

Developing a globally significant nickel project for a clean energy future

# **DECEMBER 2023 QUARTERLY ACTIVITIES REPORT**

Jaguar DFS scheduled for completion in Q1 2024 with key permitting milestones recently achieved; Exceptional deep drilling results extend mineralisation at Jaguar well below current Resource limits; Exciting greenfields copper-gold discovery opportunity emerging at Boi Novo

#### 30 January 2024

#### JAGUAR NICKEL SULPHIDE PROJECT, BRAZIL

- Technical approval of the Plan of Economic Exploitation (PAE/Mining Lease Application) received.
- Environmental Impact Assessment (EIA) and Preliminary Licence (LP) also approved by Pará State Environmental Committee (COEMA), with the formal issue and gazettal of the LP now only subject to internal environmental agency processes.
- Jaguar Definitive Feasibility Study (DFS) scheduled for Q1 2024 following a formal request from the Company's lead engineering group, Ausenco, for a minor timetable extension to complete capital and operating cost estimation and project implementation scheduling.
- Capital and operating cost estimation for the DFS is advancing on multiple fronts with several key packages currently under review.
- Jaguar Deeps drilling successfully intersects high-grade nickel sulphide mineralisation well below the limits of the current Mineral Resource, with new DHEM deep conductor plates showing that the mineralisation remains open.
- All drill rigs at Jaguar have been demobilised and no further drilling is planned in 2024 given the size of the existing Mineral Resource Estimate (MRE) and the expectation that results from over 25,000m of diamond drilling completed in 2023 should lead to an increase in the MRE when it is delivered in Q2 2024.

#### **BOI NOVO COPPER-GOLD PROJECT, BRAZIL**

- Low-cost greenfields exploration has identified multiple IOCG targets at the 100%-owned Boi Novo Copper-Gold Project. Drill targets are being refined.
- Soil geochemistry surveys identified four distinct prospect areas with +500ppm copper-in-soil anomalies along 12km of discontinuous strike, coincident with Drone Magnetics (DMAG) anomalies.
- Within the broader anomalies are discrete contiguous zones of +1,000ppm copper-in-soil anomalies, extending over +1.5km of strike. Maximum results from rock chip samples of 2.24% Cu and 0.57g/t Au.

#### CORPORATE

• Cash at 31 December 2023 of \$34.7 million, providing a significant cash runway with the focus now on completing and delivering the DFS following the completion of Jaguar resource drilling.

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# **JAGUAR NICKEL PROJECT**

The Jaguar Nickel Sulphide Project is located in the world-class Carajás Mineral Province of northern Brazil (Figure 1).



#### Figure 1 – Jaguar Nickel Sulphide Project Location Map

#### **PROJECT APPROVALS**

The Company took another significant step towards the development of its 100%-owned Jaguar Nickel Sulphide Project in northern Brazil following the receipt of **technical approval of its Mining Lease Application – PAE** by the ANM (the Brazilian National Mining Agency).

#### Technical Approval of Mining Lease Application (PAE)

The technical approval of the Plan of Economic Exploitation (PAE) from the ANM is an important validation of the Jaguar Project and allows for the formal issue of the Mining Lease to proceed once the Installation Licence (LI) is issued by the Environmental Agency.

The technical approval of the PAE indicates that all technical requirements have been met in relation to the grant of the Mining Lease as well as recognition of the Company's capacity to implement the Project. The issue of the LI by SEMAS (discussed further below) is now the final step needed before the Mining Lease is formally granted.

#### Jaguar Project Environmental Approval

In addition to the technical approval of the PAE by the ANM, from an environmental approval process, the Pará State Environmental Committee (COEMA) approved the Company's Environmental Impact Assessment ("EIA") and Preliminary Licence ("LP"), with the formal issue and gazettal of the LP now only subject to internal environmental agency processes.

All documentation required by SEMAS for the issue and gazettal of the LP has been completed and delivered to them. The approval process to date has been achieved within the Company's development timetable and comes just ahead of the completion and delivery of the Definitive Feasibility Study (DFS).



The PAE and LP have been approved based on a planned production rate of 20ktpa of nickel-in-sulphate on site at the Jaguar Project.

The final lodgement of the EIA occurred in early January 2023 after the release of the November 2022 JORC Mineral Resource Estimate, which significantly increased the size and scale of the Jaguar Project. A large amount of environmental and social data was collected over an 18-month period in the lead-up to the preparation of the original EIA.

