

ASX RELEASE
7 February 2022

CELSIUS APPOINTS DRILLING CONTRACTOR AT OPUWO COBALT PROJECT

HIGHLIGHTS

- **Celsius Resources has engaged Drilling Contractor for Opuwo**
- **Eight x 150m PQ diamond holes to be drilled for new metallurgical test work**
- **Mobilisation payment ~AUD106k will be in cash and the work program paid in Celsius shares. ~AUD312k**
- **New metallurgical test program to also be undertaken**

Celsius Resources Limited ("Celsius" or "the Company") is pleased to announce that its Namibian subsidiary, Opuwo Cobalt Mining Pty Ltd, has engaged Stewardship Drilling Pty Ltd, ("Stewardship") to drill eight (8) PQ diamond drill holes to obtain fresh representative core for a new metallurgical test work program. Under the agreement, Celsius will pay Stewardship cash for the mobilisation and drilling additives estimated at AUD106k, after which Stewardship will receive payment in Celsius shares at a set price of 3.0cents for the drilling estimated to total AUD312k. The 8 holes will be drilled at 4 locations along strike and angled 10 degrees from the dip of the orebody to obtain as much mineralised core as possible. The holes will be positioned to obtain core at different depths. Approximately 500kg of Dolomite Ore Formation ("DOF") mineralised ore will be recovered from each hole.

Previous drilling delineated a Mineral Resource at Opuwo comprising **224.2 million tonnes** at a grade of **0.12% cobalt, 0.43% copper, and 0.54% zinc** (refer Table 1).

The Mineral Resource estimate represents **contained cobalt of 259,000 tonnes** and consists of:

- **44.7 million tonnes** at a grade of **0.11% cobalt, 0.44% copper and 0.51% zinc** in the **Indicated** category, and a further
- **179.5 million tonnes** at a grade of **0.12% cobalt, 0.43% copper and 0.55% zinc** in the **Inferred** category.

Resource modelling and estimation was completed by independent consultants Mining Plus Pty Ltd to JORC standards and involved the creation of a comprehensive 3D geological model of the mineralized DOF unit which hosts the Co-Cu-Zn mineralization at Opuwo.

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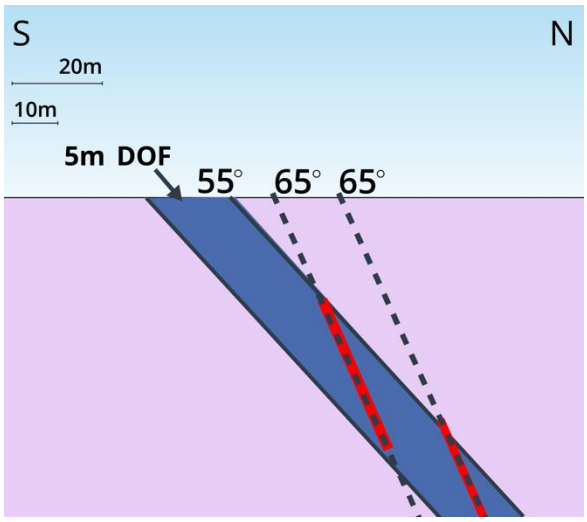

