

AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT  
AND MEDIA RELEASE



5 October 2022

## JAGUAR NICKEL SULPHIDE PROJECT DEVELOPMENT UPDATE

**Definitive Feasibility Study (DFS) completion rescheduled to mid-2023 to accommodate additional sample requirement for Pressure Oxidation and downstream solution purification testwork as off-take discussions support the Company's nickel sulphate production path**

- **DFS work to date and ongoing off-take discussions strengthen the view that production of a battery-grade nickel sulphate product has clear economic advantages given the rapidly evolving market for EV-related commodities and ESG-friendly Class-1 nickel.**
- **This is further supported by the significant endowment of the Jaguar deposit (MRE 730,000t of contained nickel)<sup>1</sup> and the potential for further growth (next MRE update due late October 2022).**
- **With recent advancements in the Pressure Oxidation (POX) flowsheet for a nickel sulphate end-product, targeted at further capital and operating cost savings, additional concentrate sample is required for the pilot plant test work.**
- **Commencement of pilot plant test work rescheduled to November 2022 to allow for additional drill core to be delivered to Australia to prepare the additional concentrate, with DFS completion now expected mid-2023.**
- **Centaurus remains well-funded with approximately \$50 million in cash.**

Centaurus Metals (ASX Code: **CTM**, OTCQX: **CTTZF**) is pleased to provide an update on ongoing metallurgical testwork and other key work streams being progressed as part of the ongoing Definitive Feasibility Study (DFS) on its 100%-owned **Jaguar Nickel Sulphide Project** in north-eastern Brazil.

The advancement of off-take discussions, in parallel with progress on the DFS, continue to confirm the clear advantages of producing nickel sulphate at Jaguar given the dynamic market conditions for EV-related commodities and the Class-1 nickel that can be delivered with a very low-emission footprint.

Recent advancements in the Pressure Oxidation (POX) process flowsheet, which offer the potential to further optimise capital and operating costs, will require the preparation of additional concentrate feed for the pilot plant work. As a result, the POX pilot plant test work is expected to commence in November 2022 to allow time for further drill core to be delivered to Australia from which additional concentrate feed can be prepared.

In line with this revised schedule, the delivery of the DFS will now occur in mid-2023 with a Final Investment Decision (FID) targeted for Q4 2023, after FEED work is sufficiently advanced to place long-lead orders and the second stage of the environmental approval process (Installation Licence) has been completed.

<sup>1</sup> Refer ASX release 13 December 2021. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the competent persons findings were presented have not been materially modified from the original announcement.

**Australian Office**  
Centaurus Metals Limited  
Level 2, 1 Ord Street  
West Perth WA 6005  
AUSTRALIA

**Brazilian Office**  
Centaurus Brasil Mineração Ltda  
Avenida Barão Homem de Melo, 4391  
Salas 606 e 607 - Estoril  
CEP: 30.494.275, Belo Horizonte MG  
BRAZIL

**ASX: CTM**  
ACN 009 468 099  
office@centaurus.com.au  
T: +61 8 6424 8420

# AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT & MEDIA RELEASE



The environmental approval process is progressing without issue, albeit at a slightly slower pace than the Company was anticipating. Several meetings, including an initial site visit, have been held with the Environmental Agency in Para State (SEMAS) to keep them informed on project development activities.

The Company is still targeting first production in 2025, subject to confirmation of delivery timelines for long-lead items once the DFS is finalised.

Centaurus Metals Managing Director, Darren Gordon, said the additional time being taken to finalise the DFS would allow it to take advantage of enhancements to the POX process flowsheet and optimise capital and operating costs.

*“We remain focused on delivering a project capable of supplying high-quality battery-grade nickel sulphate directly into the rapidly expanding EV market globally,” he said. “The economic rationale for value-adding in Brazil remains compelling, especially where the product can be delivered with an extremely low-emission footprint – which we know we can achieve at Jaguar.”*

## **Flotation & Pilot Plant Testwork**

As outlined in the ASX Release of 27 July 2022, a significant amount of flotation test work has been completed for the design of the flotation part of the overall process flowsheet design. Over 50 flotation tests have been completed, including bulk float tests, allowing the Company to prepare over 400kg of concentrate ready for pilot plant testing of the planned pressure oxidation circuit.

In conjunction with the Company’s hydrometallurgical consultants, the Company has continued to fine tune the POX process flowsheet and the pilot plant testing conditions. Development of the POX part of the process flowsheet has concentrated on maximising nickel extraction from the source nickel concentrate by testing a range of feed grind sizes, autoclave temperatures, oxygen pressure and reaction rates. This has shown that optimal nickel extraction is best achieved by controlling the rate at which the sulphides oxidise rather than maximising the rate of oxidation.

Optimising the process flowsheet with the introduction of a slurry recycle stage used to control temperature within the autoclave rather than cooling water has been shown to improve nickel extraction while also reducing the vessel volume necessary to achieve the residence time required.

Including the recycle design in the autoclave has resulted in a requirement to increase the slurry feed rate over what had been previously expected, increasing the amount of concentrate required for piloting work by ~250kg. To achieve this additional concentrate volume, further core is being sent to Australia from Brazil. The plan is to now run the pilot test from the beginning of November.

The pilot test will culminate with the delivery of nickel sulphate and other final products for product marketing as well as assisting in providing the design criteria for Ausenco to use in the development of the overall process flowsheet for the DFS.

## **Off-take Discussions**

Off-take discussions are continuing with Vale in relation to the products to be produced from Jaguar. Vale has the right to product at arm’s length market-based pricing under the original acquisition agreement for the Jaguar Project. Centaurus retains discretion over what nickel products will be produced at Jaguar.

The introduction of the Inflation Reduction Act by the US Government has highlighted the strategic importance of energy metals like nickel and, in particular, those that can be sourced in geopolitically stable jurisdictions with a low-emission footprint.

## AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT & MEDIA RELEASE



Brazil fits these criteria well as it is South America's largest pro-mining jurisdiction, the 8<sup>th</sup> largest global economy and currently more than 80% of the country's grid power is delivered from renewable sources. It is anticipated that the Jaguar Project will be able to secure 100% renewably sourced power by the time it is in production.

At 80.6Mt @ 0.91% Ni for 730,700t of contained nickel, Jaguar is one of the largest nickel sulphide resources held by an ASX-listed company and the largest outside of the majors. With this very large metal endowment, the Jaguar Project is extremely well placed to capitalise on these changing market dynamics ahead of the scheduled Mineral Resource Estimate later this month, where the Company is targeting over 500,000t of contained nickel in the Measured and Indicated categories.

For further information on the Company please visit [www.centaurus.com.au](http://www.centaurus.com.au) to view our latest corporate presentation or contact:

**-ENDS-**

For further enquiries please contact:

**Nicholas Read**  
Read Corporate  
M: +61 419 929 046  
T: +61 8 9388 1474  
[info@readcorporate.com.au](mailto:info@readcorporate.com.au)

Authorised for release by:

**Darren Gordon**  
Managing Director  
Centaurus Metals Ltd  
T: +61 8 6424 8420  
[office@centaurus.com.au](mailto:office@centaurus.com.au)

For personal use