Market Update

19 January 2024

Cobalt Blue Holdings Limited

A Green Energy Exploration Company

ASX Code: **COB**

Commodity Exposure:

Cobalt & **Sulphur**

Directors & Management:

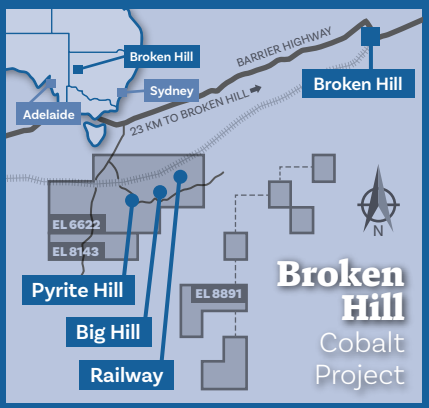
Robert Biancardi	Non-Exec Chairman
Hugh Keller	Non-Exec Director
Robert McDonald	Non-Exec Director
Joe Kaderavek	CEO & Exec Director
Danny Morgan	CFO & Company Secretary

Capital Structure:

Ordinary Shares at 19/01/2024:	**375.8m**
Unlisted options/rights:	**5.8m**
Market Cap (undiluted):	**$75m**

Share Price:

Share Price at 19/01/2024:	**$0.20**



Cobalt Blue Holdings Limited

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Highlights

Cobalt Nickel Refinery Project Update

KEY POINTS

Progress continues on Cobalt Blue Holdings Limited's (ASX:COB) proposed Cobalt Nickel Refinery. Further to the release of the Refinery Study (27 Nov 2023):

- Two bulk samples (up to 5 tonnes each) of third-party feedstock have now been received at the Broken Hill Demonstration Plant and are undergoing evaluation. The testing of these samples will form the basis of commercial feedstock for the Refinery.
- Initial 50–100 kg feedstock test work has delivered:
  - Up to 95–97% metal recoveries
  - Key observed reagent consumptions inline with Study estimates, noting that reagents contribute ~50% of total cash costs:
    - Acid consumption for hydroxide feed of ~3.5 tonne of H_2SO_4 per tonne of cobalt
    - Oxygen consumption for the sulphide feed of ~1 tonne of oxygen per tonne of cobalt.
  - COB will begin submission of battery grade cobalt sulphate samples to interested offtake parties shortly, effectively commencing the pre-qualification process for the Refinery.
- Testwork results de-risk major refinery cost assumptions.
- The Premier of Western Australia, Roger Cook MLA, has now provided a Letter of Support for the COB/Iwatani Cobalt-Nickel Refinery Project. The Refinery is closely aligned with Western Australia's Battery and Critical Minerals Strategy and will further establish the State as a national battery material production hub.

Joe Kaderavek (CEO, Cobalt Blue) commented *"We are thrilled to receive this support for our Cobalt-Nickel Refinery Project from the Premier of Western Australia. Having government support and strong testwork results de-risks the Cobalt Nickel Refinery project".*

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1 Commercial feedstock testwork

Two bulk samples (up to 5 tonnes each) of targeted third-party feedstock have now been received at the Broken Hill Demonstration Plant and are undergoing evaluation. These samples were targeted to represent US/EU market-compliant feedstock from Australian and international sources. Such samples will form the basis of commercial feedstock for the Refinery. COB is currently seeking expert advice regarding qualification within the US Inflation Reduction Act (**IRA**) and eligibility for associated Clean Vehicle Credits (**CVCs**).

Initial 50–100kg samples are being processed at the Broken Hill Demonstration Plant, with initial results confirming up to 95–97% cobalt extraction has been achieved. Further, parameter optimisation is expected to increase overall metal extraction. The testing program is expected to be complete by end Q1-2024 which will include significantly larger test samples.

Key leach reagent inputs of acid and oxygen have been confirmed by testwork:

- Acid consumption for hydroxide feed of ~3.5 tonne of H_2SO_4 per tonne of cobalt.
- Oxygen consumption for the sulphide feed of ~1 tonne of oxygen per tonne of cobalt.

