Market Update

CobaltBlue

06 June 2025

Highlights

Cobalt Blue Holdings Limited

ASX Code: **COB**

Directors & Management:

Robert Biancardi	Non-Exec Chairman
Hugh Keller	Non-Exec Director
Joe Kaderavek	Deputy Chairman
Dr Andrew Tong	Chief Executive Officer
Kelvin Bramley	CFO & Company Secretary

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Halls Creek Project Scoping Study delivers a near-term copper-zinc opportunity

Cobalt Blue Holdings Limited (ASX: COB) ('COB', 'Cobalt Blue' or 'the Company') is pleased to announce the completion of the Halls Creek Project ('Halls Creek Project' or the 'Project') Scoping Study (the 'Scoping Study' or the 'Study') (refer to COB's ASX announcements dated 24 March 2025 and 18 February 2025). The Study supports an attractive, low-cost, near-term copper-zinc project in an established mining jurisdiction in Western Australia.

The scoping study reveals several key aspects:

KEY POINTS:

- The project plans to develop both the Onedin and Sandiego deposits in sequence.
- Material is planned to be mined by open-cut methods from Onedin deposit, and treated via heap leaching, solvent extraction, and electrowinning to produce copper metal, and crystallisation to produce zinc sulphate monohydrate.
- Material is planned to be mined by underground methods from the Sandiego deposit, and treated via a concentrator to produce separate copper and zinc concentrates.
- A photovoltaic solar grid with battery storage is a key enabler of the operation providing sustainable, on-site power.

The Halls Creek Project contribution:

1. **Diversification & Commodity cycle resilience**

   The Project provides exposure to major metals such as copper, zinc and silver. This diversification strengthens our ability to weather price swings, optimise capital allocation, and seize new opportunities in shifting market conditions.

2. **Strong investment return, with a relatively small start-up funding envelope**

   The Project requires a modest up-front capital expenditure for potentially near dated cashflows, whilst COB develops its critical minerals focused business in parallel. COB will continue to work through staging and capital equipment reduction opportunities throughout the course of Project development.

3. **Low technical risk**

   The Project utilises conventional metallurgical flowsheets, engineering and equipment selection with low levels of development and operational risk. Further, due to COB's strong background in metallurgical flowsheet development and process engineering, in-house testing at the Broken Hill Technology Centre and plant design will speed up project development.

COB's CEO, Andrew Tong, commented: *"This is a fresh, modern look at an undeveloped project. We believe that the Halls Creek Project can be developed for a moderate investment to profitably produce copper and zinc, which are forecast to be in high demand in the coming decade. While remaining focused on the Kwinana Cobalt Refinery, we are thrilled to have acquired a robust project to potentially deliver near-term value to our shareholders."*

Cautionary statement

The Scoping Study referenced in this announcement has been undertaken to assess the potential viability of the Halls Creek Project and to determine whether advancement to more definitive study phases is justified. The Study has been prepared on a 100% basis. COB currently has a 51% in the Project under a joint venture agreement with AuKing Mining Limited,[1] with the right (but not the obligation) to increase its interest in the Project to 75% subject to satisfying certain expenditure thresholds. The Study considers a mining and processing operation at the Project targeting copper and zinc production from oxide/ transitional mineralisation, and copper, zinc and silver from sulphide mineralisation. It is a preliminary technical and economic study of the potential viability of the Halls Creek Project and specifically the Onedin and Sandiego deposits. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. The Scoping Study has been completed to a level of accuracy of +35 / – 15%. Further evaluation and supporting studies are required before COB will be in a position to estimate any ore reserves or to provide any assurance of an economic development case at this stage or to provide certainty that the conclusions of the Scoping Study will be realised.

The Company believes that it has a reasonable basis for providing the forward-looking statements and the forecast financial information.

The Scoping Study is based on the material assumptions outlined below. These include assumptions about the availability of funding. While COB considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

As a staged development, cash-flow generated by the first stage of the Project will be used to fund development costs associated with the second stage. Therefore, to achieve the range of outcomes indicated in the Scoping Study, initial up-front capital of approximately A$73million (on a 100% project basis) will be required along with additional funding of up to A$67 million (on a 100% project basis) to meet estimated initial working capital requirements. COB intends to fund its share of the Project through equity, or a mix of equity and debt, with subsequent funding to be met by cash flow generated by the Project itself. COB has successfully raised equity for capital projects in the past and has a strong track record of attracting supportive development partners if required. COB believes it's joint venture partner will be successful in raising the necessary equity to fund its interest in the Project. However, investors should note that there is no certainty that COB will be able to raise the required funding when needed or obtain the funding on terms acceptable to COB at all. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of COB's existing shares.

COB may elect to pursue other funding strategies including a partial sale of its interest in the Halls Creek Project. Should it do so, this could materially reduce COB's proportionate interest in the Halls Creek Project and negate the advantages of holding a majority interest.

Investors should note that COB's beneficial interest in the Project is currently 51% under the existing joint venture agreement with Koongie Park Pty Ltd (a wholly owned subsidiary of AuKing Mining Limited). Retention or augmentation of this interest is subject to the fulfilment of the following key terms:

- To retain the 51% beneficial interest COB must meet a minimum expenditure threshold of A$500,000 by 30 June 2027.
- COB will then have the right (but not the obligation) to earn up to a 75% interest (an additional 24%) in the project by incurring an additional A$1.5 million of expenditure on the tenements by 30 June 2028.

The Mineral Resources scheduled for extraction in the Scoping Study production target are based on approximately 91% Indicated Mineral Resources and 9% Inferred Mineral Resources. The Inferred Mineral Resources do not feature as a significant proportion in the earlier years of the proposed mine plan. There is a low level of geological confidence associated with Inferred Mineral Resources, and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources for the current Inferred portion, or that the production target itself will be realised. The Company confirms that the financial viability of the Project is not dependent on the inclusion of Inferred Mineral Resources in the production schedule.

The Mineral Resource Estimates underpinning the production target in the Scoping Study have been prepared by a competent person in accordance with the requirements of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 edition ('JORC Code (2012)').

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

Key Outcomes

Key outcomes of the Scoping Study:

- 10.5 year project life, underpinned by the existing Onedin and Sandiego Mineral Resource Estimates,[2] with the first year being construction, followed by 5 years mining and processing the Onedin deposit, and then a further 4.5 years mining and processing the Sandiego deposit.
- The Onedin deposit will be mined via an open-cut method, delivering up to 1,000,000 tpa of material to a heap leach pad. Copper metal will be produced by solvent-extraction and electrowinning, with a maximum production rate of 5,000 tonnes per annum. Zinc sulphate monohydrate will be produced by solvent-extraction and crystallisation, with an average production rate of 15,000 tpa contained zinc.

1,2 See ASX announcement 'COB Diversifies – Major Copper Project Earn In' dated 18 February 2025.

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- The Sandiego deposit will be mined via an underground method, delivering up to 700,000 tpa of material to a flotation concentrator plant. Separate copper and zinc concentrates will be produced, at 25% copper and 51% zinc respectively. The average annual copper concentrate will contain 7,300 tpa of copper and 72,600 oz of silver. The average annual zinc concentrate will contain 13,300 tpa of zinc and 12,100 oz of silver.
- Life of project estimated mining and production summary (100% project basis)[3]

Onedin Deposit		
Maximum Mining Rate	1.0 Mtpa	
Total Mining Production Target	3.1 mt	
Total waste mined	21.3 mt	
Copper metal production	19,400 t	Life of operation
Zinc production (contained in zinc sulphate monohydrate)	59,000 t	Life of operation
Mine/plant life	5 years	
Sandiego Deposit		
Maximum Mining Rate	0.7 Mtpa	
Total Mining Production Target	2.3 mt	
Total development	1.0 mt	
Copper production (contained in concentrate)	33,000 t	Typical grade of copper at 25% in concentrate
Silver production (contained in copper concentrate)	326,800 oz	Average silver grade of 77 g/t in copper concentrate
Zinc production (contained in zinc concentrate)	59,900 t	Typical grade of zinc at 51% in concentrate
Silver production (contained in zinc concentrate)	54,500 oz	Average silver grade of 14 g/t in zinc concentrate
Mine life	4.5 years	

- Life of project estimated financial summary (100% project basis)[4]

Parameter	**Estimated outcome**
Economic evaluation[5]	
Pre-tax NPV 8% (real)	A$172m
Post-tax NPV 8% (real)	A$121m
Pre-tax Internal Rate of Return	28.0%
Post-tax Internal Rate of Return	21.4%
Life of mine (including initial construction)	10.5 years
Onedin	
Life of Onedin mining costs	A$112m (~ $4.59/t combined process feed + waste)
Onedin copper sales	A$298m
Onedin zinc sales	A$185m
Life of mine Processing costs, freight, packaging	A$145m
Onedin plant + infrastructure + mine + sustaining capex	A$73m
Sandiego	
Life of Sandiego mining costs	A$180m (~ $77.34/t)
Sandiego copper sales	A$483m
Sandiego silver sales in copper concentrate	A$8m
Sandiego zinc sales	A$216m
Life of mine Processing costs	A$130m
Sandiego plant + infrastructure + mine + sustaining capex	A$43m
Sandiego underground mine development cost	A$106m
Pricing assumptions	
FX (AUD/USD)	0.65
Copper	USD$10,022/t LT
Zinc	USD$2,780/t LT
Silver	USD $26.48/oz LT

3, 4 Investors should note that COB's beneficial interest in the Project is currently 51% under the existing joint venture agreement with Koongie Park Pty Ltd (a wholly owned subsidiary of AuKing Mining Limited).