The LP is a key approval for the Company and the Jaguar Nickel Sulphide Project as it attests that the overall project definition is environmentally and socially sound. Historically, it is the most challenging stage of the environmental approval process in Brazil and, as such, the Company is looking forward to the formal issue and gazettal of the LP.

Once the LP has been gazetted, the Company will be in a position to commence the next stage of the environmental approval process with SEMAS, being the lodgement of the Installation Licence ("LI") Application. This takes the form of a document called the Environmental Control Plan ("PCA").

On approval of the LI, the Company will have all the environmental approvals required to commence the on-site construction of the Jaguar Nickel Sulphide Project and this will also allow the Mining Lease to be formally issued (discussed above). The Company is looking forward to securing the Installation Licence in the second half of 2024.

#### Jaguar Project Powerline Environmental Approval

In addition to the main environmental approval process, the application for the combined LP/LI for the 230kV powerline that will supply power to the Jaguar Project has been lodged with SEMAS. The two stages of the environmental approval process can be combined because of the low environmental and social impact of the powerline.

The combination of processes will expedite the approval requirements for the powerline by allowing for the simultaneous grant of both the preliminary and the installation licences.

#### **DEFINITIVE FEASIBILITY STUDY**

As reported in the September Quarterly Report, Ausenco had requested additional time for delivery of the DFS to the end of the March Quarter 2024 to provide more time to obtain market pricing for both equipment purchases and construction contract rates.

Significant effort and progress has been made by the Centaurus and Ausenco teams on the DFS, particularly in relation to the development of capital and operating cost estimates.

#### **Capital Cost Estimation**

#### Mining

The main capital cost in respect of mining is the pre-strip of waste for the construction of the Integrated Waste Facility (IWL) and ROM laydown area. Prices for Drill and Blast and Load & Haul have been received from a number of mining contractors with these prices being used to determine overall mining costs for the Project.

All mining costs prior to first production will be considered a pre-construction capital cost of the Project.

Mining activities will commence as soon as a Final Investment Decision (FID) is made so that the IWL is constructed in time for first production.

#### Processing – General

A total of 122 vendor packages for equipment supply have been received, evaluated and agreed. Eleven construction packages, including the major packages covering earthworks, civil, concrete, structural steel, piping and platework, mechanical and electrical installation have been received and evaluated with only a few clarifications remaining to be finalised.

#### Processing – Concentrator

The concentrator for the Jaguar flotation circuit is being designed for an annual throughput of 3.5Mtpa.



All major equipment items for the concentrator have been priced with the key components of the circuit being:

- Jaw Crusher
- Sag Mill
- Flotation Circuits
- Thickeners for concentrate and tailings

Construction packages for the costs associated with the installation of the concentrator circuit are still being received.

#### Processing – Refinery

The Jaguar Refinery Circuit has been designed based on the results from the pilot plant work completed in 2023 and targeted to produce 20,000 tonnes per annum of nickel-in-sulphate. All major equipment items for the refinery have been priced with the key components of the circuit being:

- Ball Mill for concentrate regrind
- Two Autoclaves for pressure oxidation
- Oxygen Plant
- Leach tanks for primary & secondary neutralisation
- Solvent extraction circuits for Copper, Zinc, Cobalt & Nickel
- EW circuit for production of copper cathode
- Precipitation circuits for zinc hydroxide and cobalt hydroxide production
- Crystallisers for nickel sulphate and ammonium sulphate production
- POX residue facility

Construction packages for the costs associated with the installation of the refinery circuit are still being received.

#### Non-Process Infrastructure (NPI)

The key components of the non-process infrastructure that are to be costed into the capital cost estimate are:

- Earthworks & Site Roads
- Preparation of IWL site
- Non-Process Site Buildings (restaurant, offices, gatehouse, control room, laboratory, workshop, warehouse, emergency services, etc.)
- 60km of offsite road upgrades and the upgrade of three local bridges
- Power Supply, including 38km of new 230kV power line and main sub-station with 230kV to 13.8kV transformer
- Services including laboratory equipment, mobile and workshop equipment and water supply

#### **Operating Cost Estimation**

#### Mining

The DFS for the Jaguar Project is being prepared solely on the basis of an open pit mining operation. It is expected that future underground operations will occur given significant mineralisation has been intersected up to 800 metres below the base of DFS open pit designs.

The main operating cost for the Jaguar Project is the mining of ore and waste from the open pits. Prices for Drill and Blast and Load & Haul have been received from a number of mining contractors with these prices being used to determine overall mining costs for the Project.

## AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT



All mining costs from the start of Year 3 will be considered as operating costs for the DFS. Costs in Years 1 and 2 will be considered a pre-construction capital cost of the Project. Mining activities will commence as soon as a Final Investment Decision (FID) is made with initial mining activities focussed on the construction of the IWL.

