



# Sandfire

## A new era

Investor Update and Outlook Presentation

1 December 2020

This presentation has been prepared by Sandfire Resources Ltd (Sandfire or the Company) and contains information about Sandfire current at the date of this presentation. The presentation is in summary form, has not been independently verified and does not purport to be all inclusive or complete. The Company is not responsible for providing updated information and assumes no responsibility to do so. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this presentation.

This presentation is for information purposes only. Neither this presentation nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction and may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in such jurisdiction.

This presentation does not constitute investment advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments.

To the fullest extent permitted by law, Sandfire, its related bodies corporate, and each of their officers, employees, agents and advisers expressly disclaim, to the maximum extent permitted by law, all liabilities (however caused, including negligence) in respect of, make no representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of any information, statements, opinions, estimates, forecasts or other representations contained in this presentation. No responsibility for any errors or omissions from this presentation arising out of negligence or otherwise is accepted.

Certain statistical and other information included in this presentation is sourced from publicly available third party sources and has not been independently verified.

All figures are expressed in Australian dollars unless otherwise stated. USD/AUD currency conversion 0.70 unless otherwise stated.

This presentation should be read in conjunction with the Company's ASX announcements released today, 1 December 2020.

**This presentation is authorised for market release by Sandfire's Managing Director and CEO, Mr Karl Simich.**

## Forward-Looking Statements

This presentation may include forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Sandfire. There is continuing uncertainty as to the full impact of COVID-19 on Sandfire's business, the Australian economy, share markets and the economies in which Sandfire conducts business. Given the high degree of uncertainty surrounding the extent and duration of the COVID-19 pandemic, it is not currently possible to assess the full impact of COVID-19 on Sandfire's business or the price of Sandfire securities. Actual values, results or events may be materially different to those expressed or implied in this presentation. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this presentation speak only at the date of issue of this presentation. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Sandfire does not undertake any obligation to update or revise any information or any of the forward-looking statements in this presentation or any changes in events, conditions or circumstances on which any such forward-looking statement is based.

The Expansion Case to 5.2Mtpa referred to in this presentation, where it relates to A4 and other prospects, is based on preliminary resource drilling, technical and economic assessments. Drilling and associated study work at A4 is currently insufficient to support estimation of Ore Reserves or to provide assurance of an economic Expansion Case for the Motheo Production Hub.

## Introduction

A compelling investment opportunity

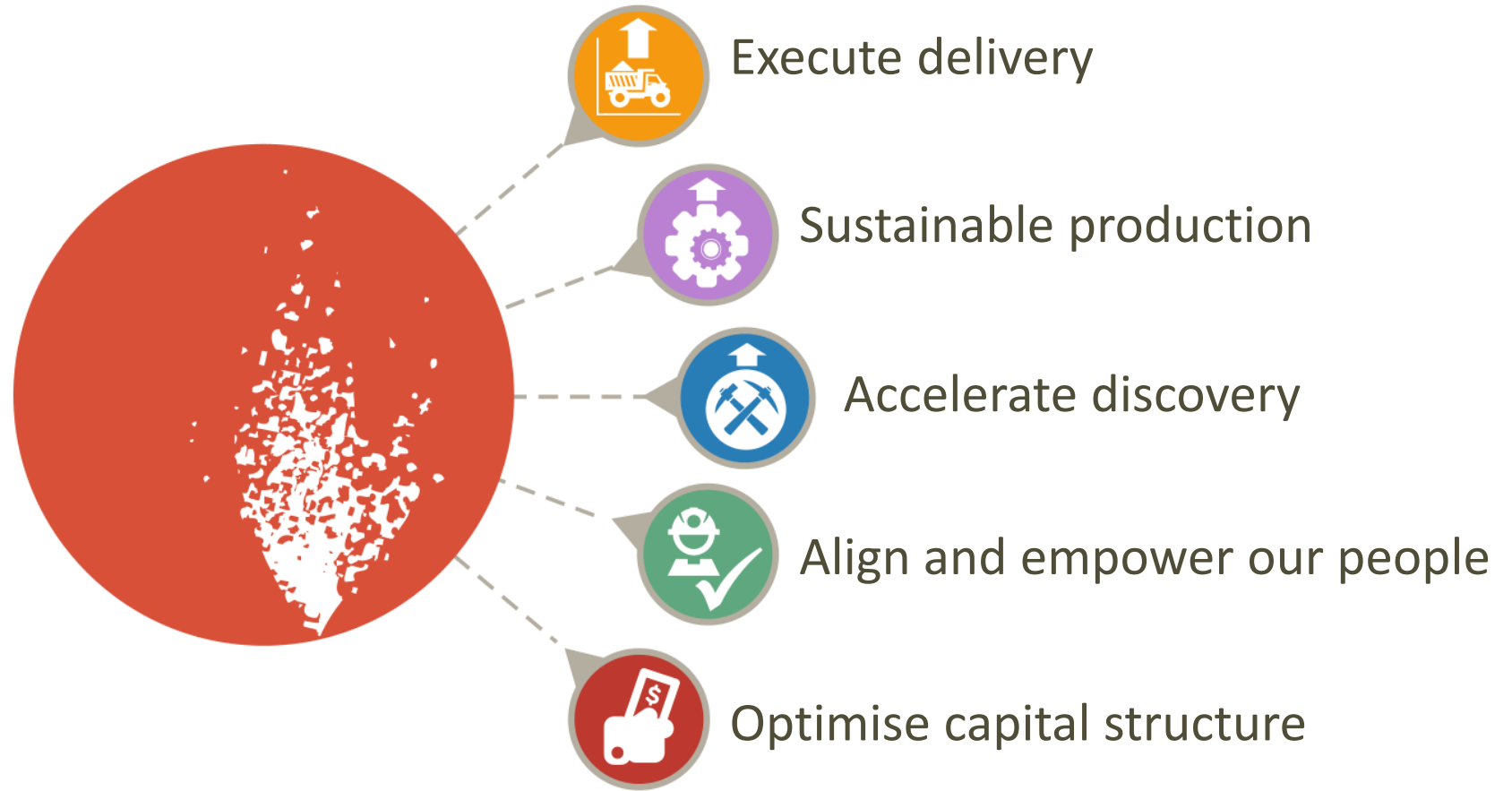
- One of the few **ASX-listed copper** exposures
- **Strong cash-flow** from existing high-grade operations at DeGrussa in Western Australia
- Robust and building financial position with **~\$304m in cash (30 September 2020)** and **no debt** vs. current market cap of ~\$800m
- **Long-life project pipeline** in Botswana and USA
- **Botswana T3 mine development approved** commencing early 2021
- Ideally positioned to establish a **new global copper province** in Kalahari Copper Belt
- Leveraging existing infrastructure at DeGrussa evaluating **Gold Transition Strategy**
- **Substantial exploration upside** in Australia, Botswana and USA – **\$50m global exploration budget**
- Strongly **leveraged to copper market upside** over the coming decade
- **Experienced and credentialed team**



## Strategy

---

Creating value  
through  
opportunity



## Sustainability

Strategy aligned  
to long-term  
growth plan



Sandfire's sustainability strategy supports our purpose and helps to facilitate the achievement of our strategic growth plan.



## Overview

### Key assets

Market Index	ASX-200
Issued Capital	178m shares
Cash	\$304m (Sept Qtr)
Debt	Nil
Market Cap	~\$800m (at \$4.50)



#### Operating Mines

- **DeGrussa**, Western Australia
  - DeGrussa Copper-Gold Mine
  - Monty Copper-Gold Mine

#### Development Pipeline

- **Tshukudu**, Botswana
  - T3 Copper-Silver Project
  - A4, T1 Expansion Projects
- **Black Butte**, USA (85%)

#### Exploration Portfolio

- **Doolgunna**, Western Australia
- **Eastern Australia**, NSW and QLD
- **Tshukudu**, Kalahari Copper Belt, Botswana and Namibia
- **Black Butte**, Montana, USA

## Overview

A new era

### DeGrussa

#### Strong cash-flow with opportunity to extend mine life

- **Strong, low-cost production:** 67-70kt Cu, 36-40koz Au in FY2021; C1 US\$0.85-US\$0.90/lb
- Substantial **near-mine and regional exploration prospectivity**
- Evaluating **Gold Transition Strategy** to maintain **continuity of operations**, leverage existing infrastructure

### Tshukudu

#### New growth platform in the heart of an emerging global copper province

- **5.2Mtpa Motheo Copper-Silver Production Hub** concept emerging
- Initial **3.2Mtpa operation at T3 approved**, development commencing Q3FY2021 with **12.5-year mine life** at ~30ktpa Cu and 1.2Mozpa Ag
- Maiden **100kt Cu Inferred Mineral Resource** for new A4 deposit with strong growth potential highlighted by post-resource **high-grade intercepts up to 16% Cu**
- **Exceptional exploration upside** within dominant 26,650km<sup>2</sup> ground-holding in Botswana and Namibia

### Black Butte

#### Permitted high-grade, long-life project with near-mine resource and exploration upside

- **Permitting complete** with **Feasibility Study** and **maiden Ore Reserve** issued for Johnny Lee Deposit
- Updated Inferred Mineral Resource completed for **Lowry Deposit**, 3km south-east of Johnny Lee
- Multiple activities underway to progress and enhance the project including **early works** and **near-mine resource drilling and exploration**
- **Key milestones** to be considered during CY2021

## Copper

A cornerstone metal for the global economy

- Copper is a **critical metal** for global economic growth
- It is the **third largest global metal market** behind iron and aluminium: **>22Mt worth over US\$150 billion** consumed annually
- Strong underlying **demand from the construction and industrial sectors** – well placed to benefit from global stimulus packages and urbanisation
- Best **non-precious conductor** of heat and electricity – key to the looming electrification of the global economy (renewable energy, EV's)
- Global **mine supply remains structurally challenged** due to declining discoveries and mine grades

The fundamentals of the copper market mean that it is one of the metals most likely to benefit from a post-COVID global economic recovery, Government stimulus packages and the electrification of the world economy.

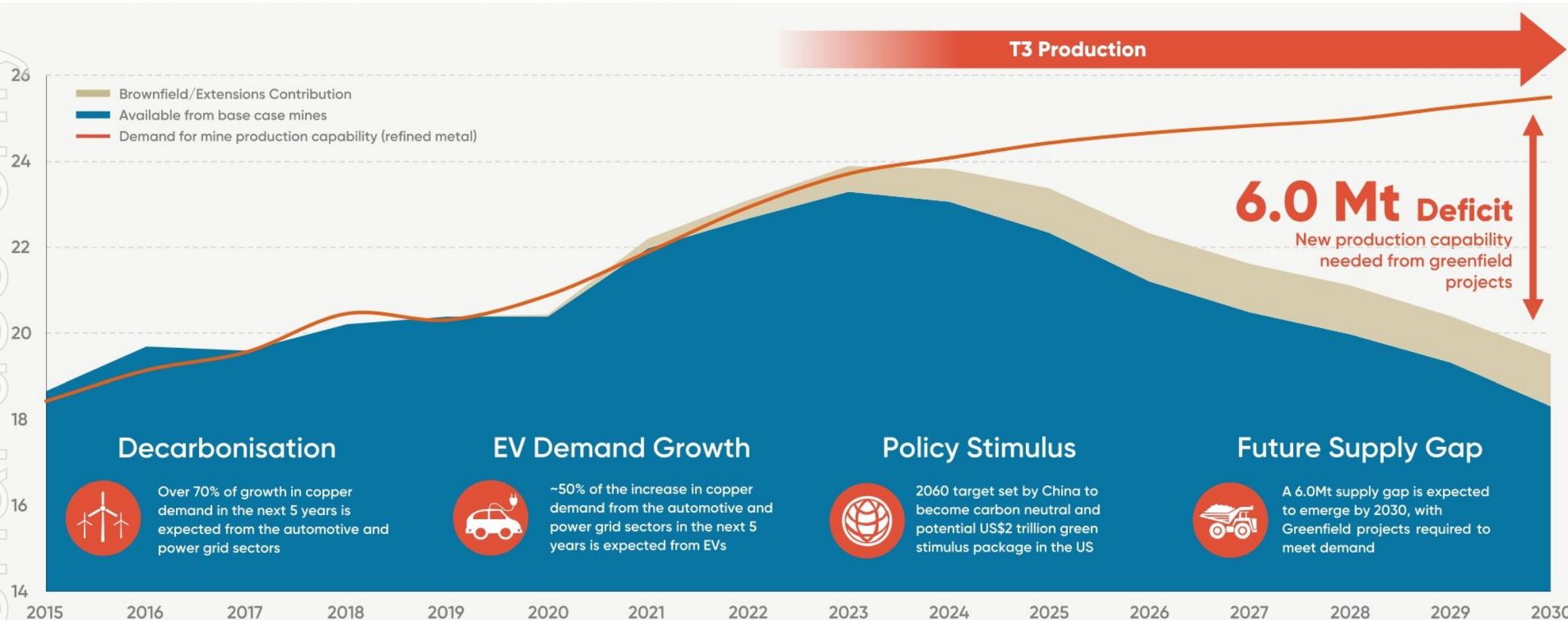




# Copper | Emerging Market Deficit Driven by Multiple Factors



## Copper Production Capability and the Future Supply Gap (Mt Cu)



Source: Citi Research; Wood Mackenzie. Source data for chart taken from Wood Mackenzie Global Copper Mine Supply Summary (Q3 2020 Update), assumes that 70% of production from brownfield projects currently categorized as "Probable" will proceed, also includes an allowance for brownfield mine life extensions equivalent to 20% of forecast closures

## Copper

Copper  
concentrate  
sales markets

- Selling into a **robust, deep and mature** global concentrate market
- Smelters and traders compete on treatment and refining terms through **well-established tender and spot processes**
- **Extensive customer base** built over eight years at DeGrussa
- **High-quality concentrate** in demand globally, suitable for blending
- Global **smelter capacity has grown** to meet increased and projected demand
- Established smelting capacity for Sandfire's high-quality concentrate production including in **China, Japan, Korea, The Philippines and Europe**



## Tshukudu

---

Expanding  
horizons in  
Botswana



### **Tshukudu, Botswana**

- T3 Copper-Silver Project
- A4, T1 Expansion Projects
- 26,650km<sup>2</sup> exploration portfolio (Botswana and Namibia)



## Botswana

### Country overview

- Safe, democratic and politically stable
- Strong mining history
- Supportive Government (rated #1 in Africa and #45 globally by Fraser Institute Annual Survey of Mining Companies)
- Established mining legislation and environmental controls
- Skilled workforce and quality infrastructure, with Sandfire able to leverage off extensive local infrastructure
- Government extending grid power to within 14km of the proposed T3 Project development along national highway
- Strong support for the T3 (Motheo) Copper-Silver Project development





## Kalahari Copper Belt

### Regional geology

- The Kalahari Copper Belt is a major zone of strata-bound copper-silver deposits extending for 1,000km along the northern margin of the Kalahari Craton in Namibia and Botswana
- Cupric Canyon have recently defined more than 2Mt contained copper at the Zone 5\* discovery in the Kalahari Copper Belt in Botswana – along strike from the T3 Copper-Silver Project
- Establishes the Ghanzi-Chobe basin as only the 7th basin globally to host a giant sediment hosted copper deposit
- The belt holds approximately 7Mt of contained copper in several deposits, with resource grades ranging from 0.9% to 2.2% Cu at an average grade of 1.4% Cu
- The Kalahari Copper Belt is the only copper belt with an accelerating rate of discovery, with potential for resource styles that are mineable using both open pit and underground mining techniques

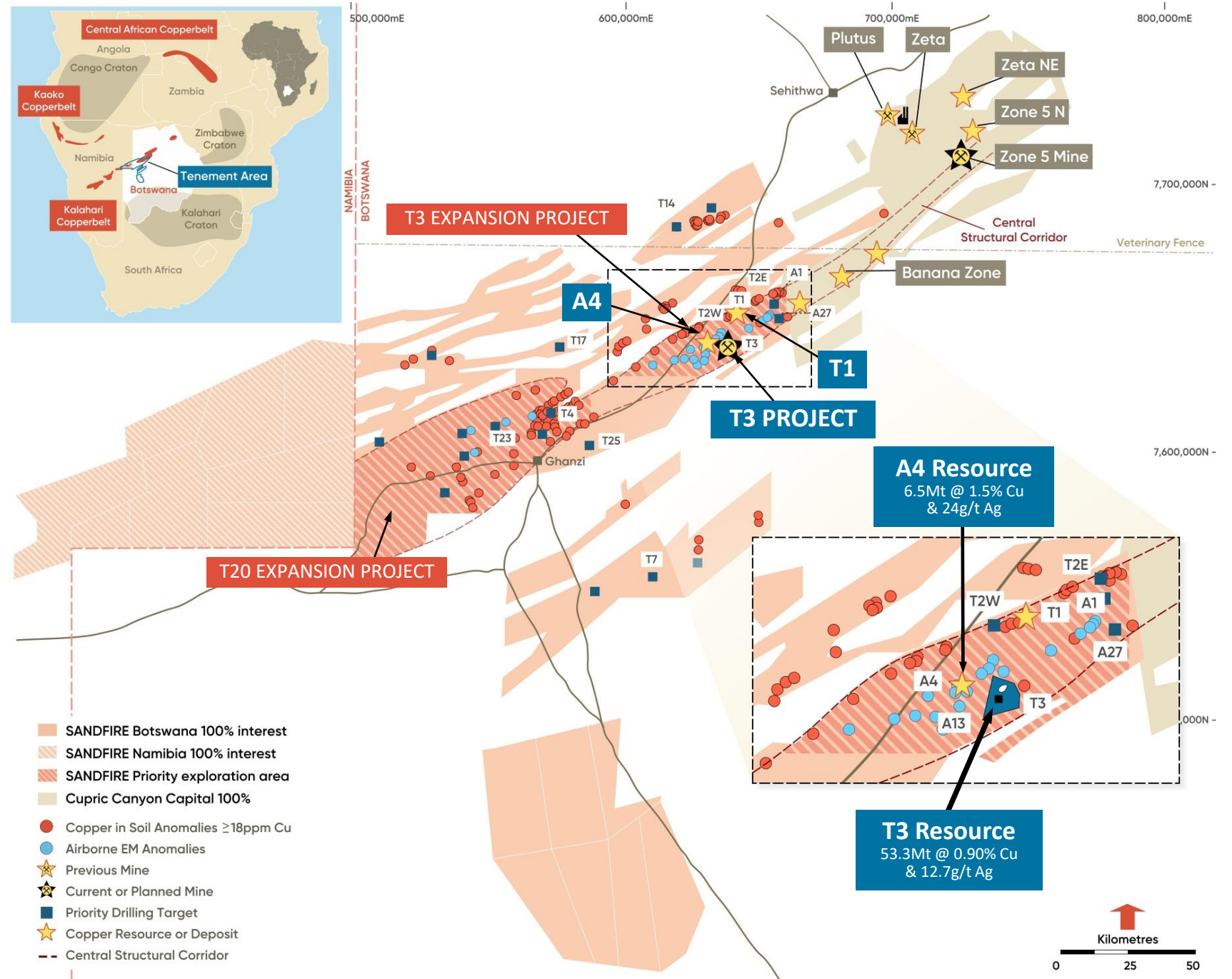
\* Source: Cupric Canyon Capital website [www.khoemacau.com](http://www.khoemacau.com).





