



Optimisation Study confirms Nebo-Babel as low operating cost, long-life mine

HIGHLIGHTS

- Project now positioned on the cusp of lowest quartile on C1 global cost league
- Position is driven by low mining costs and large by-product credits
- Significant production schedule with initial mine life of over 15 years
- Succoth copper deposit adds potential to extend Project life beyond 30 years
- Project exploration focus is on high-grade extensions and new massive sulphide targets
- Current Project shows it is able to withstand the low points of the commodity price cycle

Cassini Resources Limited (ASX:CZI) (“Cassini” or the “Company”) is pleased to provide continued results of project optimisation and development work at the Nebo-Babel nickel-copper deposits (the “Project”) at the West Musgrave Project in Western Australia.

This announcement builds on the Project optimisation work released on 15 November 2015.

Nebo-Babel exceptionally low on Global Cost Curve

Cassini engaged Wood Mackenzie Limited, an independent industry-leading commodity analyst, to benchmark C1 cost estimates for the Nebo-Babel Project (primarily under the 4Mtpa processing scenario) against other global nickel producers. This benchmarking used the same commodity price and currency exchange rate assumptions for all producers to ensure a like for like comparison. The C1 cost estimates are based on inputs provided by the Company.

Vast improvements to the economics of the Project place the first full year of production, estimated to be 2021, on the 26th percentile of the Global Cost League (Figure 1). The C1 cost is estimated at US\$3.40/lb (on a payable nickel basis), comfortably below the current spot price which is trading at 13-year lows in a range of US\$3.75/lb – US\$4.00/lb.

This gives the Company confidence that once in production, the Project has the ability to remain viable during periods of significant commodity price volatility.