*5 Sensitivity analysis demonstrating a range of potential economic outcomes is set out in **Table 2** and **Table 3.***

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Economic Evaluation

The Scoping Study reflects a staged mining and processing operation to minimise start-up capital requirements and prioritise early cash flow:

- **Stage 1:** an open-cut mine at Onedin, with material to be processed via heap leaching to produce copper cathode and zinc sulphate monohydrate; and
- **Stage 2:** an underground mine at Sandiego, with material to be treated in a flotation plant to produce separate copper and zinc concentrates.

Life of project capital cost estimates have been estimated including contingencies ranging from 10% to 20%. The initial up-front investment required is approximately A$73m. A breakdown of the life of project capital costs estimates are as follows:

- Onedin plant and infrastructure A$73m (including sustaining capital) required upfront
- Sandiego plant and infrastructure A$43m (including sustaining capital) from operational cashflow
- Sandiego underground mine decline and orebody access development A$106m from operational cashflow

This Study describes engineering, capital costs, and operating costs to a level of accuracy of +35%, -15%. Budget prices from vendors were received for approximately 85% of major plant equipment items. Suitable factors were applied for estimating costs for installation, piping, electrical, EPCM as outlined in **Table 12, Table 13** and **Table 16.**

A summary of the key outcomes of the economic evaluation of the Project is set out below:

Table 1 – **Key economic evaluation outcomes (100% owned basis)**

Parameter	Estimated outcome
Pre-tax NPV 8% (real)	A$172m
Post-tax NPV 8% (real)	A$121m
Pre-tax Internal Rate of Return	28.0%
Post-tax Internal Rate of Return	21.4%
Life of mine (including initial construction)	10.5 years

Sensitivity Analysis

A range of sensitivities have been applied to the key input assumptions, as follows:

Table 2 – **Pre-tax NPV (A$m) vs FX and discount rate**

		AUD/USD						
		0.61	**0.62**	**0.63**	**0.65**	**0.68**	**0.70**	**0.75**
Discount Rate	**7%**	237	224	212	188	155	135	88
	8%	218	206	194	172	140	121	77
	9%	200	189	178	156	127	108	66
	10%	184	173	162	142	114	96	57

Table 3 – **Pre-tax NPV (A$m) vs copper and zinc price (USD/t)**

		Copper Price (USD/t)							
		9,000	**9,250**	**9,500**	**10,002**	**10,400**	**11,000**	**11,500**	12,000
Zinc Price (USD/t)	**2,300**	95	107	118	142	161	189	213	236
	2,450	109	121	133	156	175	203	227	251
	2,611	124	136	148	172	190	219	242	266
	2,750	137	149	161	185	203	232	255	279
	2,950	156	168	180	204	222	251	274	298
	3,300	189	201	213	237	255	284	307	331

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The Scoping Study makes the following project parameters and macroeconomic assumptions:

Table 4 – **Scoping Study key parameters and assumptions**

Parameter	Estimated outcome
Economic evaluation	
Pre-tax NPV 8% (real)	A$172m
Post-tax NPV 8% (real)	A$121m
Pre-tax Internal Rate of Return	28.0%
Post-tax Internal Rate of Return	21.4%
Life of mine (including initial construction)	10.5 years
Onedin	
Life of Onedin mining costs	A$112m (~ $4.59/t combined process feed + waste)
Onedin copper sales	A$298m
Onedin zinc sales	A$185m
Life of mine Processing costs, freight, packaging	A$145m
Onedin plant + infrastructure + mine + sustaining capex	A$73m
Sandiego	
Life of Sandiego mining costs	A$180m (~ $77.34/t)
Sandiego copper sales	A$483m
Sandiego silver sales in copper concentrate	A$8m
Sandiego zinc sales	A$216m
Life of mine Processing costs	A$130m
Sandiego plant + infrastructure + mine + sustaining capex	A$43m
Sandiego underground mine development cost	A$106m
Pricing assumptions*	
FX (AUD/USD)	0.65
Copper	USD$10,022/t LT
Zinc	USD$2,780/t LT
Silver	USD $26.48/oz LT

* *A full commodity price profile is presented in Table 5*

Table 5 – **Commodity and exchange rate assumptions, 2027–2030 and Long-term**[6]

		2027	2028	2029	2030	LT
Copper	US$/t	$10,002	$10,550	$10,624	$10,828	$10,022
Zinc	US$/t	$2,611	$2,578	$2,523	$2,536	$2,780
Silver	US$/oz	$29.73	$26.27	$24.72	$20.70	$26.48
AUD	A$:US$	0.65	0.65	0.65	0.65	0.65

6 *Based on consensus forecasts. Sources: Macquarie, Standard Chartered, Morgan Stanley, UBS, Citi, Jefferies, Canaccord, BMO, Goldman Sachs, BAML, Wood Mackenzie, Fastmarkets. Historical long-term price average source: USGS*

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Halls Creek Project delivers value to COB

While remaining focused on the Kwinana Cobalt Refinery, COB believes the Halls Creek Project possesses compelling characteristics, including the capacity to deliver additional near-term value to shareholders. The Halls Creek Project strengthens our asset portfolio for three key reasons:

1. **Commodity cycle resilience**

   The Project expands our exposure to metals such as copper, zinc and silver. This diversification strengthens our ability to weather price swings, optimise capital allocation, and seize new opportunities in shifting market conditions.

2. **Strong investment return, with a relatively small start-up funding envelope**

   The Project requires a modest up-front capital expenditure for potentially near dated cashflows, whilst COB develops its critical minerals focused business in parallel. COB will continue to work through staging and capital equipment reduction opportunities throughout the course of Project development.

3. **Conventional processing flowsheets, with low technical risk**

   The Project utilises conventional metallurgical flowsheets, engineering and equipment selection with low levels of development and operational risk. Further, due to COB's strong background in metallurgical flowsheet development and process engineering, in-house testing at the Broken Hill Technology Centre and plant design will speed up project development.

Compelling Copper and Zinc Market Outlook

The global outlook for copper and zinc remain strong, driven by robust fundamentals.

Copper and zinc are metals with constrained supply benefiting from healthy demand in traditional industrial sectors, as well as technologies vital to the energy transition. Copper prices are currently trading near record highs, and consensus forecasts[7] suggest higher annual pricing through to 2030. While the consensus forecast forward curve for zinc is not as steep as copper's, the price outlook remains resilient.

Demand for both metals has typically remained closely aligned with global economic growth, historically driven by industrial sectors such as construction and infrastructure. While the global industrial growth outlook remains supportive in the medium to long term, the consumption patterns of copper and zinc are increasingly shifting toward critical roles in energy transition technologies, creating a more diversified demand mix.

Essentially, the "metal of electrification," copper is a critical material for electrical infrastructure, renewable energy systems, electric vehicles (EVs), and AI-driven data centres. Zinc is primarily consumed in galvanised steel products used in buildings, but its use in energy storage (e.g., zinc-ion batteries), wind turbines, solar panels, and transmission towers is an increasingly positive driver of demand.

Meanwhile, supply growth for both metals remain challenged. For copper, the combination of rising capital costs, declining ore grades, limited resource discoveries, lengthy project lead times, and increasing resource nationalism has made it challenging for output to keep pace with demand. In the case of zinc, supply is concentrated among just four countries (China, Peru, Australia, and India, which comprise ~60% of the supply) and has suffered from mine closures, reserve depletion, and high operating costs.

2025 Scoping Study Summary and Assumptions

Location and Ownership

The Project is located in the Kimberley region of Western Australia, approximately 15 kilometres (km) southwest of Halls Creek and 380 km south of Wyndham Port. The Project lies within a region that has historically supported mining operations and is serviced by established road and port infrastructure.

Halls Creek Project Pty Limited (a wholly owned subsidiary of Cobalt Blue Holdings Limited) has entered into an Exploration Farm-In Joint Venture Agreement with Koongie Park Pty Limited (a wholly owned subsidiary of ASX listed AuKing Mining Limited) to acquire a majority interest in the Project (see ASX release 18 February 2025, COB Diversifies – Major Copper Project Earn in).