# Tshukudu

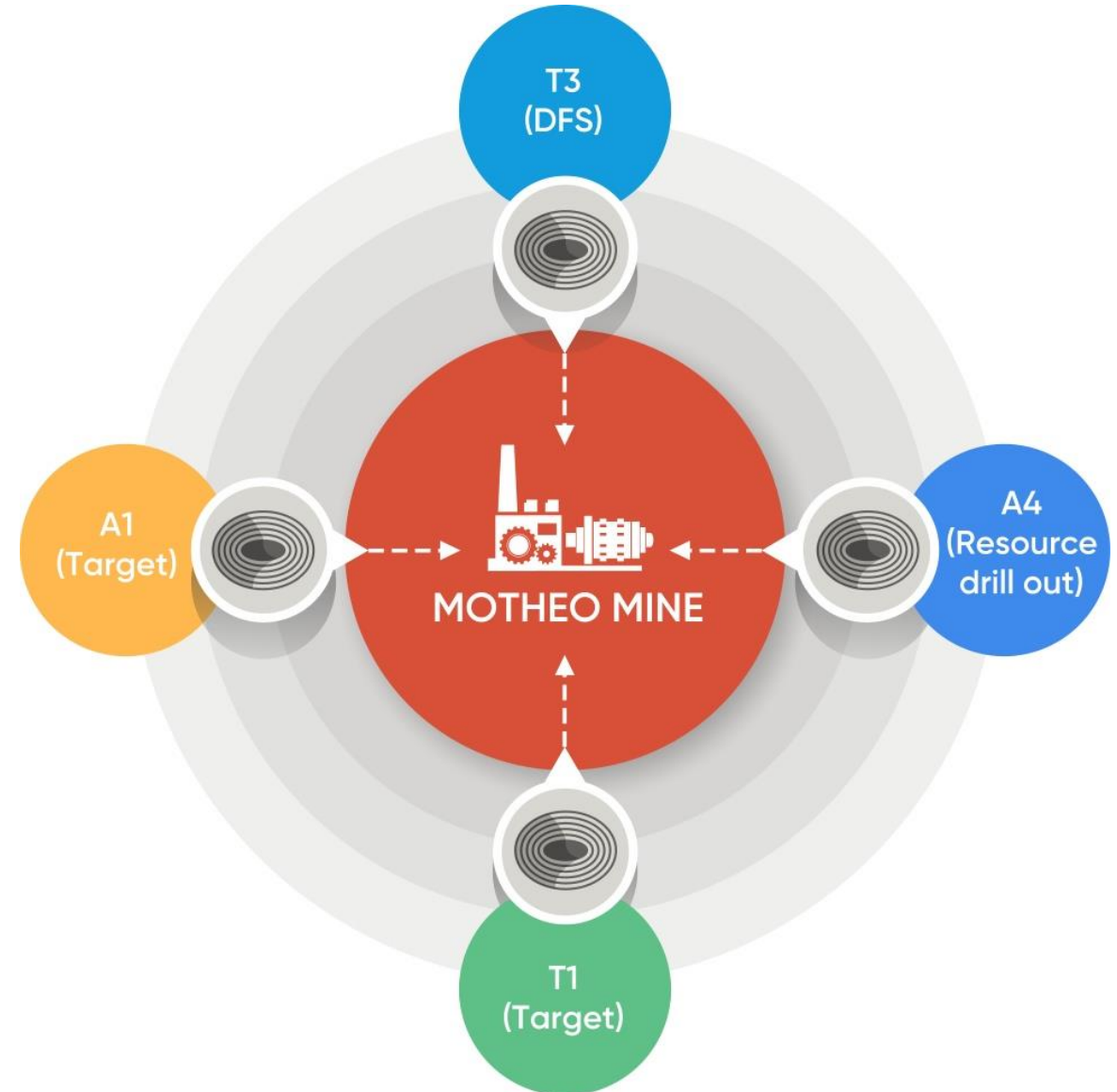
Dominant position  
in the Kalahari  
Copper Belt –  
26,650km<sup>2</sup>



## Motheo Production Hub

5.2Mtpa  
expansion case

- Definitive Feasibility Study (DFS) for T3 3.2Mtpa Project complete
- Clear visibility to rapidly expand production to 5.2Mtpa through the addition of the A4 deposit
- T3 Motheo construction includes US\$20M upfront investment to facilitate cost effective expansion to 5.2Mtpa
- Significant potential to extend mine life through drilling at further targets including A1, T1, T2W & T2E, A27 and A13 – all located within ~30km radius of processing plant

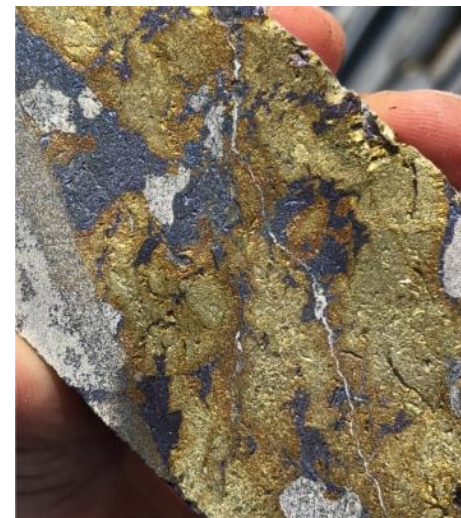




## T3 Definitive Feasibility Study

### Optimisation process

- MOD Resources acquisition completed late 2019
- Baseline was MOD Feasibility Study (completed March 2019)
- Sandfire optimisation process included:
  - Updated Resource model, incorporating new drilling and revised structural interpretation, geotechnical analysis and hydrology modelling
  - Mining studies
  - Process Plant layout and process engineering updated, and key equipment tendered
  - HV Power supply preliminary design, cost estimation and approval process progressed
  - Mine site camp location and design revised to improve health and safety standards and reduce risk of construction delay
  - Land access secured



## T3 Definitive Feasibility Study

3.2Mtpa  
base case

- Updated Mineral Resource: **53.3Mt at 0.90% Cu and 12.7g/t Ag (1.0% Cu equivalent)** for **480kt of contained copper** and **21.8Moz of contained silver**;
- Updated Ore Reserve: **39.9Mt at 0.90% Cu and 12.2g/t Ag** for **360kt of contained copper** and **15.6Moz of contained silver**;
- **12.5-year mine life** at 3.2Mtpa base case
- **Open pit mine**, with total material movement of ~34Mtpa (ore and waste) over the first 7 years
- Forecast LOM production totaling **~100,000 dry metric tonnes of copper concentrate per annum**, containing
  - **~30,000t of copper** and **1.2Moz ounces of silver**
- Development capital of **US\$259 million (A\$371 million)**

### Life-of-Mine Financial Economics

Copper Price (US\$/lb)	3.16
Revenue (US\$M)	2,448
C1 Cash Costs (US\$/lb)	1.65
All-in Sustaining Costs (US\$/lb)	1.84
EBITDA (US\$M)	987
Net Cash Flow (pre-tax) (US\$M)	664
Undiscounted Cash Breakeven Copper Price (US\$/lb)	2.19
Pre-tax NPV (7% real) (US\$M)	316
IRR (pre-tax)	25%
Capital Payback Period – from first production (years)	3.8

## T3 Definitive Feasibility Study

### Geology

- The T3 Project is a structurally controlled stratabound copper-silver deposit, where mineralisation formed over a protracted period that preceded and overlapped regional deformation, resulting in multiple generations of mineralisation
- T3 Mineral Resource – extends over 2km strike length and 720m down-dip
- Mineralisation strikes and dips parallel to a 20-30 degree north-west dipping thrust zone, and is considered to be a structurally hosted, epigenetic deposit that formed synchronous with regional deformation
- Numerous, sub-parallel zones of mineralisation are developed within the thrust zone with high-grade mineralisation focused on master displacement planes and associated foliated zones
- The cumulative total true width of mineralisation within the thrust zone ranges from 10–80m, with primary sulphide copper mineralisation hosted within quartz-carbonate veins and disseminations

T3 Mineral Resource					
Resource Category	Tonnes (Mt)	Copper (%)	Contained Copper (kt)	Silver (g/t)	Contained Silver (Moz)
Indicated	48.8	0.92	446	12.5	19.6
Inferred	4.5	0.74	34	14.7	2.1
<b>Total</b>	<b>53.3</b>	<b>0.90</b>	<b>480</b>	<b>12.7</b>	<b>21.8</b>

**Notes:**

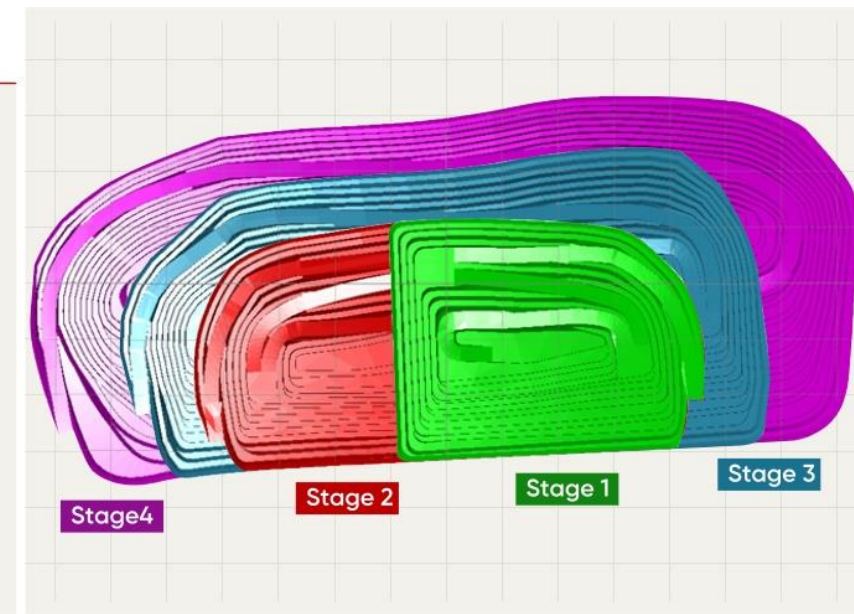
Calculations have been rounded to the nearest: 100kt; 0.01% Cu grade; and 1kt Cu metal and 0.1g/t Ag grade; and 100koz Ag metal. Differences may occur due to rounding.



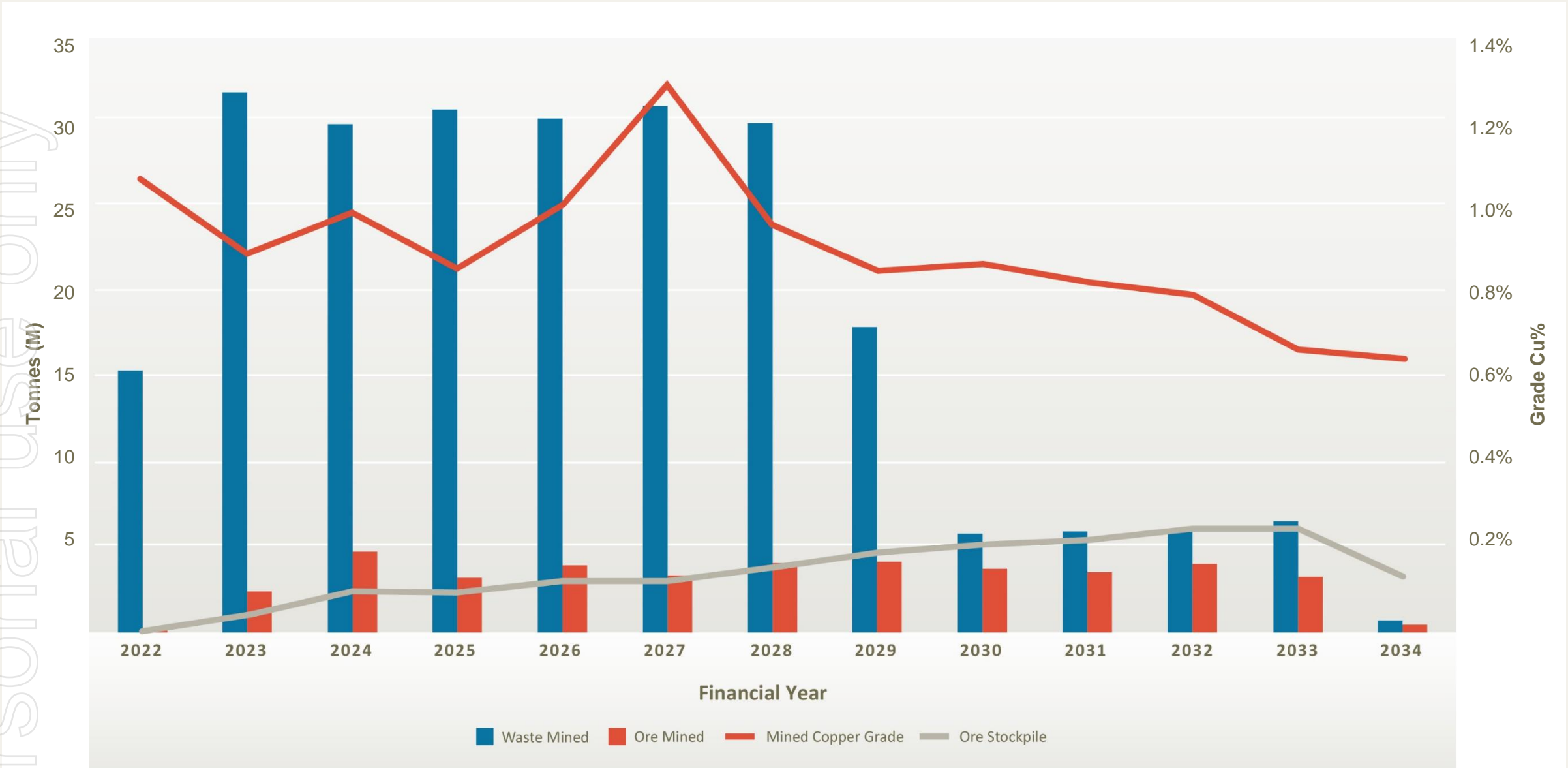
## T3 Definitive Feasibility Study

### Mining

- Four-stage open pit
- 280Mt Total Material Movement, 39.9Mt Ore
- 6:1 strip ratio
- Final Pit Dimensions: 1,500m x 640m x 245m
- Design of the pit footwall and ramps account for interpreted thrust (footwall to be mined beyond the footwall thrust and independent ramps in each stage in the hanging wall)
- 10m bench heights and 2.5m flitches
- Contract mining tender in progress



