

27 November 2023

# CARAVEL COPPER PROJECT

## DEVELOPMENT UPDATE

### HIGHLIGHTS

- Updated Mineral Resource Estimate (MRE) completed in November, reporting:
  - An increase in overall contained copper metal to 3.03Mt;
  - 895,100oz of contained gold and 46.3 million oz of silver included in the MRE for the first time; and
  - A 48% increase in the higher confidence Measured Resource to 155Mt.
- Feasibility Study workstreams for power, metallurgy, water, and regulatory approvals are all progressing in support of finalising a Feasibility Study in Q4 2024.
- Recently announced WA State power infrastructure upgrades to the northern electricity transmission network expected to substantially benefit future large load connections such as the Caravel Copper Project – a major step forward for the Project.
- Groundwater modelling for the proposed borefield is substantially complete, delivering a high level of technical definition for assessment by regulatory authorities.
- The recoveries and concentrate grades announced in April 2023 have been confirmed by ongoing metallurgical programs, including higher recoveries for gold and silver.
- Caravel and the Yued Aboriginal Group, the Traditional Owners in the Project area, have now completed heritage surveys and investigations for all currently proposed Project disturbance.
- Overall project development timeline remains favourably in line with the forecast copper market supply deficit from 2026-2027.

## DEVELOPMENT UPDATE

Caravel Minerals (ASX: CVV) is pleased to provide an update on the Company's 100%-owned Caravel Copper Project, located ~150km north-east of Perth in WA.

### Updated Mineral Resource Estimate – Precious Metals

Following the release earlier this month of the updated Mineral Resource Estimate (MRE), which quantifies precious metals (gold and silver) for the first time, mine scheduling reviews have commenced to calculate the gold and silver contents in the mine production schedule.

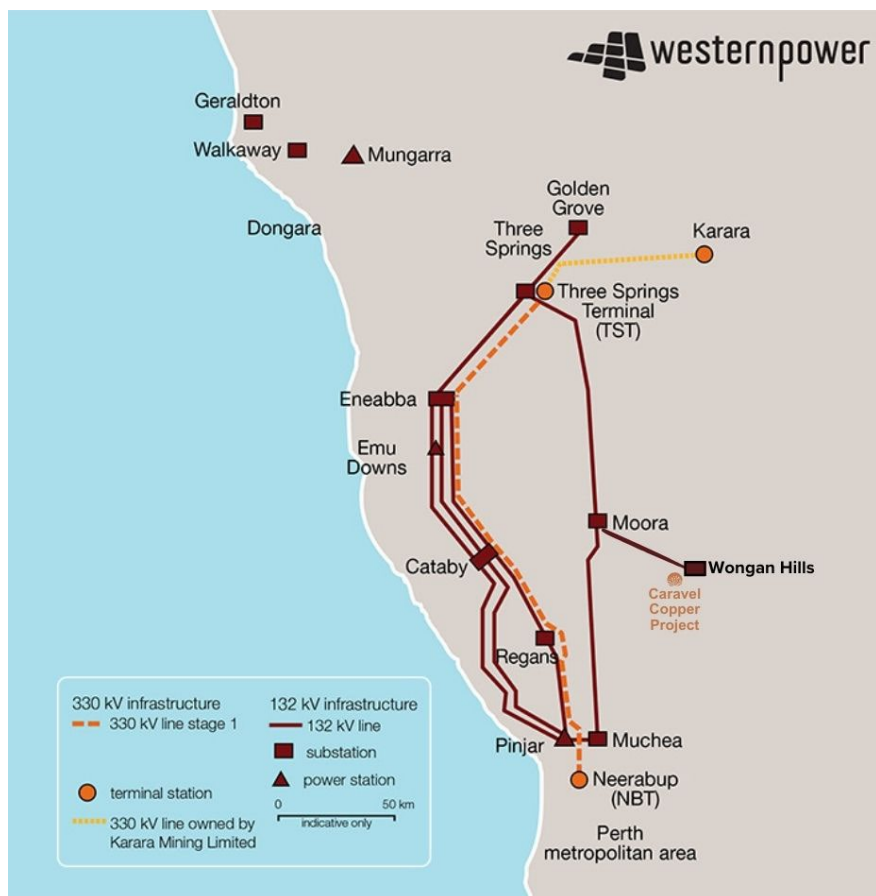
In conjunction with recent metallurgical testwork results for the recovery of precious metals, the new schedules will allow the project financial models to include forecast precious metal production and cash-flows. This work will be the subject of a further update in early 2024.

### Power

Caravel is working closely with the state power utility, Western Power, and Energy Policy WA, the lead advisor on energy policy within the State Government, regarding the Project's 125MW power load and the optimal Southwest Interconnected System (SWIS) transmission solution to support this load connection.

Upgrades to the northern power transmission network were announced by the WA Government earlier this month (see [Decarbonisation work \(westernpower.com.au\)](https://www.westernpower.com.au/decarbonisation-work)) for the Malaga to Three Springs line, which will be upgraded from 132kV to 330kV utilising the existing corridor and 330kV standard poles and lines.

The Malaga to Three Springs transmission line upgrade, which includes the section between Malaga and Pinjar, substantially de-bottlenecks the SWIS 132kV network, including from Muchea to Moora. This is expected to increase the total available network capacity and provide Caravel with increased certainty of supply from the SWIS grid to meet the Project's cost and emissions targets.