COB's beneficial interest in the Project is currently 51% under the existing joint venture agreement with Koongie Park Pty Ltd.

7 *Based on consensus forecasts. Sources: Macquarie, Standard Chartered, Morgan Stanley, UBS, Citi, Jefferies, Canaccord, BMO, Goldman Sachs, BAML, Wood Mackenzie, Fastmarkets. Historical long-term price average source: USGS*

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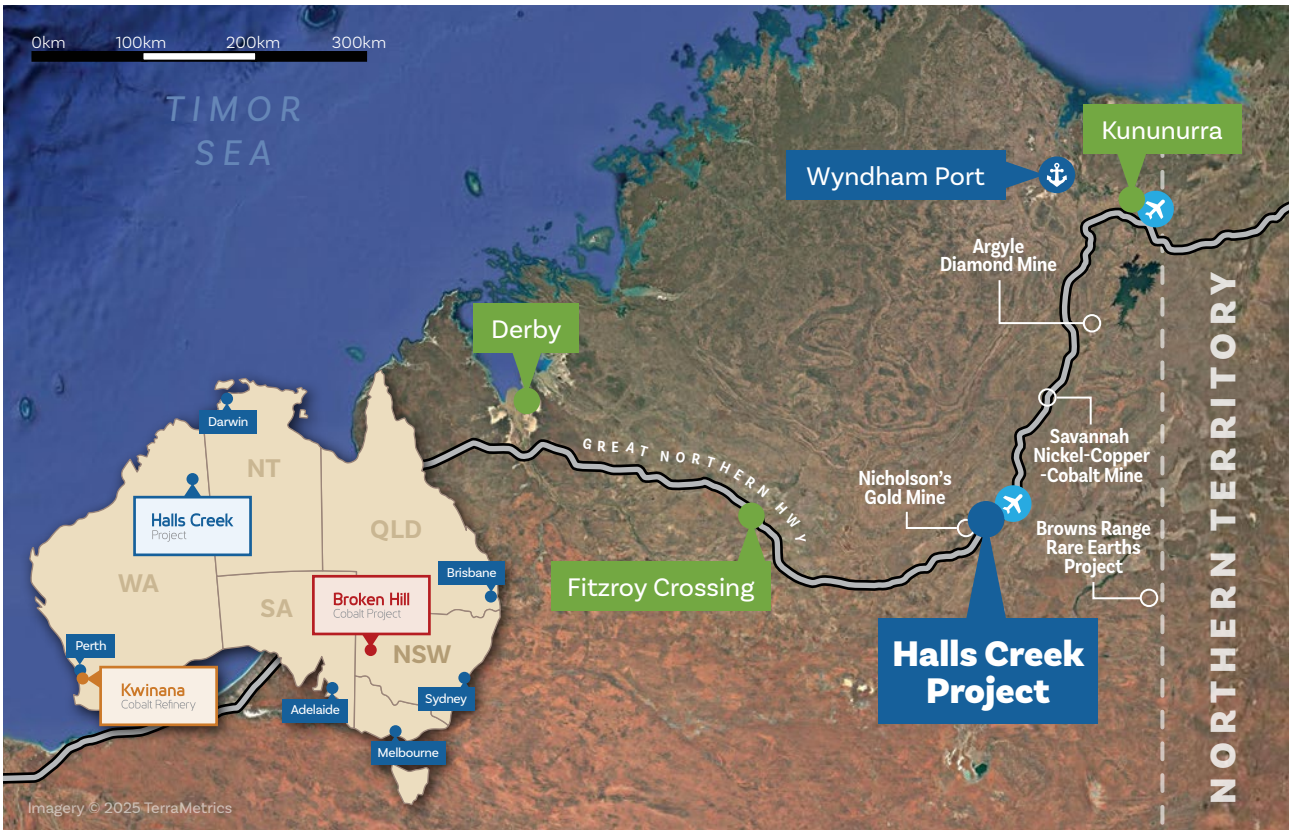
Figure 1 – **Halls Creek Project, regional setting**



The Project comprises an extensive tenement portfolio covering some 250 km^2 with the main deposits (Sandiego and Onedin) hosted within existing Mining Leases (M 80/276 and M 80/277 respectively) (**Figure 1**). For the purposes of the Study, Mining Leases M 80/276 and M 80/277 are considered to define the Project area (**Table 6**).

Table 6 – **Mining Lease details**

Tenement	Grant Date	Expiry Date	Area (km^2)
Mining Leases		**2027**	**2028**
M 80/276	2/04/1989	5/04/2031	2.2
M 80/277	2/04/1989	5/04/2031	3.2

Mineral Resources

The Scoping Study has supported development of a production target upon which the forecast financial information is based. The production target is derived from the application of modifying factors to Indicated and Inferred Mineral Resources:

- **Onedin** – Total of 4.8Mt (Indicated) at 0.7% Cu, 1.1% Pb, 3.1% Zn and 38g/t Ag for 33kt contained Cu, 51kt Pb, 151kt Zn, 5.9Moz Ag and 20koz Au; and
- **Sandiego** – Total of 4.1Mt (3.7Mt Indicated / 0.4Mt Inferred) at 1.4% Cu, 0.4% Pb, 4.2% Zn and 25g/t Ag for 56kt contained Cu, 18kt Pb, 175kt Zn, 3.3Moz Ag, and 25koz Au

The Mineral Resources are summarised in **Table 7** and **Table 8** and were originally reported by COB on 18 February 2025 in the report titled 'COB Diversifies – Major Copper project Earn in'.

The production target which includes a modest proportion of Inferred Mineral Resources of approximately 9%. The Inferred Mineral Resources are derived from the Sandiego underground and mined over a period of 18-months commencing in year 8 of the production target. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral resources or that the production target itself will be realised.

Table 7 – **Mineral Resource estimate for the Onedin deposit detailed by classification**

Classification	Tonnes (Mt)	Grade: Copper (%)	Lead (%)	Zinc (%)	Silver (g/t)	Gold (g/t)	Contained Metal: Copper (kt)	Lead (kt)	Zinc (kt)	Silver (Moz)	Gold (Koz)
Onedin (Copper zone reported at a 0.4% copper cut-off grade)											
Indicated	1.5	1.1	1.2	0.6	47	0.2	16.5	18.0	9.0	2.27	9.7
Onedin (Zinc zone reported at a 1% zinc cut-off grade)											
Indicated	3.3	0.5	1.0	4.3	34	0.1	16.5	33.0	141.9	3.61	10.6

Table 8 – **Mineral Resource estimate for the Sandiego deposit detailed by classification**

Classification	Tonnes (Mt)	Grade: Copper (%)	Lead (%)	Zinc (%)	Silver (g/t)	Gold (g/t)	Contained Metal: Copper (kt)	Lead (kt)	Zinc (kt)	Silver (Moz)	Gold (Koz)
Sandiego (Copper zone reported at a 0.8% copper cut-off grade)											
Indicated	1.7	2.3	0.2	0.8	18	0.3	39.1	3.4	13.6	0.98	16.4
Inferred	0.3	1.6	–	3.0	5	0.2	4.8	–	9.0	0.05	1.9
Total	2.0	2.2	0.1	1.1	16	0.3	43.9	3.4	22.6	1.03	18.3
Sandiego (Zinc zone reported at a 3% zinc cut-off grade)											
Indicated	2.0	0.6	0.7	7.3	35	0.1	12.0	14.0	146.0	2.25	6.4
Inferred	0.1	0.2	0.1	6.1	10	0.1	0.2	0.1	6.1	0.03	0.3
Total	2.1	0.6	0.7	7.3	34	0.1	12.2	14.1	152.1	2.28	6.7

Project Staging

Following a conceptual mining study by AMDAD, the Company adopted a simplified development strategy comprising two distinct stages. The optimum project sequence is considered to minimise start-up capital requirements and prioritise early cash flow.

Financial modelling of the project has assumed metal price forecasts from 2027 onwards and assumes a decision to mine occurring in 2028 following completion of feasibility studies. As outlined below, the Scoping Study proposes a staged development, commencing with mining and processing operations at Onedin, with development of the underground mine at Sandiego commencing 5 years later.

- **Stage 1 – Onedin Open Pit and Heap Leach:** A two-stage open pit operation at Onedin, supplying oxide and transition feed to a heap leach facility located at Onedin for production of copper metal and zinc sulphate monohydrate via solvent extraction and electrowinning / crystallisation.
- **Stage 2 – Sandiego Underground and Concentrator:** An underground mining operation at Sandiego, delivering transition and primary feed to a concentrator to produce separate copper and zinc concentrates.

The production target commences with heap leach operations at Onedin. Underground development at Sandiego and construction of the concentrator are timed to align with the depletion of the Onedin open pit, enabling a seamless transition in production and potential cashflow generation (see **Figure 2**).

