

# **Company Presentation**

# CobaltBlue



## Q3 2020 – Funding: Placement & SPP

COB is seeking funds to achieve the following milestones:

- \$3.0m Pilot Plant targeting up to 200 kg of cobalt sulphate by Q1
  2021 (Demonstration Plant will then target up to 2,000 kg).
- \$1.0m Engineering and technical studies towards Feasibility Study.
- \$0.5m Advance Project permits and approvals commence EIS studies.
- **\$0.5m Project Equity Sale process.**

#### Placement:

- Share Price: \$0.095.
- Successfully raised \$3.7m (gross).

#### SPP Terms:

- Share Price: \$0.095.
- Represents 19% & 11% discount to 10 & 30-day VWAP respectively



## **Cobalt Blue Holdings – ASX listed**

#### ASX: COB

Cobalt exploration and development company.

#### **Commodities:**

Cobalt and Sulphur

#### **Capital Structure:**

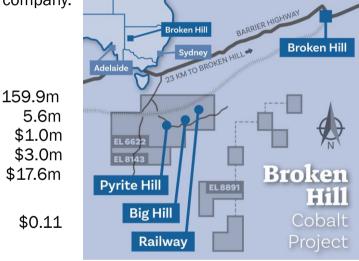
- Ordinary Shares at 03/08/2020:
- Options (unlisted):
- Convertible Note<sup>1</sup> (3yr to 2023):
- Promissory Note<sup>2</sup> (5yr to 2025):
- Market Cap (undiluted):

#### **Share Price:**

Share Price at 03/08/2020 :

#### Cash:

Cash On Hand (pre capital raising)



Source: Cobalt Blue Holdings Limited

<sup>1</sup> 6% interest, paid annually in arrears, convertible at 20c on 18 Jan 21, 17 Jan 22 or 17 Jan 23.

<sup>2</sup> 3 years interest free, then 6% interest, paid annually in arrears. Can be repaid anytime in whole or in part without penalty

\$2.0m



# **Introducing Cobalt Blue (COB)**

#### Our focus is on meeting future energy storage needs by:

- Developing a significant global cobalt resource, the Broken Hill Cobalt Project (BHCP):
  - Project Update 2020:
    - $\uparrow$  Increased Ore Reserve.
    - ↑ Longer Operating Life.
    - $\downarrow$  Capital Costs.
    - $\downarrow$  Operating Costs.
- Providing a reliable source of ethical cobalt.
- Commercialising process technologies via COB Partnerships.



## **BHCP - strong investment fundamentals**

Australia's largest cobalt sulphide deposit & aim to be a top 10 global cobalt mine

- Project life target is +20 years.
- Politically stable jurisdiction. Established infrastructure in a mining district.

#### Flexible, low cost production

- Cobalt sulphate production from MHP intermediate.
- Lowest quartile costs: cobalt C1 (US\$9.34/Ib)\* & AISC (US\$12.13/Ib)\*.

#### Low capital intensity

All in pre-production capital A\$560m for 3,500+ tpa Co.

(incl. EPCM, process plant, infrastructure, water/power supply, mine development, contingencies of A\$70m)

#### **Existing commercial partnerships**

LG International, Mitsubishi Corporation, & Sojitz Corporation

\*Project Update 16 July 2020 - Value Engineering Study including nickel credits.



## **BHCP** – outstanding capital efficiency

#### New global projects running at 3 to 4x COB capital intensity

Project	US\$ Capex	Cobalt (tpa)	By-products	Cobalt Payable (%LME)	Mine Life (years)	Capital Intensity (US\$/tpa Co)
Broken Hill Cobalt (Aust)	392	3,530	Sulphur	100%	17	112,000
Mount Thirsty (Aust)	260	1,600	Ni	80%	12	163,000
Kabanga (Tanzania)	750	2,400	Ni	Low		313,000
Kalgoorlie Nickel Project (Aust)	918	2,150	Ni	100%	>25	427,000
Sunrise (Syerston) (Aust)	1,490	3,360	Ni/Sc	100%	>25	444,000
Wellgreen Central (Canada)	450	1,000	Ni/Cu	Low	25	450,000
NiWest (Aust)	676	1,400	Ni	100%	>25	483,000
Dumont (Canada)	1030	2,000	Ni/Pt		20	515,000
NICO (Canada)	589	500	Bi/Au	100%	>20	1,178,000