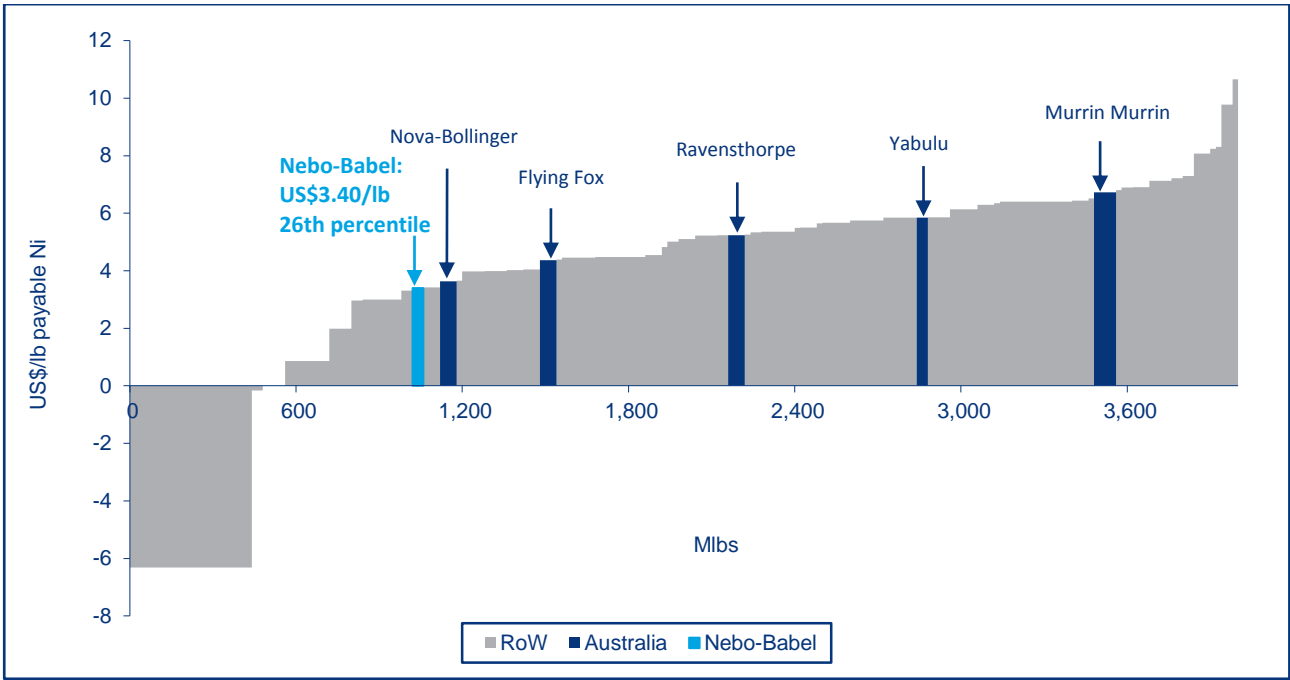


Figure 1. Global Nickel Industry Cost League (2021) showing Nebo-Babel Project (4Mtpa scenario) against global and Australian nickel producers and highly probable projects as of 2016 Q1. (Source: Global Cost League from Wood Mackenzie Ltd, Nebo-Babel from Cassini Resources Ltd)

The low cost profile is driven by significant by-product credits, predominantly copper (Figure 2), as well as the low cost of mining, due to the open pit mining method (Figure 3). In addition, low processing costs can be expected due to the conventional processing (floatation) method carried out at a large scale of 4mtpa.

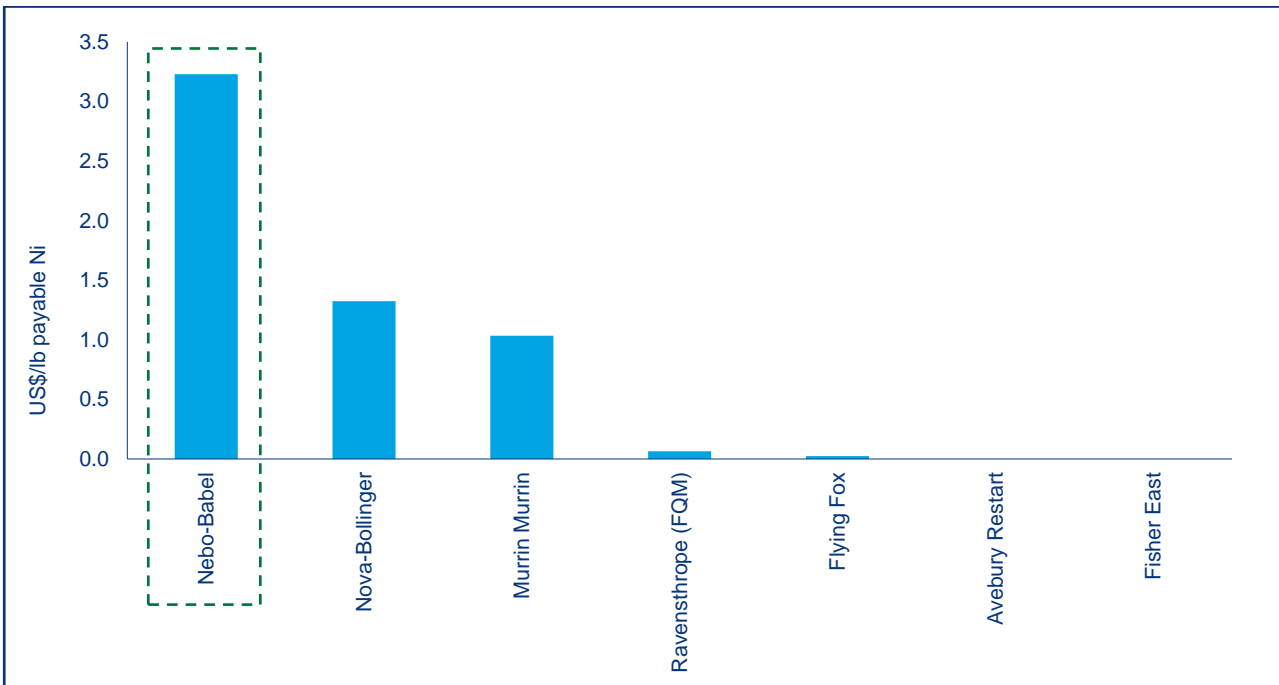


Figure 2. Estimated by-product credit in US\$/lb per payable Ni (2021) for Nebo-Babel against peer group (Source: Peer group from Wood Mackenzie Ltd, Nebo-Babel from Cassini Resources Ltd)

