

## COBAR BASIN OPTIMISATION UPDATE

Aurelia Metals Limited (ASX: **AMI**) (**Aurelia** or the **Company**) is pleased to share the positive outcomes from its Cobar Basin Optimisation scoping study (**the Study**). This Study has identified a capital efficient throughput expansion of Aurelia's Peak processing plant as the preferred optimisation strategy. This would take throughput capacity from 800ktpa to 1,100-1,200ktpa, allowing Peak to process all Federation mine ores.

### Summary

Aurelia previously outlined a plan to preferentially feed Federation mine ores to the Peak processing plant ahead of a restart of the Hera processing plant, once the Peak processing plant was at capacity (see ASX announcement dated 13 April 2023, 'Federation Project Update').

The Study evaluated a range of utilisation and throughput options for the Peak and Hera processing facilities.

This Study identified and quantified significant latent capacity within the Peak processing plant, which if unlocked allows all Federation ore to be processed at Peak and provides 1.1 to 1.2Mt capacity at Peak (up from 0.8Mt).

Plant upgrades required to achieve the expanded throughput at the Peak processing plant include:

- Crusher and materials handling ahead of the existing plant feed infrastructure
- Ball mill, relocated from Dargues, in a tertiary grinding capacity

By unlocking the latent capacity within the Peak processing plant, the proposed throughput expansion is extremely capital efficient. At ~\$20-25M, this is approximately the same capital as forecast to restart and reconfigure the Hera processing plant for the Federation ore feed.

Significant value is created from the Peak processing plant expansion (NPV<sub>8</sub> \$40 to \$60M<sup>1</sup>), driven principally from:

- Higher net revenue from the production of separate Pb and Zn concentrate products (rather than bulk)
- Payability of Au, Ag and Cu in separated concentrate produced at Peak
- Lower operating costs and more efficient energy use from running one plant rather than two and Peak being on-grid power

The expansion of the Peak processing plant would leave the Hera plant available for processing of additional Aurelia or third-party ore feeds.

#### **Managing Director and Chief Executive Office, Bryan Quinn commented:**

*"This expansion phase is an important milestone for Aurelia and underscores the confidence we have in our infrastructure to deliver growth in our base metals business with minimal disruptions to the current plant and for a capital cost not materially exceeding the estimated cost to restart Hera.*

*The business achieves higher net value from processing ore into separate product concentrates at Peak, with better water and energy intensity outcomes in line with our Sustainability Strategy. This supports lower cost operations for our future cash flows. Moreover expanding the Peak processing plant would take Aurelia's overall processing capacity to more than 1.5Mtpa and preserve a valuable option to further increase base*

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<sup>1</sup> Please refer to material assumptions in Appendix.

#### **For more information, contact us at:**

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*metal production using the Hera processing facility.*

*This study exemplifies Aurelia's values of Curiosity and Teamwork. It is a credit to our technical and operational teams, working together and thinking differently, and delivering a path forward that significantly enhances the value of our business."*

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## Cobar Basin Optimisation Study Framing

Peak currently mines 550-600ktpa, sourced from both the South Mine, adjacent to the processing plant, and the North Mine, some 10km by road to the north of the plant. The mix of ore sources will shift to predominantly copper ore from FY25 and proportionally more North Mine feed.

The Federation Mine achieved first stope ore in Q1 FY25 and will ramp up towards ~600ktpa of Pb-Zn ore over the following 18 months.

Aurelia wholly owns the Peak (~800ktpa nominal capacity) and Hera (~450ktpa nominal capacity) processing plants, for a total processing capacity in the Cobar region of ~1,250ktpa. Currently, only 550-600ktpa of that capacity is being used, processing Peak Mine ore in the Peak processing plant.



Figure 1: Peak processing plant, showing leach (left), comminution (centre), flotation (right), and filtration (back)

With two processing plants and three mines in the Cobar region, the opportunity exists to optimise the configuration of Aurelia's Cobar processing assets and associated ore flows to maximise value from the mine output. Broadly, the Study considered:

- Restarting Hera to process Federation ores once the Peak plant is full - "market case" or "base case".
- Investing in the Hera plant to produce separate Pb and Zn concentrates instead of one bulk concentrate.
- Expanding the Peak processing plant to process all of the Federation mine ores (which included haulage from Federation to Peak).

Sensitivities involving the expansion of mine output from Peak were also tested, including the backhauling of copper ores from Peak north mine to Hera for processing. Aurelia was supported by Ausenco, DRA and Wood in various parts of the Study.