Source: Company Announcements and CRU database as of 5 July 2020. All other global projects include nickel or copper as primary metals, with cobalt being a minor by product



## **BHCP** – Timeline

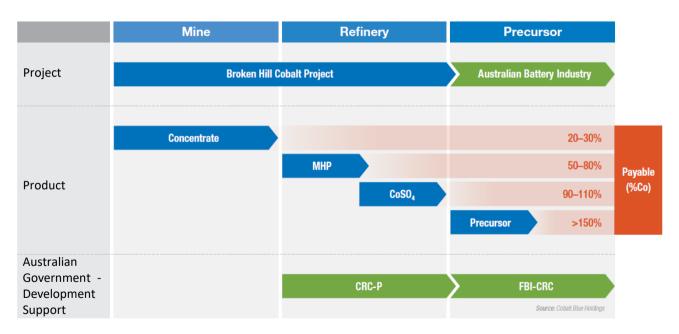
#### The BHCP development timeline is shown below:

	2017	2018	2019	2020	2021	2022
Business Achievements	IPO	LGI — Cobalt First Mover	Mitsubishi — Sulphur Agreement 100% Project Ownership		Global cobalt sample program – Q1 2021	Final Investment Decision – H1 2022
Technical Studies	Resource upgrade Drilling: +8,000m Resource: 55Mt Scoping Study	Resource upgrade Drilling: +12,500m Resource: 72Mt Pre Feasibility Study	<b>Resource upgrade</b> Drilling: +9,500m Resource: 111Mt	Project Update 2020 – July 2020		Feasibility Study and Approvals – Q1 2022
Metallurgical Studies			Concentration – Pilot Scale Testwork	Pilot Plant - Q4 2020	Demonstration Plant – Q2 2021	
Environmental Approvals			CPDP Submitted	Scoping Report – Jan 2020 SEARs issued – Feb 2020	EIS Submission – H2 2021	SSD Determination - H1 2022
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# BHCP in the global cobalt value chain

#### **Cobalt Products & Payables:**



Source: Cobalt Blue Holdings Limited

CobaltBlue

# Appendix

## Additional material:

- BHCP Project Description.
- Strategic Partners.
- COB Partnerships.
- Our Team.

# CobaltBlue

# A Globally Significant Australian Project

## Broken Hill Cobalt Project (BHCP) Overview:

- Targeted project life +20 years:
  - Mineral Resource 123 Mt for 81,400 t cobalt\*, with significant expansion potential via exploration and acquisition.
  - 3,500+ tpa of cobalt (as cobalt sulphate).
  - 300,000 tpa of elemental sulphur.

Probable Ore Reserve	71.8 Mt	710 ppm Co	7.6% S
Production Target	97.7 Mt	684 ppm Co	7.4% S

- Patented minerals processing technology for treating pyrite feedstocks:
  - 85-90% recovery of cobalt from ore to product.
  - Generation of stable leach residues minimal footprint.



<sup>\*</sup> The reported Mineral Resources are inclusive of the reported Ore Reserves. Refer to Compliance Statements on pages 22 to 24.

## **BHCP – Project Metrics**

## Financials\*

- Pre-Tax NPV<sub>7.5</sub> A\$861m (IRR 23%)
- Post Tax NPV<sub>7.5</sub> A\$554m (IRR 19%)
- Payback: 4.5 years
- EBITDA A\$3.05B generated LOM (Co: US\$27.5/lb, S US\$145/t, Ni US\$6.0/lb, FX A\$ \$0.70)

#### **Parameters**

- ~3,500 tpa cobalt sulphate
- 300,000 tpa sulphur
- 17-year operations



Life of Mine (Production Target)	Revenue (%)	Revenue (A\$m)
Cobalt	84%	4,972
Sulphur	16%	973

\*Project Update 16 July 2020 - Value Engineering Study including nickel credits. Refer to Compliance Statements on pages 22 to 24.