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Figure 2 – **Combined open pit (Onedin) and underground (Sandiego) mining production (process feed)**

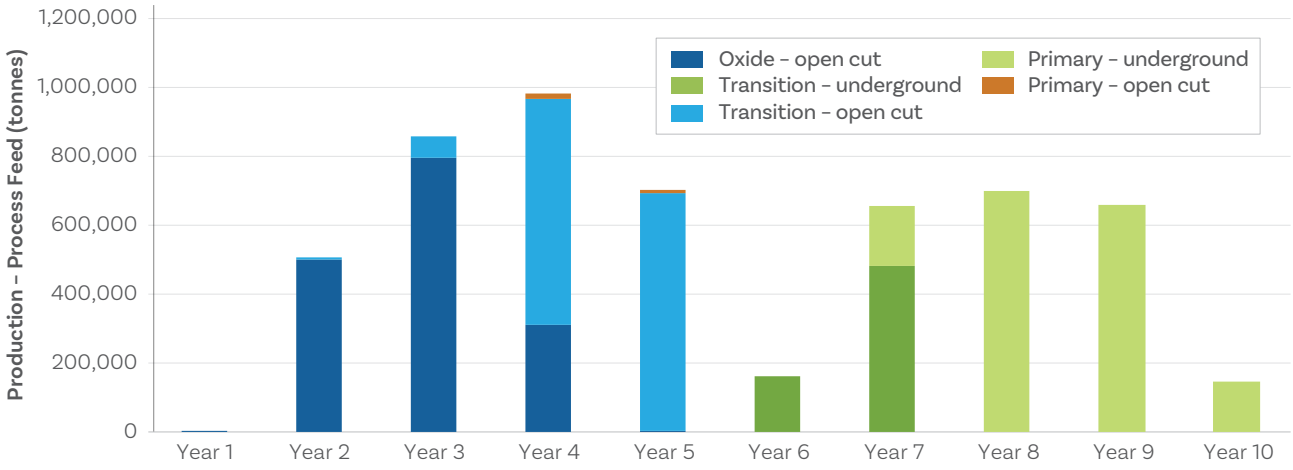
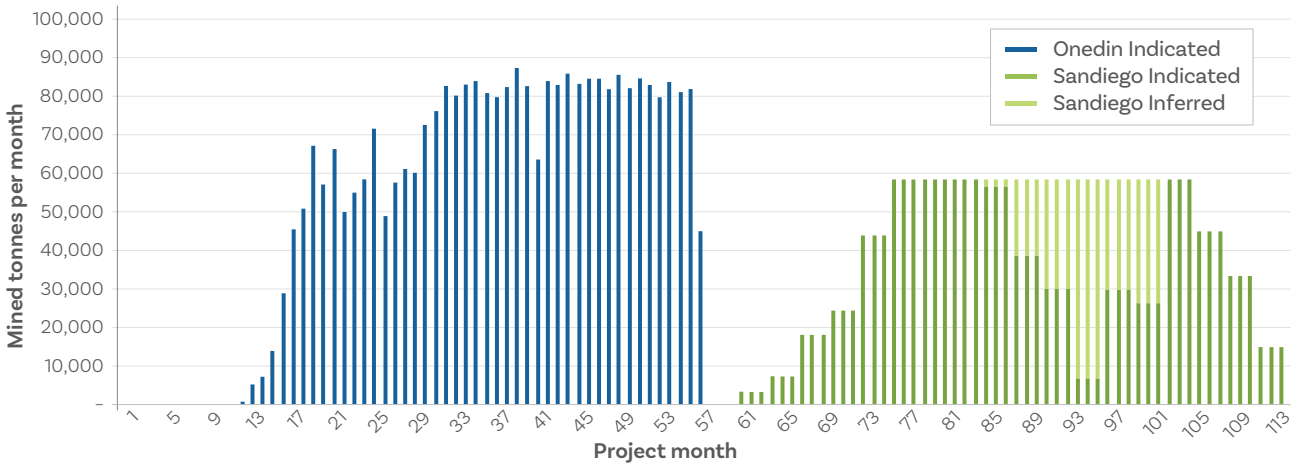


Figure 3 – **Mined material by Mineral Resource classification per month**



Stage 1 – Onedin Open Pit and Heap Leach

Mining

Mining will be undertaken using conventional drill, blast, load, and haul methods, with up to 1 mtpa of mineralised feed scheduled for delivery to the heap leach facility. The average grade of the production target is estimated at 0.8% copper and 3% zinc, with the mining operations expected to extend over a four-year period, and processing over a five-year period.

The mine schedule has been developed based on optimised pit. At this early stage, detailed designs incorporating ramps, berms, and final pit wall geometries have not been prepared. The schedule is therefore based on idealised shells, used to support preliminary assessments of feed tonnage, grade, and sequencing (**Figure 4**). The proposed pit has a crest diameter of approximately 500 metres and reaches a maximum depth of around 190 metres. Due to limited geotechnical data from historical drilling, slope design inputs for pit optimisation have been conservatively assigned based on weathering profiles, with overall slope angles of 30° in oxide, 40° in transition, and 42° in primary rock units.

A life-of-mine (LOM) strip ratio of 1:7 (ore to waste) is projected for the Onedin open pit. Material below the economic cut-off grade has been classified as waste and further subdivided based on sulphur content as a proxy for acid-forming potential (Table 9):

- Non-Acid Forming (NAF): < 0.2% sulphur
- Potentially Acid Forming (PAF): ≥ 0.2% sulphur

This preliminary classification informs early waste rock management strategies, although further geochemical testing will be required in later study phases to refine these assumptions.

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Table 9 – **Anticipated volumes of NAF and PAF waste rock derived from the Onedin open pit**

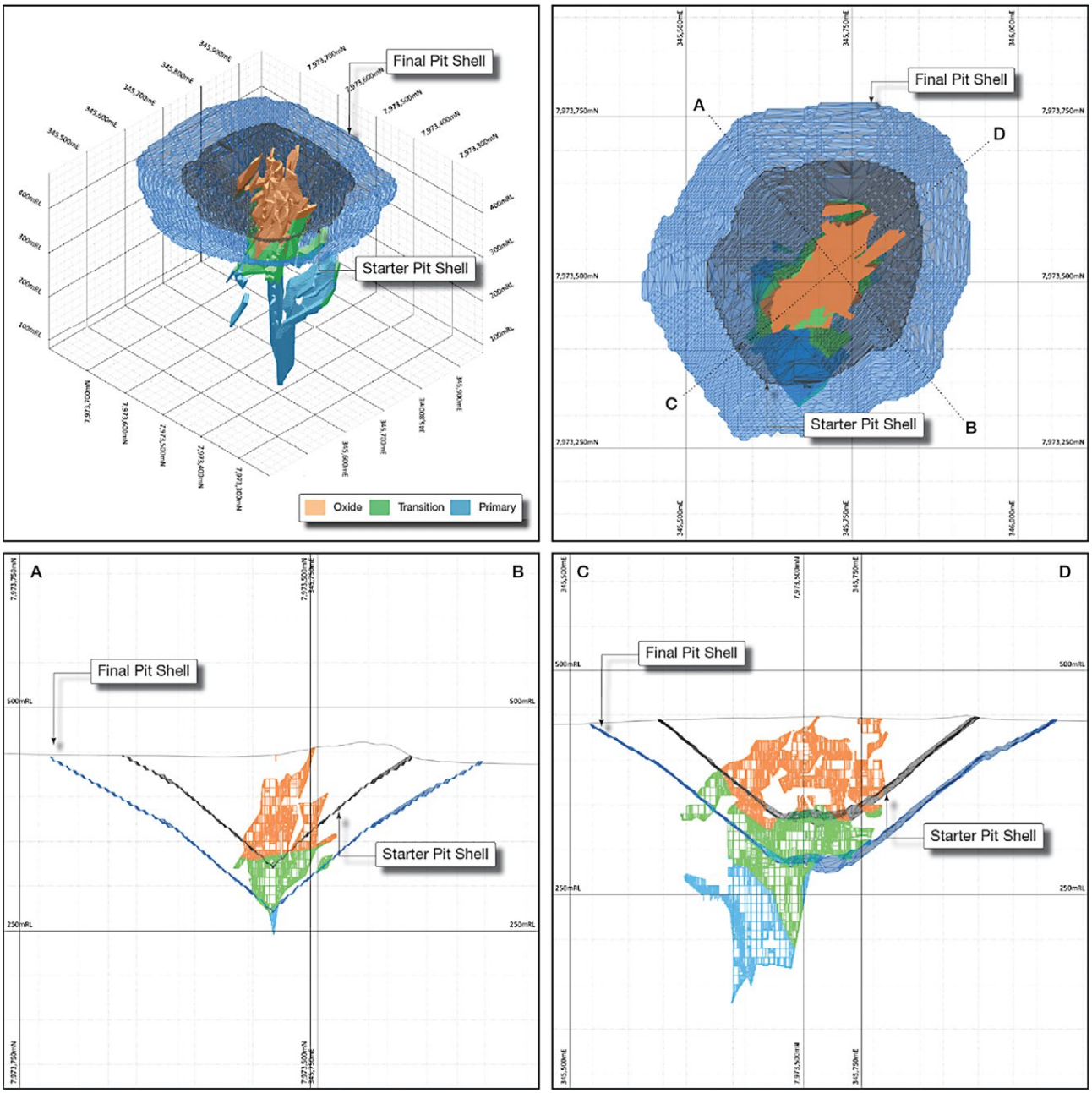
Waste Rock Classification	Volume (BCM)	Tonnes (t)	Average Sulphur Grade (%)
NAF	9,219,000	21,036,000	0.02%
PAF	91,000	231,000	0.57%

PAF waste will be sent to the heap leach circuit for disposal.

