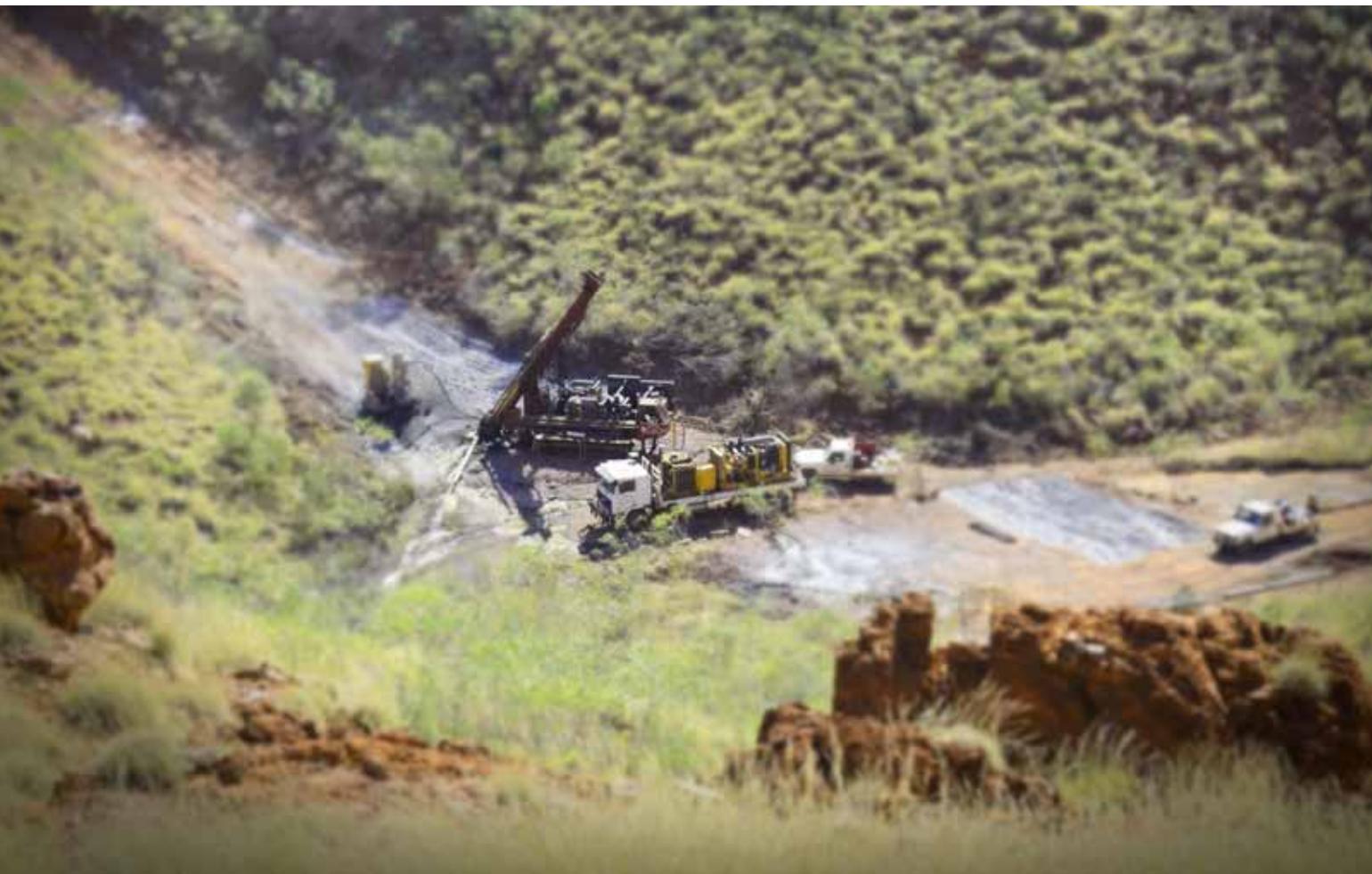


VENTUREX RESOURCES

CRITICAL MASS IN THE PILBARA



CRITICAL MASS IN THE PILBARA

Perth-based Venturex Resources has a strategy to combine a number of copper-zinc deposits in the western Pilbara around a processing plant that will put the region on the map for more than just its iron ore

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Serra Verde doca vein

Western Australia's Pilbara region is best known today as one of the world's biggest sources of iron ore and manganese – principally the former. These minerals are shipped out of Port Hedland to the hungry markets of north Asia and India, where demand for steel seems insatiable and likely to hold up for a good many years to come. In 2012, out of a total of 245 million tonnes of every kind of cargo that was exported through Hedland, 97 percent was accounted for by iron ore, 0.8 percent by manganese.

