

# Market Update

06 April 2020

**Cobalt Blue Holdings Limited**  
A Green Energy  
Exploration  
Company



ASX Code:

**COB**

**Commodity Exposure:**

**Cobalt & Sulphur**

**Directors & Management:**

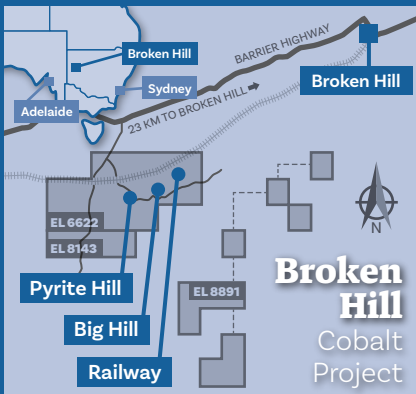
**Robert Biancardi** Non-Exec Chairman  
**Hugh Keller** Non-Exec Director  
**Robert McDonald** Non-Exec Director  
**Joe Kaderavek** CEO & Exec Director  
**Robert Waring** Company Secretary

**Capital Structure:**

Ordinary Shares at 06/04/2020: **160.0m**  
Options (ASX Code: COBO): **29.6m**  
Market Cap (undiluted): **\$14.4m**

**Share Price:**

Share Price at 06/04/2020: **\$0.09**



**Cobalt Blue Holdings Limited**

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## Highlights

### COB Partnerships – Testwork Success + QLD Minerals Initiatives

**KEY POINTS**

- COB Process successful in treating cobalt, copper and gold concentrates from the Millennium Project (100% Global Energy Metals Corporation (TSX:GEMC)).
- Excellent metal recoveries achieved:
  - Float recoveries were 93% cobalt, 93% copper, and 80% gold to concentrates, and
  - COB Process extracted 90% cobalt, 95% copper and 90% gold from the cobalt concentrate.
- Samples of pyrite concentrate received from Carrapateena (100% OZ Minerals Limited (ASX:OZL)). Test program has commenced to evaluate application of COB Process for cobalt, copper and gold feedstocks.

CEO, Joe Kaderavek said: “These are significant results for our business. We have used the COB Process to successfully recover cobalt, copper and gold from mineralisation typical of Queensland’s Mount Isa - Cloncurry district. Whilst our focus remains on our core Broken Hill Cobalt Project, these results underpin strong optionality for our business.”

#### Millennium Project – Testwork Update (Queensland)

COB is pleased to announce a progress report on testwork for the Millennium Project. GEMC provided 70kg of mineralised sample to COB.

COB developed a successful flotation scheme to produce two separate copper and cobalt concentrates. The total flotation recovery of metals to concentrates achieved was 93% cobalt, 93% copper and 80% gold. The concentrate grades and recoveries are shown below:

		Co	Cu	As	Fe	S	Si	Au
Copper Concentrate	Grade	0.5%	30.9%	0.15%	27.7%	32.7%	1.7%	9.5 g/t
	Recovery	5%	87%	2%	18%	33%	<0.5%	56%
Cobalt Concentrate	Grade	2.9%	0.9%	2.9%	19.0%	21.9%	15.8%	1.6 g/t
	Recovery	88%	7%	94%	36%	63%	1%	26%

The cobalt concentrate was then treated using the COB Process:

**Step 1:** Thermal decomposition of the pyrite, where all the pyrite ( $\text{FeS}_2$ ) was converted to pyrrhotite ( $\text{Fe}_7\text{S}_8$ ).

**Step 2:** Leaching the resulting calcine (pyrrhotite) to extract cobalt and copper.

The process successfully treated the cobalt concentrate, with leach extractions of 90% of the cobalt and 95% of the copper. Interestingly, 10% of the gold was also leached into solution, on account of the formation of gold-chloride complexes. The leach residue was filtered and washed, and then subjected to a further cyanide leach to recover free gold. The total gold extracted from the cobalt concentrate was 90% (10% in the chloride leach, and a further 80% in the cyanide leach).

	Co	Cu	Au
COB Process Leach Extraction	90%	95%	10%
Cyanide Leaching of Leach residue			80%*
Total Gold leached from Cobalt concentrate			90%

\* extraction of Au relative to head Co concentrate.

The detailed results from the test program are now being evaluated.

## Potential application to other cobalt deposits in Queensland

The Queensland Government Department of Natural Resources, Mines and Energy recently announced new initiatives to explore for 'new economy minerals' including cobalt. This incorporates a program managed by the Geological Survey of Queensland (GSQ) and The University of Queensland to evaluate cobalt in tailings of substantial copper mines in the North West Minerals Province (Mount Isa - Cloncurry district).

In alignment with these new initiatives, results from the Millennium project test work indicate that the COB Process could be successfully adapted to treat cobalt-copper-gold sulphides prevalent in the resource rich Mount Isa - Cloncurry district.

## Carrapateena - Testwork Update (South Australia)

As previously announced, COB has been engaged by OZL to conduct amenability testing of the COB Process on a pyrite concentrate containing cobalt, gold and copper from Carrapateena. A sample of the concentrate has now been received by COB, with extensive testwork expected to take four months to complete.



**Joe Kaderavek**  
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This announcement is authorised by the Board of Directors.

## Previously Released Information

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

- 9 December 2019: Pilot Plant Update
- 24 June 2019: Concentrate Circuit (Pilot Trial) program successfully completed
- 31 May 2019: COB-Mitsubishi Sulphur Agreement
- 26 February 2019: Testwork Update
- 04 July 2018: Thackaringa Pre Feasibility Study Announced

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.

## Competent Person's Statement

The information in this report that relates to Metallurgical Testwork Results or Engineering Design Studies is based on information compiled by Dr Andrew Tong, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Andrew Tong is engaged by Cobalt Blue Holdings Limited as its Executive Manager. Dr Andrew Tong has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 JORC Code. Dr Andrew Tong consents to the inclusion in the report of the matters based on his information in the form and context in which they appear.