Metal recoveries and reagent consumption have significant cost implications for Refinery operations with the achieved results supporting initial Refinery Study assumptions.

Testing also includes evaluation of:

- Materials handling
- Leaching extraction of cobalt and nickel
- Trace metal purification of iron, zinc, manganese, and copper
- Separation of cobalt and nickel by solvent extraction
- Production of separate cobalt and nickel sulphate crystals
- Occupational health and safety

Samples of the cobalt and nickel products will be used to further offtake negotiations in 1H 2024. COB intends to supply battery grade samples to interested offtake parties, which will be considered an initial step in pre-qualifying the Refinery for commercial purposes. Nominally this will expand to include production of > 1 tonne of cobalt sulphate, sufficient for qualification testing by lithium ion battery manufacturers.

Figure 1 – **Sample A – cobalt sulphide**

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Figure 2 – **Sample B – cobalt hydroxide**

Figure 3 – **Leach tank**

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Figure 4 – **Solvent extraction and cobalt sulphate crystalliser**

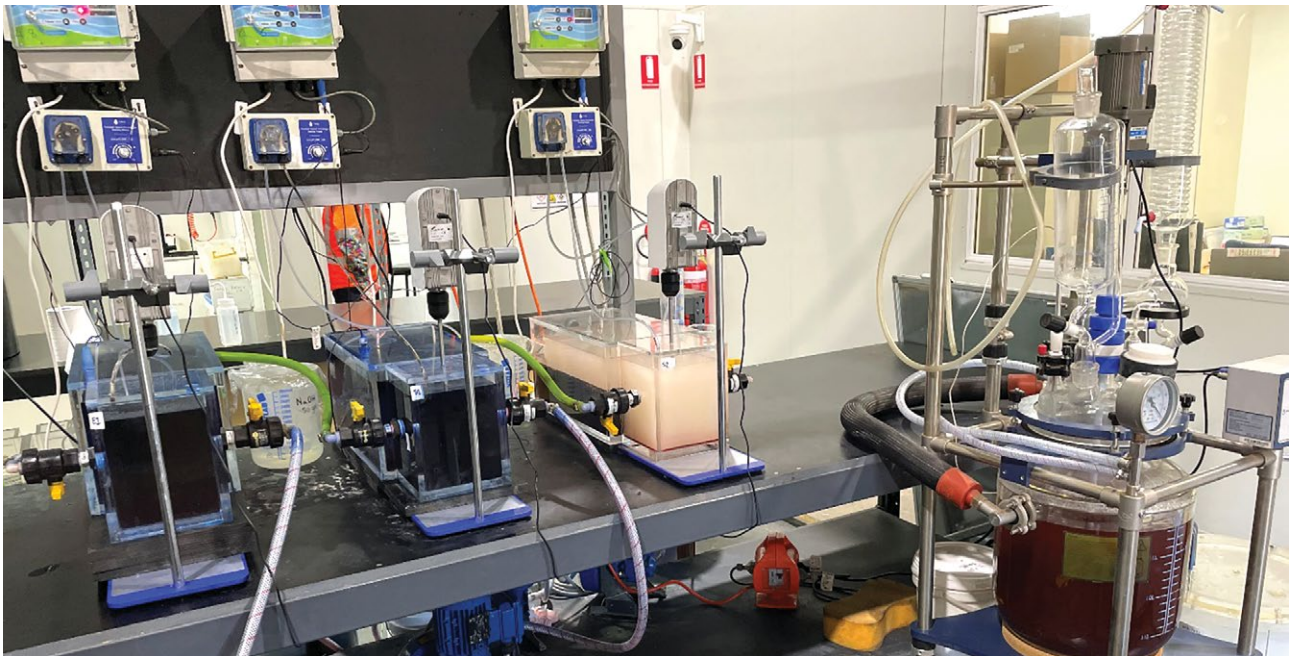
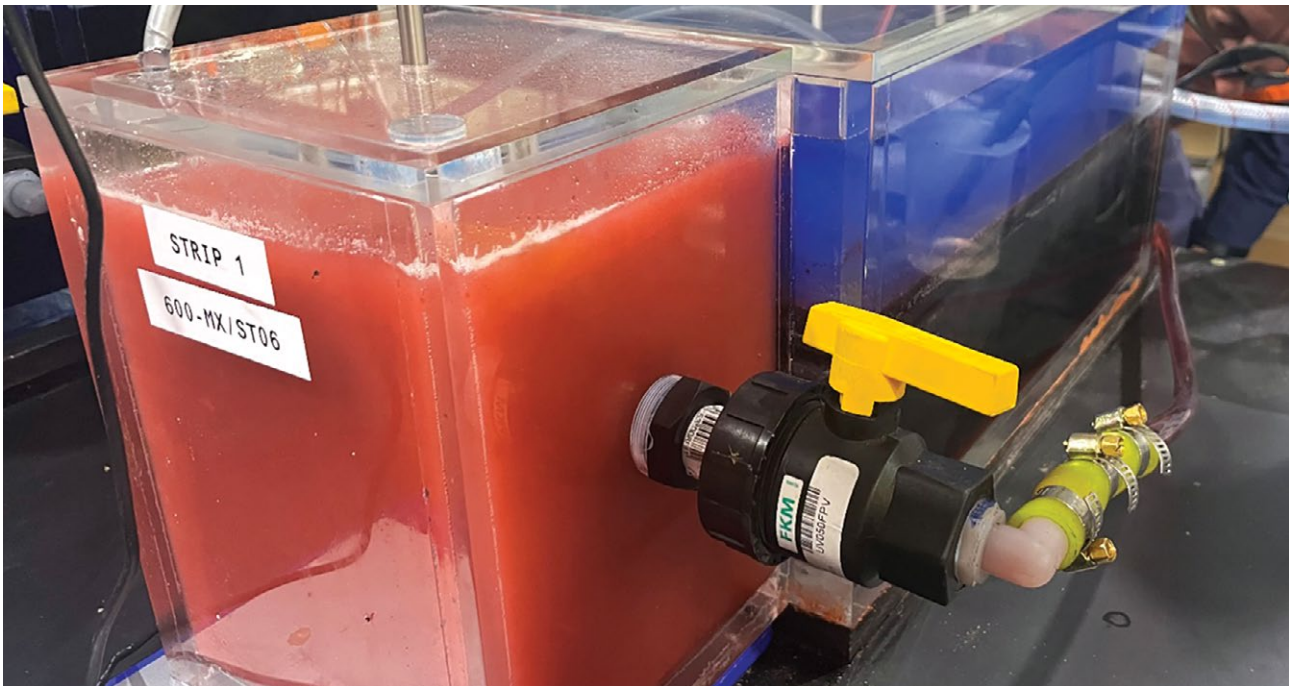