## **BHCP** – Operating Costs

## All In Sustaining Costs - lowest quartile of global producers



BHCP - All In Sustaining Cash Cost US\$/lb

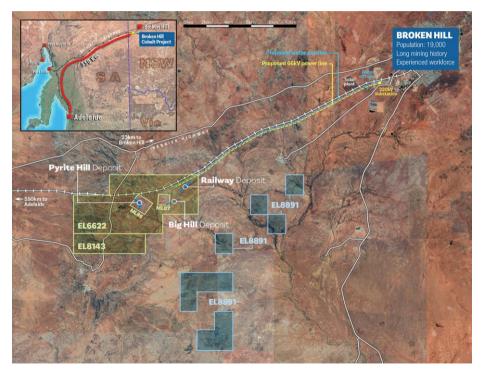
\*Project Update 16 July 2020 - Value Engineering Study including nickel credits.

Source: Cobalt Blue Holdings Limited



## BHCP – significant logistical advantages

#### Broken Hill - people, power, water, road and rail benefits.



Source: Cobalt Blue Holdings Limited



## Mineral Resource Summary

Category	Mt	Co ppm	CoEq (ppm)	Fe (%)	S (%)	Pyrite (%)	Contained Co (t)	Py (Mt)
Pyrite Hill   Ca	ut-off Grade	275 ppm CoE	q					
Measured	18	928	1094	10.7	9.9	19	17,100	3
Indicated	8	700	827	9.6	7.6	14	5,800	1
Inferred	7	811	957	10.4	8.7	16	5,700	1
Total	34	847	1000	10.4	9.1	17	28,700	6
Railway   Cut-	off Grade 27	'5 ppm CoEq						
Indicated	45	605	718	7.8	6.7	13	27,400	6
Inferred	29	568	681	8.1	6.8	13	16,300	4
Total	74	591	704	7.9	6.7	13	43,700	9
Big Hill   Cut-o	off Grade 27	5 ppm CoEq						
Indicated	11	613	714	6.6	6.1	11	6,600	1
Inferred	5	517	605	6.0	5.2	10	2,400	0
Total	15	584	681	6.4	5.8	11	9,000	2
Total   Cut-off	Grade 275 p	pm CoEq						
Measured	18	928	1094	10.7	9.9	19	17,100	3
Indicated	64	619	731	7.8	6.7	13	39,900	8
Inferred	40	604	720	8.3	6.9	13	24,300	5
Total	123	660	782	8.4	7.3	14	81,400	17

The Mineral Resource estimates for the BHCP deposits (at a 275 ppm CoEq cut-off) detailed by Mineral Resource dassification (CoEq = Co ppm + S % \* 16.74). Note minor rounding errors may have occurred in compliation of this table.

Refer to Compliance Statements on pages 22 to 24.



## BHCP – MHP

#### **BHCP - Mixed Hydroxide Product (MHP)**

- High Grade: 37% cobalt.
- Byproduct Credit: 7% nickel.
- Low trace metal impurities Cu, Fe, Mn.
- Trading terms minimum grade is 30% Co content.

Typical content from testwork:

Са	Со	Cl	Cu	Fe	Mn	Ni	Zn
2.5 %	37 %	7 %	0.01 %	0.07 %	0.85 %	7 %	0.1 %

#### MHP and Cobalt Sulphate Markets

BHCP Product	Payable % Co metal price	Purity	<b>End Use</b> Typical	Customers
Cobalt Sulphate	90-110%	Very High	Li ion batteries	Precursor/Cathode Makers
Mixed Hydroxide Product	50-80%	Low	Metallic cobalt & Li ion batteries	Commodity Trading Houses Mining Companies



## **BHCP – Cobalt Sulphate**

## BHCP – Cobalt Sulphate Heptahydrate (CoSO<sub>4</sub>.7H<sub>2</sub>0)

- High Grade: 20.8% cobalt.
- Low trace metal impurities.



