



# September 2021 Quarterly Report Presentation

Karl Simich, Managing Director & CEO  
28 October 2021

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1.00pm (AEDT) at the link below:

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All figures are expressed in Australian dollars unless otherwise stated.

This presentation should be read in conjunction with the Company's September 2021 Quarterly Report released today, 28 October 2021.

**This presentation is authorised for 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.

## Strategy

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Our Purpose  
'Creating value  
through  
opportunity'



## Highlights

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September 2021  
Quarter

- **DeGrussa copper production:** 15,946t of contained copper and 7,515oz of contained gold at C1 US\$1.13/lb:
  - **FY2022 guidance maintained:** 64-68kt Cu and 30-34koz Au; C1 costs ~US\$1.00-\$1.10/lb
  - Maiden Mineral Resource estimate pending and Scoping Study in progress for the Old Highway Gold Prospect and expected to be completed in the March 2022 Quarter
- **5.2Mtpa Motheo Production Hub** concept confirmed:
  - Pre-Feasibility Study for expansion of Motheo Copper Mine supports development of 5.2Mtpa Production Hub
  - Maiden Ore Reserve delivered for the satellite A4 Deposit, 8km west of Motheo: **9.7Mt at 1.2% Cu and 18g/t Ag** for **114,000t of contained copper** and 5.7Moz of contained silver, representing 85% of the contained copper in the updated A4 Mineral Resource announced last Quarter
  - Construction activities continued to ramp up at the Motheo Copper Mine with the 200-person construction camp operational, construction of the access road continuing and bulk earthworks underway
- **Transformational acquisition of MATSA:**
  - Sandfire announced the transformational US\$1.865 billion (A\$2.572 billion) acquisition of the MATSA Mining Complex in Spain, delivering a world-class mining complex comprising three underground mines feeding a 4.7Mtpa central processing facility producing 100-120ktpa Cu Eq
- **Strong \$405.5 million cash holding** at 30 September 2021

## HSEC

The safety, health and wellbeing of our people is integral to our success

### Safety, health and wellbeing

- Total Recordable Injury Frequency Rate (TRIFR) of 5.6 at Quarter-end (4.0 at June 2021 Quarter-end).
- Continued focus on employee and contractor health and wellbeing during the COVID-19 pandemic and response.
- Sandfire awarded the Resources Sector Award for Community Partnerships by DMIRS, Western Australia for the Dandjoo Darbalung - Indigenous Access Program.





## Doolgunna

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Strong  
foundations in  
Western Australia