Centaurus will purchase all diesel for the project and free issue it to mining contractors. This approach will save on indirect taxes on the supply of diesel. The **cost of diesel fuel** (net of ICMS tax exemptions available to the Company) has been assessed from quotes from major regional suppliers at **R\$4.80 per litre**. This price of diesel fuel will be used in the DFS.

All pit optimisation work has been completed and a detailed pit design and mining schedule has been prepared, which has been the basis for the estimation of mining costs. Based on the current pit designs, the average LOM strip ratio (tonnage basis) for the open pits, including waste movement for IWL construction (which will be capitalised), is expected to be approximately 5.6:1.

#### Processing – Concentrator

The concentrator circuit has been specified as a 3.5Mtpa circuit and takes the form of a traditional nickel flotation circuit. The main operating costs associated with the concentrator circuit are power, labour, grinding media and reagents.

The Company will connect to the 230kV national grid in Brazil with the network being 80% renewable energy. As a result, carbon emission levels associated with use of power from the grid is very low.

Centaurus expects that by the time it has finalised a contract for the supply of power with one of the many generators in country, the power supply for the project will be 100% renewably sourced.

#### Based on DFS work, the cost of power (including transmission and taxes) will be approximately US\$0.03 per kWh.

Approval to access the 230kV network has already been granted by the Ministry of Mines and Energy with stage 2 of the approval process to commence shortly, which is the approval of the Electricity Market Regulator (ONS).

All concentrate produced will become feed for the pressure oxidation circuit in the refinery. The Company is expecting to produce on average **approximately 240,000 tonnes** of concentrate each year with the specification (as produced for the 2023 pilot testwork program) shown in Table 1 below.

Ni (%)	Cu (%)	Co (%)	Zn (%)	AI (%)
11.2	0.72	0.31	3.07	0.44
CI (%)	As (%)	F (%)	Fe (%)	К (%)
<0.01	<0.01	0.11	30.3	0.13
MgO (%)	Fe/MgO	Pb (%)	S (%)	P (%)
2.56	11.9	0.05	36.7	0.42

Table 1 – Bulk Pox Concentrate Assay Result from Feed to Pilot Plant

The present flowsheet for the Project has been designed to maximise sulphide nickel recovery to the refinery.

#### Processing – Refinery

The Refinery circuit for the Jaguar Project has been designed to convert the Pox concentrate feed from the concentrator to a nickel sulphate product for use in the fast-growing battery EV sector. The Refinery has been specified to produce 20,000 tonnes of nickel in sulphate per annum.

The main operating costs associated with the Refinery circuit are power, labour, oxygen, limestone, ammonia, sulphuric acid and other reagents.

The approximate annual volumes of reagents needed for the Refinery are set out in Table 2 below.



Description	Average Annual Consumption	Location of Supply	
Description	Tonnes	Location of Supply	
Limestone	147,000	Rio Grande do Norte, Brazil	
Quicklime	18,000	Rio Grande do Norte, Brazil	
Ammonia	15,000	São Paulo, Brazil	
Oxygen Gas	130,000	Self-Generated in onsite Oxygen Plant	
Sulphuric acid	92,000	Tocantins, Brazil	
Magnesia	4,000	Bahia, Brazil	
Big Bags	117,000	Rio Grande do Sul, Brazil	
Flocculant	150	China/Europe	
Solvents	50	USA/Canada/Europe	
Diluent	150	Europe	

#### Table 2 – Volumes of Reagents for the Refinery Circuit

The overall layout of the Jaguar Project is represented diagramatically in Figure 2 below.

#### Figure 2 – Jaguar Concentrator and Refinery Layout Schematic



#### STRATEGIC PARTNERING PROCESS

The strategic partnering process is continuing with strong interest received to date from a wide range of counterparties including Western and Asian strategic investors, global automakers, battery manufacturers, chemical companies and financial investors.

This broad range of strategic interest highlights the unique market positioning of the Jaguar Nickel Sulphide deposit as one of the very few advanced stage, large-scale nickel sulphide projects globally, underpinned by its Mineral Resource which hosts nearly one million tonnes of contained nickel in an open pittable nickel sulphide deposit.

Furthermore, the Project's expected low carbon footprint has significant strategic appeal to the counter-parties involved in the electric vehicle (EV) battery supply chain, particularly in North America and Europe.

## AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT



Despite current market conditions, the significant interest received as part of the strategic partnering process and recent transactions in the North American nickel sector demonstrates that strategic appetite from the EV battery industry remains strong for Western-aligned, low-carbon nickel. While the growth in Indonesian nickel has been significant in the context of the global nickel market, it is becoming clear that these products will not be able to meet the increasingly strict ESG requirements of the major Western EV automakers and battery manufacturers and their respective customers.

Centaurus is confident that the strategic partnering process will deliver an attractive package of funding for the Project based on the strong interest levels and engagement seen to date.

### **OCCUPATIONAL HEALTH AND SAFETY**

At the end of the quarter the Company had worked more than 250,000 hours in the last 12 months and had achieved 15 months without an LTI. The 12-month reportable injury frequency rate at the end of the quarter was 15.95 and the 12-month severity rate was 0.

### **ENVIRONMENTAL, SOCIAL & GOVERNANCE**

#### Local Community Support Plan

The 2023 annual plan for the works to be undertaken in partnership with local governments was defined to prioritise domestic waste. This involved a study of the average composition and volume of waste generated in the three municipalities around the Jaguar Project, with a view to then implementing three courses of action:

- Educational campaign about reduction, re-use and segregation of domestic waste;
- Composting Centre for education; and
- Recycling of domestic waste.

During the quarter, another six recyclable waste facilities were set up in different towns in the region. This initiative will reduce the amount of waste taken to the regional waste dumps, as well as creating revenue streams for local waste recycling businesses. The goal is to eliminate six tonnes of recyclable waste from going to the local dumps by the end of June 2024. By the end of the quarter 1.5 tonnes of waste material had been recycled.

#### **GHG** Emissions

Since January 2022, the Company has been monitoring Scope 2 greenhouse gas (GHG) emissions and sinks associated with the Jaguar Project (Figure 3). The main carbon sink is the standing forest on land acquired by the Company to support the Project Development. The main source of carbon from the Project has been the combustion of diesel to run drill rigs.





## AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT



At the end of December all rigs had been demobilized from site. With the cessation of drilling activities, carbon emissions from the Project have greatly reduced. Consequently, the net carbon sequestered from the Project has increased from prior months.

The level of carbon now sequestered from the Project is expected to continue into 2024 with no new drilling activities planned for the foreseeable future.

#### Local Workforce Training Programs

The Company intends to train up to 1,500 people in various trades that will allow them to be able to seek employment once construction of the Jaguar Project commences.

The training programs are intended to be conducted in conjunction with the Brazilian industry training college (SENAI), with the more trade specific training programs scheduled to commence in H1 2024.

The free online training program offered to local residents since March 2023 continued to provide basic qualifications for the local communities throughout the quarter. The program has been successfully completed with over 2,000 certificates issued to 929 local residents.

#### **Plant Nursery**

During the quarter, the Company planted 5,134 native species seedlings for the revegetation of cleared farmland (Figure 4). The planned revegetation will allow new forest corridors to be established around the site to assist with the movement, protection and biodiversity of flora and fauna.

#### Figure 4 – Revegetation Works



#### **DRILLING & EXPLORATION PROGRAMS**

Drilling at the Jaguar Nickel Sulphide Project during the December 2023 Quarter comprised the Jaguar Deeps drilling focused on extending nickel sulphide mineralisation below the current resource limits. The Deeps program was successfully completed at the start of December and all drilling contractors have now been demobilised from site.

No new drilling is planned at Jaguar given the size of the existing Mineral Resource Estimate (MRE) and the expectation that results from over 25,000 metres of diamond drilling completed in 2023 should lead to an increase in the MRE when it is delivered in the second quarter of this year.

The conclusion of drilling at Jaguar will not affect the delivery of the Definitive Feasibility Study and significantly reduces exploration expenditures from January 2024.

#### **Onça Preta Results**

Results from the Jaguar Deeps drilling at the Onça Preta Deposit show that the **mineralisation continues more than 300m below the bottom of the current Mineral Resource Estimate (MRE)** and remains open at depth. The Onça Preta Deposit is the highest-grade deposit at the Jaguar Project, with the November 2022 MRE expanding the resource to 14.2Mt at 1.23% Ni for more than 173kt of contained nickel.

The Onça Preta ore bodies are tabular, sub-vertical and set in a structurally competent gneissic host rock, ideal for underground mining scenarios (Figure 5 and Figure 6).