# T3 Definitive Feasibility Study | T3 Mining Schedule



## T3 Definitive Feasibility Study

### Processing

- 3.2Mtpa processing plant (397 t/h)
- 92% plant availability
- Moderate ore competency
- SAG mill
- Primary crusher
- Pebble crusher
- The single-stage SAG (SSSAG) circuit
- Coarse grind size (P80 212  $\mu\text{m}$ )
- Typical flotation scale-up factors
- Simple rougher flotation circuit
- Coarse regrind size (P80 90  $\mu\text{m}$ )
- 2-stage cleaning circuit
- Concentrate thickening and filtration
- Tails thickening
- Clean raw water supply





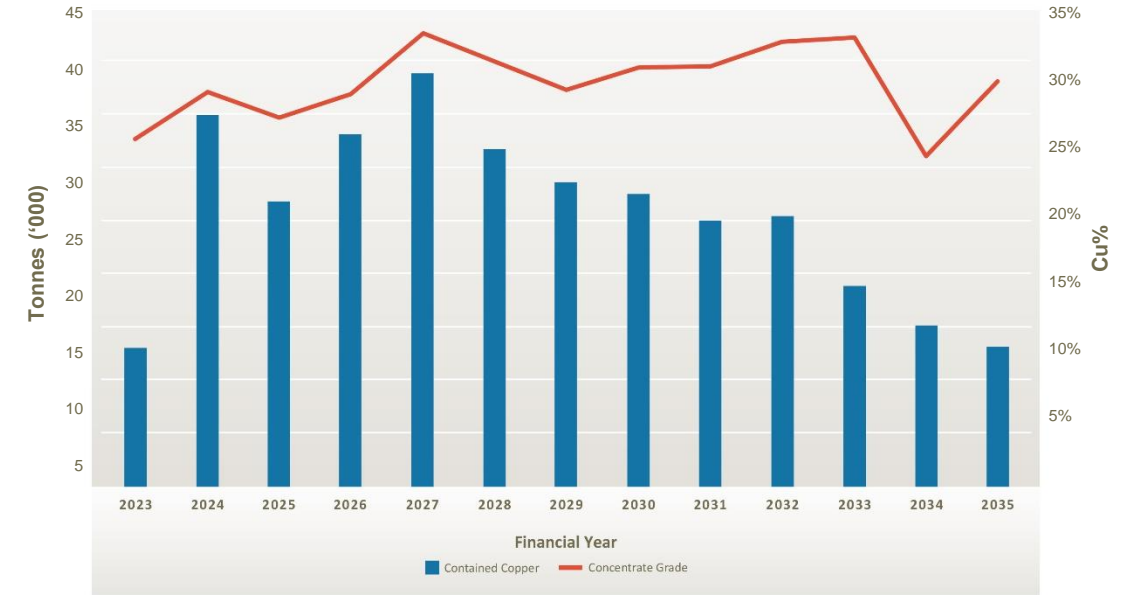
## T3 Definitive Feasibility Study

### Concentrate production

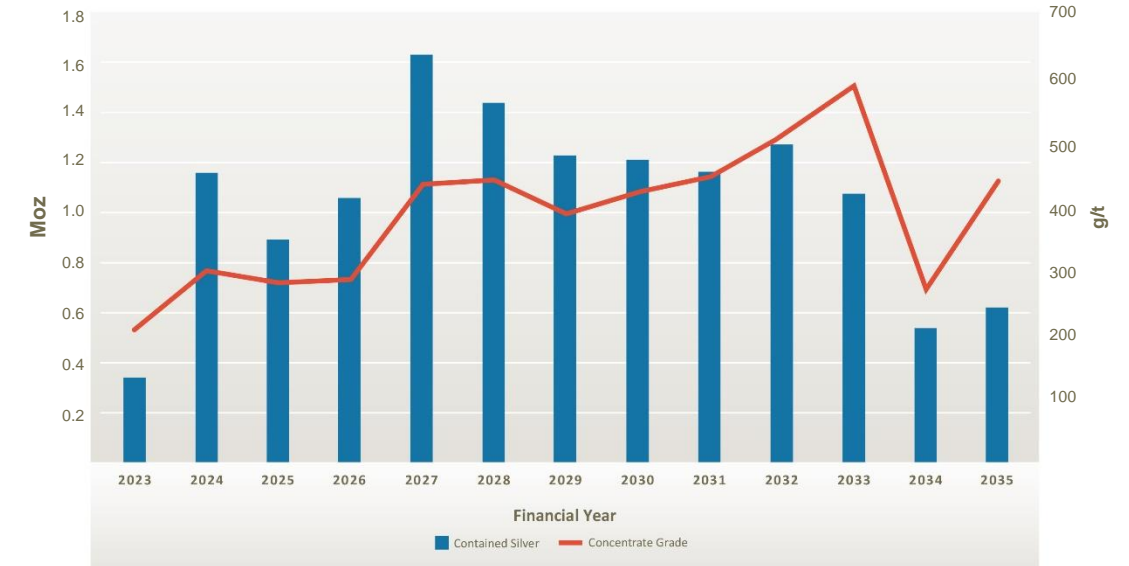
- ~100,000tpa of single concentrate, containing ~30,000t of contained copper and ~1.2Moz of contained silver
- LOM average concentrate grade of ~30% Cu, 380g/t Ag
- High-quality concentrate with low penalty elements
- Average LOM recoveries of 92% Cu and 87% Ag



### Copper-in-Concentrate



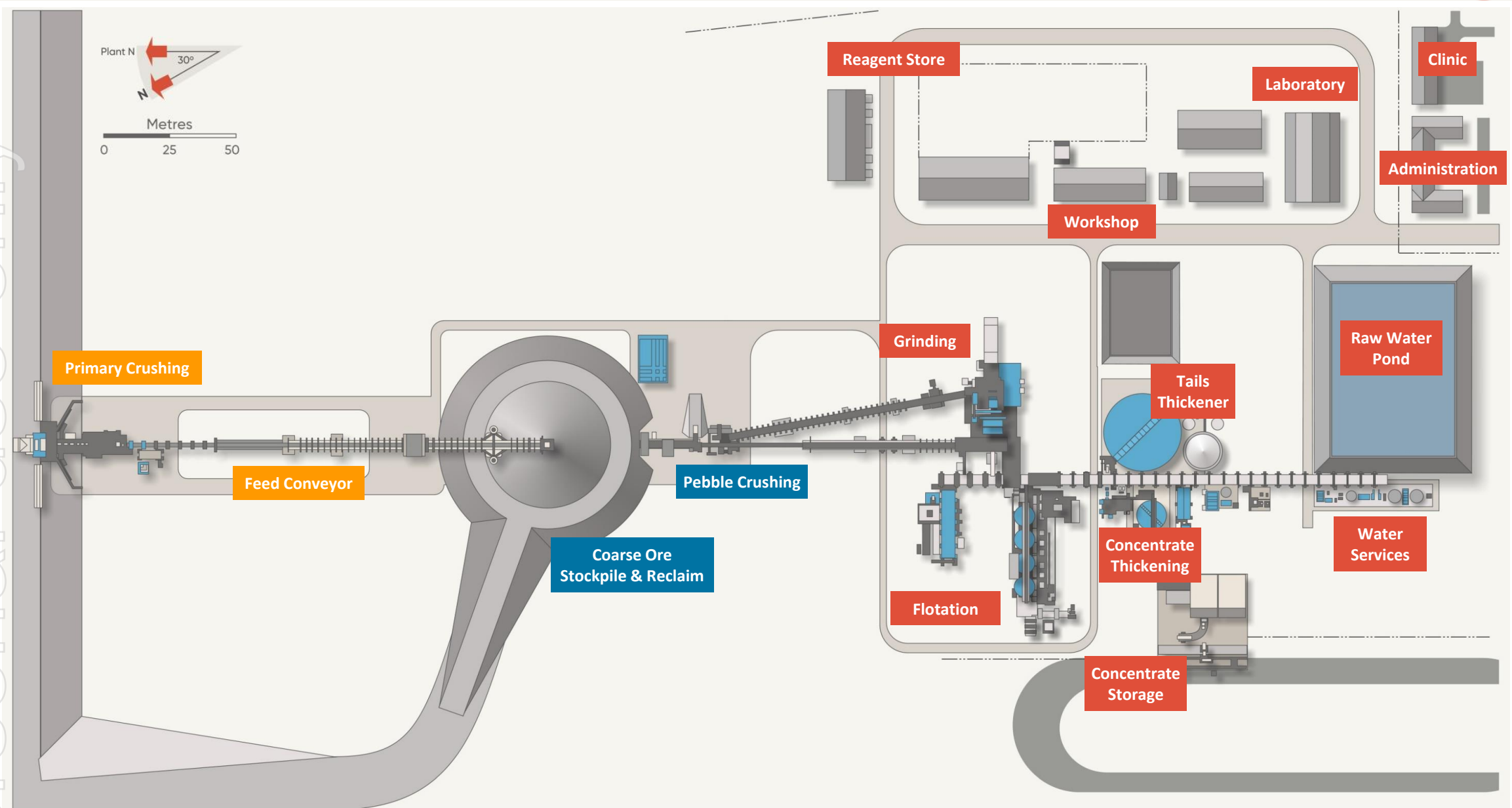
### Silver-in-Concentrate



# Motheo | Production Facility – Base Case

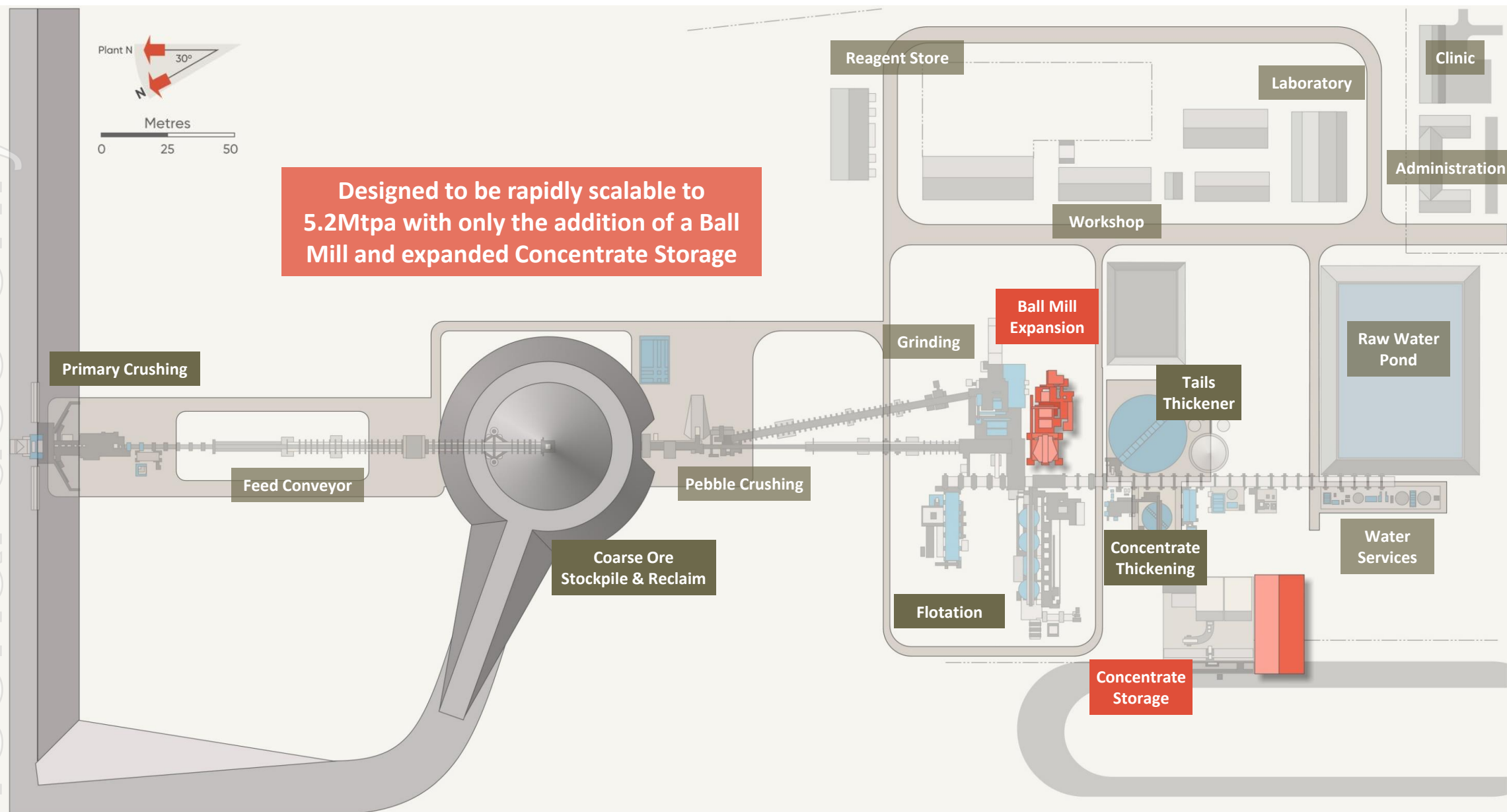


Personal use only





# Motheo | Production Facility – Expansion Case



# T3 Feasibility Study

## Site infrastructure



Motheo Overall Site Layout

## T3 Definitive Feasibility Study

### Site infrastructure

#### Tailings Storage Facility

- Design capacity 50Mt, up to 5.2Mtpa footprint
- Downstream construction integrated with the waste dump
- Double HDPE lined facility

#### Power Supply

- Connection to the expanding national grid (14km) at US9c/kWh
- 10-15MW solar facility assessment commenced
- MOU and PSA advanced

#### Access Road

- 15km gravel road from sealed main highway

#### Communications

- Optical fibre connection to highway

#### Accommodation Facility

- 750-person facility with ensuites
- Upfront construction to underpin early works, construction and operations

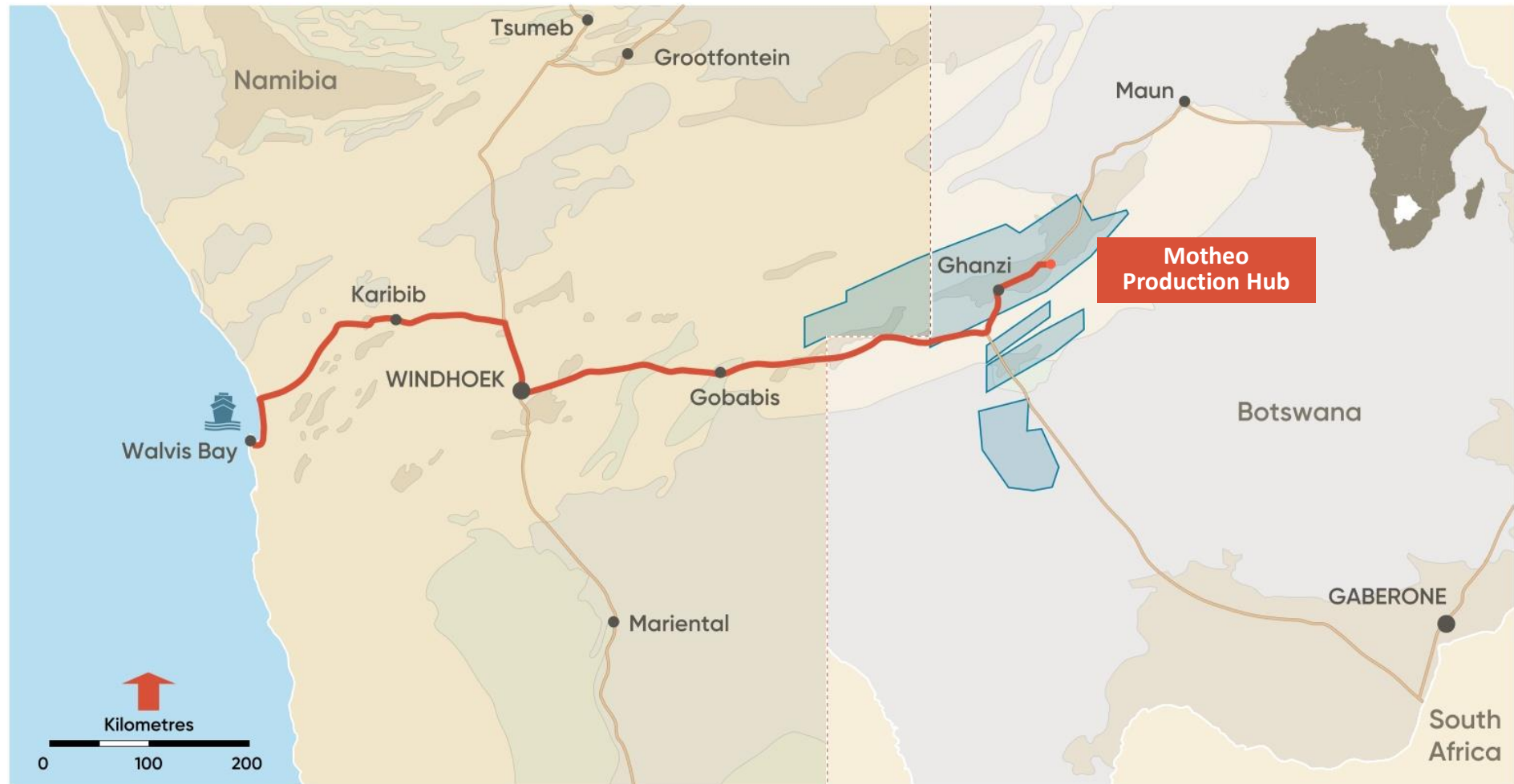


## Excellent transport route and access to port

- Walvis Bay, Namibia
- 1,000km by sealed road to port
- Bagged into shipping containers