Metal	Units	СОВ	AVG 9 producers
Со	%	>20.8%	>20.5
AI	ppm	2	<10
As	ppm	<1	<5
Ca	ppm	<0.01	<10 (can be up to 100)
Cd	ppm	< 0.001	<10
Cr	ppm	<0.01	<5
Cu	ppm	1	<10
Fe	ppm	<1	<10
К	ppm	0.6	<5 (can be up to 100)
Mg	ppm	27	<20 (can be up to 100)
Mn	ppm	5	<10 (can be up to 100)
Na	ppm	128	<20 (can be up to 100)
Ni	ppm	<10	<10 (can be up to 100)
Pb	ppm	<0.05	<10
Si	ppm	<0.5	<20
Zn	ppm	<2	<10

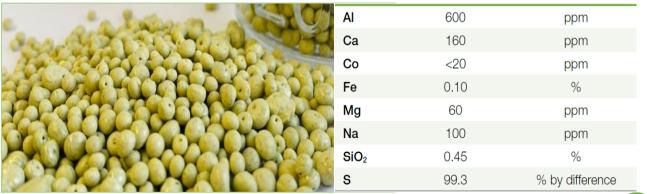
Source: Cobalt Blue Holdings Limited



## **BHCP** – Elemental Sulphur

## **BHCP – Elemental Sulphur**

- >99% purity (max 0.2% Fe, 0.5% SiO<sub>2</sub>)
- Physical Form: Prills (2 5 mm)
- Australia: 1mtpa deficit market:
  - fertiliser feedstock (55%)
  - metallurgical consumption (43%)



Source: Cobalt Blue Holdings Limited



## **Strategic Partners**

## Existing Partnerships - LG International and Mitsubishi Corporation.



Source: Cobalt Blue Holdings Limited

Cobalt products assessment includes Sojitz Corporation + others (under NDA).



## **COB Partnerships**

## Commercialising the COB Process:

- **COB** Process (technology) is a patented asset.
- Short-term:
  - understanding market size proving the COB Process works for different styles of mineralisation.
  - consulting fees.
- Long-term:
  - project participation.
  - joint marketing of cobalt products.
- Three testwork partners to date:
  - Broken Hill District (Mutooroo),
  - South Australia (Carrapeteena OZ Minerals (ASX:OZL)
  - Queensland (Millennium Project Global Energy Metals)

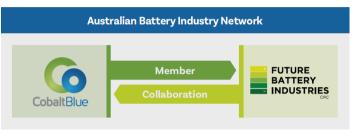


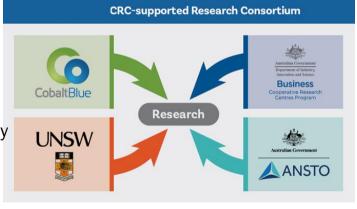
# **Australian Critical Minerals**

## Assisting in the development of Australia's battery capabilities

Participating with Australian industry and researchers to develop processing pathways for refined battery raw materials.

A\$1.57m grant awarded from CRC-Project Program Round 8. COB led consortium for pilot scale optimisation of the recovery of cobalt from pyrite.





Source: Cobalt Blue Holdings Limited

CobaltB

## **The Cobalt Blue Team**

#### "Extensive expertise - mineral development, investment management, corporate law and energy storage."

#### Independent Chairman – Robert Biancardi

- IBM, Citibank, Westpac and Evolution Healthcare (senior management and director).
- Numerous directorships of private companies including Rockridge Private Equity and Hutchisons Child Care (successful ASX listing).

#### Independent Director – Hugh Keller

- Partner Blake Dawson (now Ashurst) and its predecessor firms for 35 years until retirement from full time legal practice in 2010.
- Non-executive director of ASX listed Thakral Holdings Limited and of LJ Hooker Limited.

#### Independent Director - Rob McDonald

- 40 years of international mining sector experience.
- Investment banking/private equity investment management.

#### Chief Executive Officer – Joe Kaderavek

- Deutsche Bank, Head of Resources, equities / investment management, resources and energy storage technology focus.
- PwC, Operational reviews and strategic assessments mining, minerals processing, and infrastructure in Australia, North America and Europe; seconded to BHPB and Rio Tinto.

#### Executive Manager – Dr Andrew Tong

- Metallurgist with over 15 years experience in project development, operating mining and processing activities, and patenting innovative minerals processing technology.
- Managing Director of Northern Territories Resources Pty Limited.

#### Chief Financial Officer – Danny Morgan

- Chartered Accountant with over 25 years' professional financial and commercial experience including IPO's, M&A, Project Financing, JV's and Project Developments.
- Wide experience across private and publicly listed resource companies including Donaldson Coal, Oil Search and Roc Oil.