NAF waste will be transported to a waste rock emplacement located adjacent to the pit. The emplacement is expected to reach a final elevation of RL 475–480 m—standing approximately 35–45 metres above existing ground level and 10–20 metres above nearby ridgelines. A portion of NAF material will be used for intended to be used during initial site construction, and for closure of the heap leach circuit.

Mining is expected to be conducted by a specialist contractor, responsible for both load and haul operations and drill and blast activities. Operations are proposed to run on a dual-shift basis, seven days per week, throughout the calendar year.

Figure 4 – **Onedin optimised pit shells (starter pit and final)**



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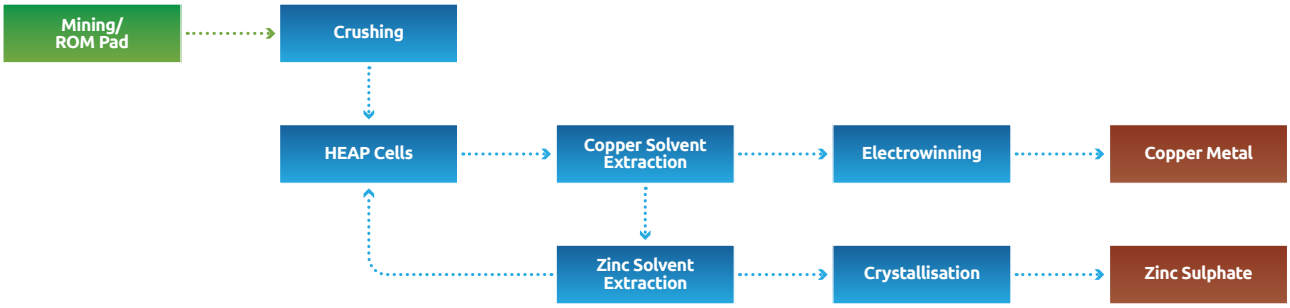
Processing

Mineralised material from the Onedin open pit will be processed via a heap leach facility to recover copper metal by electrowinning and zinc sulphate monohdyrate by crystallisation (**Figure 4**).

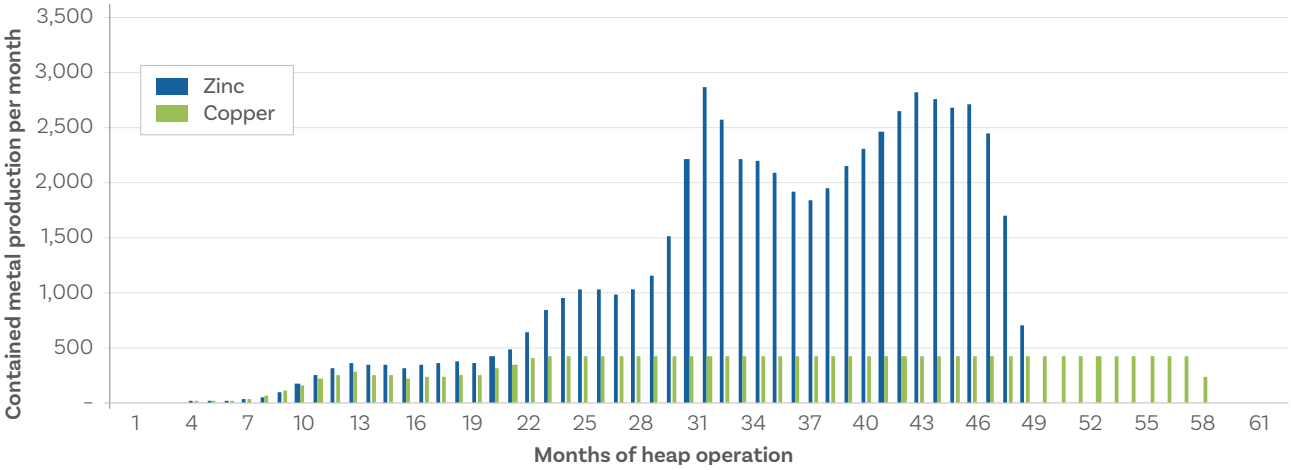
Figure 5 – **Block flow diagram for the Onedin heap leach process**



The copper electrowinning capacity was fixed at up to 5,000 tpa metal. This caps the production of copper in some operating months. On the other hand, the production of zinc sulphate by crystallisation is more flexible from month-to-month, as the equipment is not constrained by fixed electrical components.

The Scoping Study adopted metal recoveries of 80% copper and 65% zinc, based on historical testwork results[8]. The monthly production rates are shown in **Figure 6,** with the nominal capacities being 5,000 tpa copper and 15,000 tpa zinc.

Figure 6 – **Monthly production of copper and zinc from Onedin heap leach process**



Operating Costs

Open cut mining costs have been estimated using benchmark data from recent Australian projects of similar scale and depth, based on a contract mining model (**Table 10**). These preliminary rates will be further refined in future study phases as key design elements are more clearly defined.

Table 10 – **Open pit mining costs**

LOM Mining Costs	Unit	Value
Heap Leach Feed	A$/tonne	5.15
Waste	A$/tonne	4.51
Total	A$/tonne	4.59

Based on the proposed flowsheet mass & energy balance, an operating cost model was developed. Labour and reagent costs were benchmarked against recent Australian projects (including the Kwinana Cobalt Refinery). Selling costs were benchmarked against recent market rates for copper metal and zinc sulphate monohydrate. A summary of the operating cost estimates for the heap leach operation is provided in **Table 11.**

8 *Historical metallurgical testwork result were disclosed in COB's ASX announcement dated 24 March 2025.*

Table 11 – **LOM unit rates per tonne of ore**

Processing Operating Costs	Unit	Value
Labour	$AUD/t ore	$15.09
Reagents and Power	$AUD/t ore	$21.48
Selling Costs	$AUD/t ore	$7.77
Miscellaneous	$AUD/t ore	$3.19

Capital Costs

A summary of the capital cost estimates for the heap leach operation and shared infrastructure are provided in **Table 12** and **Table 13.** Budget quotes were obtained from suppliers and vendors for approximately 85% of the major plant and infrastructure items. EPCM and sustaining capital estimates were benchmarked against recent Australian projects (including the Kwinana Cobalt Refinery).

Table 12 – **Heap leach mining operation capital cost estimates**

Capital cost estimate – Heap leach (Oxide)	A$m
Heap leaching	
Process Plant	
Mobile Crushing & Agglomeration Plant (incl Grasshopper Stackers)	6.1
Solvent Extraction (package plant incl Fire)	3.9
Electrowinning Plant (package plant)	2.5
Zn Crystallisation Plant (package plant)	8.4
Reagents (Distribution)	1.2
Heap Leach Pad Construction	3.1
Power Supply	3.5
Buildings	1.8
Water Supply	1.2
Total Direct + Indirect Costs	**31.7**
Total EPCM (15.5%)	4.9
First Fill Requirements & Spares	1.2
Open cut mining support facilities	4.4
Sustaining CAPEX (2%)	3.0
Grand total (incl 20% contingencies)	**45.2**

Table 13 – **Share infrastructure capital cost estimates**

Capital cost estimate – shared infrastructure	A$m
Oxide/Sulphide Shared Infrastructure	
Solar Power + battery, turnkey installed	16.0
Lab, Office, Workshops, Control Room	0.6
Site Camp & Rec/Mess Hall	1.6
All Weather Road	4.8
Total Direct + Indirect Costs	**23.1**
EPCM excluding solar-battery (15.5%)	1.1
Sustaining CAPEX (2%)	3.6
Grand total (incl 20% contingencies)	**27.9**

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Stage 2 – Sandiego Underground and Concentrator

Underground mining will target both transition and primary (sulphide) mineralisation. The operation will employ long-hole open stoping with cemented rock fill to maximise ore recovery. Up to 700,000 tpa of mineralised material is scheduled for delivery to a concentrator, with an average feed grade of 1.6% copper, 3.2% zinc, and 15 g/t silver. The underground operation is planned to run for a period of four years, commencing as the open pit mining operations at Onedin conclude.