## T3 Feasibility Study

Transport and sales





## Tshukudu

### Our people

- In-country executive team from construction into operations
- Established mining skills in-country
- 95% local workforce
- Existing exploration workforce of over 70 employees
- Approximately 1,000 direct jobs creation during construction
- Approximately 600 direct jobs during operations, including mining contractor
- Local training and upskilling programs to build knowledge and capability
- Working to Sandfire values and well-established systems





## Tshukudu

### Community and Environment

#### Community

- Sponsorship & Donations:
  - Ghanzi Primary Hospital – medical relief supplies to manage COVID-19 demands
  - Partnership with Window of Hope Centre to supply sports equipment
- Tshukudu nursery project continued seed collection – an initiative to support local employment, training and progressive rehabilitation
- Beekeeping project continues to thrive, providing honey to local schools and community

#### Environment

- Ongoing flora and fauna baseline studies at Motheo
- Key Environmental Management Plans to support T3 (Motheo) construction in final stages



## T3 Definitive Feasibility Study

### Capital

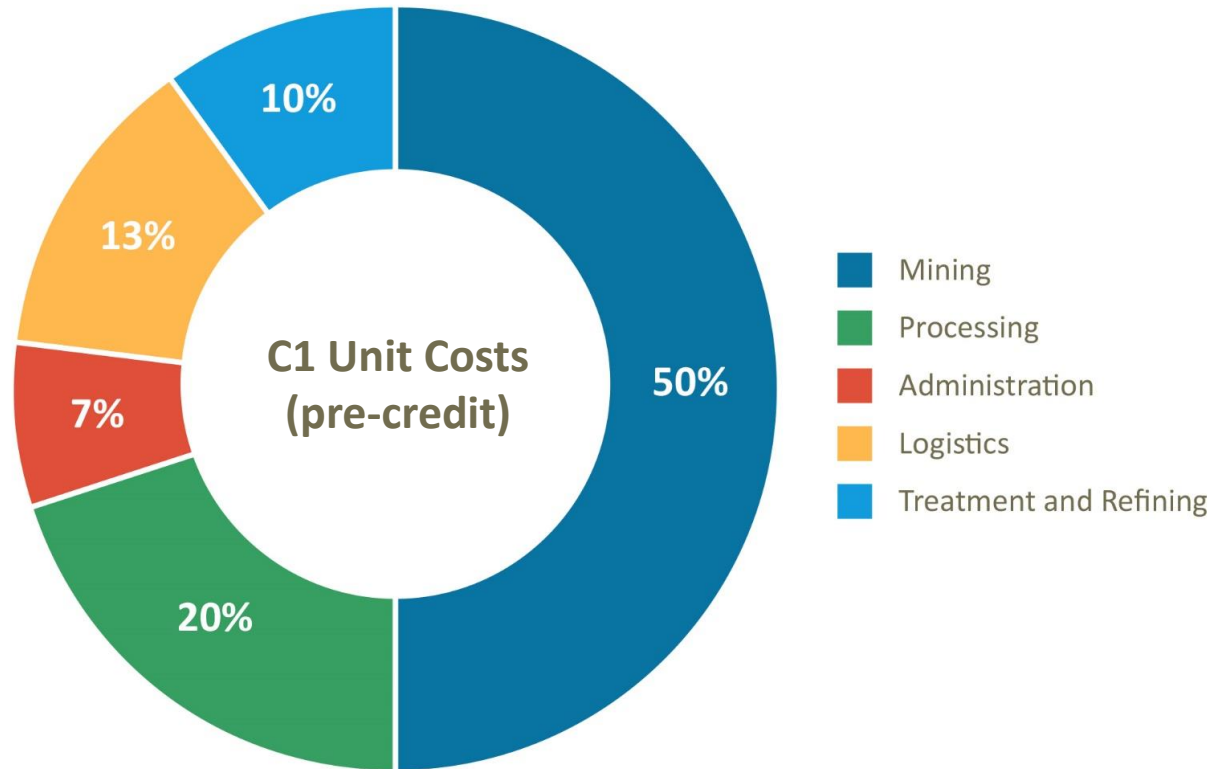
- Mining cost to pre-strip to first ore
- Processing plant capital assisted by coarse grind size and low energy intensity
- EPCM construction contract
- Establishing long-term tailings storage footprint

Capital Expenditure Estimates	US\$M	AU\$M (at 0.70)
Construction Overheads	17.2	24.6
Mining Pre-Strip	73.0	104.3
Process Plant	46.4	66.3
Site Infrastructure	35.3	50.4
Tailings Storage (incl. water management)	15.0	21.4
Engineering, Procurement and Construction Management (EPCM)	11.7	16.7
Owner's Project Costs	36.2	51.7
Contingency	24.5	35.0
<b>Total (3.2Mtpa base case)</b>	<b>259.3</b>	<b>370.4</b>

## T3 Definitive Feasibility Study

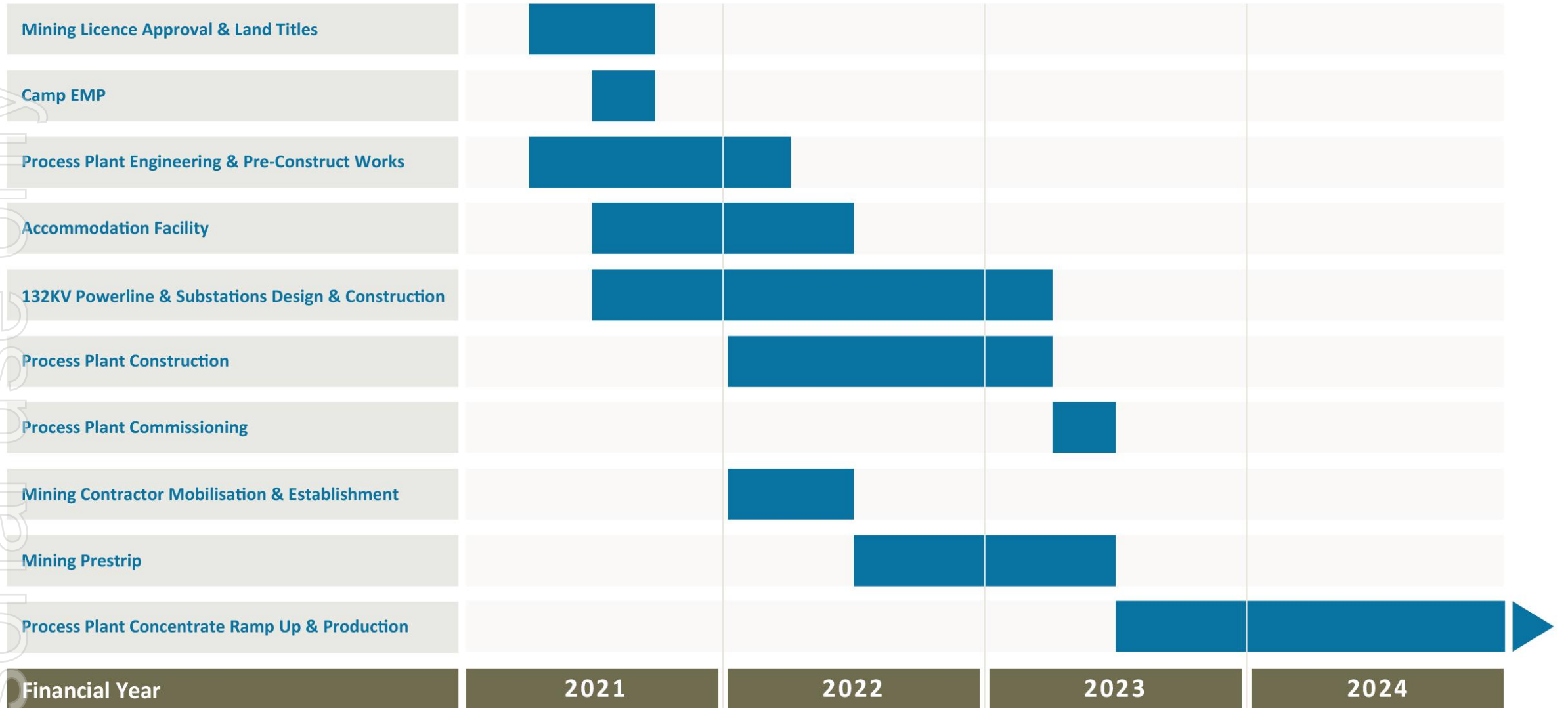
### C1 unit costs

- Highly competitive C1 unit costs:
  - US\$1.97/lb LOM pre-credit
  - US\$0.32/lb by-product credit from contained silver
  - **US\$1.65/lb LOM**





# T3 Development Timeline



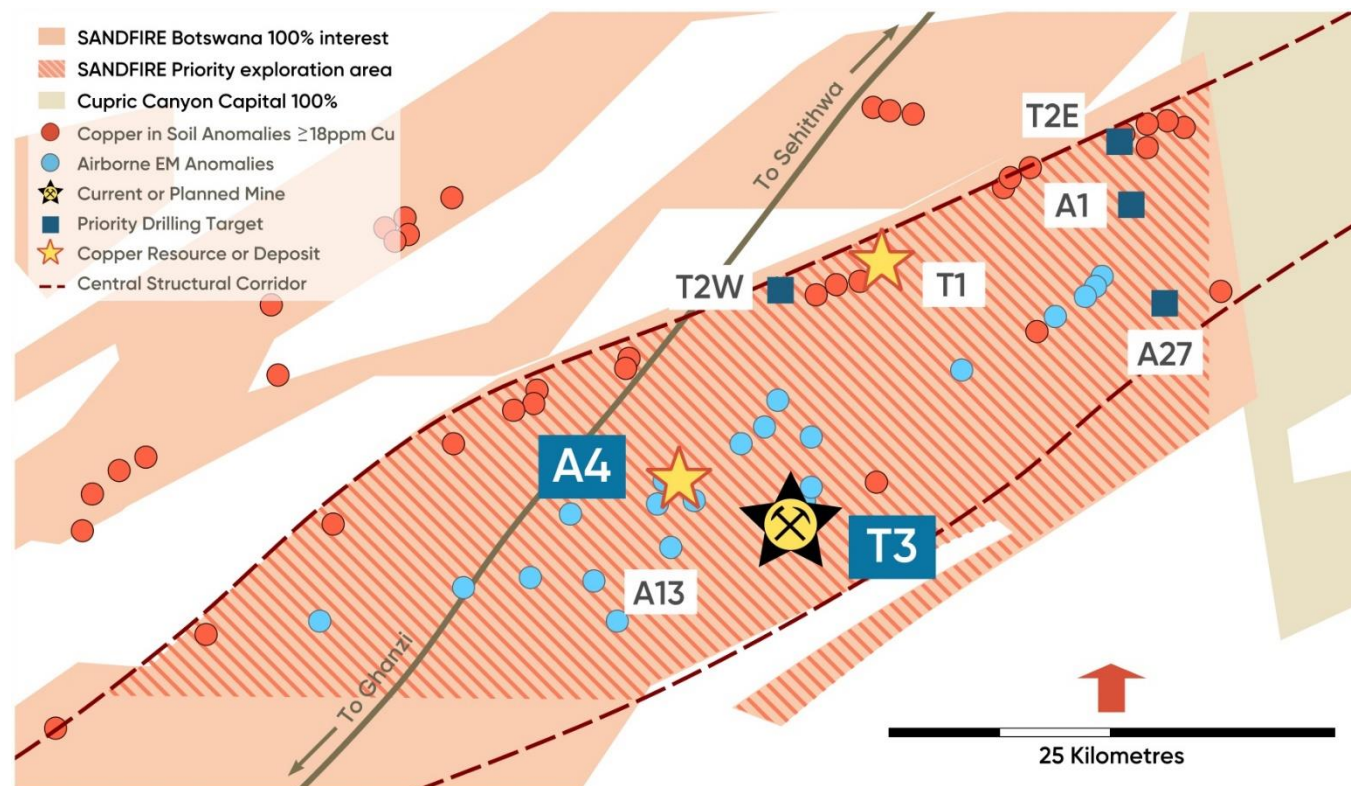


## Motheo Production Hub

### T3 Expansion Area

- Expanded exploration underway to:
  - Target high-grade satellite discoveries with potential to support the emerging Motheo Production Hub
  - Delineate additional resources with the potential to extend mine life
  - Target major new regional discoveries to unlock the belt's broader potential
- Initial focus within the ~1,000km<sup>2</sup> T3 Expansion Area

### Tshukudu Exploration: T3 Expansion Project – Priority Targets



## Motheo Production Hub

### A4 Maiden Mineral Resource

- Maiden A4 Inferred Mineral Resource based on 79 holes
- Approximately 70% higher Cu grade than T3, and 1.75% Cu equivalent grade
- Valuable additional feed potential, forming the initial basis of the proposed expansion to 5.2Mtpa processing rate
- An additional 47 in-fill and extensional diamond drill holes have been completed and are not included in the maiden Mineral Resource estimate
- A further 27 in-fill and extensional holes planned to underpin upgrade to Indicated Mineral Resource

Maiden Inferred Mineral Resource – A4 Copper-Silver Deposit						
Mineral Resource Category	Cu % cut-off	Tonnes (Mt)	Copper (%)	Contained Copper (kt)	Silver (g/t)	Contained Silver (Moz)
Inferred	0.5%	6.5	1.5	100	24	4.9
<b>Total</b>	<b>0.5%</b>	<b>6.5</b>	<b>1.5</b>	<b>100</b>	<b>24</b>	<b>4.9</b>

#### Notes:

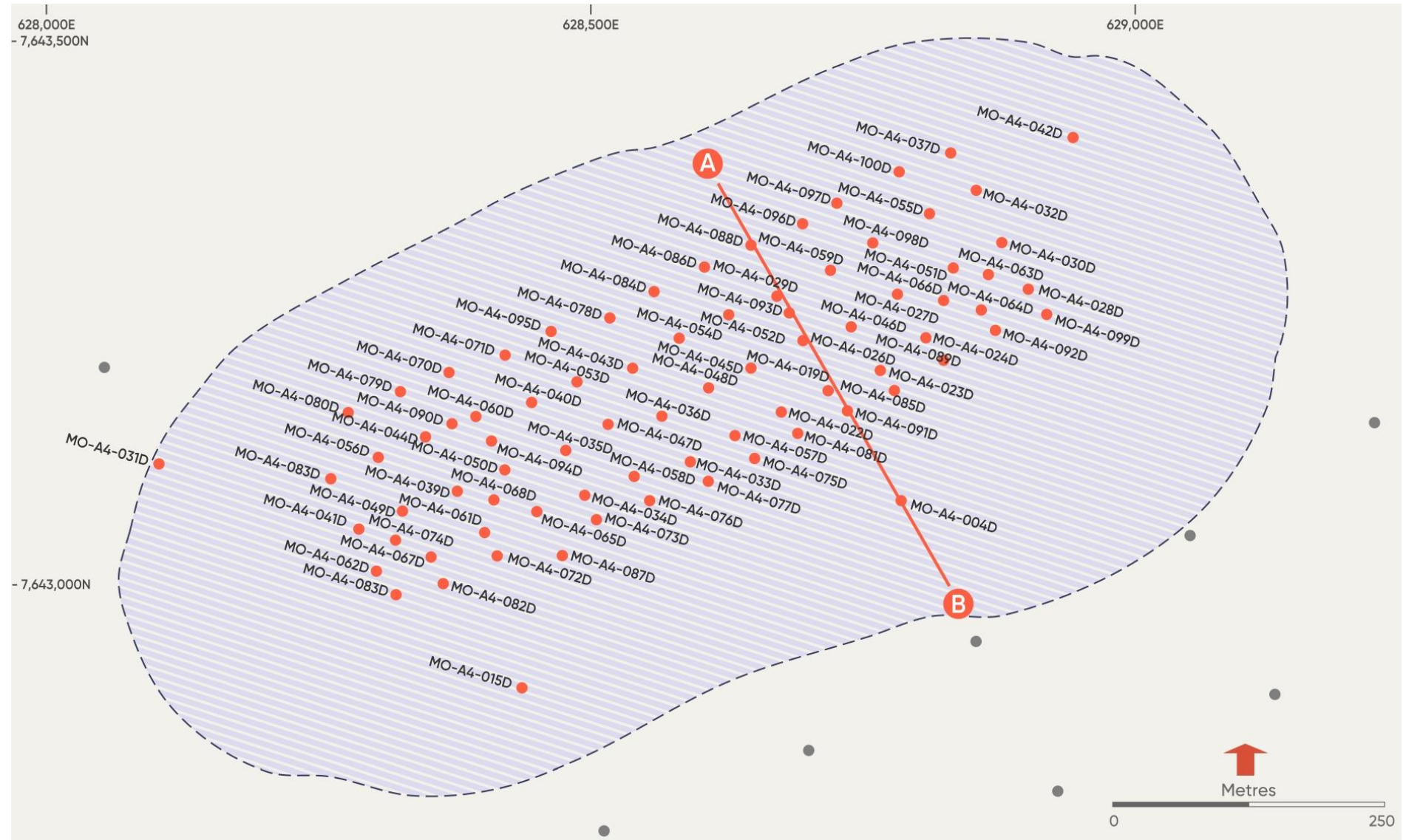
Calculations have been rounded to the nearest: 100kt; 0.1% Cu grade; 1kt Cu metal; 1g/t Ag grade; and 100koz Ag metal.