Figure 1: Typical drill cross section

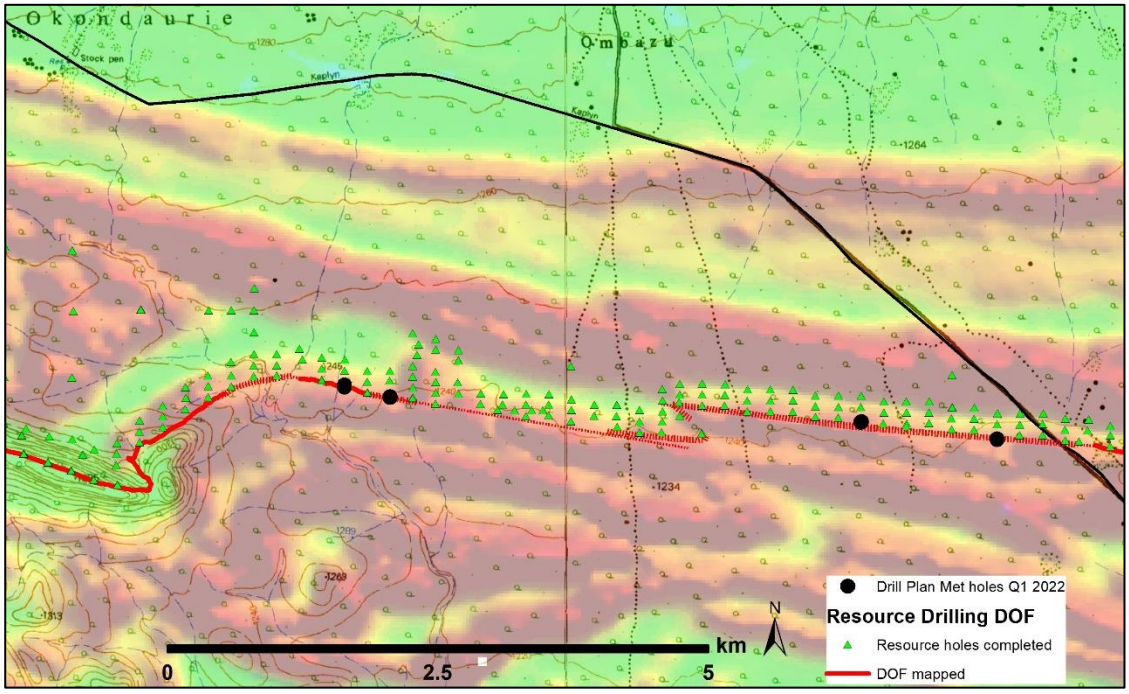

Figure 2: Planned drill positions for the metallurgical holes along strike the Dolerite Ore Formation.

New metallurgical test work program

Previous metallurgical test work carried out on Opuwo focused on producing a concentrate via flotation and then recovering the cobalt via either autoclave leaching or concentrate roasting. For the autoclave leaching, the cobalt and other base metals could be recovered in the high ninety percent range, however operating cost was expensive due high oxygen consumption and need for subsequent limestone demand to neutralise acid generation during the process.

The principal problem was the low cobalt to pyrite ratio in the concentrate feed. There was simply too much gangue pyrite in the concentrate which consumes oxygen during the leach and are converted to sulphuric acid that requires subsequent neutralization. Recent mineralogy work carried out by the (University of Leoben) in Austria showed high association of cobalt in the zinc

mineral sphalerite. The previous flotation test work focused on maximizing only the copper / iron sulphate minerals and suppressing the other minerals to increase the cobalt concentrate. Celsius now believes that with further optimisation of zinc recovery, significant improvements can be achieved in overall cobalt recovery in the floatation process. The roasting test work was never completed.

It is believed that a higher grade cobalt concentrate can be produced from the flotation process through optimising grind size, reagent use and resident time with a focus of suppressing the pyrite.

This will have a significant positive impact on the metal refining stage. New refining process flowsheets will be investigated including hydrometallurgical process technology in addition to autoclave leaching and roasting processes. Celsius has been in discussions with a number of organisations that offer unique expertise in these technologies. Test work on these will start soon after the floatation test work has been completed and enough concentrate have been produced.

The cobalt market

The cobalt market has been increasing in recent years in terms of compounded annual growth rate (CAGR) and consumption is now in excess of 164,000 tonnes of refined cobalt per year. The market for cobalt can be volatile but is presently in a small supply deficit that is expected to increase beyond 2023 with increasing demand in rechargeable batteries.

Battery use is primarily to make the cathodes of lithium-ion batteries, used in portable electronic devices, electric vehicle (EVs) and stationary storage cells to make electricity use more efficient. Batteries are now responsible for more than 64 percent of global cobalt demand, up from one percent of a smaller 35,000 to 40,000 tonne market in the mid-1990s. Cobalt is also used in superalloys for the aerospace industry, cemented carbides, cutting tools, permanent magnets, surgical implants, catalysts, pigments and agricultural products.