### **DeGrussa Operations (WA)**

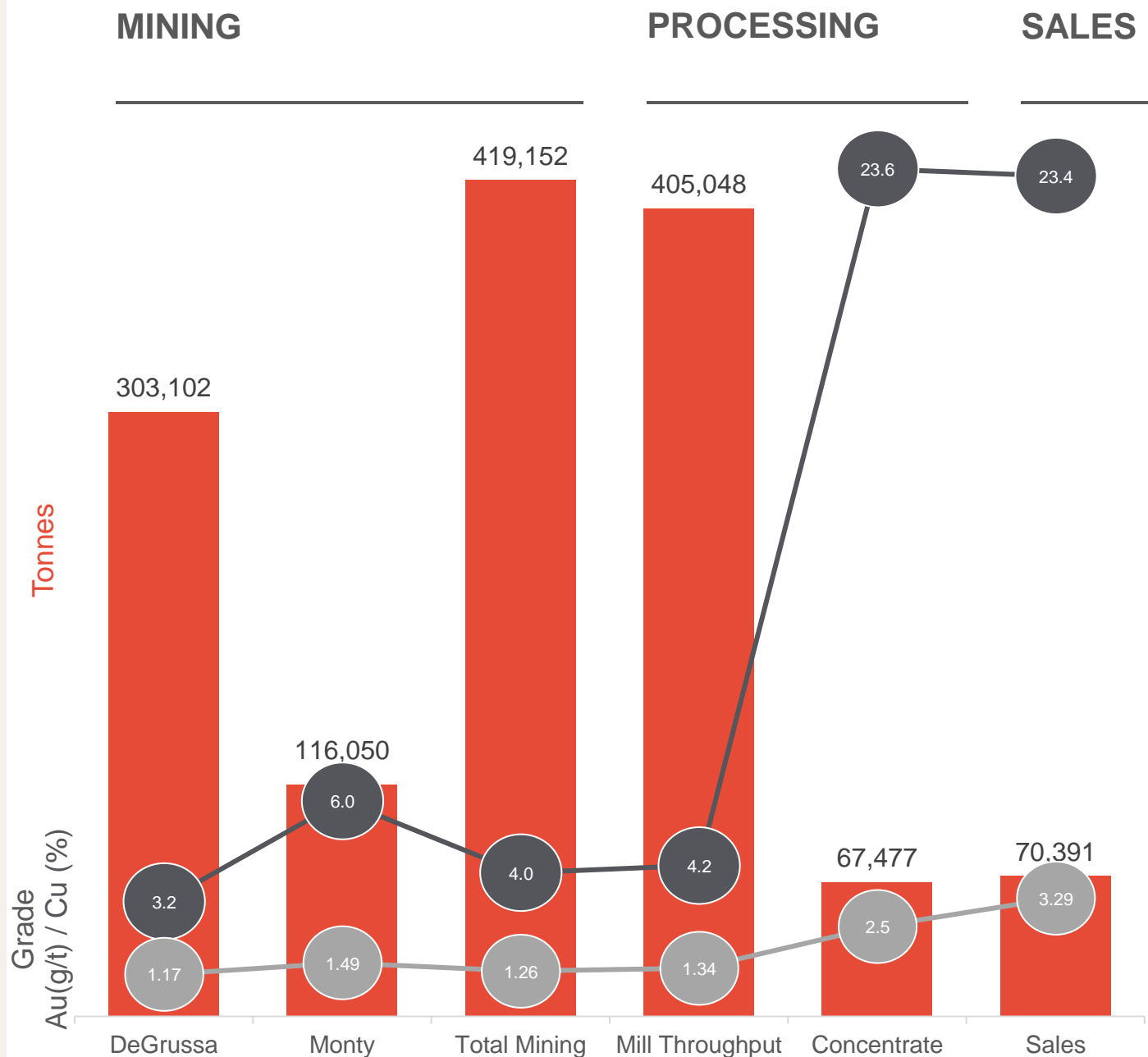
- DeGrussa Copper-Gold Mine
- Monty Copper-Gold Mine

### **Exploration**

- Greater Doolgunna Province, WA
- East Coast Portfolio, NSW

# DeGrussa Operations

September  
Quarter Physicals



C1:  
US\$1.13/lb

Production:  
**15,946t Cu**  
**7,515oz Au**  
contained

Sales:  
**16,872t Cu**  
**8,694oz**  
contained

# Sandfire DeGrussa Operations | Operating costs and capital

Unit operating costs	Q1 FY2022 (US\$/lb)
Mining	0.53
Processing	0.32
Business services	0.13
Transport Costs	0.39
Treatment and refining	0.16
<b>C1 cost (pre by-product credit)</b>	<b>1.53</b>
By-product credit	(0.40)
<b>C1 cost</b>	<b>1.13</b>
Royalties	0.22
<b>Production cost</b>	<b>1.35</b>
Depreciation and amortisation	1.07
<b>Total production cost</b>	<b>2.42</b>

- Q1 FY2022 C1 operating costs of US\$1.13/lb Cu was marginally above plan (+2%) driven by increased ore tonnes mined at a lower grade, higher power costs due to diesel price and higher cement costs for paste fill. Overseas shipping and demurrage aligned with higher market rates.
- Q1 FY2022 DeGrussa Mine development \$9M; FY22 guidance \$41M.
- Q1 FY2022 Monty Mine development \$3M; FY22 guidance \$6M.
- 20,225t of copper concentrate holding at Quarter-end.