Figure 5 – The Onça Preta Deposit long-section looking north showing location of recent Jaguar Deeps drill holes in relation to the base of the November 2022 MRE



Deep step-out drilling at the Onça Preta Deposit continued to intersect consistent semi-massive zones of high-grade nickel sulphides. Drill-hole JAG-DD-23-614 intersected a broad intermittent mineralised zone of 150 metres with specific intersections which returned 12.7m at 1.02% Ni from 722.9m and 29.3m at 0.89% Ni from 744.0m (including 11.2m at 1.28% Ni) on section 476885mE. These intersections are around 200m down-dip from JAG-DD-23-583, which intersected 36.0m at 1.27% Ni and 11.2m at 1.01% Ni (Figure 6).

In addition, drill hole JAG-DD-23-616, successfully intersected multiple zones of mineralisation over a corridor of approximately 80 metres with individual intersections within the zone returning 16.2m at 1.12% Ni from 963.0m (including 5.0m at 1.47% Ni) and 28.0m at 0.66% Ni from 1,005.0m. These intersections are more than 300m below the current MRE limits.

New assay results from drilling at the Onça Preta Deposit include the following down-hole intervals (see ASX Announcement dated 20 November 2023 for complete results).

#### Hole JAG-DD-23-614

 $\geq$ 

- 12.7m at 1.02% Ni, 0.01% Zn, 0.07% Cu and 0.03% Co from 722.9m; including
  - **6.0m at 1.37% Ni**, 0.01% Zn, 0.08% Cu and 0.05% Co from 724.4m
- 29.3m at 0.89% Ni, 0.01% Zn, 0.04% Cu and 0.03% Co from 744.0m; including
   11.2m at 1.28% Ni, 0.01% Zn, 0.08% Cu and 0.09% Co from 746.5m
  - 16.4m at 0.78% Ni, 0.04% Cu and 0.02% Co from 831.3m; including
- 3.7m at 1.39% Ni, 0.01% Zn, 0.08% Cu and 0.04% Co from 831.3m
   Hole JAG-DD-23-613
  - 11.7m at 0.55% Ni, 0.03% Cu and 0.02% Co from 694.5m



- 29.2m at 0.83% Ni, 0.02% Zn, 0.06% Cu and 0.03% Co from 731.9m; including
  - 19.1m at 1.02% Ni, 0.02% Zn, 0.08% Cu and 0.04% Co from 739.6m
- 32.4m at 0.60% Ni, 0.03% Cu and 0.02% Co from 772.6m

#### Hole JAG-DD-23-616

 $\geq$ 

- 4.0m at 0.11% Ni, 0.01% Zn, 4.09% Cu and 0.01% Co from 552.3m
  - 16.2m at 1.12% Ni, 0.02% Zn, 0.08% Cu and 0.03% Co from 963.0m
    - 5.0m at 1.47% Ni, 0.01% Zn, 0.15% Cu and 0.05% Co from 972.5m
- 13.3m at 0.50% Ni, 0.03% Cu and 0.02% Co from 983.7m
- 28.0m at 0.66% Ni, 0.04% Zn, 0.04% Cu and 0.02% Co from 1005.0m

The new drilling has extended the down-dip extent of mineralisation to more than 850m from surface. Now with up to 400m of strike and more than 900m of down-dip extent, the Onça Preta deposit continues to demonstrate outstanding potential for significant ongoing resource growth and future underground operations.

# Figure 6 – The Onça Preta Deposit: Cross-Sections 476885mE (left) and 477035mE (right) showing existing drilling, DHEM conductor plates in dark blue and FLEM conductor plates in light blue



## Jaguar South Drill Results

Jaguar Deeps drilling at the Jaguar South Deposit has successfully identified new broad intervals of stringer and semi-massive nickel sulphide mineralisation between 500m to 650m deep and stringer mineralisation down to as deep as 1,000m down hole (Figure 7).

The upper intersection of JAG-DD-23-617, on section 478300mE, returned 12.1m at 0.95% Ni from 507.0m, 20.7m at 0.53% Ni from 535.0m and 20.0m at 0.65% Ni from 624.0m within a broader intermittent mineralised interval of more than 135 metres immediately below the Canaã Fault which is key regional structure and understood to have controlled the mineralising fluids (Figure 7).



# Figure 7 – The Jaguar South Deposit: Cross-Section 478300mE showing existing drilling, DHEM conductor plates in dark blue and FLEM conductor plates in light blue



The deepest high-grade intersection of JAG-DD-23-617, from which assays are yet to be received, returned a 5m intersection of stringer and semi-massive mineralisation<sup>1</sup> from 780.6m (Figure 7 and Figure 8), which is more than 200m down-dip from the previous deepest hole on section, JAG-DD-22-445, which intersected **20.4m at 3.94% Ni** (including **9.5m at 5.59% Ni**) from 612.7m.