Seen from the air, the Pilbara is one mass of red earth – iron is not hard to find. The Pilbara does contain significant quantities of other minerals but one could excuse people getting the idea they don't amount to much. That being the case it was far-sighted on the part of Venturex Resources and its antecedents to turn their attention to the copper and zinc rich volcanogenic massive sulphide ore bodies that occur across the Pilbara. The geology was known about, but problematic, explains Michael Mulrone, who was appointed Managing Director in February 2012. "These deposits tend to occur in clusters of between five and eight, grouped around ancient volcanic centres. They were laid down billions of years ago, but they are directly analogous with the hydrothermal vents or 'black smokers' that have been found on the modern deep ocean bed."

The difficulty was that none of these deposits on its own would be commercially viable. The company's strategy, since it established



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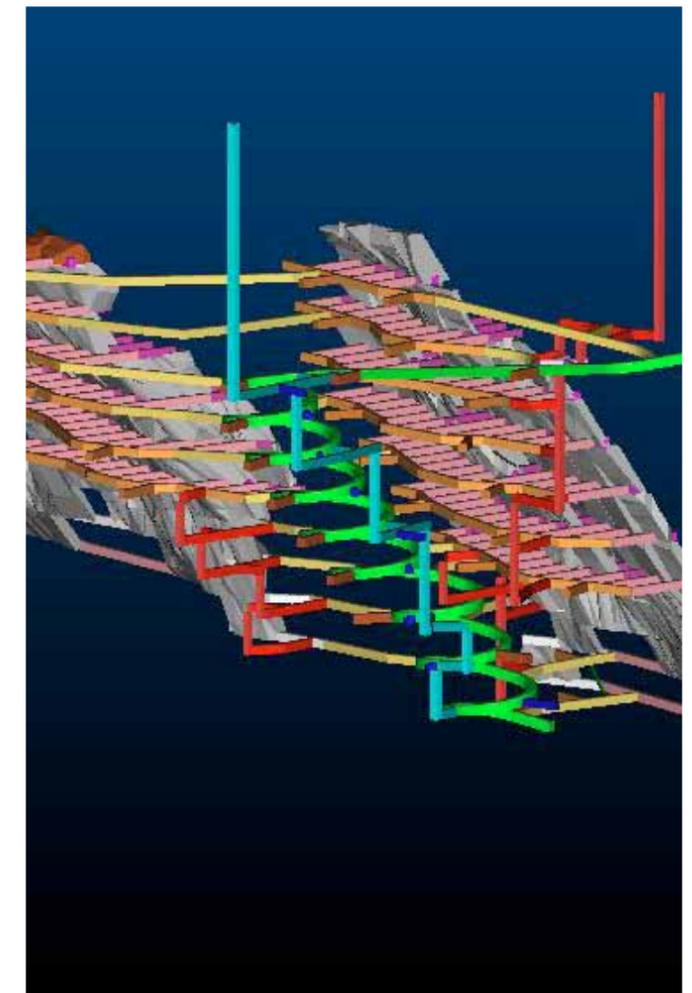
in 2009 that its Evelyn deposit within its Liberty-Indee site had considerably greater potential than originally thought, has been to consolidate as many as possible of these deposits. Only 30 kilometres to the north, the Whim Creek deposits became available and were acquired by Venturex in 2010. "At about the same time," says Mulrone, "we became aware that CBH Resources' Sulphur Springs asset 190 kilometres to the east of Whim Creek might also be about to become available."