## **Compliance Statements**

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

The information is extracted from the reports referenced below which are available to view at https://www.cobaltblueholdings.com/.

Slide 12: The forecast financial information is as released on 16 July 2020 in the market announcement titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020' available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>.

Slide 10 : The Mineral Resource estimate is as released on 16 July 2020 in the market announcement titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020' available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>. A complete summary of Mineral Resources by classification is provided on Slide 14 (note minor rounding errors may have occurred in compilation of this summary). The Mineral Resource has been reported at a cut-off of 275 ppm cobalt equivalent based on an assessment of material that has reasonable prospects of eventual economic extraction. The cobalt equivalent grade has been derived from the following cut-off calculation: CoEq ppm = Co ppm + (S price/Co price) × (S recovery/Co recovery)). This equates to CoEq ppm = Co ppm + (S% × 16.74). The parameters used for this calculation are listed in the table below. The Company confirms all elements included in the metal equivalence calculation have reasonable potential to be recovered and sold.

Assumption	Input
A\$/US\$ Exchange Rate	0.70
Cobalt Price	US\$25/lb Co
Sulphur Price	US\$123/t
Cobalt Recovery	85.5%
Sulphur Recovery	64.4%



## **Compliance Statements**

Slide 10 (continued): The Ore Reserve estimate, production target and metallurgical results are as released in the market announcement titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020' available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>.

Slide 5: The Mineral Resource estimate is as released on 16 July 2020 in the market announcement titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020' available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>. A complete summary of Mineral Resources by classification is provided on Slide 14 (note minor rounding errors may have occurred in compilation of this summary). The Mineral Resource has been reported at a cut-off of 275 ppm cobalt equivalent based on an assessment of material that has reasonable prospects of eventual economic extraction. The cobalt equivalent grade has been derived from the following cut-off calculation: CoEq ppm = Co ppm + (S price/Co price) × (S recovery/Co recovery)). This equates to CoEq ppm = Co ppm + (S% × 16.74). The parameters used for this calculation are provided on Slide 14. The Company confirms all elements included in the metal equivalence calculation have reasonable potential to be recovered and sold.

The forecast financial information including C1, AISC and pre-production capital cost estimates are as released on 16 July 2020 in the market announcement titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020' available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>.

Slide 11: The forecast financial information and production target parameters are as released on 16 July 2020 in the market announcement titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020' available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>.

Slide 15: The metallurgical results are as released on 28 April 2020 in the market announcement titled 'Mixed Hydroxide Product (MHP) testwork delivers premium product' and further described in the market announcement released on 16 July 2020 titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020' both of which are available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>.

Slide 16: The metallurgical results are as released on 28 July 2020 in the market announcement titled 'BHCP testwork – High purity cobalt and sulphur products' and further described in the market announcement released on 16 July 2020 titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020' both of which are available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>.

Slide 17: The metallurgical results are as released on 28 July 2020 in the market announcement titled 'BHCP testwork – High purity cobalt and sulphur products' and further described in the market announcement released on 16 July 2020 titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020' both of which are available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>.



## **Compliance Statements**

Slide 7: Preceding and superseded Mineral Resources listed within the BHCP development timeline are as released on:

- 4 April 2019 in the market announcement titled 'Significant Thackaringa Resource Upgrade' available to view at <u>https://www.cobaltblueholdings.com/</u>
- I9 March 2018 in the market announcement titled 'Thackaringa Significant Mineral Resource upgrade' available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>
- 5 June 2017 in the market announcement titled 'Significant resource upgrade for the Thackaringa Cobalt Project' available to view at <u>https://www.cobaltblueholdings.com/</u>
- 3 January 2017 in the market announcement titled 'Replacement Prospectus' available to view at <u>https://www.cobaltblueholdings.com/</u>

The current Mineral Resource is as released on 16 July 2020 in the market announcement titled 'Broken Hill Cobalt Project (BHCP) Project Update 2020' available to view at <a href="https://www.cobaltblueholdings.com/">https://www.cobaltblueholdings.com/</a>. A complete summary of Mineral Resources by classification is provided on Slide 14 (note minor rounding errors may have occurred in compilation of this summary).

Approval: This Presentation was authorised for release to ASX by the Executive Director and Company Secretary.



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