Refer to Figure 8 and ASX Announcement dated 20 November 2023 for photos of the core and visual estimates of hole JAG-DD-23-617. Assays have been received from hole JAG-DD-23-617 down to 688m with the remaining results expected by the end of January 2024.

<sup>&</sup>lt;sup>1</sup> Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations. All intervals have been sampled and the analytical results will be reported to the market when the Company receives them.



Figure 8 – Core photo from drill hole JAG-DD-23-617; 780.6m to 785.7m down-hole: Stringer, semi-massive and massive sulphides (metallic bronze) mineralisation with dacite host rock



The Jaguar South Deposit is the largest deposit at the Jaguar Project, hosting an MRE of 34.6Mt at 0.92% Ni for more than 316kt of contained nickel. The base of the November 2022 MRE continues to be constrained purely by the depth of drilling, however, step-out drilling continues to confirm that the mineralisation remains open at depth and along the +800m strike length of the deposit in both directions.

Highlights of the new assay results received from drilling at the Jaguar South Deposit include the following downhole intervals (see ASX Announcement dated 20 November 2023 for complete results):

#### Hole JAG-DD-23-602

- 13.0m at 1.29% Ni, 0.01% Zn, 0.06% Cu and 0.03% Co from 435.0m; including
   3.0m at 1.90% Ni, 0.07% Cu and 0.05% Co from 445.0m
- 11.5m at 0.88% Ni, 0.06% Zn, 0.02% Cu and 0.02% Co from 632.5m; including
   4.5m at 1.54% Ni, 0.05% Zn, 0.03% Cu and 0.04% Co from 636.0m

#### Hole JAG-DD-23-607

- 12.8m at 1.15% Ni, 0.45% Zn, 0.07% Cu and 0.03% Co from 291.2m
   3.8m at 2.54% Ni, 1.33% Zn, 0.14% Cu and 0.06% Co from 291.2m
- **8.0m at 1.32% Ni**, 0.05% Zn, 0.04% Cu and 0.03% Co from 370.0m

#### Hole JAG-DD-23-610

- > 10.0m at 1.02% Ni, 0.17% Zn, 0.07% Cu and 0.03% Co from 377.5m
- 15.5m at 1.03% Ni, 0.50% Zn, 0.05% Cu and 0.02% Co from 503.0m; including
   3.0m at 2.43% Ni, 1.63% Zn, 0.08% Cu and 0.05% Co from 512.0m

#### Hole JAG-DD-23-617

- 12.1m at 0.95% Ni, 0.55% Zn, 0.04% Cu and 0.03% Co from 507.0m; including
- **6.6m at 1.21% Ni**, 0.94% Zn, 0.05% Cu and 0.03% Co from 512.0m
- 20.7m at 0.53% Ni, 0.62% Zn, 0.02% Cu and 0.01% Co from 535.0m
- 14.4m at 0.50% Ni, 0.09% Zn, 0.03% Cu and 0.02% Co from 581.8m
- 20.0m at 0.65% Ni, 0.05% Zn, 0.04% Cu and 0.02% Co from 624.5m



# **BOI NOVO COPPER-GOLD PROJECT**

The Boi Novo Copper-Gold Project, secured as part of Centaurus' Horizon II Business Development and Growth Strategy in northern Brazil, covers 35km<sup>2</sup> of highly prospective ground in the Carajás Mineral Province – the world's premier Iron-Oxide Copper-Gold (IOCG) address. The Project is located just 30km from Parauapebas (population 250k), the regional centre of the Carajás, and less than 20km from BHP's Antas Norte copper flotation plant.

The Boi Novo Copper-Gold Project tenure covers a portion of the eastern margin of the Estrela Granite Complex that has intruded the Neoarchean Grão Pará Group (Figure 9), part of the highly prospective Itacaiúnas Supergroup which hosts all known IOCG deposits within the Carajás Mineral Province.

All prospects are located along the topographic highs that are sustained by the Carajás iron formation part of the Grão Pará Group of the Itacaiúnas Supergroup. A Drone Magnetics (DMAG) survey was completed across the project on 100m spaced north-south lines. The results clearly identify the iron formation and 2D inversion of the survey data has helped understand the geometry of the iron formation and host volcano-sedimentary sequence (Figure 10).

Surface mapping has confirmed the regional extent of the iron formation location derived from the DMAG survey.

The Company is undertaking an extensive soil sampling campaign with more than 3,000 samples taken and results from the first 1,200 samples received. Initial sample lines were spaced at 400m with some select 200m in-fill lines already completed.





