

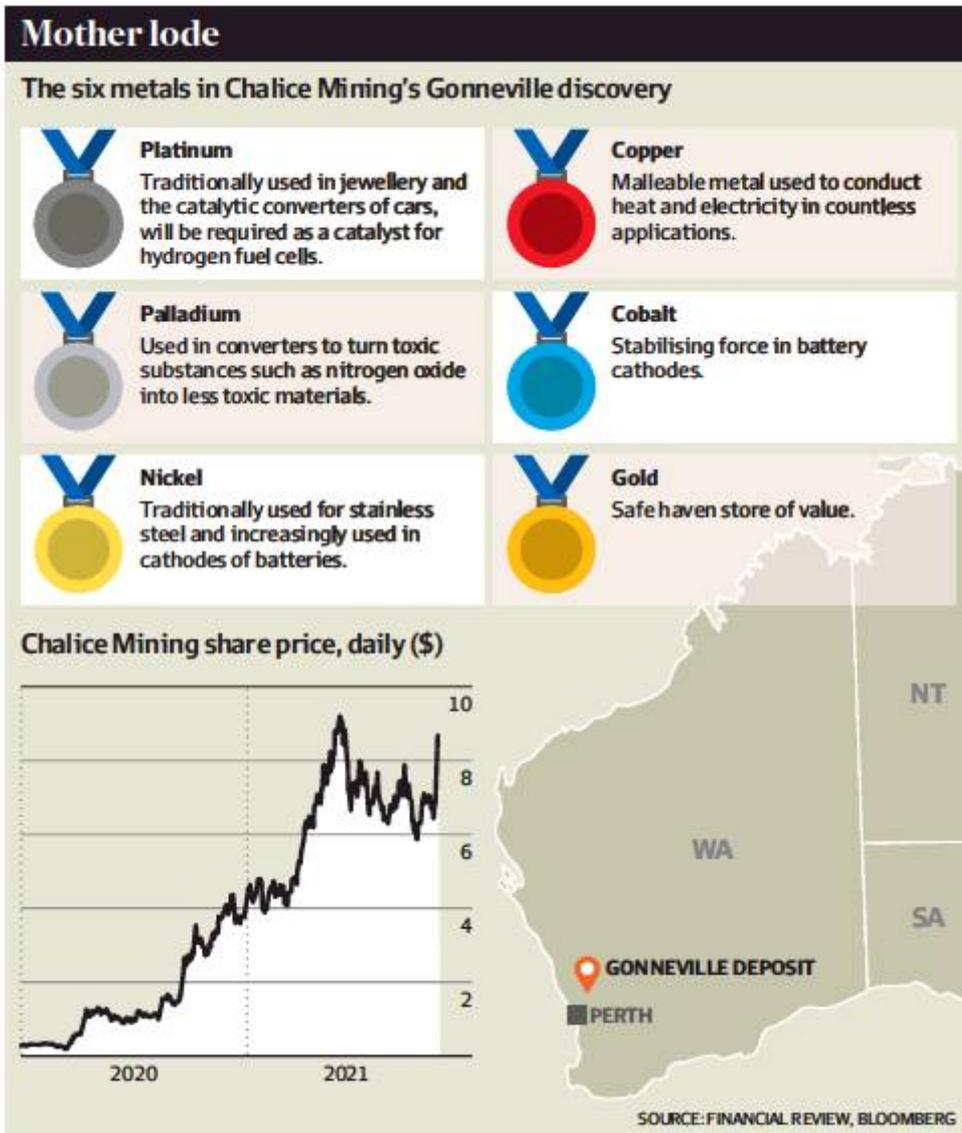
# 'Best ever' platinum discovery

Peter Ker

- Chalice find includes nickel, copper, cobalt, gold

A veteran analyst says Chalice Mining has made the best discovery of platinum group elements ever seen, after the first official estimate of the six metals in Western Australia's Gonneville deposit earned the pre-revenue explorer a \$3 billion market capitalisation.

Chalice's reputation as a likely takeover target for big miners was firmly enhanced by yesterday's publication of a maiden mineral resource estimate for Gonneville, which is close to the Julimar State Forest on the northeastern outskirts of Perth.



Among Gonneville's six saleable metals are nickel, copper and cobalt, which are being sought by investors seeking exposure to the worldwide decarbonisation push being driven by governments and corporations setting targets for net zero emissions to arrest global warming.

But the dominant metals at Gonneville are platinum and palladium, which are uncommon in the Australian mining industry and more familiar to South African and Russian investors.

Chalice managing director Alex Dorsch claimed Gonneville was the biggest discovery of "platinum group elements" (PGEs) in Australian history, and those metals had an important role in improving the environment.