As demonstrated by Figure 2, if hypothetically the by-product credit was not available, Nebo-Babel would have an implied cost of US\$6.60/lb of payable nickel, which would place it well into the 4th quartile on the global cost league.

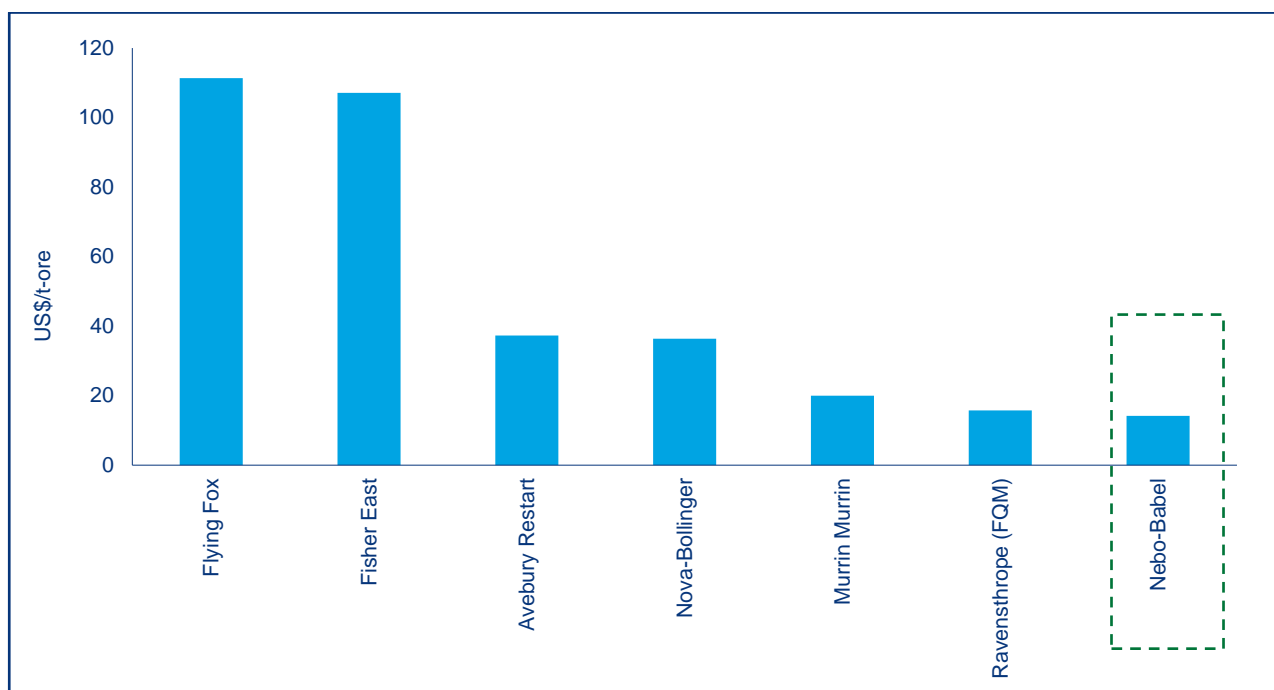


Figure 3. Estimated mining cost in US\$/t of ore (2021) for Nebo-Babel against peer group (Source: Peer group from Wood Mackenzie Ltd, Nebo-Babel from Cassini Resources Ltd)

Managing Director Comment

Managing Director, Richard Bevan said “We believe Nebo-Babel is Australia’s premier undeveloped nickel sulphide asset. Whilst we are now at the low point of the commodity price cycle, the position of the Project on the global cash cost curve means it will be one of the first projects to gain momentum as pricing improves.

