

MNN Awards: Winu discovery opens up the Paterson Province

It is not often a discovery made by a major miner captures the attention of the market.



Mnn Awards > Explorer-of-the-year

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That's because companies like Rio Tinto are so large a new discovery rarely moves the dial.

However, few stories have sparked such a buzz in the Australian market as a rumoured copper discovery by Rio in Western Australia's remote Paterson Province.

Even before Rio had said a word, the speculation during 2018 prompted a nearology rush to the region with every last piece of ground now spoken for.

The remote part of WA had largely been ignored by explorers due to the presence of cover.

"I think it's fair to say the company's perception was those younger unmineralised cover sequences were quite thick and it probably wasn't worth exploring there, because you'd probably have to find something that was really high-grade and it would end up being an underground operation, so there were probably better things to do elsewhere," Rio exploration director John Kilroe told *MNN* from the camp at Winu last week.

"So it just never received much attention for a long period of time."

Rio first took an interest in the Paterson Province via a A\$65 million farm-in with Antipa Minerals in 2015.

"Both parties started taking an interest in the broader belt and challenging the thinking around 'well how deep is that cover?'" Kilroe said.

"On the back of that, we started applying for - Antipa had an area they were focused on and started out licenses - and we started taking out licenses as well.

"We had a slightly different model in mind with different areas of interest.

"The one area, or one of several areas, was around Winu and we got that license granted in July 2017, did a bit of geophysics and that showed us the cover sequences weren't all that thick in the Winu area."

Once Rio got approval from traditional owners, it mobilised a drill rig in 2017 and drilled two holes.

"And both holes intersected some mineralisation, which was very exciting, but it showed to us there was certainly more potential in the belt that remained untested," Kilroe said.

"So when we got the assay results back [in February 2018], we knew there was a mineralised system there.

"It's very rare you drill your first two holes and both holes are mineralised, so the target we had drilled was based on an airborne electromagnetic survey we flew, so we were pretty confident that electromagnetic anomaly represented mineralisation, so we kind of knew straight away in February off the back of the electromagnetic anomaly and the assay results, that there was a sizable mineralised system there."

Legend has it that members of Rio's geological team used their own credit cards to secure ground in order to speed up the process before competitors caught wind.

The exploration process was frustrated by cyclones and flooding of the Great Northern Highway.

"It was only in about late April/early May that we got back into the field when it was dry enough, and started installing our infrastructure at camp and recommenced drilling in June, so it was a very frustrating six-month period before we could get back on the ground and start drilling," Kilroe said.

When further holes intersected mineralisation, Rio quickly ramped up exploration to as many as 17 drill rigs.

In February 2019, Rio went public with the discovery, announcing results for the first 22 holes.

The widest intersection was 741m at 0.45% copper, 0.52 grams per tonne gold and 2.94gpt silver from 68m, while the highest grade intersection was actually hole one, which returned 104m at 0.8% copper, 0.28gpt gold and 4.35gpt silver from 70m, including 11m at 2.23% copper, 0.24gpt gold and 8.44gpt silver.

There was also a hit of 6m at 4.69% copper, 2.52gpt gold and 26.41gpt silver within a broader intersection of 145m at 0.43% copper from 88m.

Analysts at the time noted how unusual it was for Rio to have drilling results in an annual results presentation, but took it as evidence of how serious the company was about the find.

In July 2020, maiden inferred resource of 503Mt at 0.35% copper and 0.55gpt gold, or 0.45% copper equivalent, using a 0.2% copper cut-off, including a higher grade component of 188Mt at 0.68% copper equivalent, using a 0.45% cut-off in July.

While Rio has turned its attention to economic studies, exploration continues.

Kilroe said the company had five diamond rigs in action at Winu, as well as two hydro rigs and several reverse circulation rigs.

"It's about 10 rigs drilling at Winu at the moment and in the exploration space around Winu, we've got four rigs drilling," he said.

Kilroe said the deposit continued to get bigger.

"We haven't defined the limits of mineralisation as we speak," he said.

"It's still extending to the north and it's still extending out to the east.

"We just haven't done enough work to understand how big and what the grade's going to be, but all we have at the moment is what's in the public domain."

In December, Rio's Hilke Dalstra, Jennifer Maguire and Mawson Croaker jointly received the prestigious AMEC Prospector of the Year Award for the Winu discovery.

Alongside last year's maiden resource, Rio also reported the discovery of multiple zones of gold-dominant mineralisation, about 2.5km east of Winu at a prospect called Ngapakarra (pronounced 'naba-garra').

Drilling returned 23m at 4.53gpt gold from 120m, including 0.75m at 97.1gpt gold; 2.88m at 33.3gpt gold from 163m; and 25m at 4.87gpt gold from 349m, including 1m at 83.5gpt gold.

The prospect sits within similar metasedimentary rocks to Winu.

Mineralisation remains open in all directions and at depth, with only preliminary drilling undertaken.

Kilroe said drilling had just started at the area between Ngapakarra and Winu.

Rio holds about 10,000sq.km of ground in the Paterson and is active across its JV ground with Sipa Resources and Alloy Resources, as well as Antipa.

Rio and Antipa's Calibre deposit, just 45km east of Winu, has a recently updated resource of 92Mt at 0.72gpt gold, 0.11% copper and 0.46gpt silver, or 0.92gpt gold equivalent, for 2.1Moz of gold, 103,700t of copper and 1.3Moz of silver, or 2.7Moz gold equivalent, using a 0.5gpt gold cut-off.

Rio has set an exploration budget of A\$24.5 million for the JV ground alone in 2021 and drilling is underway.

"It's not that dissimilar to Winu, but we haven't delineated the resource - it's still open in several directions," Kilroe said.

Last week Rio revealed the final investment decision for Winu had been pushed back from late 2021 to 2022 due to COVID-19 and labour shortages.

The company had originally aimed for first copper in 2023 but delayed it to 2024 earlier this year. First production is now expected in 2025.

Rio Tinto is a nominee for Explorer of the Year in the 2021 MNN Awards for the Winu copper-gold discovery.



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