Demand for cobalt is expected to accelerate from increasing adoption of EVs and energy stationary storage cells. Since 2014, more than 225 battery megafactories (production greater than 1 gigawatt-hour (GWh) have been completed, are under construction or announced to produce more than 4,100 GWh of energy storage. EV adoption is expected to push consumption of cobalt to approximately 400,000 tonnes per year by 2030 according to Benchmark Mineral Intelligence. Many countries have announced future bans on cars with internal combustion engines and/or stricter emission standards helping drive the transformation to electric mobility and cost parity.

Celsius Chairman Martin Buckingham commented:

"Finally we are back on the ground in Opuwo and kicking-off an eight hole drilling program for metallurgical samples. With the huge cobalt resource in our pocket, the finalisation of metallurgical test work is now the key to complete the Scoping Study for this potential, stable cobalt source from a non-conflict country."

This announcement has been authorised by the Board of Directors of Celsius Resources Limited.

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Competent Persons Statement

Information in this report relating to Exploration Results is based on information reviewed and compiled by Dr Rainer Ellmies, who is a European Geologist (EurGeol) and Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and the Principal Geological Advisor for the Opuwo Project of Celsius Resources. Mr. Ellmies discovered the Opuwo deposit in 2012 and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Ellmies consents to the inclusion of the data in the form and context in which it appears.

About the Opuwo Cobalt Project

The Opuwo Cobalt Project is located in northwestern Namibia, approximately 800 km by road from the capital Windhoek, and approximately 750 km from the port at Walvis Bay (Figure 2). The Project has excellent infrastructure, with the regional capital of Opuwo approximately 30 km to the south. Good quality bitumen roads connect Opuwo to Windhoek and Walvis Bay. The Ruacana hydro power station (320 MW), which supplies the majority of Namibia's power, is located nearby, and a 66 kV transmission line passes through the eastern boundary of the Project

- Large scale and consistency: Indicated and Inferred Mineral Resource of 224.2 million tonnes, grading 0.12% cobalt, 0.43% copper and 0.54% zinc.
- 259,000 tonnes of contained cobalt, 971,000 tonnes of contained copper and 1,217,000 tonnes of contained zinc.
- Low in deleterious elements, notably arsenic, cadmium and uranium.
- Mining friendly, politically stable and safe location with excellent infrastructure.
- Cobalt: exposure to lithium ion battery industry.

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The Opuwo Project consists of two Exclusive Prospecting Licenses covering approximately 719 km^2

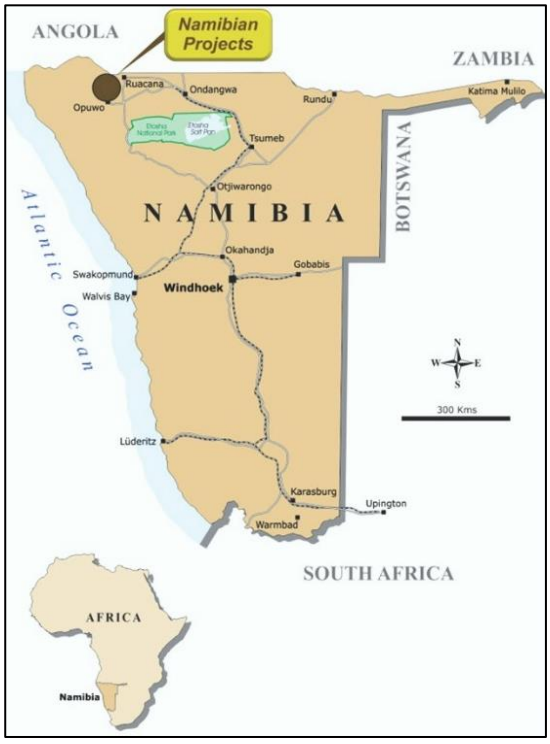

Figure 3: Location of the Opuwo Cobalt Project, Namibia