Figure 5 – **Cobalt solvent extraction strip cell**



2 Support from the Government of Western Australia for the Cobalt-Nickel Refinery Project

In November 2023, Cobalt Blue published a Cobalt-Nickel Refinery Study that included an evaluation of a refining business that is expected to generate strong and stable margins throughout the extremes of the cobalt price cycle.[1] We also announced in December 2023 that Iwatani Corporation is our potential partner in developing the Refinery.[2]

1 *Refer to ASX announcement dated 27 November 2023 for further information*
2 *Refer to ASX announcement dated 01 December 2023 for further information*

The proposed Refinery location is the Doral Fused Materials site, which is owned by Iwatani Australia and is located in the Kwinana Industrial Area in East Rockingham, WA, near the Fremantle Port. Partnering with an existing property owner on an operational site has clear advantages, namely ready access to power, utilities and infrastructure as well as favourable industrial zone policy settings and regulatory environment.

Figure 6 – **Aerial view of the proposed Refinery project site (owned by Iwatani Australia)**

Figure 7 – **Overview of the proposed Refinery project floorplan**

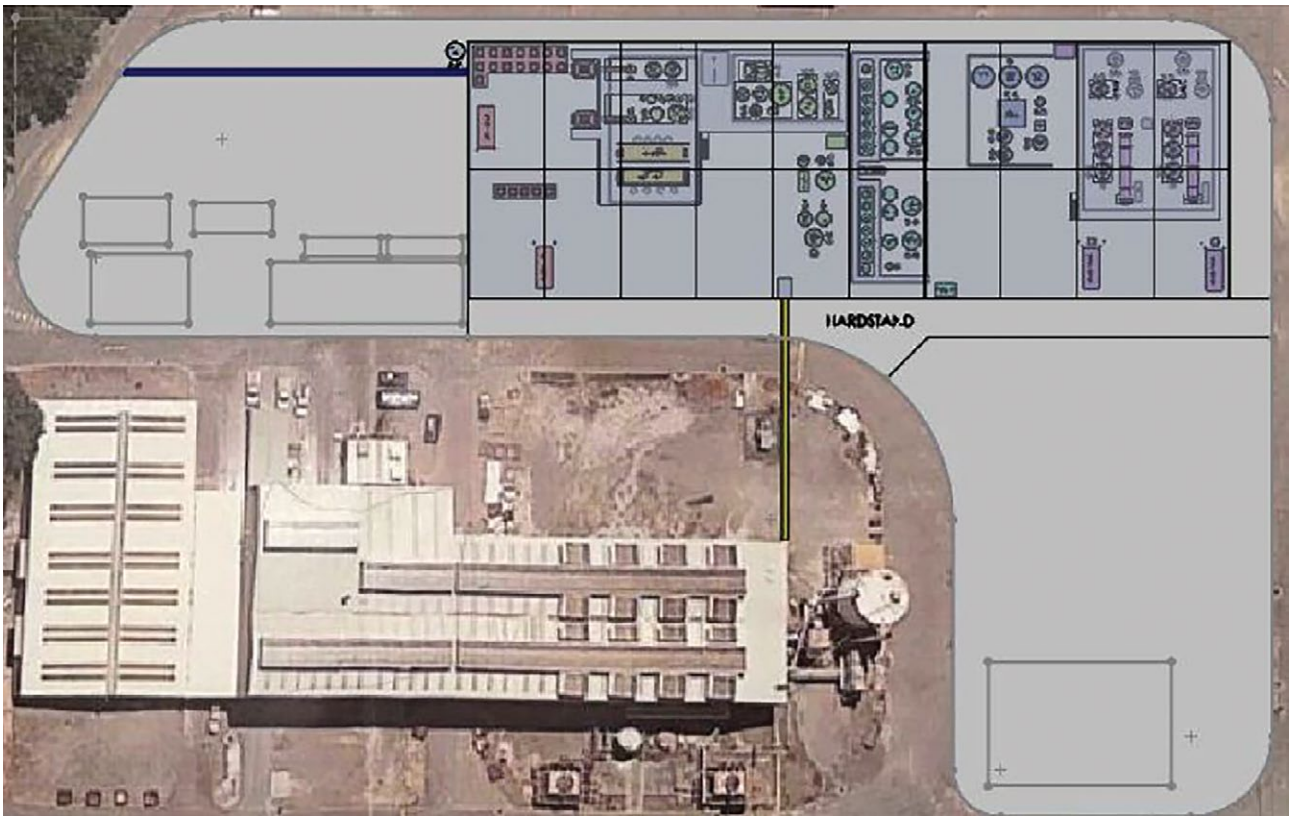


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Figure 8 – **District view of the proposed Refinery project site (highlighting proximity to battery industry and Kwinana/Fremantle Ports)**

In a letter from the Premier of Western Australia, Roger Cook MLA (8 January, 2024), the Premier noted the close alignment of the proposed Refinery with Western Australia's Battery and Critical Minerals Strategy and the Diversify WA Economic Development Framework. The Premier stated the Refinery would "further establish Western Australia as a national battery material production hub, enhancing the processing capability of critical minerals, and growing international linkages to the battery material supply chain".

The Premier additionally remarked that the successful development and operation of the Refinery "will further cement Western Australia at the forefront of Australia's efforts to develop sovereign capability in the advanced processing of critical minerals and diversify the critical mineral supply chains of strategically aligned countries".

Project support from the WA Premier should assist in streamlining project approvals (notably a modification to the existing site "Works Approval"). It will also assist in financing negotiations with Australian and international entities. A copy of the letter may be found in the attachment to this release.