Access to the underground mine will be established via a decline developed from a surface boxcut. While final geotechnical assessments are required to confirm the precise portal location and alignment, current scheduling indicates that decline development will begin in Month 3 of Year 4. This timing supports a smooth transition to concentrator commissioning, which is scheduled for Month 6 of the same year.

Development rates are assumed at 170 metres per month for the decline and 200 metres per month for level access development, with up to 400 metres achievable when multiple headings are available. A basic mine layout has been developed to inform scheduling of decline access, ventilation infrastructure, and supporting capital works.

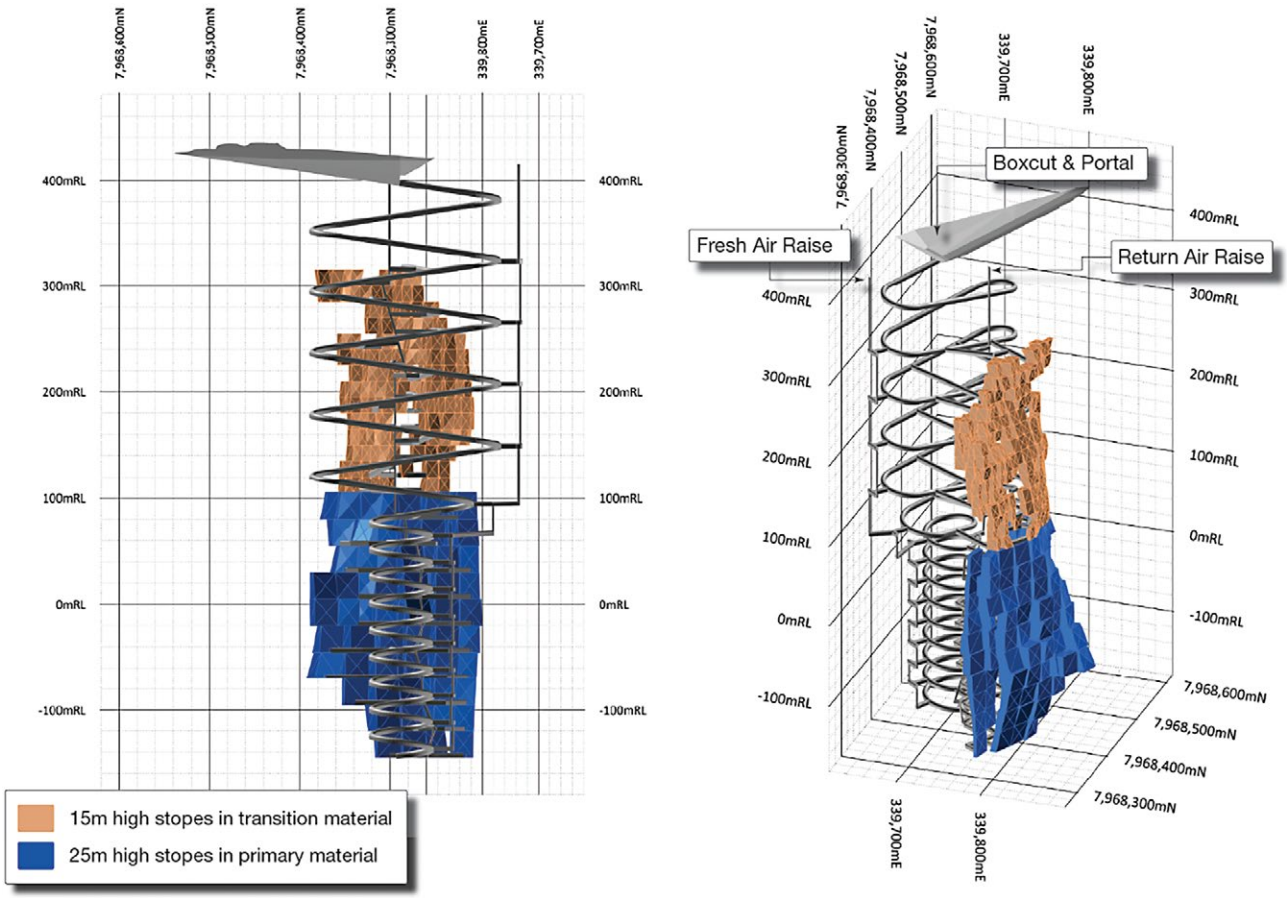
Underground mining operations were defined using stope optimisation modelling undertaken by AMDAD. The minimum stope width is 2.5 metres, with level spacing of 15 metres for transition material and 25 metres for primary zones. Stopes in transition mineralisation are located between approximately 115 m and 325 m below surface (315 mRL to 105 mRL), while primary mineralisation extends from 325 m to 585 m below surface (105 mRL to –155 mRL). A mining recovery of 90% has been assumed, with standard dilution factors applied to the hangingwall and footwall.

A basic development layout was prepared for the Sandiego underground mine to support scheduling of the decline access and associated out-of-ore development. The design includes the box cut, portal, and initial access development, which are illustrated in **Figure 7,** alongside the distribution of stopes by oxidation state.

This layout enabled the sequencing of capital development and ventilation infrastructure, as well as estimation of development timing.

Material below the economic cut-off grade will be classified as waste rock and is intended for use as cemented rock fill (CRF) as underground stopes become available for backfilling. Until then, temporary storage will be provided in a waste rock emplacement located west of the portal and boxcut. Detailed scheduling of void availability, CRF placement, and storage requirements will be addressed in future study phases.

Figure 7 – **Sandiego underground mine design**



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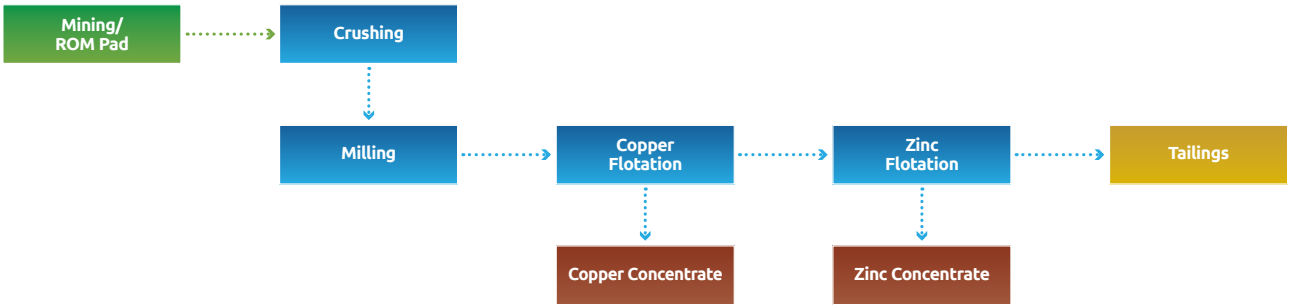
Processing

Mineralised material will be processed through a flotation concentrator to sequentially produce separate copper and zinc concentrates as shown in **Figure 8.** Testwork confirmed that the copper concentrate would typically contain 25% copper, and that the zinc concentrate would typically contain 51% zinc.

Figure 8 – **Block flow diagram for the Sandiego concentrator process**



The Scoping Study adopted metal recoveries of 90% copper and 30% silver to the copper concentrate, and 80% zinc and 5% silver to the zinc concentrate, based on historical testwork results[9]. Over the 54 month operating period, the average metal produced is:

- Copper concentrate 7,300 tpa copper and 72,600 ounces pa silver (**Figure 9**)
- Zinc concentrate 13,300 tpa zinc and 12,100 ounce pa silver (**Figure 10**)