Differences may occur due to rounding.

Equivalent grades are calculated using DFS copper and silver consensus pricing

# Motheo Production Hub

## A4 Maiden Mineral Resource drill holes

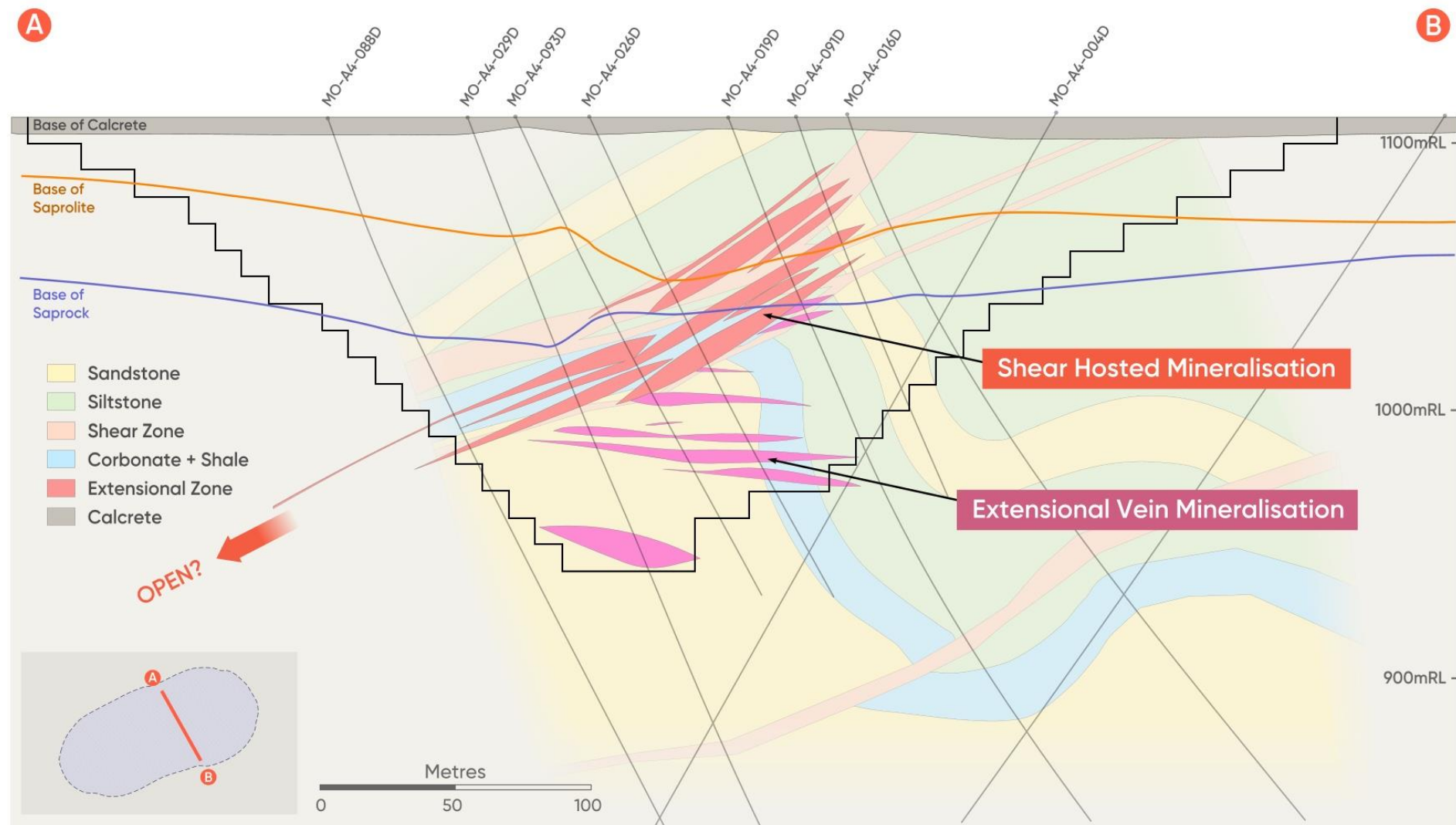


A4 Plan view – collar location of drill holes used to inform the Mineral Resource Estimate (MRE). US\$4.50/lb Cu price optimised pit shell shown in dashed black outline. Grey collars represent existing holes targeting deeper mineralisation not included in the MRE.



# Motheo Production Hub

## A4 cross-section



A4 schematic cross-section – showing interpreted geology and mineralisation styles across the A4 Deposit. US\$4.50/lb Cu price optimised pit shell used to constrain the MRE shown in black outline.

## Motheo Production Hub

High-grade A4  
intersections post  
Maiden Mineral  
Resource

### MO-A4-122D

Upper Zone (within optimised pit shell):

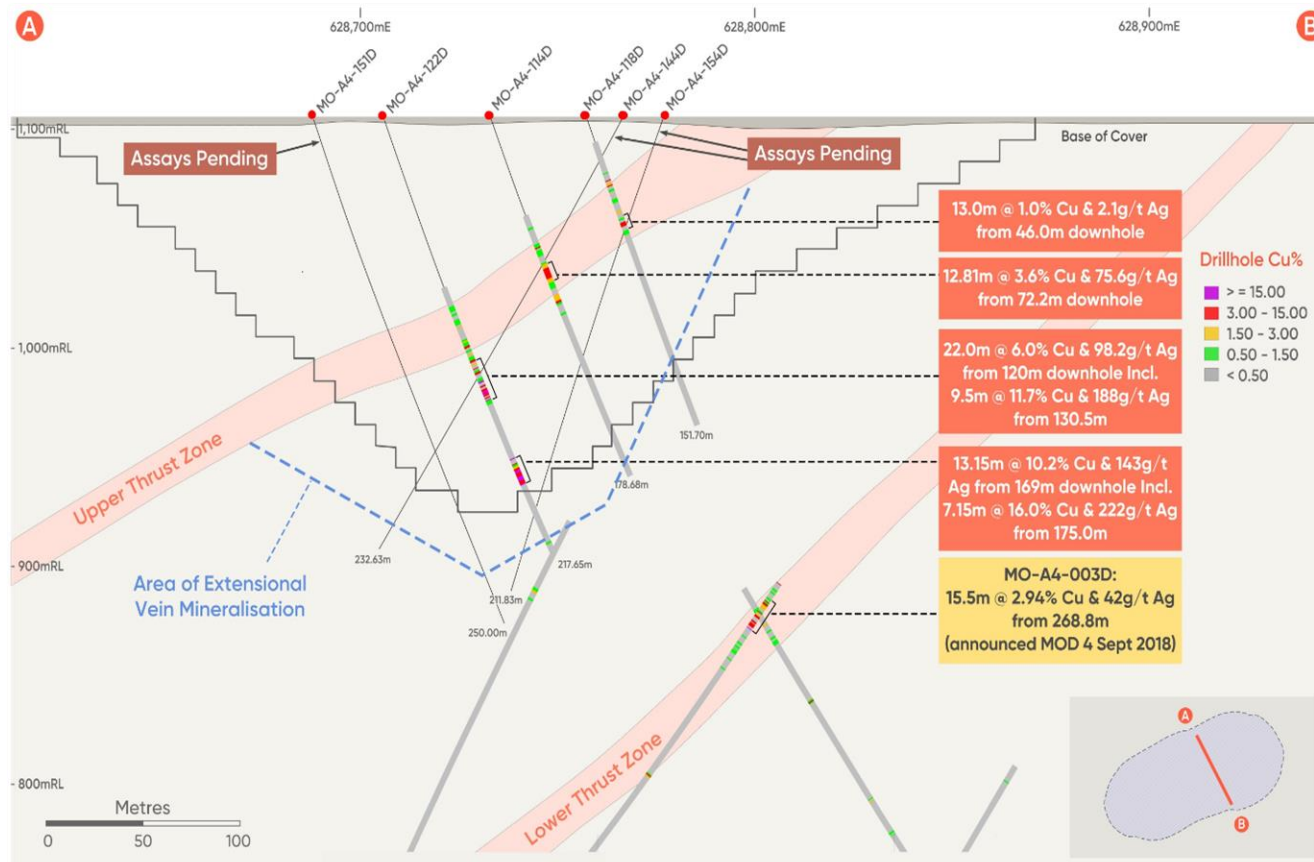
- **22.0m @ 6.0% Cu and 98.2g/t Ag** from 120m down-hole (incl. **9.5m @ 11.7% Cu & 188g/t Ag** from 130.5m)

Lower Zone (within optimised pit shell):

- **13.15m @ 10.2% Cu & 143g/t Ag** from 169m down-hole (incl. **7.15m @ 16.0% Cu & 222g/t Ag** from 175m)

### MO-A4-138D

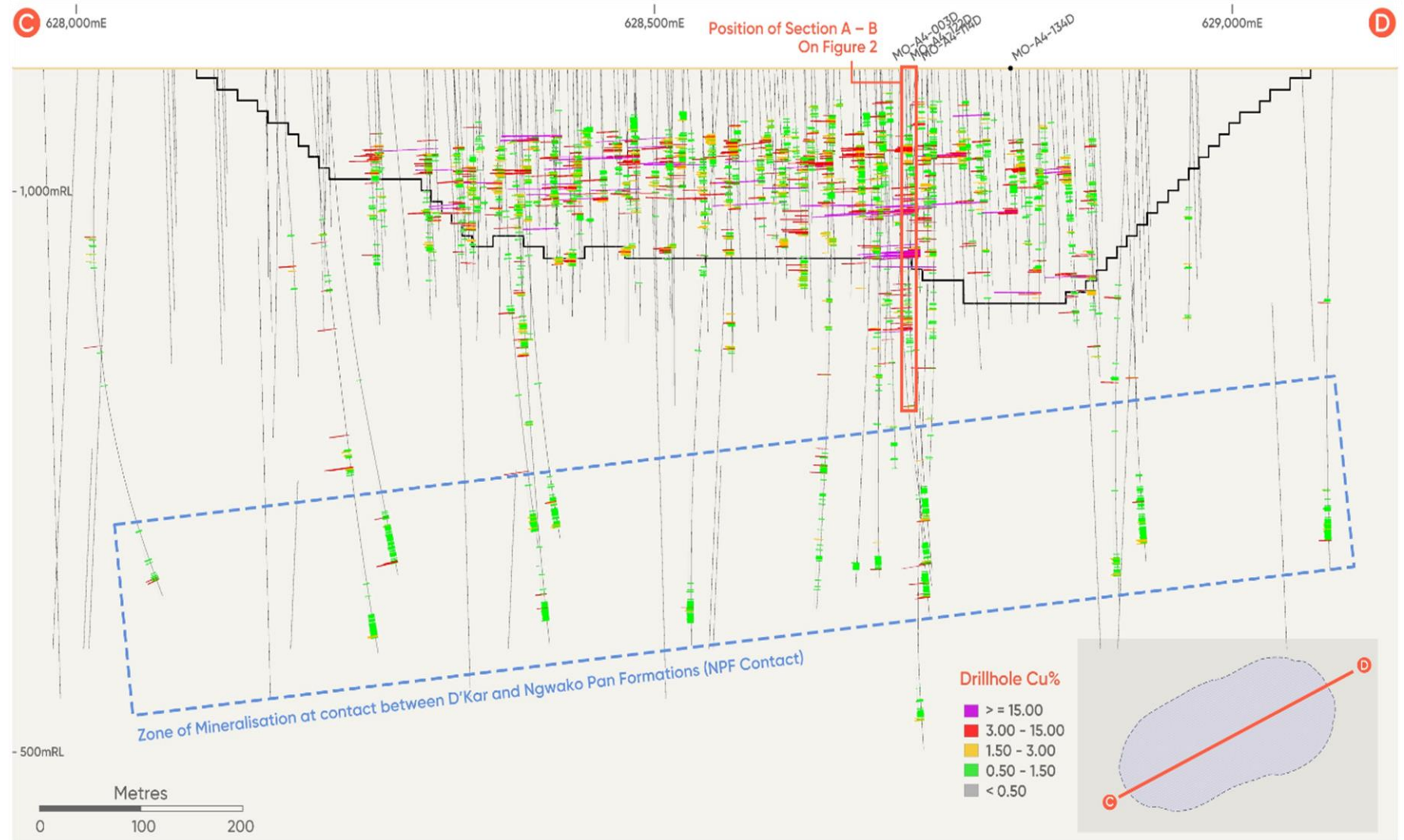
- **35.70m @ 7.1% Cu and 116g/t Ag** from 128.5m down-hole (incl. **12.40m @ 13.3% Cu & 232.8g/t Ag** from 131.6m) - within optimised pit shell



Potential for further discoveries in the A4 Dome along strike and down-dip from current resource and along the extensive NPF contact confirmed in deeper drilling bellow current resource

## Motheo Production Hub

### A4 deposit longitudinal projection



A4 Longitudinal projection looking north showing optimised pit shell for the A4 Maiden Resource and copper grades represented as histograms for holes where assays have been received. Deeper intersections within the blue rectangle are related to NPF contact mineralisation announced previously by MOD Resources Ltd.



## Motheo Production Hub

---

### Next steps

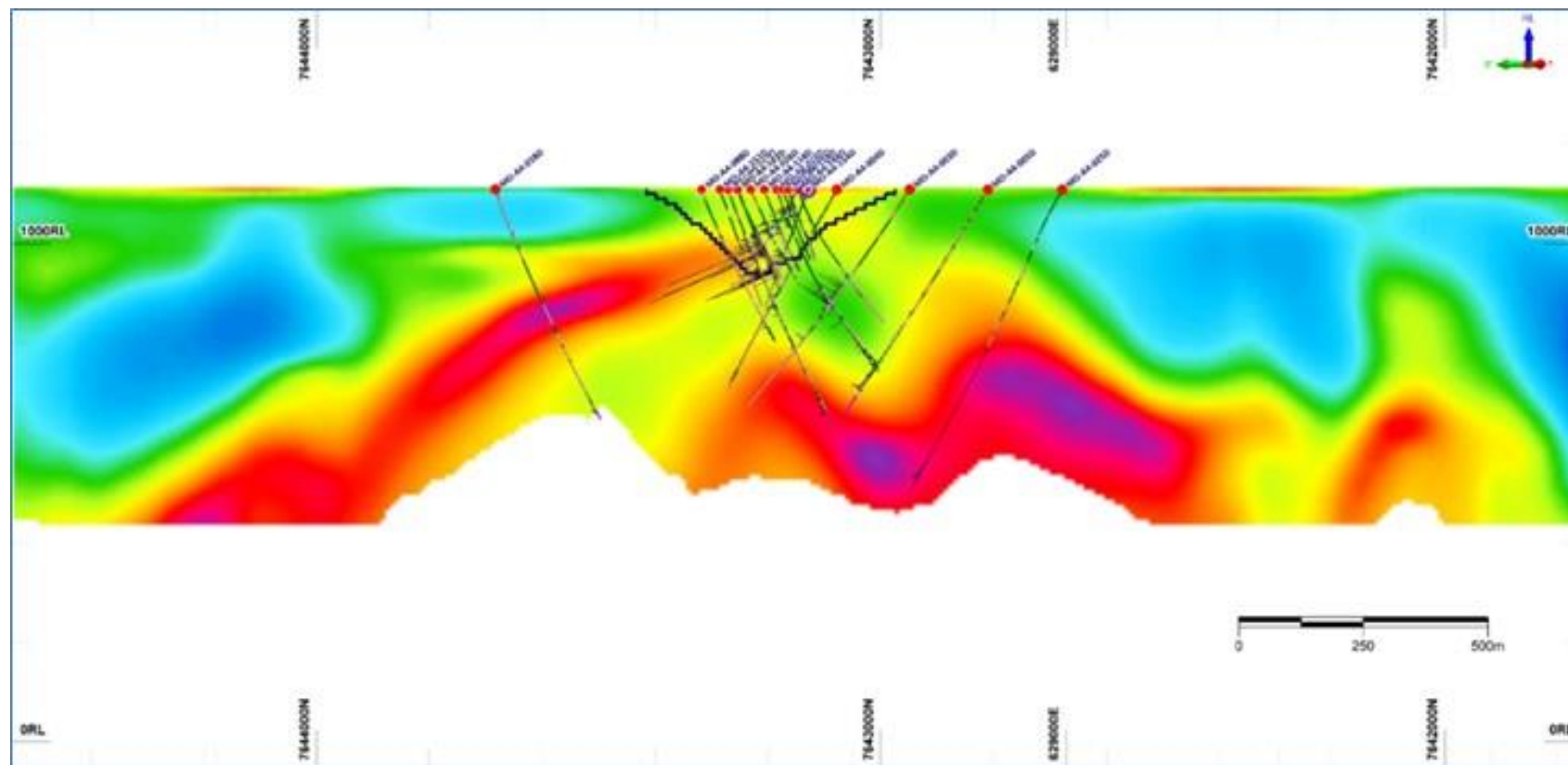
- Submit the T3 Definitive Feasibility Study to the Government of Botswana – right to acquire up to a 15% fully contributing interest in T3, with that decision to be made on or before the date a Mining Licence is granted
- Complete final permitting and secure grant of the Mining Licence for the T3 Project
- Recruit in-country team
- Finalise land access
- Progress project debt funding
- Complete in-fill drilling at the A4 deposit as the basis for Pre-Feasibility and Engineering Studies
- Advance exploration within the T3 Expansion Project targeting potential new deposits
- Ordering long lead items and contracts



## Regional Exploration

### Major regional Airborne-EM Survey Commenced

- A major regional AEM survey covering approximately 13,450km<sup>2</sup> and extending from the Namibian border to the eastern limit of Sandfire's licence holdings has commenced and is expected to continue into early 2021. First data from the survey have been received and initial processing is expected to commence soon.
- A previous AEM survey led to the discovery of A4 in 2018 and identified numerous other targets that still require drilling.