"We need these metals to decarbonise the global economy . . . palladium and platinum are very useful in all sorts of hydrogen applications," he said.

Keith Goode, the managing director of Eagle Research Advisory whose 38 years of mineral analysis included a stint covering the world's biggest PGE belt in South Africa, went a step further.

"This is the best [PGE] orebody I have ever encountered. It is the best I have ever seen anywhere in the world," he said.

Mr Goode said the presence of nickel and copper was important in PGE mines because those metals helped to facilitate extraction through flotation, and Gonneville had much higher nickel and copper grades than many South African PGE mines.

Minex Consulting mineral economist Richard Schodde said Gonneville was a "potential tier-one" discovery, but he would wait to see higher grades discovered in further drilling before declaring it to be a certain "tier-one" orebody.

Platinum and palladium are used in the catalytic converters of vehicles and help turn toxic substances such as nitrogen oxide into less toxic substances such as carbon dioxide.

Platinum is expected to play an important role as a catalyst in the hydrogen fuel cells that will power low-emission vehicles.

Gonneville also contains gold, and the presence of six metals at relatively shallow depth is expected to bolster the viability of the discovery.

Gonneville would be a significant discovery if measured on its nickel, copper and cobalt content alone, with Chalice saying it was the world's biggest nickel sulphide discovery – the type of nickel geology favoured by battery manufacturers – in 21 years.

Based on yesterday's data, Gonneville's nickel content is more than double that of Australia's last major nickel discovery, the Nova deposit found by Mark Bennett's Sirius Resources in WA's Fraser Range in July 2012.

The maiden resource estimate for Nova was published in 2013 and reported 242,000 tonnes of nickel, 100,000 tonnes of copper and 7700 tonnes of cobalt.

Gonneville was yesterday said to contain 530,000 tonnes of nickel, 330,000 tonnes of copper and 53,000 tonnes of cobalt.

While nickel, copper and cobalt are the focus at Nova, they will be mere byproducts at Gonneville.

Mr Bennett said there was no doubt Gonneville was bigger and better than his Nova discovery, which is now an operating mine owned by IGO Group.

"Nova was great, but this is stepping it up another level," he said.

"You are talking about getting close to twice as much nickel equivalent in their byproduct.

"The fact it is so close to Perth, it just beggars belief really. You could not script it better."

Mr Bennett has a link to Chalice in that he will become chairman of the Victorian gold assets. Chalice plans to demerge to enable it to focus on Gonneville.

Mr Bennett said Chalice's Julimar province ranked alongside the discovery of extraordinarily high-grade gold at Fosterville in Victoria in 2015 as the two best mineral discoveries in Australia since the turn of the century.

Fosterville was a "brownfield" discovery beneath an existing mine, whereas there was no history of significant mining near Gonneville, with the region better known as a civilised retreat for wealthy Perth residents seeking a "tree change".

Mr Dorsch stressed that the numbers published yesterday were just the "first bite of the apple" and represented just 7 per cent of the 26-kilometre mineralised corridor that Chalice is probing in the Julimar province, suggesting the prospect would probably grow in future.

Mr Goode agreed, saying Gonneville was just the start of what was "definitely a province".

Community acceptance looms as one of the few challenges for Chalice, given it is seeking permission to drill in Julimar State Forest. Macquarie analysts have nominated that drilling approval as one of the key "catalysts" for Chalice shares. Mr Dorsch said he was expecting approval to drill soon and the company was "raring to go".

Chalice's progress is expected to be closely watched by Anglo American, which is among the world's biggest producers of platinum group elements.

But South32, Rio Tinto and BHP have also expressed a desire to get more exposure to metals linked to decarbonisation. With those companies considering pushing into more challenging African jurisdictions, Gonneville's location just 70 kilometres from Perth is expected to be appealing.

That location should ensure Gonneville is well served by infrastructure and skilled labour in comparison to mines in WA's remote north, which require workers to fly in and fly out for weeks at a time.

Chalice shares were 17¢ before the Gonneville discovery in March 2020, but were changing hands at \$8.70 yesterday afternoon, giving the pre-revenue company a market capitalisation of more than \$3 billion.

Mr Goode said he believed Chalice shares would eventually be worth \$17 to \$20 based on the share price appreciation in Zimbabwean miner Zimplats over the past 20 years. "Most decent platinum companies appreciate 100 times their initial value," he said.

The discovery continues a golden era for mineral explorers in Australia, who have enjoyed three consecutive quarters of record cash inflows from investors keen to get exposure to the high-risk sector.

New technology and data analytics have also enabled a swath of new Australian discoveries, such as Rio Tinto's Winu copper project in WA's Paterson Province, Greatland Gold's nearby Havieron copper and gold project, De Grey Mining's Hemi gold discovery and BHP's Oak Dam West copper deposit.