Figure 9 – **Copper concentrate – contained Cu and Ag**

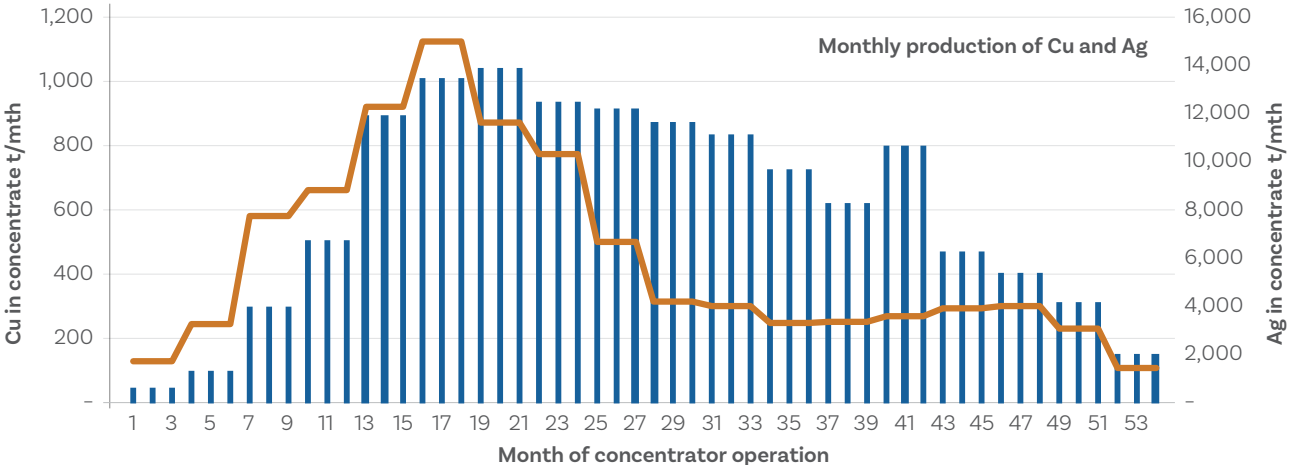
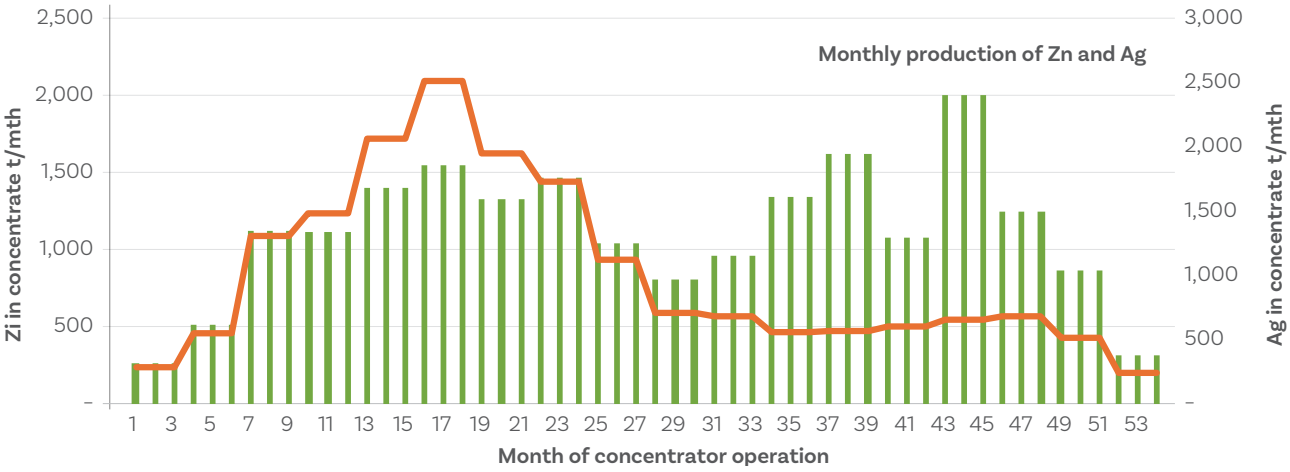


Figure 10 – **Zinc concentrate – contained Zn and Ag**



9 *Historical metallurgical testwork result were disclosed in COB's ASX announcement dated 24 March 2025.*

Concentrator tails will be sent for disposal in the Onedin open-cut pit void.

During the flotation process, approximately 90% of the processed material will report to tailings. To avoid the need for constructing a separate tailings storage facility (TSF) at Sandiego, the Onedin open pit will be utilised as a tailings disposal facility.

The tailings slurry will be pumped from the concentrator to the Onedin pit, where it will be contained. Water recovery infrastructure will be established to reclaim process water from the deposited tailings, with return flow to the concentrator via a dedicated pipeline system, supporting a closed-loop water management strategy.

Operating Costs

Production mining underground operating costs are set out in **Table 14.** Allowance in the Scoping Study for additional ground support and development required for the smaller size stopes have been made These costs are based on backfilling the stopes with Cemented Rock Fill. If paste fill is required there would be an increase again in mining operating costs. Development mining costs are based on recent comparable projects.

Table 14 – **Summary of operating costs for underground mining**

LOM Mining Costs	Unit	Value
Mill Feed	A$/tonne	$77.34
Decline	A$/tonne	$102.67
Access	A$/tonne	$97.68
Vertical	A$/tonne	$218.84

Based on the proposed flowsheet mass & energy balance, an operating cost model was developed. Labour and reagent costs were benchmarked against recent Australian projects (including the Kwinana Cobalt Refinery). Selling costs were benchmarked against recent market rates for copper and zinc concentrates. A summary of the operating cost estimates for the concentrator operation is provided in **Table 15.**

Table 15 – **Summary of operating costs for the concentrator processing plant**

Processing Operating Costs	Unit	Value
Labour	$AUD/t ore	$18.88
Reagents and Power	$AUD/t ore	$1.30
Selling Costs	$AUD/t ore	$25.67
Miscellaneous (waste mgt, G&A)	$AUD/t ore	$10.05

Capital Costs

A summary of the capital cost estimates for the underground mining operation and concentrator processing plant are provided in **Table 16.** Budget quotes were obtained from suppliers and vendors for approximately 85% of the major equipment items. EPCM and sustaining capital estimates were benchmarked against recent Australian projects (including the Kwinana Cobalt Refinery).

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Table 16 – **Summary of capital cost estimates for underground mining operation and concentrator processing plant**

Capital cost estimate – Heap leach (Oxide)	A$m
Underground mine development	**106.1**
Concentrator processing plant (Sulphide)	
Process Plant Equipment	
Grinding & Classification	1.9
Flotation	7.5
Concentrate Thickening & Filtration	0.6
Tailings	0.2
Reagent (Distribution)	0.3
Installation	
Piping (factor 25% of process plant equipment)	2.6
Electrical & Instrumentation (factor 35% of process plant equipment)	3.7
Structural & Civil (factor 20% of process plant equipment)	2.1
Equipment Installation (factor 25% of process plant equipment)	2.6
Transport (factor 5% of process plant equipment)	0.5
Site Infrastructure	
Power Supply	3.5
Water Supply	0.6
Civil & Earthworks	1.8
Tailings Storage Facility	0.6
Total Direct + Indirect Costs	**134.8**
Total EPCM (15.5%)	4.5
First Fill Requirements & Spares	0.3
Underground mine support facilities	7.4
Sustaining CAPEX (2%)	2.3
Grand total (incl 20% contingency)	**149.3**

Site Layout

A conceptual site layout has been developed to reflect the staged nature of operations for the Project, structured around three primary functional zones to optimise operational efficiency, safety, and environmental management (Mining Area, Processing Area and Administration and Support Area).

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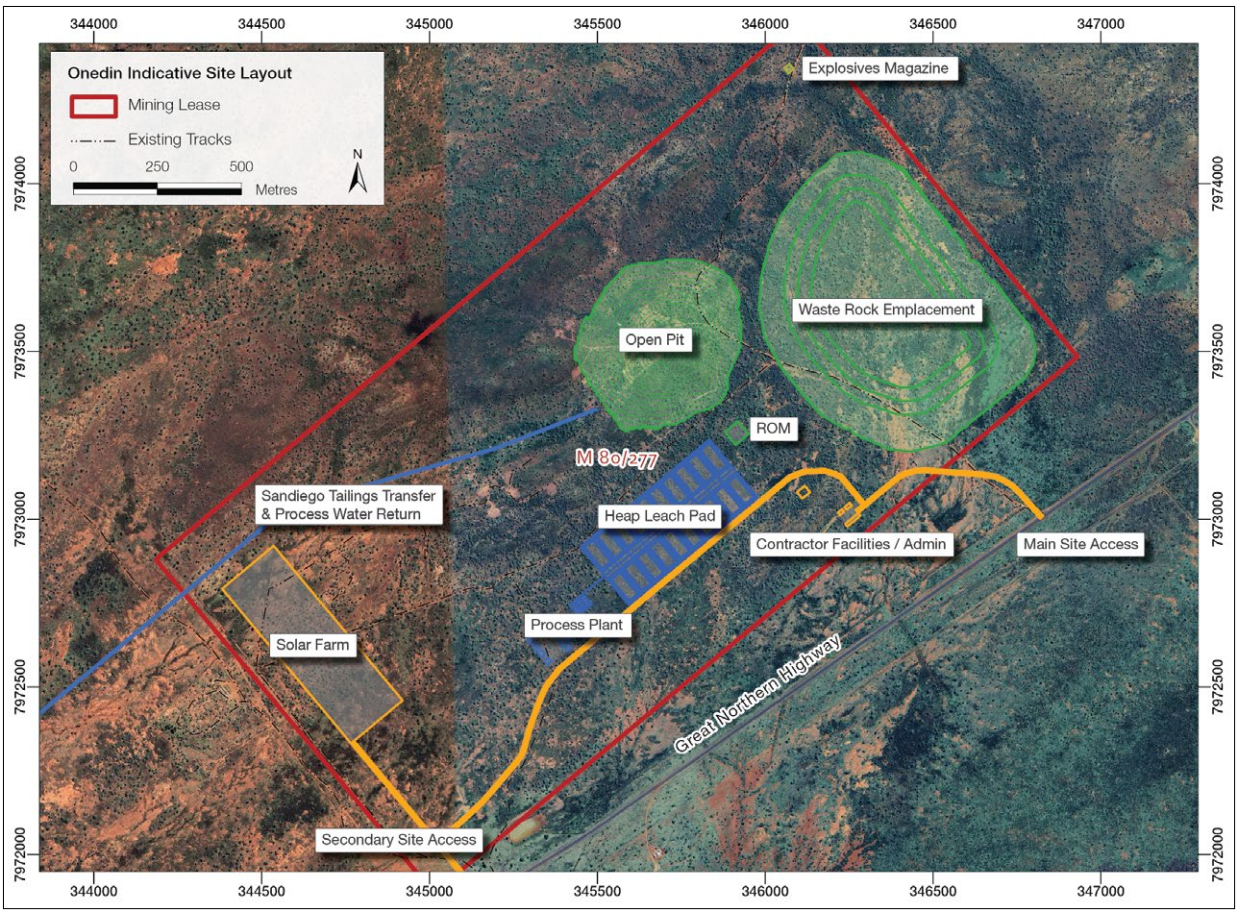