It took nearly a year, he says, to complete the acquisition of Sulphur Springs, but from then on the company had the critical mass it needed to launch a feasibility study. The result of the definitive feasibility study (DFS) was announced in December 2012 confirming very positive results on the entire copper/zinc Pilbara operation, which it estimated would yield an average of 16,500 tonnes per annum (tpa) of copper, 30,000 tpa of zinc and 200,000 ounces of silver a year over at least 8.5 years. "This defines the Pilbara project as one of the larger emerging base and precious metals projects in Australia," the DFS states.

With around 84 percent of the ore considered in the study coming from Sulphur Springs, this is where the company plans to locate its brand new processing plant. The ore will come initially from a new underground mine at Sulphur Springs – but the beauty

of the project is that the plant, which will produce a copper concentrate and a zinc concentrate, will have plenty of capacity to process open pit mined ore from Whim Creek and Liberty-Indee too.

The upside of all of these resources is considerable, says Mulrone. "We have identified just two deposits at Sulphur Springs, so we think there is a lot more potential there. We know of three at Whim Creek, which is a similar terrain but a bit younger, and the indications are that there could be several more based on the cluster model." The Liberty-Indee deposit to the south is a



Sulphur Springs underground mine design

**"WE ARE LOOKING AT
 ADOPTING A 'KAMBALDA'
 STRATEGY!"**



brand new discovery, he adds. A lot of work is going into learning all about it but it appears to be a similar type of ore body and with that comes the expectation that there will be more to find there too.

These assets on their own give the project the critical mass to justify development. However the opportunity does not stop there. The Pilbara offers other opportunities and from the advantage it has as the first mover here Venturex's facility could well become a processing hub that will attract similar material mined by others. "It's a model that worked well for WMC at Kambalda when they focused on their processing hub processing all the smaller mines' material at a central point. We are looking at adopting a similar 'Kambalda' strategy!" The infrastructure favours that model too, he adds, with excellent roads leading to Port Hedland, the main export port for BHP Billiton and other iron ore and manganese production companies.

With the DFS under its belt Venturex is in great shape for its next phase – discussions with financing institutions and potential offtake partners, who may themselves wish to put capital into the project. "At the same time we are working on continually optimising the project as it was defined in the DFS – there are still a number of areas we think we can make improvements." Additional drilling

is due to start at three of the resources not included in the DFS – Kangaroo Caves near to Sulphur Springs and two identified deposits in the Whim Creek area.

The permitting process has commenced and the indications are that this could be completed within six months. Mike Mulroney would like to have his financing well advanced by then, though he is realistic about the difficulty of attracting investors to an untried asset in what is perceived as a relatively

high cost area. On top of that the Australian dollar is inconveniently strong for anyone hoping to export. Nevertheless the Venturex proposal is compelling: 'conventional' investors such as banks have shown a good deal of interest, he says, and he thinks less conventional sources such as mezzanine finance, quasi-equity and offtake partners may well provide a level of second tier support.

On the one hand, he points out, potential investors are being asked to take a view on the copper and zinc markets ten years out. On the other, the long view of both copper and zinc is bullish. "A number of large zinc

