# Market Update

23 March 2022

A Green Energy Exploration Company



ASX Code:

COB

### **Commodity Exposure:**

**Cobalt & Sulphur** 

### **Directors & Management:**

Robert Biancardi
Hugh Keller
Robert McDonald
Joe Kaderavek
Danny Morgan
Non-Exec Chairman
Non-Exec Director

### Capital Structure

Ordinary Shares at 23/03/2022: 309.7m
Unlisted options: 30.4m
Market Cap (undiluted): \$241m

### Share Price

**Share Price** at 23/03/2022: **\$0.78** 



### **Cobalt Blue Holdings Limited**

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## **Highlights**

# COB commences underground development to support Demonstration Plant

### **KEY POINTS**

- Successful site establishment and first blast completed at Pyrite Hill.
- Demonstration Plant construction and commissioning underway, target for first ore processing is late April.

Cobalt Blue's Chief Executive Officer, Joe Kaderavek said:

"Demonstration Plant activities are coming together nicely with mining underway and processing equipment being received. Last year, our successful Pilot Plant opened the door to new partners. These large-scale Demonstration Plant cobalt samples are a game changer for COB, providing operating proof for project equity/debt funders and simultaneously providing high quality production scale samples for commercial partners. Well done to the COB team."

## **Bulk Sample for Demonstration Plant**

3,500–4,000 tonnes of ore will be mined from Pyrite Hill to support 20 weeks of continuous operation of the Demonstration Plant. Two underground development drives will provide access laterally to the cobalt-pyrite mineral resource and allow representative samples to be obtained. This is important to ensure that unbiased engineering data is generated from the Demonstration Plant for the BHCP Feasibility Study.

Site establishment works have been completed and excavation of the box cut is well advanced with installation of the decline portal to commence shortly. The decline will extend approximately 80 metres, and intersect with the ore body approximately 40 metres below surface.

Recent blast and excavation activities are shown in Figure 1 and 2.





Figure 1 – **Initial blast to advance excavation of the Pyrite Hill box cut.** 



Figure 2 – Load and haul activities at the Pyrite Hill box cut.







## **Demonstration Plant**

The Demonstration Plant is comprised of two activities. Firstly, mined ore will be crushed, milled and treated to produce a cobalt-pyrite concentrate at the mine site. Secondly, the concentrate will then be trucked to the processing plant in Broken Hill for extraction and recovery of cobalt as mixed hydroxide precipitate and/or cobalt sulphate.

Milling and concentrator equipment is being commissioned in Broken Hill, ahead of relocating these to the mine site (Figure 3). First ore processing (concentration) is on target for late April.

Figure 3 – Commissioning of the float cell



Upgrades and modification to the 2021 Pilot Plant are well advanced. The throughput of the leach plant has been upgraded from 40 kg/hr to 125 kg/hr. Key major equipment items are arriving at site – larger leach vessels, oxygen and nitrogen plants, and kiln and sulphur recovery equipment. These will be installed across March–April, with the plant ready to then process concentrate from the mine site in early May.

Trials and commissioning of individual processing circuits are ongoing. Recent work has focused on optimisation of the solvent extraction separation of cobalt (Figure 4), as part of the refining MHP into high purity cobalt sulphate (Figure 5).

Figure 4 – Cobalt solvent extraction







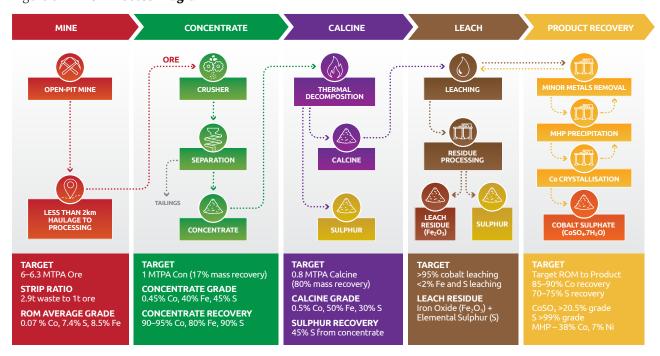
Figure 5 – Cobalt sulphate crystals



## **Market Strategy**

Our strategy is focused upon maximising payable cobalt whilst participating in the strong growth of the lithium-ion battery market. Unlike the traditional cobalt mining model, COB is an integrated refinery model capable of delivering first an intermediate Mixed Hydroxide product (MHP), which subsequently can be further refined into battery grade cobalt sulphate. The COB process-block flowsheet is shown below.

Figure 6 – **BHCP Process Diagram** 







## **Cobalt Blue Background**

Cobalt Blue Holdings Limited (ASX: COB) is an exploration and project development company. Work programs advancing the Broken Hill Cobalt Project in New South Wales continue. Our ambitious goals are subject to funding availability. Cobalt is a strategic metal in strong demand for new generation batteries, particularly lithium-ion batteries now being widely used in clean energy systems.

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 (1) and Linkedln (in). Please don't hesitate to join the 'COB friends' on social media and to join our newsletter mailing list at our website.

Joe Kaderavek

Chief Executive Officer info@cobaltblueholdings.com

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This announcement was approved by the Board of Directors.

## **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

- 10 September 2021: Premium cobalt samples finalised
- 05 July 2021: Transition to Demonstration Plant

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.