

# THE AUSTRALIAN MINING REVIEW

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Image: BHP

## THIS WIDE RED LAND

BHP South Flank is aiming to be one of the world's largest iron ore operations, integrating the latest advances in autonomous-ready fleets, digital connectivity and modular design.

**FEATURE p26**

Established in 1975 – second generation, family owned

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## IN BRIEF

### GULF MANGANESE

INDONESIA has granted a direct shipping ore (DSO) licence to Gulf Manganese Corporation to export up to 103,162t of 49pc manganese a year from the Kupang smelter project.

The concession means Gulf can sell DSO concentrate during the construction phase of their plants to bring in early cash flows.

Gulf is currently developing a ferromanganese smelting operation in Indonesia's West Timor region.

Once in full swing with the eight furnaces, Gulf will process 524,000t of manganese ore annually, to produce 201,000t of ferromanganese alloy.

### IVANHOE MINES

A C\$67 MILLION cash injection into Canada's Ivanhoe Mines will enable it to build its first copper mines in the Democratic Republic of Congo (DRC).

The funds came from Zijin Mining Group, China's leading gold producer and Ivanhoe's partner in the Kamoa-Kakula copper project in the DRC.

The move follows a C\$612m boost from China's state-owned CITIC Metal, Ivanhoe's largest shareholder.

The combined funds from the two Chinese companies will allow Ivanhoe to finance the Kakula and Kipushi mines to commercial production, and significantly advance production at the company's Platreef palladium-platinum-nickel-copper-gold project in South Africa.

Ivanhoe believes Kamoa-Kakula has the potential to become the world's second-largest copper mine.

### LYNAS

LYNAS Corp plans to relocate its contentious upstream processing operations from Malaysia to WA.

This will enable low-grade radioactive waste produced in the first-stage processing of its rare earths to remain in WA, alleviating uncertainty over the company's \$1 billion Malaysian plant.

The plant's cracking and leaching operations will be transferred to either the Mt Weld mine site near Laverton, or Kalgoorlie, by 2022 as part of a \$500m capital development program backed by its Japanese financiers.

The Malaysian Government has suggested that the renewal of the Kuantan plant's operating licence in September is conditional on the radioactive residue being removed from the Mt Weld concentrate before it is shipped to Malaysia.

### MYANMAR METALS

MYANMAR Metals has launched a \$30m equity raising in order to advance its 51pc-owned Bawdwin zinc-lead project.

It was split into a \$20.8m placement and a one-for-nine entitlement offer to raise another \$9.2m.

Bawdwin is slated for full scale mining in 2021.

The company includes Yandal as a 12pc shareholder, and Perilya Ltd with a 20pc stake.

# BHP slammed over Samarco



Image: Agência Brasil.

The Samarco disaster unleashed 40m litres of water and sludge from the failed Fundão tailings dam.

### GERARD MCARTNEY BRAZIL

BHP has been slapped with a £5 billion class action by American-backed British firm SPG Law in the wake of the Fundão tailings dam collapse in 2015.

The disaster at the BHP Vale 50:50 JV has been called the biggest environmental disaster in Brazil's history.

In 2016, it emerged that in an assessment made six months earlier, BHP had accurately predicted there would be roughly 20 deaths, serious environmental impacts for 20 years, and it would cost the company about US\$3.4 billion.

SPG will allege that BHP was aware of the escalating safety concerns surrounding the dam's integrity and that rather than acting on repeated warnings from experts, it continued to increase its iron ore

production and boost the tailings dam's water levels.

"BHP was woefully negligent in its duty of care and the damages sought are entirely commensurate with the devastation the company has wrought upon the people of Minas, Gerais, Espirito Santo and Brazil," said SPG partner Tom Goodhead.

On November 5, 2015, the village of Bento Rodrigues and other surrounding villages were all but erased when the Fundão tailings dam at Samarco failed.

Nineteen people were killed, hundreds of homes were destroyed, entire fisheries were devastated and the contamination left hundreds of thousands of people living on the Doce River without access to drinking water.

The Krenak indigenous community believed that their god, called "Uatu" (the Doce River), had been killed by the tailings collapse.

About 200 Krenak formed part of the 240,000 claimants, including 24 municipal governments, 11,000 businesses and a Catholic archdiocese that will be represented by SPG Law.

SPG partner Tom Goodhead said Brazil's court system moves incredibly slowly and that "the main purpose of filing this case in the UK is to move at greater speed and to seek a greater amount".

In certain cases, the damages sought would be 10 to 20 times the damages originally offered to individuals in Brazil.

Local fisherman would claim for the loss of 20 years' worth of catch, instead of three, and local governments would claim lost tax revenue and compensation for increased health and unemployment costs.

Separately from the civil action levied against Samarco, BHP and Vale had already spent more than \$1 billion on the massive clean-up effort.

# Talga moves on graphite results

### RAY CHAN SWEDEN

A PRELIMINARY Feasibility Study of Talga Resources' 100pc-owned Vittangi Graphite Project in Sweden has revealed highly promising results.

The study by the Australian advanced materials technology company confirms the project is technically and financially robust, with outstanding economic returns forecast as a market-focused, high-margin vertically integrated operation producing a high-performance fully engineered and coated lithium-ion graphite battery anode product, Talnode-C, for the global battery supply chain.

The PFS proposes a staged conventional open-pit mining operation with on-site concentrator and coastal anode refinery to produce, at final design, approximately 19,000tpa of Talnode-C.

The initial stage is designed as a low capex toll processing operation over two years to feed the Stage 1 anode refinery for output of about 2500tpa Talnode-C prior to scaling up to steady state full-scale production in Stage 2.

Key project metrics include an estimated pre-tax Net Present Value (NPV) of US\$1056m at an 8pc discount rate and a pre-tax Internal Rate of Return



Talga's Vittangi graphite being cut.

(IRR) of 55pc, with a rapid pay-back period of 1.5 years from commencement of Stage 2 commissioning.

The Project benefits further from its favourable location in the existing regional mining and processing infrastructure of north Sweden, with close access to modern roads, ample water supply, nearby container ports and low-cost, low-CO<sub>2</sub> hydropower.

The PFS pricing of Talnode-C, proposed to be sold directly to li-ion battery manufacturers, of US\$11.250/t is

based on discounting the recommended pricing provided by independent globally recognised product and market assessors Benchmark Mineral Intelligence.

Talga will now move to initiate the Stage 1 Definitive Feasibility Study (DFS), aiming for completion by Q1 2020.

The company is continuing to progress all necessary project permitting and approvals, while working on a range of funding initiatives with customers and potential strategic partners to take the Project into production, targeting commencement of Stage 1 in 2020.