*Figure 1: Map of northern 330kV and 132kV transmission infrastructure with additional information showing the Moora to Wongan Hills 132kV line (energised at 33kV) to and proximity to the Caravel Copper Project. SOURCE: Western Power Corporation*

The announced upgrade is the first of several stages of transmission network upgrades to support the connection of large new loads and large renewable generation in the Mid-West, north of Perth, and is a welcome development for the Caravel Copper Project. The planned upgrades are expected to support Caravel in achieving its full power demand requirements from the grid, avoiding interim power solutions, and allowing lower costs and emissions to be achieved from the commencement of the project.

As a result, Caravel has submitted a new 125MW application to Western Power and has been invited to participate in the pilot of the newly created Major Customer Connection Process (MCCP) Review Program.



*Figure 2: Existing 132kV Moora-to-Wongan Hills powerline (currently energised to 33kV) adjacent to the Project.*

### Groundwater Studies and Modelling

In developing a sustainable water resource for the Project, Caravel has progressed an extensive water exploration program since 2018 which has aimed to leverage the Project's ability to use brackish or saline water in the processing circuit.

Groundwater investigations (drilling, test-pumping, modelling, and chemical analysis) at the proposed borefield site, in accordance with a DWER work program, are now substantially complete including a numerical groundwater model (H3 report) which is being finalised for assessment by DWER.



*Figures 3 & 4: Variable rate test pumping and monitoring as part of the field program for numerical groundwater modelling and licencing assessments.*



### Metallurgy Testwork

Testwork for the flotation circuit is confirming previously announced targets for copper concentrate grades and recoveries, including molybdenum. Precious metal recoveries have also been tested, showing a range of 50% to 60% recovery of gold and silver to the copper concentrate.

Final testwork is scheduled for completion in Q1 2024, in advance of product off-take discussions and the commencement of the Definitive Engineering Study.

### Regulatory Approvals

Final baseline studies required for the State and Federal environmental approvals under the State Environmental Protection Act 1986 (Part IV) and Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (Matters of National Environmental Significance) are approaching completion.

The Environmental Scoping Document is under final review by the respective State and Federal departments with the expectation that it will be finalised in 2023. The preparation of the Environmental Review Document (ERD) is well-advanced, and Caravel aims to submit its ERD in early 2024.

### Heritage Surveys

Caravel continues to develop relationships with the Yued Aboriginal Group and has completed heritage surveys and investigations for the currently proposed project disturbance footprint. Reports are currently being finalised with initial results indicating that Caravel can avoid the majority of sites identified.



*Figures 5-7: Yued Traditional Owner heritage survey teams conducting ethnographic and archaeological surveys at various infrastructure locations within the proposed project area.*

***Commenting on the progress of the Caravel Copper Project, Managing Director Don Hyma said:***

“The strong progress we are achieving on multiple fronts is delivering greater certainty and quality of information to feed into the ongoing Feasibility Study, now scheduled for completion in Q4 2023.”

“We are particularly pleased with the WA power network investments that were recently announced by the WA Government, as this will have a significant and very positive impact on Caravel’s operating costs and emissions profile – bringing forward our ability to access cost effective power from the State grid, avoiding interim power solutions and providing a major boost to our development momentum.”

“The commencement of the Definitive Engineering Study next year gives us time to further de-risk and capture results from current workstreams, thereby creating additional certainty and definition for the Feasibility Study.”

This announcement is authorised for release by the Caravel Managing Director, Don Hyma.

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## Competent Persons Statements

*The information in this report that relates to Exploration Results is based on and fairly represents information compiled by Mr Peter Pring. Mr Pring is a Senior Exploration Geologist with Caravel Minerals. Mr Pring is a shareholder of Caravel Minerals and is a member of the Australasian Institute of Mining and Metallurgy. Mr Pring has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Pring consents to the inclusion in this report of the matters based on information in the form and context in which they appear.*

*The information in this report that relates to Mineral Resources is based on and fairly represents information compiled by Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd). Mr Barnes is a shareholder of Caravel Minerals. Mr Barnes is a member of both the Australasian Institute of Mining and Metallurgy and the Australasian Institute of Geoscientists. Mr Barnes has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Barnes consents to the inclusion in this report of the matters based on information in the form and context in which they appear.*

*The information in this report that relates to Ore Reserves is based upon information and supporting documentation prepared by and mine planning work prepared by Mr Steve Craig (CEO of Oreology Consulting Pty Ltd). Mr Craig is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience relevant to the style of mineralization and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Craig consents to the inclusion in this report of the matters based on their information in the form and context in which they appear.*

## Forward Looking Statements

*This document may include forward looking statements. Forward looking statements include, but are not necessarily limited to, statements concerning Caravel Minerals planned exploration programmes, studies and other statements that are not historic facts. When used in this document, the words such as “could”, “indicates”, “plan”, “estimate”, “expect”, “intend”, “may”, “potential”, “should” and similar expressions are forward looking statements. Such statements involve risks and uncertainties, and no assurances can be provided that actual results or work completed will be consistent with these forward-looking statements.*

## Previous Disclosure

*The information in this report is based on the following Caravel Minerals ASX Announcements, which are available from the Caravel Minerals website [www.caravelminerals.com.au](http://www.caravelminerals.com.au) and the ASX website [www.asx.com.au](http://www.asx.com.au):*

- 25 August 2021 “Bindi Deposit – Updated Geological Model”
- 12 July 2022 “Caravel Copper Project Pre-Feasibility Study Highlights Robust, Executable Project and Reports Maiden Ore Reserve”
- 20 September 2022 “Pre-feasibility Study Update - Caravel Copper Project”
- 13 April 2023 “PFS Processing Update – Caravel Copper Project”
- 13 November 2023 “2023 Mineral Resource Update - Caravel Copper Project”