There are some very meaningful benefits from Nebo-Babel’s combination of a low operating cost profile and long mine life.

We have a project that displays all the key attributes you’d look for in a future resource project, with the added benefit of being able to implement it in a staged manner to reduce operational risk and the pre-production capital required.

The cost-effective work we are doing now will position the Company well as base metal sentiment improves.”

Optimisation Study Project enhancements

Cassini has focused on a number of project enhancements which have combined to provide a superior economic return than initially projected in the Scoping Study of April 2015. These include:

- A **24% reduction** in pre-production capital expenditure;
- A **30% reduction** in power costs through adoption of a hybrid wind-diesel power solution;
- Improved mine planning and scheduling, particularly early pre-strip; and
- Concentrate logistics have been reviewed and an alternative transport route through Geraldton has been assessed.

Further improvements are expected as the Company continues to optimise the Project during the Pre-Feasibility Study.

The 4Mtpa development scenario provides the best economic returns for the project, however the Company maintains a strategic preference for a “Staged” scenario anticipating an initial high-grade, 1.0Mtpa processing capacity mine, ramping up to a 4Mtpa operation after 4-5 years.

This staged approach will:

- Result in lower pre-production capital expenditure;
- Take advantage of the shallow, higher grade, higher margin resources available at both Nebo and Babel;
- Reduce project risk by establishing cashflow and operating expertise prior to implementing the 4Mtpa expansion;
- Allow greater optionality around the timing of implementation of the expansion;
- Allow for mining and processing of the lower grade resources at a larger operational scale, therefore minimising unit production costs; and
- Preserve the optionality of the large resource base not currently in the mine plan.

Succoth Deposit provides enormous optionality

The Company was pleased to release the maiden Inferred Resource Estimate for Succoth in December 2015. The resource stands at 156Mt @ 0.60% Cu at a 0.3% Cu cut-off grade for 943kt Cu metal. The resource is open in multiple directions and is expected to grow with further drilling. Further details of the resource can be found in ASX release 7 December 2015.

Succoth is only 13km from Nebo-Babel. The Company has not yet conducted any optimisation studies combining Succoth with Nebo-Babel, but believes there are numerous options for consideration including:

- A stand-alone plant at Succoth (independent from Nebo-Babel), providing the best economic returns and placing the West Musgrave Project as one of the biggest base metal production centres in Australia; and
- Upgrading and conversion of the Nebo-Babel plant on completion of mining to a copper-only stream to process Succoth ore. This scenario would see Succoth become one of the lowest capital-intensity copper projects in the world and likely see the mining project continue beyond 30 years.

Exploration targeting high-grade extensions and new massive sulphide lenses

The Company has recently undertaken an exercise to evaluate the highest impact exploration targets at Nebo and Babel. The Company used minimum economic criteria of \$25M NPV to target these opportunities, which translated to high-grade targets that could be exploited early in the mine plan. The Company has identified three priority target zones:

- Extensions of Nebo massive sulphide to the north west;
- Extensions to the Startmeup Shoot at Babel; and
- High-grade or massive sulphide in the “roll-over zone” (eg CZC0129 18m @ 1.50%Ni, 1.52%Cu) at Babel

The Company is finalising a drill program to test these targets later in 2016 and will provide further information to the market when planning is complete.

The Company is currently progressing with exploration programs which can provide a significant near-term value opportunity for shareholders. This includes work at the West Arunta Project which has a zinc drilling program due to start in early May 2016.

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Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Mr Greg Miles, who is an employee of the company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the 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 Miles consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The Company is not aware of any new information or data, other than that disclosed in this report, that materially affects the information included in this report and that all material assumptions and parameters underpinning Mineral Resource Estimates and Exploration Results as reported in the market announcements dated 13, 15 April 2015 and 7 December 2015, continue to apply and have not materially changed.