The Project hosts four distinct target areas with +500pm copper-in-soil anomalies along 12km of discontinuous strike coincident with drone magnetic anomalies. These targets are the Bufalo, Nelore, Zebu and Guzera Prospects (Figure 9).

Within the broader anomalies there are discrete zones of +1,000ppm copper-in-soil anomalies extending over a strike length of more than 1.5km. The soil geochemistry results include soil values of up to 3,650ppm Cu and 0.334ppm Au.





Figure 10 – The Boi Novo Copper-Gold Project, copper-in-soils over Drone Magnetics survey (ASA)

During field mapping, Centaurus geologists identified sub-crops and blocks of partially to strongly weathered mafic and tonalitic rocks hosting copper oxide mineralisation (malachite and chrysocolla) and trace copper sulphide minerals (chalcopyrite), as shown in Figure 11. The best result from rock chips sampling to-date returned 2.24% Cu and 0.57g/t Au. Assay results of all rock chips samples taken to date were detailed in the Company's ASX Announcement dated 28 November 2023.



Figure 11 – The Boi Novo Project: Malachite and chalcopyrite identified in outcropping mafic and tonalitic rocks

#### **Next Steps**

The soil sampling and surface mapping programs are continuing, in-filling the line spacing which is currently at 200m spacing across most of the tenure.

## AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT



In late January 2024, the Company will undertake an Induced Polarization (IP) ground survey that has traditionally been the geophysical survey of choice for targeting of IOCG deposits in the Carajás as it responds well to the broad disseminated sulphide mineralisation style associated with the known IOCG deposits.

The Carajás IOCG deposits often have high-grade breccia zones within the deposits, consisting of interconnected semi-massive to massive sulphides. These zones are conductive and can return discrete EM anomalies within the broader IP anomaly.

Consequently, some Fixed-Loop Electromagnetic (FLEM) surveys have been completed by the Company's in-house geophysical survey team. These FLEM surveys will assist vectoring towards potential accumulations of massive and semi-massive sulphides. This technique has proved very successful in identifying high-grade mineralisation at the Jaguar Nickel Sulphide Project.

Once the ground geophysical surveys are completed, a drill program is likely to be carried out to test the priority targets, as well as any new targets generated by the FLEM survey. Given the favourable location and ease of access to the Boi Novo Project from the regional centre of Parauapebas, any drill program is likely to be unrestricted by weather during the upcoming regional wet season.

The Company has land access agreements in place and is the process of obtaining water and drill licences to allow for the maiden drill program to start in Q1 2024.

## **JAMBREIRO IRON ORE PROJECT**

The Company's 100%-owned Jambreiro Project, located in south-east Brazil (Figure 12) close to the Company's head office in the city of Belo Horizonte.





#### Environmental Approvals

As noted in the September Quarterly Report, an updated EIA/RIMA was lodged with the environmental agency in Minas Gerais State, Supram, for the Jambreiro Project. Previously, all environmental licences required to build the Jambreiro Project were held by the Company but lapsed. The new EIA/RIMA incorporated the following changes to the project design that was originally approved in 2012:

- Elimination of the tailings dam through the inclusion of filtration at the back end of the process flowsheet to dewater the tailings and stockpile them with the waste dumps;
- Transforming the original tailings dam into a water storage dam, with a much smaller footprint;



- Development of two additional small open pits that are feasible in the current iron ore price environment; and
- Reducing the project's overall project footprint by ~50% via the removal of the tailings dam.

The new approvals are anticipated to be received in Q3 2024.

The Company has also previously lodged the documentation to re-apply for all water permits necessary to operate the project.

# CORPORATE

#### **Cash Position**

At 31 December 2023, the Company held cash reserves of A\$34.7 million.

#### **Shareholder Information**

The Company's capital structure as of 31 December 2023 is as follows:

#### **Quoted Securities**

Capital Structure	Number
Fully paid ordinary shares (CTM)	494,857,633
Top 20 Shareholders	66.375%
Directors and Management Shareholding of Listed Securities	4.2%

#### **Unquoted** Options

Expiry Date	Exercise Price	Vested	Unvested
31/05/24	\$0.180	233,334	
31/05/24	\$0.405	1,400,000	
31/12/24	-	-	1,395,452
31/12/25	-	-	1,225,220
31/12/26	-	-	1,535,164
		1,633,334	4,155,836