AEM data presented as a cross-section across the A4 Dome to approximately 600m depth showing the optimised pit shell used for the A4 Maiden Mineral Resource estimate and significant drill-hole intersections with copper represented as histograms.

## DeGrussa

Strong  
foundations in  
Western Australia



### DeGrussa Operations, WA

- DeGrussa Copper-Gold Mine
- Monty Copper-Gold Mine

### Exploration

- Greater Doolgunna Province, WA
- East Coast Portfolio (NSW, Qld)



## DeGrussa

## Operations Outlook

### DeGrussa Operations

- FY2021 guidance: positioning for upper end of guidance 67-70kt of contained copper and 36-40koz of contained gold, at C1 US\$0.85-\$0.90/lb
- DeGrussa and Monty Copper-Gold Mines scheduled to combine for 1.6Mtpa head feed to September 2022 Quarter

### DeGrussa and Monty Copper-Gold Mine Ore Reserves as at 31 December 2019

Deposit	Reserve Category	Tonnes (mt)	Copper (%)	Gold (g/t)	Contained Copper (kt)	Contained Gold (koz)
DeGrussa	Proved	2.5	4.4	1.6	109	130
	Probable	0.6	3.0	1.3	18	25
	<b>Total DeGrussa</b>	<b>3.1</b>	<b>4.1</b>	<b>1.6</b>	<b>126</b>	<b>155</b>
Monty	Proved	0.9	7.7	1.7	67	48
	Probable	0.2	4.2	1.0	9	7
	<b>Total Monty</b>	<b>1.1</b>	<b>7.0</b>	<b>1.6</b>	<b>76</b>	<b>55</b>
	<b>Total</b>	<b>4.2</b>	<b>4.9</b>	<b>1.6</b>	<b>203</b>	<b>210</b>

#### Notes:

a) Differences may occur due to rounding.

b) The DeGrussa Copper-Gold Mine Ore Reserve is declared as at 31 December 2019. Material changes have occurred in the period between 1 January 2020 and 30 June 2020 due to mining depletion of approximately 0.6Mt at 4.4%Cu, 1.9g/t Au for 28kt of contained copper and 39koz of contained gold.

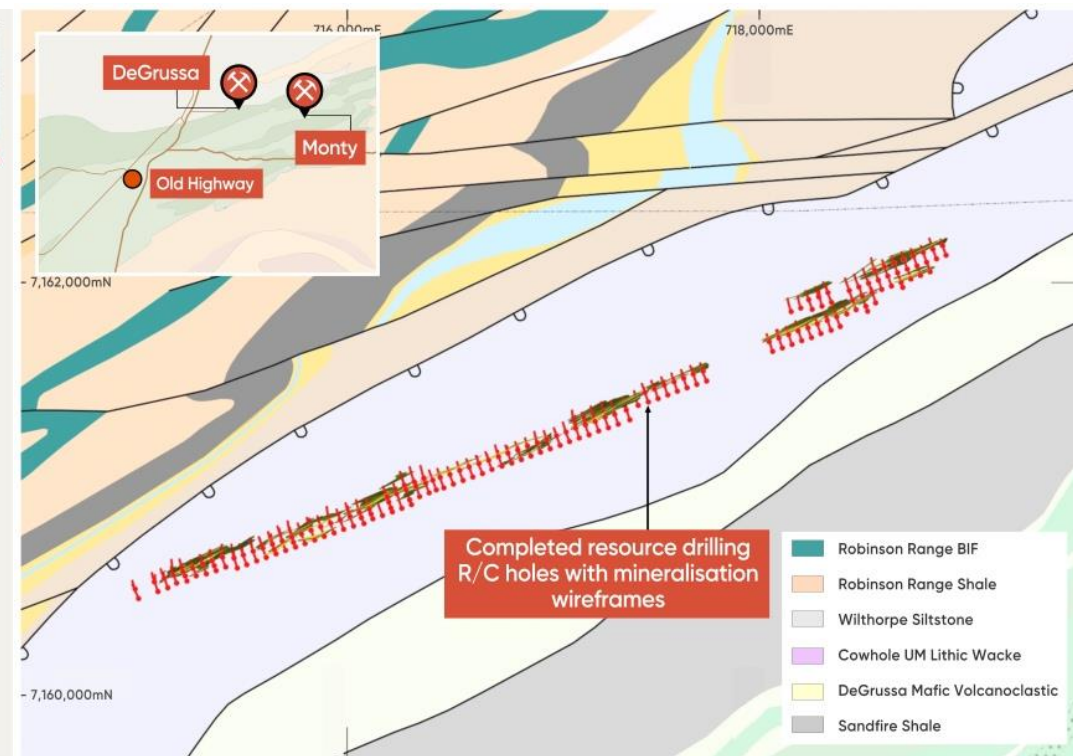
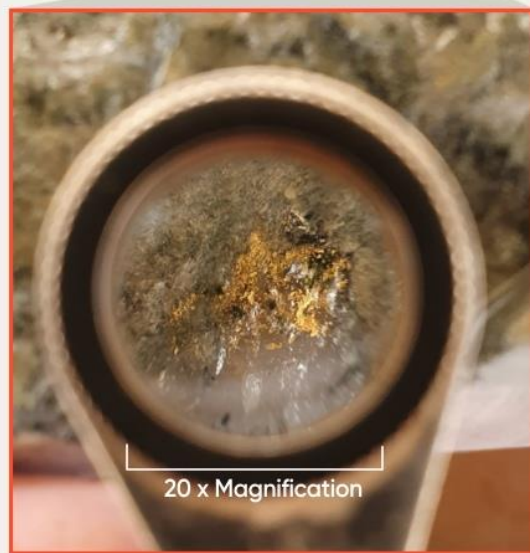
c) The Monty Copper-Gold Mine Ore Reserve is declared as at 31 December 2019. Material changes have occurred in the period between 1 January 2020 and 30 June 2020 due to mining depletion of approximately 0.2Mt at 6.9%Cu, 1.5g/t Au for 16kt of contained copper and 11koz of contained gold.

## DeGrussa

### Gold Transition Strategy

#### Potential transition to gold production at DeGrussa

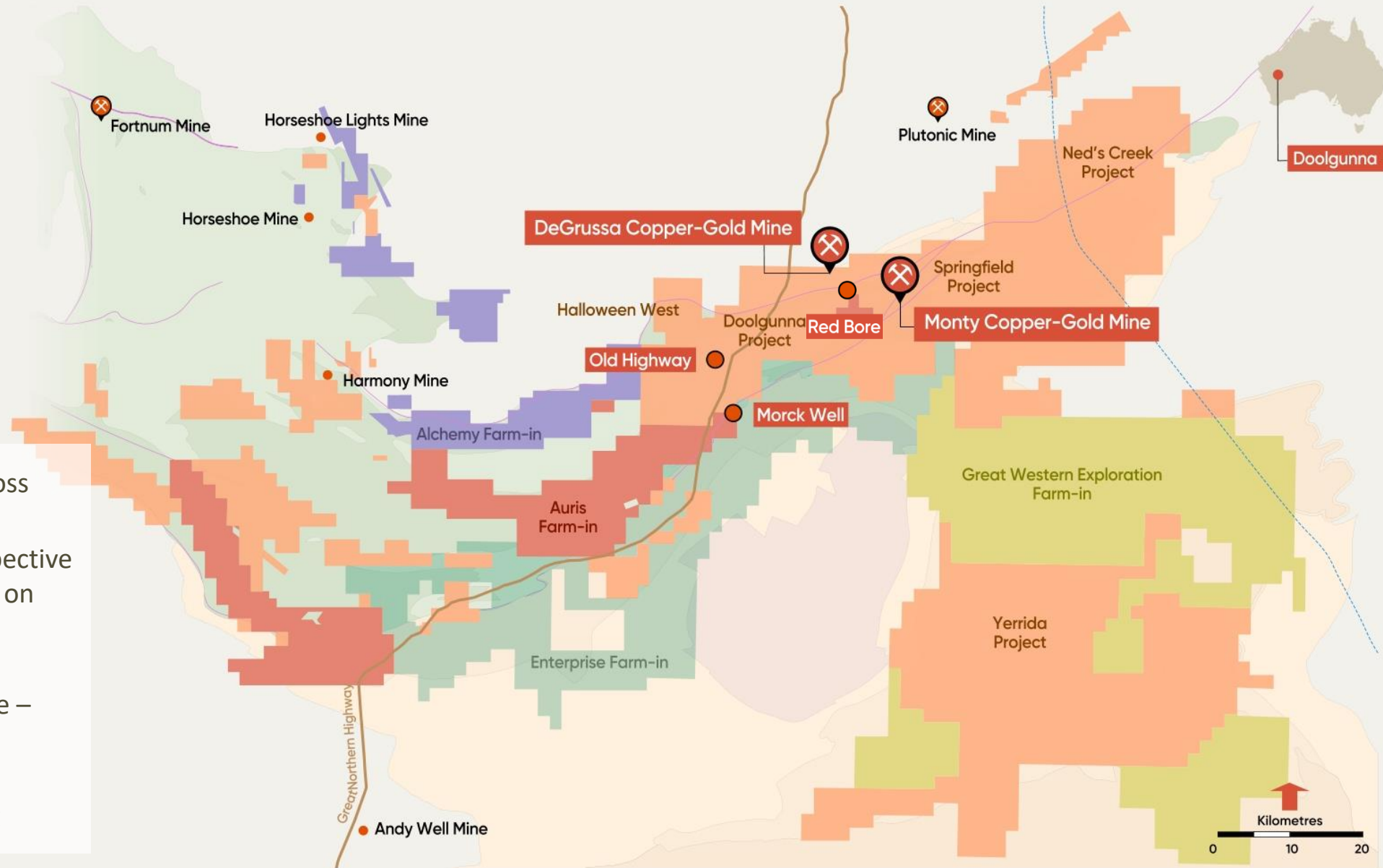
- Resource drilling continues at Old Highway Gold Prospect, 22km from DeGrussa
- Synergies with the DeGrussa Tailings Gold Retreatment Project studies
- Mineralisation hosted in quartz veining associated with shearing in sediments
- Scoping studies to follow
- Potential to open up other gold exploration opportunities in the Doolgunna region



# Doolgunna | World-Class VMS Exploration Project



- Strategic 7,189km<sup>2</sup> footprint across the Bryah Basin
- Over 90km strike length of prospective VMS lithologies – strategic focus on southern limb of Bryah Basin
- Three centres of sulphide mineralisation discovered to date – DeGrussa, Monty, Morck Well
- Extensive and multi-pronged exploration programs continuing





## Doolgunna

### Multi-Pronged Exploration Strategy

#### Doolgunna exploration strategy:

- Accelerate discovery to extend DeGrussa Operations mine life
- Focus on Mineral System Element Processes for deep targeting
- 22 favourable structural corridors identified in the Sandfire managed tenure
- Basin-scale geodynamics review underway
- Rolling out new geophysical technology to allow deeper targeting
- Continue first-pass exploration in prospective areas of the Bryah Basin never previously explored for copper





## Sandfire now manages exploration on the strategically located Red Bore tenement (85% interest)

- Exploration will commence with Moving Loop EM over the tenements and a review of historical data
- Drilling will then be planned utilising new information, and our extensive local geological understanding, targeting additional lenses of massive sulphide mineralization adjacent to DeGrussa

### DeGrussa

### Red Bore Exploration



## Eastern States

### Exploration Projects

- Decades of historic drilling imaged by 3D porphyry geochemical modelling at Temora has aided planning for the current drilling program
- Multivariate analysis of geochemical anomalies combined with ground truthing of geophysical datasets in the Cobar district has identified priority drill targets in a mature district
- Numerous exploration projects have been farmed out to sophisticated exploration partners with significant spending commitments, giving us additional leverage
- Evaluating geological models around Tier-1 deposits and well positioned to take advantage of opportunities as they arise





## Eastern States

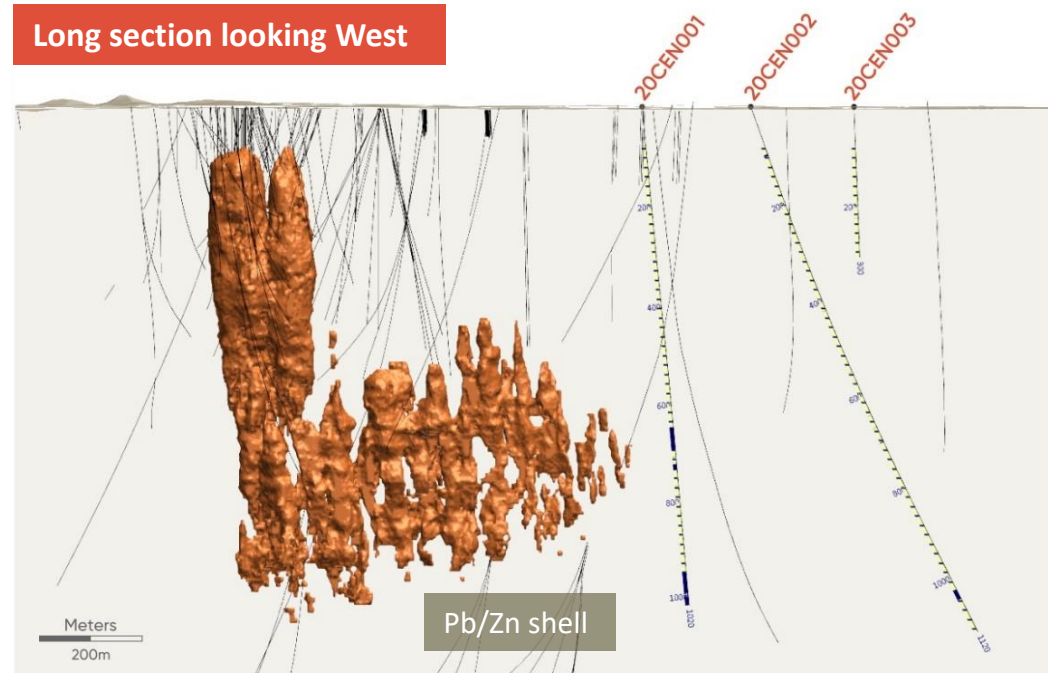
### Endeavor Project

#### Joint Venture with CBH Resources

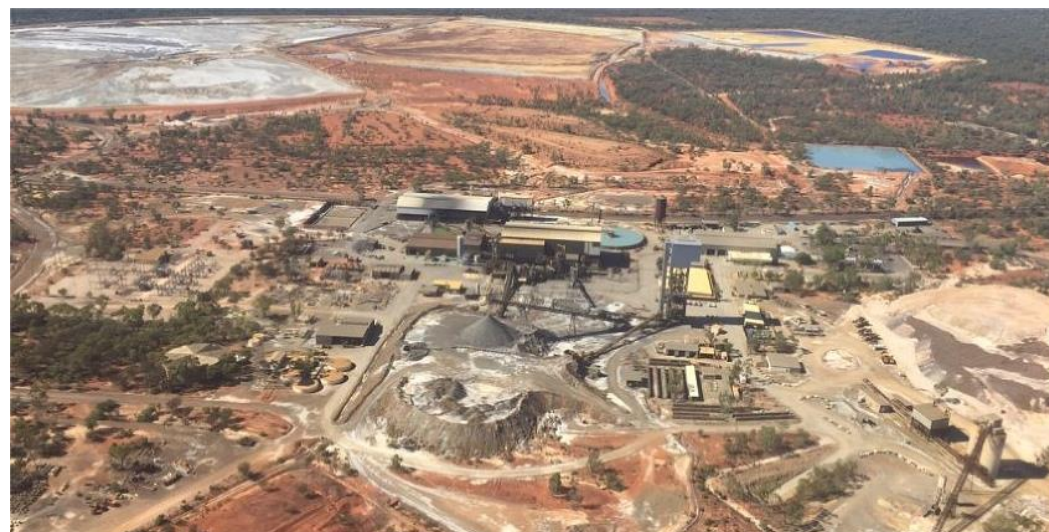
- Historical production of ~30Mt of ore at ~13% Pb/Zn and +65g/t Ag\*
- Farm-in gives Sandfire the right to earn up to 51% by spending \$10m and 75% by spending \$20m, or acquire 100% for a payment of \$30m
- Initial drilling is establishing deep platforms near the mine to deploy advanced DHEM technologies developed at Sandfire's DeGrussa Copper-Gold Mine
- Surface EM techniques will be used over a large portion of the tenure to target new orebodies
- Compilation of historic data has identified multiple targets, for high priority follow-up

\* Refer to CBH Resources Ltd website at [www.cbhresources.com.au](http://www.cbhresources.com.au) for details.