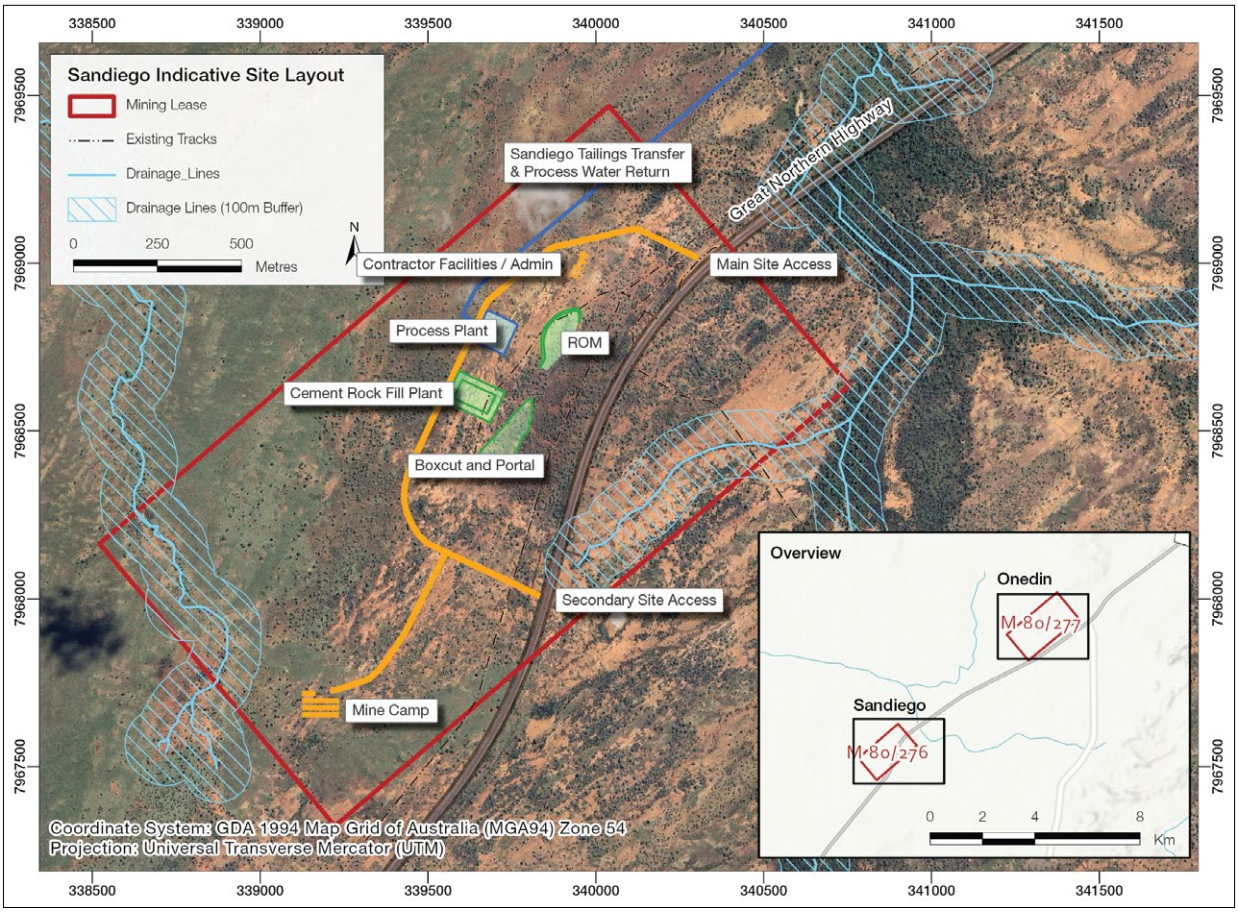

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Services

Water Supply

It is assumed that most of the in-pit water from the mining operations are sufficient for the water supply for the processing plants. An allowance has been made to develop a bore field and reticulation network for additional water supply. Historical groundwater assessments in the area indicate the availability of high-quality water with sufficient volumes. Further hydrogeological studies are proposed in the next stage of project development.

Power Supply

The project's power requirements will be met through a hybrid system comprising solar photovoltaic (PV) generation with battery storage (ESS), supplemented by diesel generation.

The PV-ESS system will allow delivery of up to 2 MW flat load to the processing plant. The solar array will have sufficient panels capable of producing 6 MW/hr, and this will be paired with a 36 MWhr lithium iron phosphate battery. The capital estimates included installation of a turn-key PV-ESS facility.

To ensure continuous supply and reliability, particularly during periods of low solar generation, a backup diesel generation system will be installed. This includes a 2 MW base-load diesel generator, along with two additional 1.25 MW diesel generators to provide supplementary capacity during peak load periods or when battery reserves are depleted. Diesel will also be used to power the mining fleet, and mobile crusher.

Environmental, Social and Permitting

A preliminary review has not identified any biophysical constraints that are likely to impede the Project's approval pathway. However, no baseline environmental surveys have been completed to date. An independent consultant has prepared an indicative approvals strategy for the Project.

Native Title

The Project is located within the Koongie-Elvire Native Title Determination area (WCD45/2019). Mining leases were granted prior to this determination, so no Native Title agreement exists. However, the leases are due for a second renewal in 2031, which is subject to the future act provisions of the Native Title Act 1993. As Native Title has been determined, the Right to Negotiate process must be followed to validate the renewal.

Aboriginal Heritage

Available survey data on Aboriginal and cultural heritage are limited. Preliminary review indicates there are no identified sites within proposed disturbance areas, however further assessment will be required in subsequent study phases.

Mineral Resources & Metallurgical Assumptions

The information in this announcement that relates to Mineral Resources was reported in the Company's ASX announcement 'COB Diversifies – Major Copper Project Earn In' dated 18 February 2025. The information in this announcement that relates to Metallurgical Assumptions was reported in the Company's ASX announcement 'Halls Creek Scoping Study Commences and Refinery Update' dated 24 March 2025. The Company confirms that it is not aware of any new information or data that materially affects the information included in that announcement and that all material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed.

Forward Looking Statements Disclaimer

This announcement contains "forward-looking statements". All statements other than those of historical facts included in this announcement are forward-looking statements. Where Cobalt Blue 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 inherently subject to known and unknown 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 timely completion of Project milestones, funding availability, government and other third-party approvals (including the risks of obtaining necessary licenses and permits), increased costs and demand for production inputs, the speculative nature of exploration

and project development, changes in commodity prices, foreign exchange fluctuations and general economic conditions, political and social risks, changes to the regulatory framework within which Cobalt Blue operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on Cobalt Blue and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's projects and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company.

Accordingly, readers are cautioned to not place undue reliance on forward-looking statements. Forward looking statements in this announcement speak only at the date of issue. Subject to any continuing obligations under applicable law or the ASX Listing Rules, Cobalt Blue does not undertake any obligation to release publicly any updates or revisions to any forward-looking statements.

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Reasonable Basis for Forward Looking Statements

This announcement has been prepared in compliance with the JORC Code (2012) and the ASX Listing Rules. All material assumptions on which the Scoping Study production target and forecast financial information are based have been included in this announcement.

Cobalt Blue Background

Cobalt Blue Holdings Limited is a mining and mineral processing company focussed on the development of a Cobalt-Nickel Refinery in Western Australia, the Halls Creek Project in Western Australia, the Broken Hill Cobalt Project in New South Wales and ReMine+ globally (with a view to global opportunities contained in mine waste). As announced on 18 February 2025, the Company intends to seek shareholder approval to change its name to Core Blue Minerals Limited.

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

For further information, please contact:

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