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Conclusions from the Study included:

- The production of separate concentrates provides significant net revenue uplift over a single bulk concentrate.
- Economies of scale means that operating cost benefits of an expanded Peak processing plant far outweighed the additional cost of trucking to that plant from Federation Mine to the Peak processing plant.
- Significant latent capacity at Peak, particularly in flotation, leach and filtration, makes the Peak plant amenable to capital efficient throughput expansion with only a small footprint utilised.
- Peak, being on-grid, offers benefits from cost of energy and ease of decarbonisation and aligns with our Sustainability strategy.
- The Hera processing plant remains fully permitted and in good condition, providing a valuable option for additional ore processing in the region in the near term.

We have critical equipment available to use from the closure of Dargues to support the expansion. The key recommendation of this Study was that the Peak processing plant throughput expansion adds significant value and should be advanced.

## Peak Processing Plant Throughput Expansion

Copper (Cu) and Lead-Zinc (Pb-Zn) ores are batch fed to the Peak processing plant. The process constraint moves depending on the mineralogy and grade of the ore feeds but, typically, the plant is flotation constrained on Pb-Zn ores and mill constrained on Cu ores.

Moving the flotation constraint is capital intensive, so the Study focussed on moving the milling constraint to achieve greater overall plant throughput.

Modelling showed that crushing ahead of the semi-autogenous grinding (**SAG**) mill, using a simple jaw crusher with 120mm close side setting, allows SAG mill throughput at the targeted rate.

To achieve the targeted P80 float feed size, additional energy in grinding is required. An assessment of alternatives showed the Dargues ball mill, installed in a tertiary grinding capacity, to be both fit-for-purpose and capital efficient.

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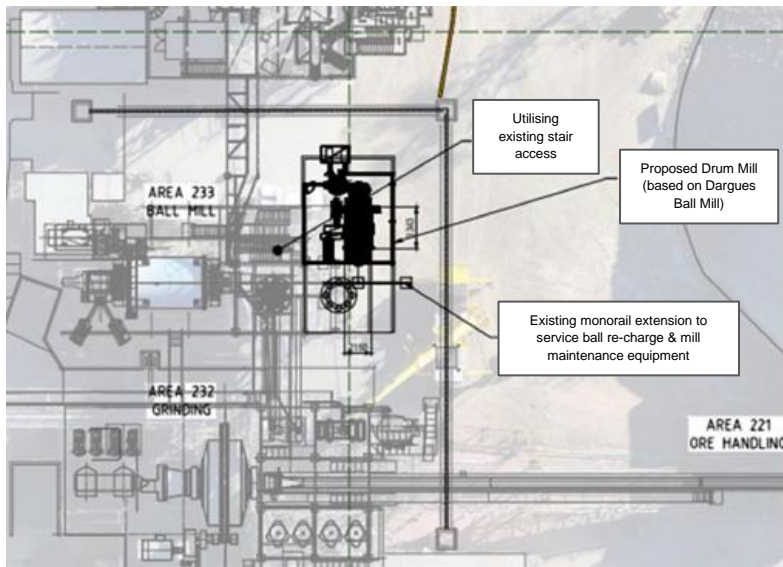


Figure 2: Peak processing plant grinding area showing the proposed Dargues ball mill adjacent to the current ball mill

## Peak Process Water Management Upgrade

An additional outcome of this Optimisation study (and not part of the incremental NPV value uplift of the expansion) was that a process water management upgrade at Peak would generate significant shareholder value and should be pursued.

The Peak processing plant has a leach feed thickener, preparing the float tail for the leach circuit, adjacent to a tailings thickener, preparing the leach tail for deposition in the central thickened discharge tailings storage facility (**TSF**).

The thickeners are undersized, limiting the underflow solids density and leading to suboptimal water recycle. Overflow from both thickeners report to a single process water storage tank. The cyanide from leach in the combined process water acts as a depressant in flotation, especially for Zn and Cu.

Irrespective of a plant throughput expansion, the Study showed that the implementation of a process water management upgrade adds value through improved flotation recovery, reduced cyanide consumption and effective use of the TSF capacity, through higher deposited solids density.

This can be achieved through the installation of a new tailings thickener, and associated pumps and ancillary infrastructure, allowing the current tailings thickener to be repurposed as a second lead leach feed thickener. The relocation of the electrical switch room from the Dargues processing plant significantly reduces the cost and lead time for this project.

The business case and capital cost estimate for this project will be prepared separately to the Peak throughput expansion project.