#### Long section looking West



New drilling completed – EM Platforms



## **Black Butte**

Montana, USA



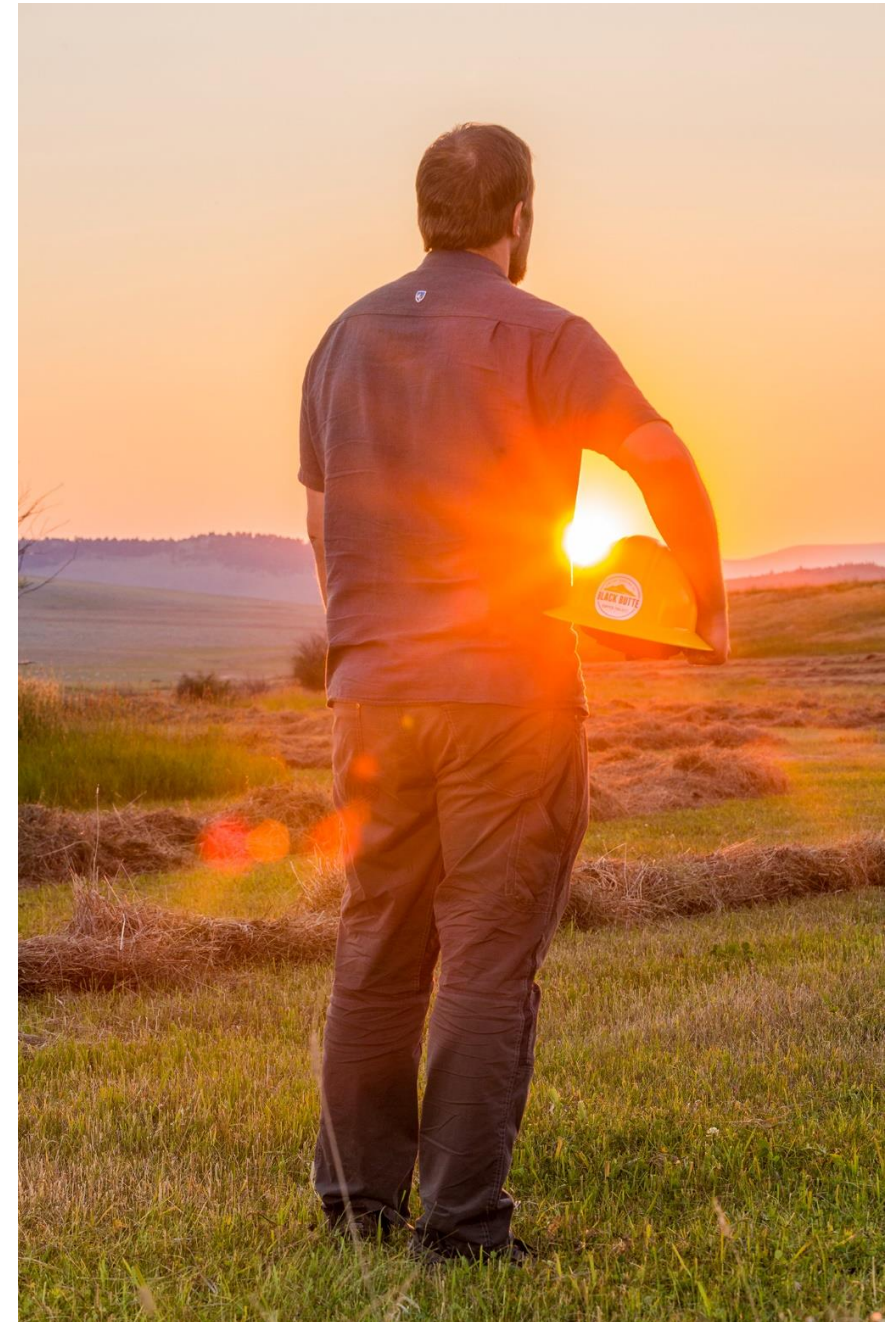
**Black Butte Copper Project, Montana, USA (85%)**

## Black Butte Copper Project

---

### Current activities and outlook

- Early project works
- Enhancement of Feasibility Study being progressed
- Exploration underway within the Mining Lease targeting potential extensions and other near-mine opportunities
- Continuing to respond to and deal with legal challenges
- Further key decisions to be taken during CY2021





## Black Butte Copper Project

### Johnny Lee Feasibility Study – key results

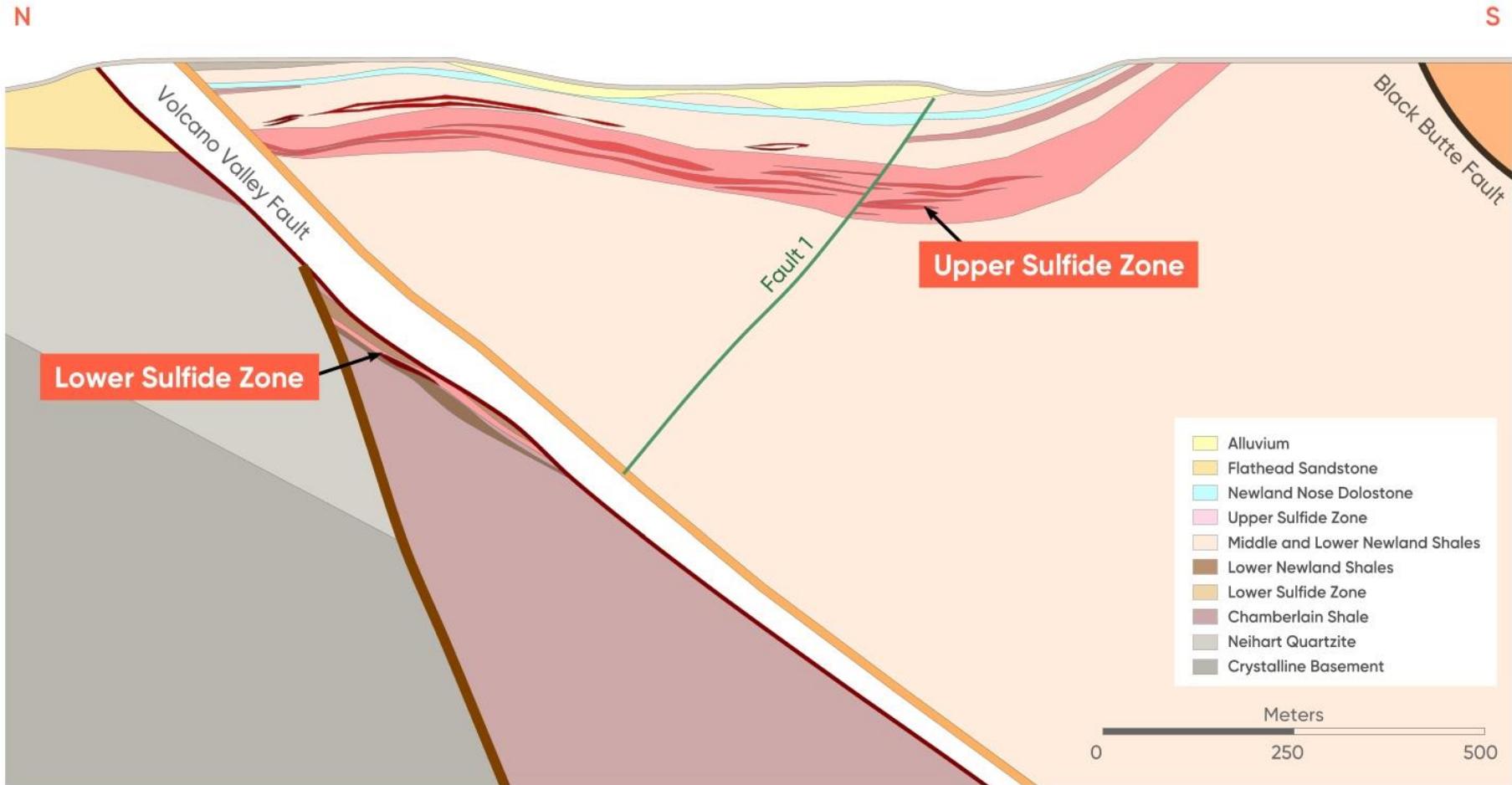
- Maiden Ore Reserve of 8.8Mt at 2.6% Cu for 226,100t of contained copper
- Underpins an 8-year mine life at 1.2 million tonnes per annum
- Forecast LOM production totaling 805,000 dry metric tonnes of copper concentrate containing 189,500t of copper metal
- Average annual production of ~23,000t of copper metal at a C1 unit cost of US\$1.51/lb
- Generates \$1.9 billion (US\$1.3 billion) in gross sales and \$740 million (US\$518 million) in pre-tax net cashflow during operations
- Pre-tax NPV 5% of \$178 million (US\$124.9 million) (IRR=17%) and a post-tax NPV 5% of \$111 million (US\$77.6 million) (IRR=13%)
- Construction capital cost of US\$274.7 million

Refer to Sandfire's ASX Announcement, dated 28 October 2020, titled 'USA and Botswana Development Projects Update' for further details.



# Black Butte Copper Project

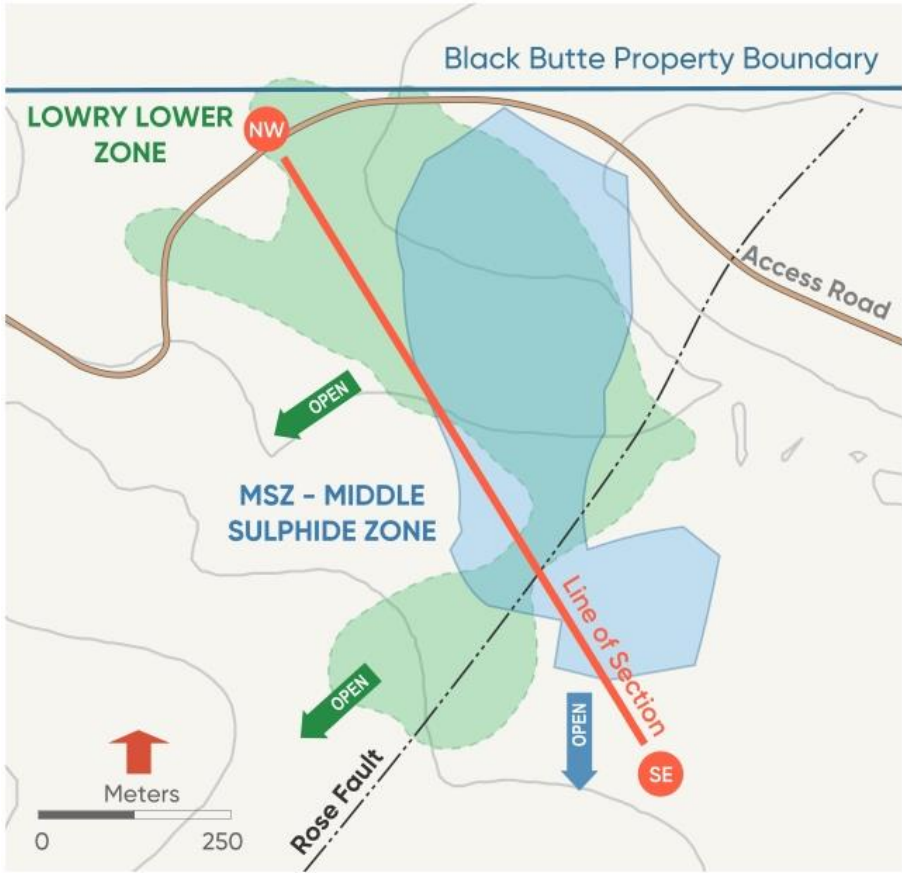
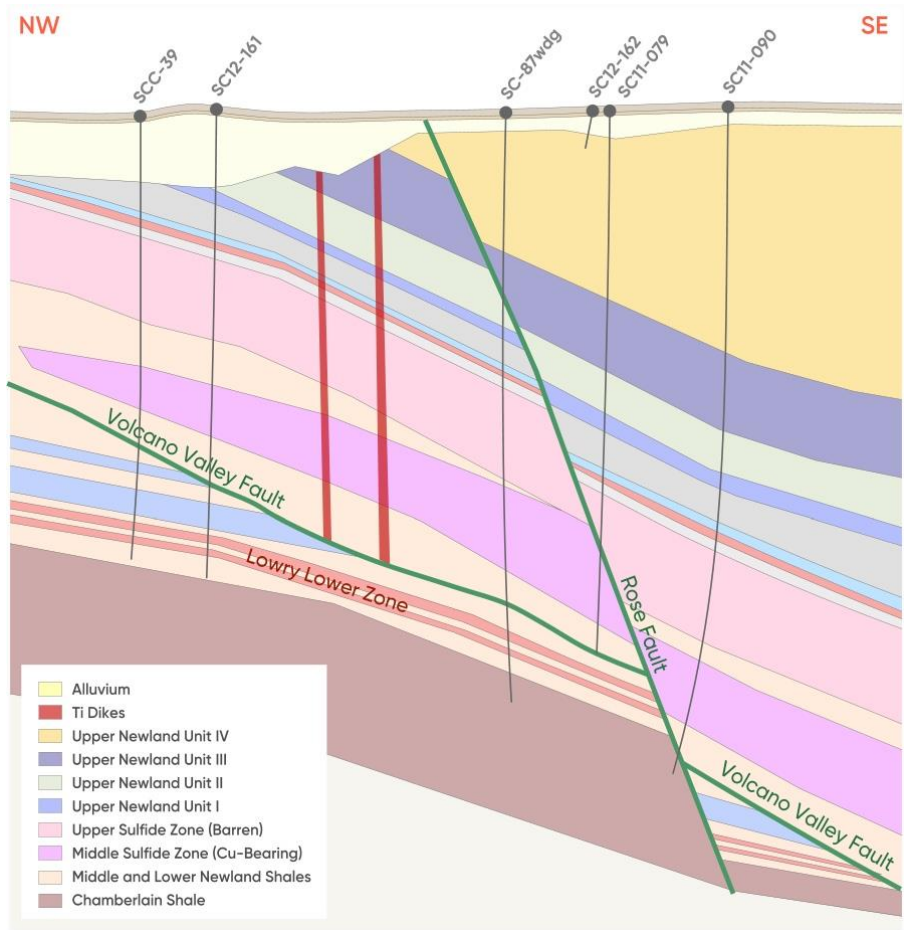
Johnny Lee Ore Reserve and Mineral Resource



Ore Reserve – Johnny Lee (100%)	Tonnes (mt)	Copper (%)	Contained Copper (kt)	Mineral Resource – Johnny Lee (100%)	Tonnes (mt)	Copper (%)	Contained Copper (kt)
Proved	2.0	3.0	61	Measured and Indicated	10.9	2.9	311
Probable	6.8	2.4	165	Inferred Resource	2.7	3.0	80
<b>Total</b>	<b>8.8</b>	<b>2.6</b>	<b>226</b>	<b>Total</b>	<b>13.6</b>	<b>2.9</b>	<b>391</b>

# Black Butte Copper Project

## Lowry Mineral Resource



At Lowry, copper is found in the Middle Sulphide Zone. Lower Zone copper mineralisation is present at both Johnny Lee and Lowry.