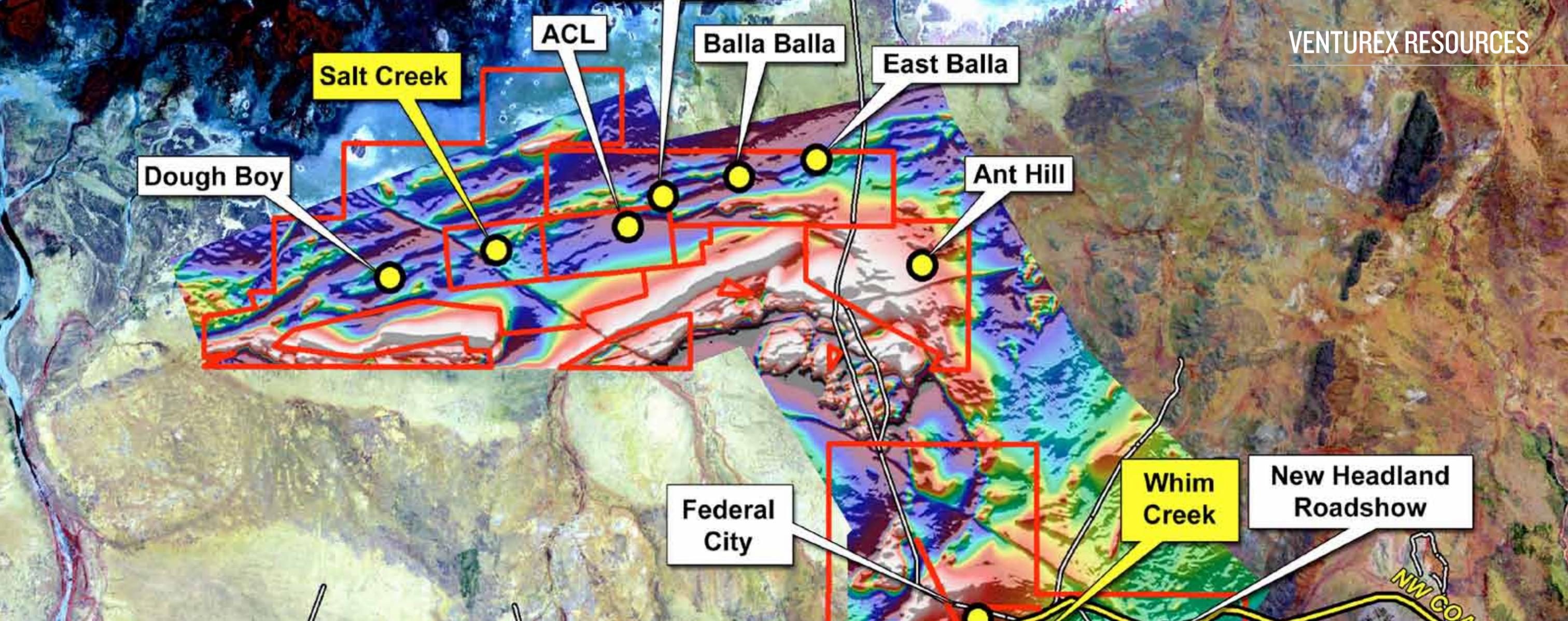
8.5 YEARS
.....
Mine life of Pilbara project

mines are projected to close in 2014 and 2015 so zinc supply could be constrained resulting in a lift in prices with major implications for our project."

Once permits and finance have been obtained, the way ahead becomes clearer.

Developing the new underground mine from scratch, and building the processing plant, can be done in 20 months, which translates into first shipment in the second quarter of 2015. Positive relations with the traditional land owners have been established, and the mine has been meticulously designed to minimise its footprint both visually and environmentally. The core source of material will be the Sulphur

“THIS DEFINES THE PILBARA PROJECT AS ONE OF THE LARGER EMERGING BASE AND PRECIOUS METALS PROJECTS IN AUSTRALIA”



Whim Creek exploration

“A NUMBER OF LARGE ZINC MINES ARE PROJECTED TO CLOSE IN 2014 AND 2015 SO ZINC SUPPLY COULD BE CONSTRAINED RESULTING IN A LIFT IN PRICES”

Springs mine, supplemented as time goes on by open pit material from Whim Creek. “The plant is currently scaled at around 1 million tpa, which gives us the 8.5 years mine life mentioned in the DFS,” says Mulroney, “but we are considering the possibility of scaling that up to 1.2 or even 1.5 million tpa.”

For the moment all attention is on the Pilbara, but there’s another string to the Venturex bow which might yet provide almost as much excitement. The Tapajós region of Brazil’s Pará State has given up anything from 16 to 30 million ounces of gold over the last 20 years, mainly from garimpeiro,

or artisan mining. It’s known to be extremely well endowed with gold but it has only been in the last few years that modern exploration methods started to be applied. Venturex has quietly established itself in this area, with five assets covering 200,000 hectares not to mention another four projects in Mato Grosso State. “We think there are large scale gold deposits to be found there.” Mulroney suggests. “We did a drilling programme at a project called Nova Canaã late last year and got some very good drill results.”

This was very much an initial foray, but follow up work will continue once the rains

abate, as well as at Serra Verde to the north. At this stage it’s impossible to predict whether Venturex will hang onto its Brazil gold projects, or simply add value before disposing of them. Whichever happens, the more mundane minerals of the Western Australian Pilbara look like establishing Venturex Resources as an important player in the relentless East Asian industrial revolution. ■

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