

Jupiter may have the grade but size matters

Venture Minerals Ltd has delivered some of the highest-grade clay-hosted rare earths intercepts ever recorded in Australia at the Brothers project in Western Australia's Mid West, now the company wants to demonstrate the project's scale potential.

In February, Venture received assays from Stage 1 resource definition drilling at its Jupiter prospect – 80km south-west of Mt Magnet – of up to 20,538 ppm rare earths, with 23 of the 24 drill holes returning consistent 20-30m widths over 2,000 ppm.

Starting from 6-84m depth, the results also included intersections up to 60m wide over 1,000 ppm.

In August last year, the company got its first indications Jupiter might host rare earth mineralisation over a substantial area after a maiden drill programme returned several 15m intersections at up to 2,000 ppm rare earths. Gravity and magnetic surveys followed, reinforcing Venture's suspicions about the prospect's scale. Geophysical surveys delineated a 40sq km target and gave clues to a deeply weathered alkaline intrusion beneath clay-hosted rare earths.

A 25-hole RC drilling programme showed consistent results of up to 7,000 ppm rare earths across the entire target area and Venture had no trouble raising \$2 million a few weeks before Christmas to fast-track further drilling and metallurgical test work. Some 57 drill holes from the Stage 1 programme remain to be assayed and managing director Andrew Radonjic said he expected more encouraging news, comparing Jupiter to Lynas Rare Earths Ltd's Mt Weld mine near Kalgoorlie.

"If you asked me now, I'd say it's more similar to a Mt Weld-type carbonatite more than anything but that's an early call, we've got to do some more mineralogy first," Radonjic said.

"What we are seeing is 20-30m intersections commonly around 2,000 ppm. The handheld XRF brings up very similar widths which seem consistent but we don't know the grades until we get the assays back from the lab."

Radonjic said Venture's next move would be to demonstrate the target's potential scale, confirming a resource estimate based upon Stage 2 definition drilling is on the company's 2024 hitlist.

"We're getting indications of an alkaline intrusion so the rocks are mostly cyanites and carbonatites but the question is how big is the system?" Radonjic said.



Venture conducted Stage 1 resource definition drilling over a 40sq km area at Jupiter last year

"If you can imagine an iceberg underneath the waterline and you're hitting the top of the iceberg really close to the surface, it might be deeper in other places.

"The geology of the gravity anomaly we're looking at is kind of jagged and undulating, does it fall off a cliff? We don't know the answer to that question yet but if we've got 20-30m at over 2,000 ppm consistently over 40km sq, it adds up.

"You can do the math on that and that's only within the target we have."

Venture is planning to drill about 300 more resource definition holes before a maiden estimate and Radonjic said the company was aiming to emulate the work of ASX rare earths peer Meteoric Resources Ltd at the Caldera project in Brazil.

He dismissed the idea of delaying the estimate for more surety around grade in favour of demonstrating the project's possible standalone viability, suggesting an on-site concentrator supplying a third-party refinery could make economic sense.

"Early indications are that it certainly has the scale to support a standalone operation," Radonjic said.

"Lynas are looking for clay-hosted [rare earths], I suppose you could say we are also trying to position ourselves to fill that requirement."

Metallurgical testwork at Jupiter resulted

in magnet rare earth oxide at grades of 3,288 ppm neodymium, 788 ppm praseodymium, 674 ppm dysprosium and 101 ppm terbium. Venture's plans for processing ore from Jupiter also involve existing and planned facilities in WA and Radonjic was confident Lynas' Kalgoorlie-based facility could fit the bill, based on early indications of project metallurgy.

"Our uranium and thorium are quite low, so we don't think we've got the same style as Iluka [Resources Ltd]'s monazite," Radonjic said. "We think our style of mineralisation is more like Mt Weld but it could be a variant of that type."

The Brothers project lies close to key infrastructure and Radonjic said Venture had received confirmation transporting ore to Kalgoorlie for processing would not be an issue.

"Location is a key component to this project, we're just off the sealed bitumen Geraldton-Mt Magnet Road which has a gas pipeline running alongside," he said.

"We're 300km from Geraldton and 450km from Mt Weld. I did speak to a trucking contractor who said, 'you can mine it, pre-con it and truck it to Mt Weld, that's no drama'."

– Michael Cameron