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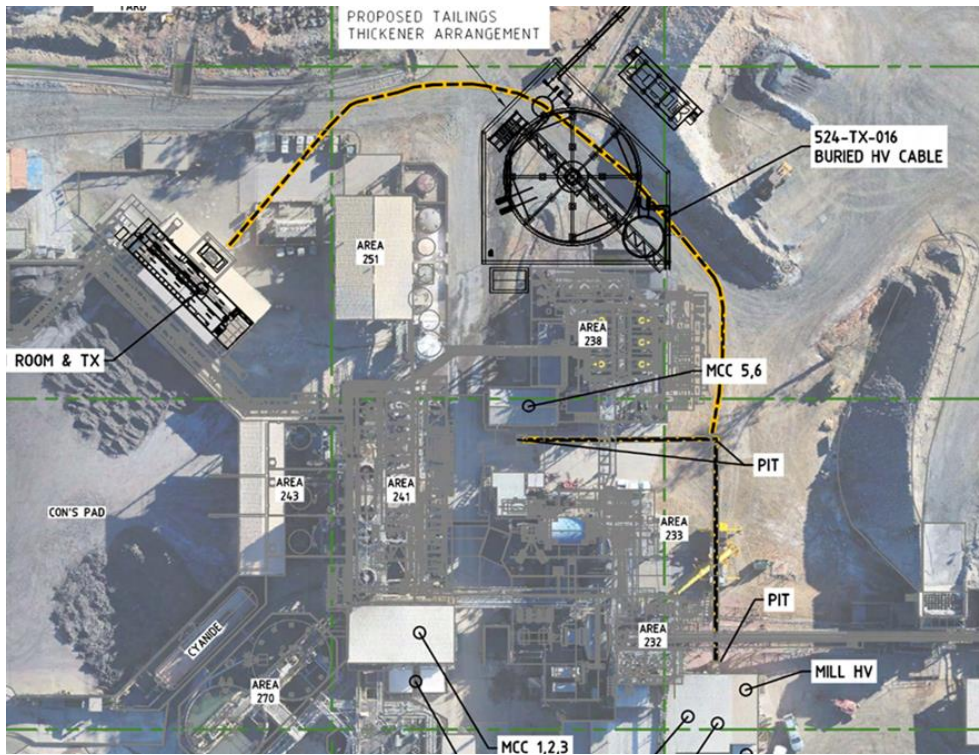


Figure 3: Peak processing plant showing the location of the proposed tailings thickener

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## Forward Work Plan

The Peak throughput expansion project and process water management project will be progressed in parallel. Engagement of an engineering firm to work with the Aurelia project team to advance both projects is in progress.

The processing plant throughput expansion requires a new development consent from the Cobar Shire Council. Obtaining this consent is the critical path to the execution of this project. This work has commenced, including constructive discussions with the Cobar Shire Council and detailed scoping of key work packages. Permitting for trucking all of the ore from Federation to Peak is currently well advanced with the NSW Government (currently permitted to truck 200ktpa of ore to Peak).

The key work going forward will include the assessment of tactical options and finalisation of the design for the crusher and materials handling system. The ball mill engineering will also be finalised ahead of its relocation, leveraging the work completed previously for the installation of the mill at Dargues. Detailed engineering and tendering of key equipment will allow a definitive estimate to be considered for final investment decision.

Naturally, the ability to restart Hera, if required, provides contingency against unforeseen delays in obtaining the throughput expansion consent. The nature of the plant restarted in this circumstance would depend on the required duty of that plant and will be considered early in FY26.

By expanding the Peak processing plant, Aurelia has an option to increase overall output by the Company through the sourcing of feed and the restart of the Hera processing plant. Investigations have commenced into potential feed sources, including the expansion of Peak mine output, a possible mine development at Nymagee, regional exploration projects and third-party ore feeds.

Separate to the expansion project, in relation to the Peak process water management, the critical path for this study is the procurement of long-lead items, especially the thickener and flocculant mixing system. Finalisation of site investigations and engineering is planned, ahead of tendering the key plant items. The final investment decision is targeted in H2 FY25. This project can be delivered under the existing site permit.

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**This announcement has been approved for release by the Board of Directors of Aurelia Metals.**

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Aurelia Metals Limited (ASX: AMI) is an Australian mining and exploration company with a highly strategic landholding and two polymetallic underground mines, the Peak and Federation Mines, located in the Cobar Basin in western New South Wales (NSW). In addition, Aurelia has a consented, high-grade copper development project located proximate to the Peak Mine underground infrastructure, Great Cobar.

## **IMPORTANT INFORMATION**

This report includes forward looking statements. Often, but not always, forward looking statements can be identified by the use of forward looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, “outlook” and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of the Company, anticipated production or activity commencement dates and expected costs or production outputs. Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs of production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits, and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory environment, environmental conditions including extreme weather conditions, recruitment and retention of key personnel, industrial relations issues and litigation. Forward looking statements are based on the Company and management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company’s business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company’s control. Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law, including any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

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**APPENDIX: Material study assumptions**

Description	Assumption
Discount rate	8% post tax real
Gold Price (\$US/oz)	\$1,925
Copper Price (US\$/t)	\$8,820
Zinc Price (US\$/t)	\$2,600
Lead Price (US\$/t)	\$2,100
AUD/USD exchange rate	0.70

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