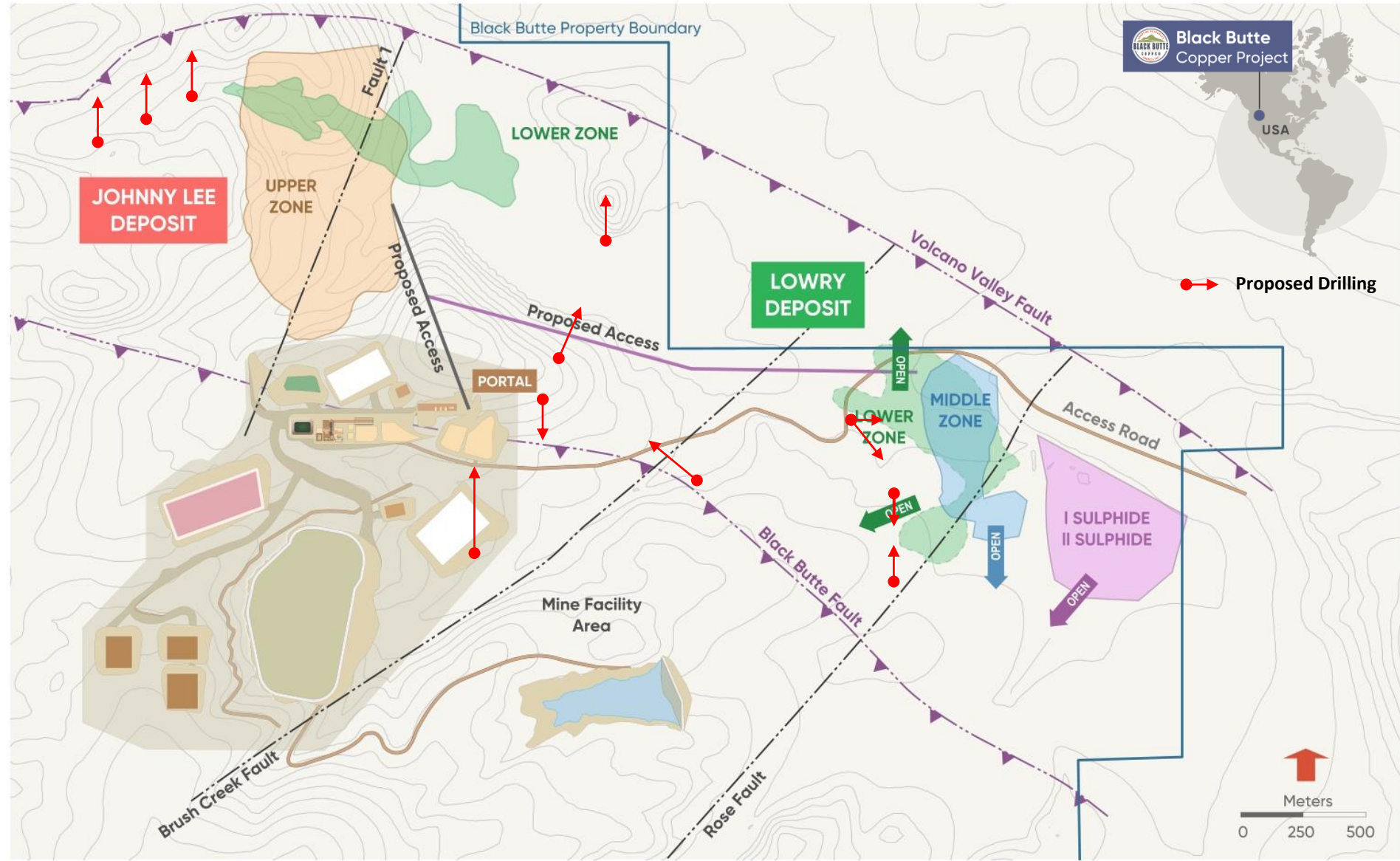
Sub-economic Upper Zone Sulphide is also present at Lowry. The Middle Sulphide Zone potentially extends to the south and south-east, the Lowry Lower Zone is open to the south-west and west.

Mineral Resource – Lowry (100%)	Tonnes (mt)	Copper (%)	Contained Copper (kt)
Inferred Resource	8.3	2.4	199
<b>Total</b>	<b>8.3</b>	<b>2.4</b>	<b>199</b>



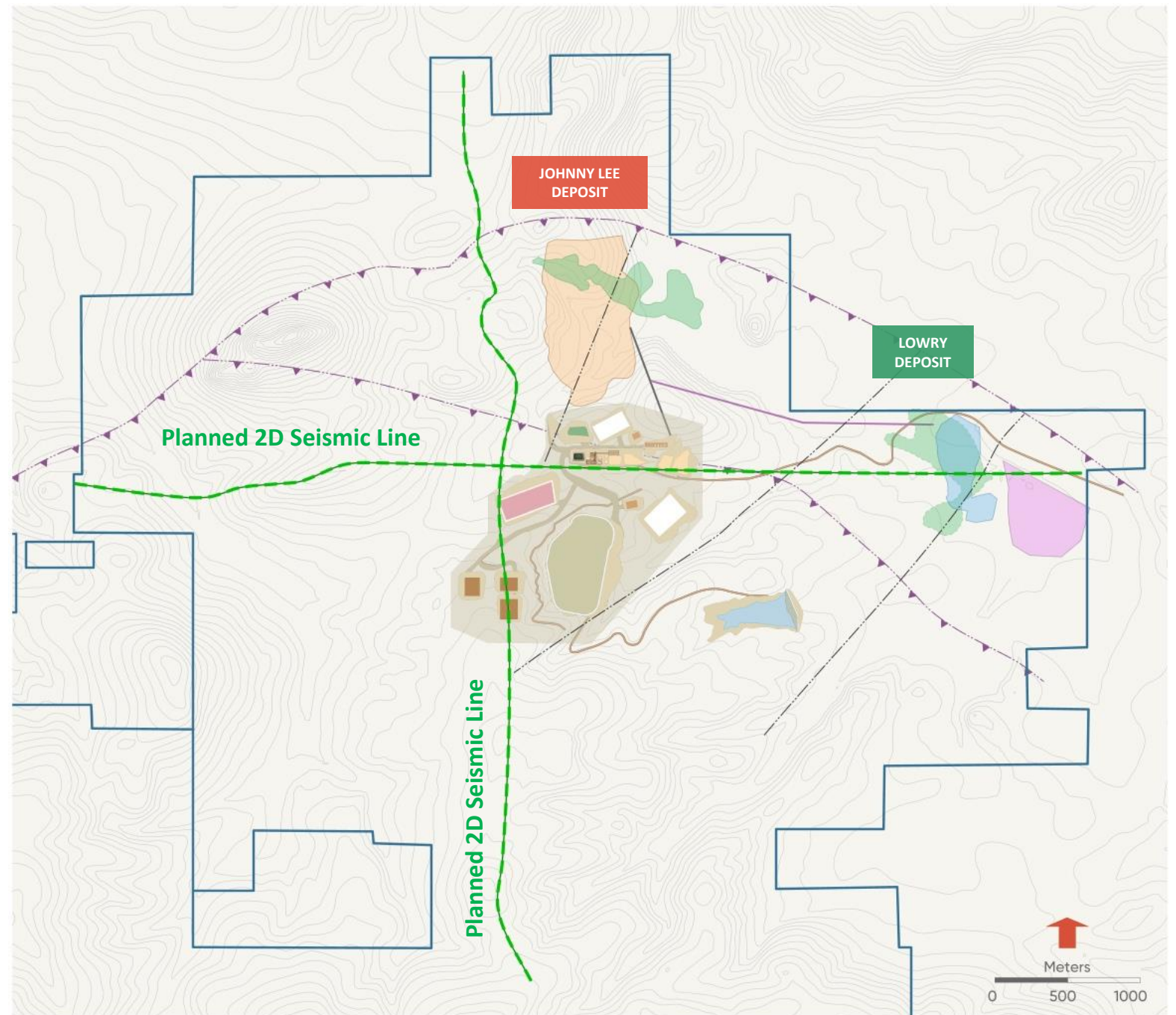
## Black Butte Copper Project

Near-mine  
exploration  
program  
underway



## Black Butte Copper Project

Near-mine  
exploration  
program  
underway

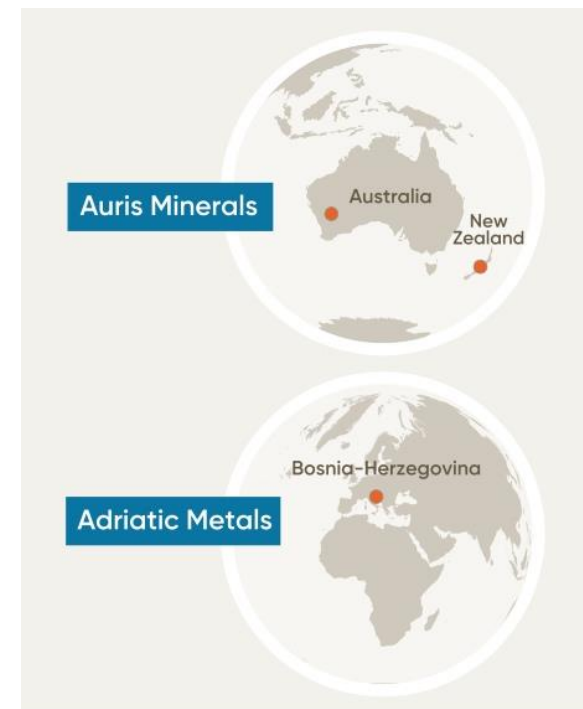




## Sandfire Ventures

Exposure to compelling growth opportunities over the medium term

- Strategic investments in companies with exposure to high-quality base metal and development assets
- Current investments include:
  - Adriatic Metals (ASX: ADT):
    - Base metal exploration/development with high-grade assets in Bosnia-Herzegovina
    - Current 14.2% stake, rising to 16.2% following issue of settlement shares
  - Auris Minerals (ASX: AUR)
    - Base metal exploration in the Bryah Basin (WA) and acquiring the 1Moz Sams Creek Gold Project in NZ
    - Current 7.1% stake, rising to 19.9% following completion of Sams Creek transaction



### Sandfire Ventures

Cost of investments in listed entities

A\$24.6M

Current market value

A\$67.9M

**Unrealised gain**

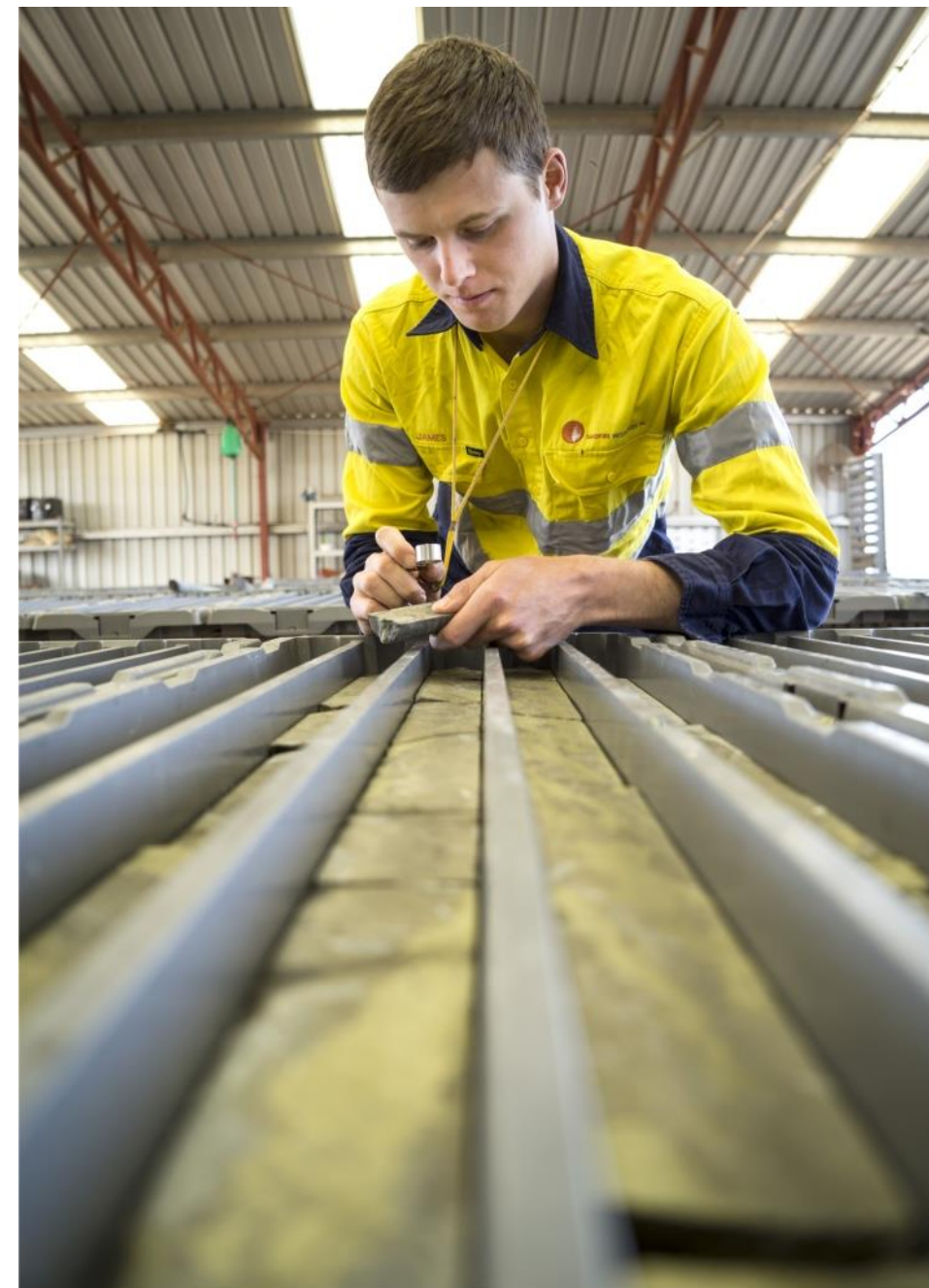
**A\$43.3M**



## Capital Structure

Optimise capital structure

- DeGrussa cash flows and high cash holding leveraging into other international base and precious metals growth opportunities
- No debt, outside lease liabilities
- Project debt finance facility of around 50% targeted for T3 development and working capital
- Strong interest received from international funding banks with initial 3.2Mtpa development
- Scope for further capital structure refinement with a 5.2Mtpa expansion case



## Key takeaways

- ✔ **Strong foundations** – high-margin production and cash-flow, strong debt-free balance sheet
- ✔ **New long-life production hub** being developed in Botswana with construction of T3 commencing in Q3 FY2021
- ✔ **Highly prospective global exploration portfolio** to drive organic growth
- ✔ **A capable and focused** international exploration, development and mining operations team
- ✔ **A strong platform** for long-term value-creation in a rising copper market

Sandfire has begun its transformation from a single-mine company operating in Australia into a diversified and sustainable mining company



### **T3 Ore Reserve**

The information in this report that relates to Open Pit Ore Reserves, is based on information compiled by Mr Jake Fitzsimons who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Fitzsimons is employed by Orelogy Consulting Pty Ltd and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Fitzsimons consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **DeGrussa and Monty Ore Reserve**

The information in this report that relates to Ore Reserves is based on information compiled by Mr Neil Hastings who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hastings is a permanent employee of Sandfire and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Hastings consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Johnny Lee Ore Reserve**

The information in this announcement that relates to the Johnny Lee Ore Reserve is based on information compiled by Mr Brad Evans (MAusIMM, CP(Mining)). Mr Evans has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserve. Mr Evans consents to the inclusion of the matters based on his information in the form and context in which it appears.

### **DeGrussa, Monty, T3 and A4 Mineral Resource**

The information in this report that relates to Mineral Resources is based on information compiled by Mr Callum Browne who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Browne is a permanent employee of Sandfire and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Browne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



### **Johnny Lee and Lowry Mineral Resource**

The information in this announcement that relates to the Johnny Lee and Lowry Mineral Resources is based on information compiled by Mr Erik Ronald (M. Eng., P.Geo, RM-SME, Principal Resource Geology Consultant, SRK). Mr Ronald has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserve. Mr Ronald consents to the inclusion of the matters based on his information in the form and context in which it appears.

### **Exploration Results – Tshukudu**

The information in this report that relates to Exploration Results at the Tshukudu Exploration Project, Botswana is based on information compiled by Mr Julian Hanna who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hanna is a permanent employee of Sandfire and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Hanna consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Exploration Results – Doolgunna**

The information in this report that relates to Exploration Results at Doolgunna is based on information compiled by Mr Shannan Bamforth who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Bamforth is a permanent employee of Sandfire and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bamforth consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Exploration and Resource Targets**

Any discussion in relation to the potential quantity and grade of Exploration and Resource Targets is only conceptual in nature. While Sandfire is continuing exploration programs aimed at reporting additional JORC compliant Mineral Resources, there has been insufficient exploration to define mineral resources in addition to the current JORC compliant Mineral Resource inventory and it is uncertain if further exploration will result in the determination of additional JORC compliant Mineral Resources.




# Sandfire

## A new era

Investor Update and Outlook Presentation

1 December 2020

### Contact Details

-  Level 2, 10 Kings Park Road, West Perth WA 6005 Australia
-  PO BOX 1495, WEST PERTH WA 6872 AUSTRALIA
-  +61 8 6430 3800  +61 8 6430 3849  [www.sandfire.com.au](http://www.sandfire.com.au)