It's world class – it's a hackneyed expression I know, but it is.”

Diatreme is now working towards the completion of the prefeasibility studies for Cyclone by late 2010, the finalising of a definitive feasibility study by late 2011 and the granting of all permits by middle 2012.

Project construction is anticipated to begin in late 2012, and both the commissioning and start of operations are scheduled for 2014.

By Mark Fraser



Tony Fawdon

Right signs revealed by latest set of field activities

West African-focused explorer Azumah Resources Ltd has told the market fresh assay results from drilling at its Julie and Collette prospects – which make up part of the company's WA gold project in Ghana – have extended and confirmed what it calls the excellent continuity of high grade, near surface precious metal mineralisation.

These latest results, to be used in combination with those previously reported to deliver a maiden resource estimate at Julie by the end of March, confirm there is tremendous scope to grow resources at Wa and unlock its multi-million ounce potential.

The recent round of assay numbers were generated by the company's current 41,000 metre drilling campaign, which was aimed at boosting mineral resources to underpin the development by the junior of the first commercial-scale gold mining operation in north west Ghana.

Azumah successfully completed the budgeted 19,000m reverse circulation

(RC) component of this campaign and has since moved to secure the RC rig for the remainder of the year.

It will also do the same for the aircore machine once it completes its budgeted 20,000m schedule.

Collette prospect lies within a 4 kilometre east-west trending (and almost continuously mineralised) structure with zones of higher grade gold mineralisation hosted by laminated quartz veins.

RC drilling completed by Azumah specifically targeted a shallow dipping quartz lode persistent over an (approximate) 2 km strike.

Best gold intercepts from this work included 4m at 17.58 grams/tonne from 42m (including 2m at 33.80 g/t from 42m), 3m at 5.11g/t from 70m, 4m at 4.95g/t from 5m (1m at 18.40g/t from 5m) as well as 10m at 3.19g/t.

Meanwhile, Julie extends east-west for over 6 km, with rock chip sampling, trenching and reconnaissance drilling

confirming that it is almost continuously mineralised.

Azumah has been focusing on two zones – Julie Eastern and Julie Western – providing an early opportunity to delineate near surface, shallow dipping, higher grade resources.

Best gold intercepts here included 17m at 4.38 g/t from surface (with 7m at 9.76 g/t from 4m), 7m at 5.72 g/t from 59m (1m at 33.20 g/t from 59 m), 7m at 4.76 g/t from 29m, 4m at 8.96 g/t gold from surface and 6m at 5.25 g/t gold from 28m (2m at 14.93 g/t gold from 28m).

“These excellent results have confirmed our expectations that the combined 10 km of mineralised structures at Julie and Collette are host to several zones of open ended, high grade, shallow dipping mineralisation with good continuity,” Azumah's managing director Stephen Stone explained.



Stephen Stone