About Cobalt Blue

Cobalt Blue is a mining and mineral processing company focussed on the development of a Cobalt-Nickel Refinery in Western Australia, the Broken Hill Cobalt Project in New South Wales, and Cobalt in Waste Streams Projects with a view to global opportunities contained in mine waste.

This announcement contains "forward-looking statements". All statements other than those of historical facts included in this announcement are forward-looking statements. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include but are not limited to the ability to reach binding agreement on the proposed terms or at all, cobalt metal price volatility, timely completion of project milestones, funding availability, government and other third-party approvals. Readers should not place undue reliance on forward-looking statements. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement".

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Looking forward, we would like our shareholders to keep in touch with COB updates and related news items, which we will post on our website, the ASX announcements platform, as well as social media such as Facebook (f) and LinkedIn (in). Please don't hesitate to join the 'COB friends' on social media and to join our newsletter mailing list at our website.

This announcement was authorised for release to the ASX by the board of Cobalt Blue Holdings Limited.

For further information, please contact:

Joe Kaderavek
Chief Executive Officer
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Previously Released Information

This ASX announcement refers to information extracted from the following reports, which are available for viewing on COB's website http://www.cobaltblueholdings.com.

- 01 December 2023: Iwatani Corporation to partner on Cobalt-Nickel Refinery
- 27 November 2023: COB to Progress Cobalt Nickel Refinery Project in 2024
- 03 August 2023: Demonstration Plant success. Refinery Development Program launched.

COB confirms it is not aware of any new information or data that materially affects the information included in the original market announcement, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. COB confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcement.

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CobaltBlue

Premier of Western Australia

Our ref: 60-080141

Mr Joe Kaderavek
Chief Executive Officer
Cobalt Blue Holdings Limited
Suite 17.03, 100 Miller Street
NORTH SYDNEY NSW 2060

[redacted]

Dear Mr Kaderavek

LETTER OF SUPPORT – COBALT NICKEL REFINERY, ROCKINGHAM

On behalf of the Western Australian Government (WA Government), I welcome the proposal by Cobalt Blue Pty Ltd (Cobalt Blue) and its partner Iwatani Australia Pty Ltd (Iwatani) to develop a cobalt-nickel refinery on Iwatani's property in Rockingham.

Closely aligned with Western Australia's Battery and Critical Minerals Strategy and the Diversify WA Economic Development Framework, the refinery will further establish Western Australia as a national battery material production hub, enhancing the processing capability of critical minerals, and growing international linkages to the battery material supply chain.

Western Australia has a long history of involvement with Japanese companies which have been instrumental in developing our minerals industry. The involvement of Iwatani in the refinery further develops the capability of the State in the advanced processing of high-value critical mineral products. In this regard, it is noted that Iwatani already has an established presence in Western Australia, mining and processing mineral sands and producing fused material products at its wholly owned subsidiaries, Doral Mineral Sands and Doral Fused Materials. Iwatani's involvement in the refinery will further extend its range of activities in the State.

The WA Government supports Cobalt Blue and Iwatani's plans to develop the refinery. The successful development and operation of the refinery will further cement Western Australia at the forefront of Australia's efforts to develop sovereign capability in the advanced processing of critical minerals and diversify the critical mineral supply chains of strategically aligned countries.

This letter does not imply WA Government endorsement or guarantee the proposed refinery's commercial success. The refinery is still required to meet the requirements of Commonwealth and Western Australian regulatory processes.

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I understand that Cobalt Blue and Iwatani may wish to share this letter with potential offtake counterparties, potential investors and government agencies. The WA Government consents to sharing this letter, subject to you advising [redacted] Director Battery and Critical Minerals Industries, Department of Jobs, Tourism, Science and Innovation in advance. Correspondence can be directed to [redacted]. Please keep us informed as Cobalt Blue and Iwatani continue to progress development of the refinery.

We wish you well with the continued development of your project and look forward to continuing to support Cobalt Blue and Iwatani's important role in Western Australia's critical mineral sector.

Yours sincerely

ROGER COOK MLA
PREMIER

08 JAN 2024

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