#### Additional Information Required by Listing Rule 5.3.3

#### **Brazilian Tenements**

Tenement	Project Name	Location	Interest
831.638/2004	Canavial	Minas Gerais	100%
831.639/2004	Canavial	Minas Gerais	100%
831.649/2004	Jambreiro (Mining Lease)	Minas Gerais	100%
833.409/2007	Jambreiro (Mining Lease)	Minas Gerais	100%
834.106/2010	Jambreiro (Mining Lease)	Minas Gerais	100%
831.645/2006	Passabém	Minas Gerais	100%
830.588/2008	Passabém	Minas Gerais	100%
833.410/2007	Regional Guanhães	Minas Gerais	100%
856.392/1996	Jaguar (Mining Lease Application)	Pará	100%
850.475/2016	Itapitanga	Pará	100%
851.571/2021	Terra Roxa (Jaguar Regional)	Pará	100%
851.563/2021	Santa Inês (Jaguar Regional)	Pará	100%
850.071/2014	Boi Novo	Pará	100%
851.767/2021	Boi Novo	Pará	100%
851.768/2021	Boi Novo	Pará	100%
851.769/2021	Boi Novo	Pará	100%





#### **Australian Tenements**

Tenement	Project Name	Location	Interest
EPM14233	Mt Isa	Queensland	10%(1)

1. Subject to a Farm-Out and Joint Venture Exploration Agreement with Summit Resources (Aust) Pty Ltd. Summit has earned a 90% interest in the Project. Aeon Metals Limited has acquired 80% of Summit's Interest giving them a total interest of 72% of the tenement.

#### **Listing Rule 5.3 Information**

- 1. ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure during the Quarter was A\$8.7 million. Details of the exploration activities to which this expenditure relates are set out above.
- 2. ASX Listing Rule 5.3.2: There were no mining production and development activities during the Quarter.
- 3. ASX Listing Rule 5.3.5: Payments to related parties of the Company and their associates during the Quarter totalled A\$345k. These payments relate to non-executive directors' fees, executive directors' salaries and entitlements, payments to MPH Lawyers, a director related entity, for the provision of legal services and technical consulting fees paid to a director related entity of a non-executive director.

This Quarterly Activities Report is authorised for release by the Managing Director, Mr Darren Gordon.

DARREN GORDON MANAGING DIRECTOR

# Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity			
Centaurus Metals Limited			
ABN	Quarter ended ("current quarter")		
40 009 468 099	31 December 2023		

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation	(8,669)	(37,662)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	-	-
	(e) administration and corporate costs	(1,117)	(5,336)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	508	1,293
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	518
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(9,278)	(41,187)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(645)	(2,233)
	(d) exploration & evaluation	(299)	(551)
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	14
	(c) property, plant and equipment	-	-

ASX Listing Rules Appendix 5B (17/07/20)

+ See chapter 19 of the ASX Listing Rules for defined terms.

#### Appendix 5B Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(944)	(2,770)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	46,934
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	570
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(2,980)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	-	44,524

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	44,708	34,048
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(9,278)	(41,187)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(944)	(2,770)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	44,524
4.5	Effect of movement in exchange rates on cash held	188	59
4.6	Cash and cash equivalents at end of period	34,674	34,674

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	652	331
5.2	Call deposits	34,022	44,377
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	34,674	44,708

	associates	\$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	345
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	ny amounts are shown in items 6.1 or 6.2, your quarterly activity report must include on for, such payments.	a description of, and an
Remuner	ation to Executive Directors of \$218,000	
Fees paid	d to Non-Executive Directors of \$86,000	
Legal Fe	es paid to MPH Lawyers a director related entity \$19,000	
	I consulting fees paid to director related entity of Non-Executive Director \$22,000	

7.	<b>Financing facilities</b> Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000	
7.1	Loan facilities	-	-	
7.2	Credit standby arrangements	-	-	
7.3	Other (please specify)	-	-	
7.4	Total financing facilities	-	-	
7.5	Unused financing facilities available at quarter end			
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.			

8.	Estim	ated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)		(9,278)
8.2	Payments for exploration & evaluation classified as investing activities (item 2.1(d))		(299)
8.3	Total relevant outgoings (item 8.1 + item 8.2)		(9,577)
8.4	Cash and cash equivalents at quarter end (item 4.6)		34,674
8.5	Unused finance facilities available at quarter end (item 7.5)		-
8.6	Total available funding (item 8.4 + item 8.5)		34,674
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3) Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, and		
~ ~	Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:		
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?		
	8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?		
	8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?		
	Note: wł	here item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above	e must be answered.

## **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 30 January 2024

Authorised by: Darren Gordon – Managing Director (Name of body or officer authorising release – see note 4)

#### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.