# Sandfire Doolgunna | Old Highway Gold Project Resource Definition

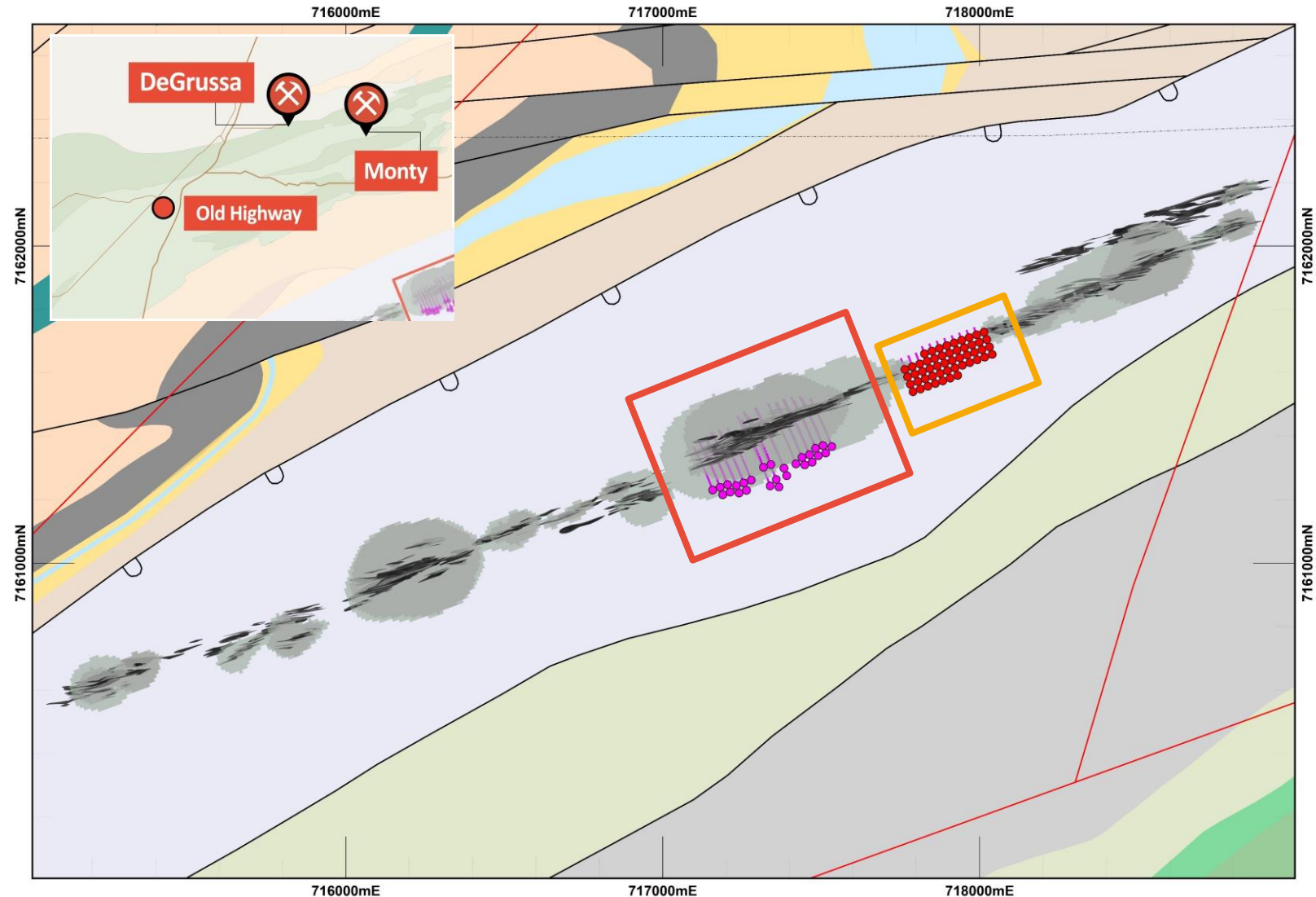
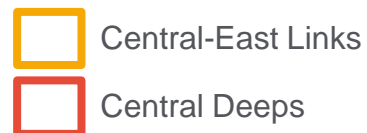
Remaining resource definition drilling programs currently ongoing.

## Central Deeps:

- 25m x 25m diamond pattern revised to 50m x 100m spacing designed to test for down-dip extensions to mineralisation at Old Highway.
- Planned total of 25 diamond drill holes totalling 9,370m.

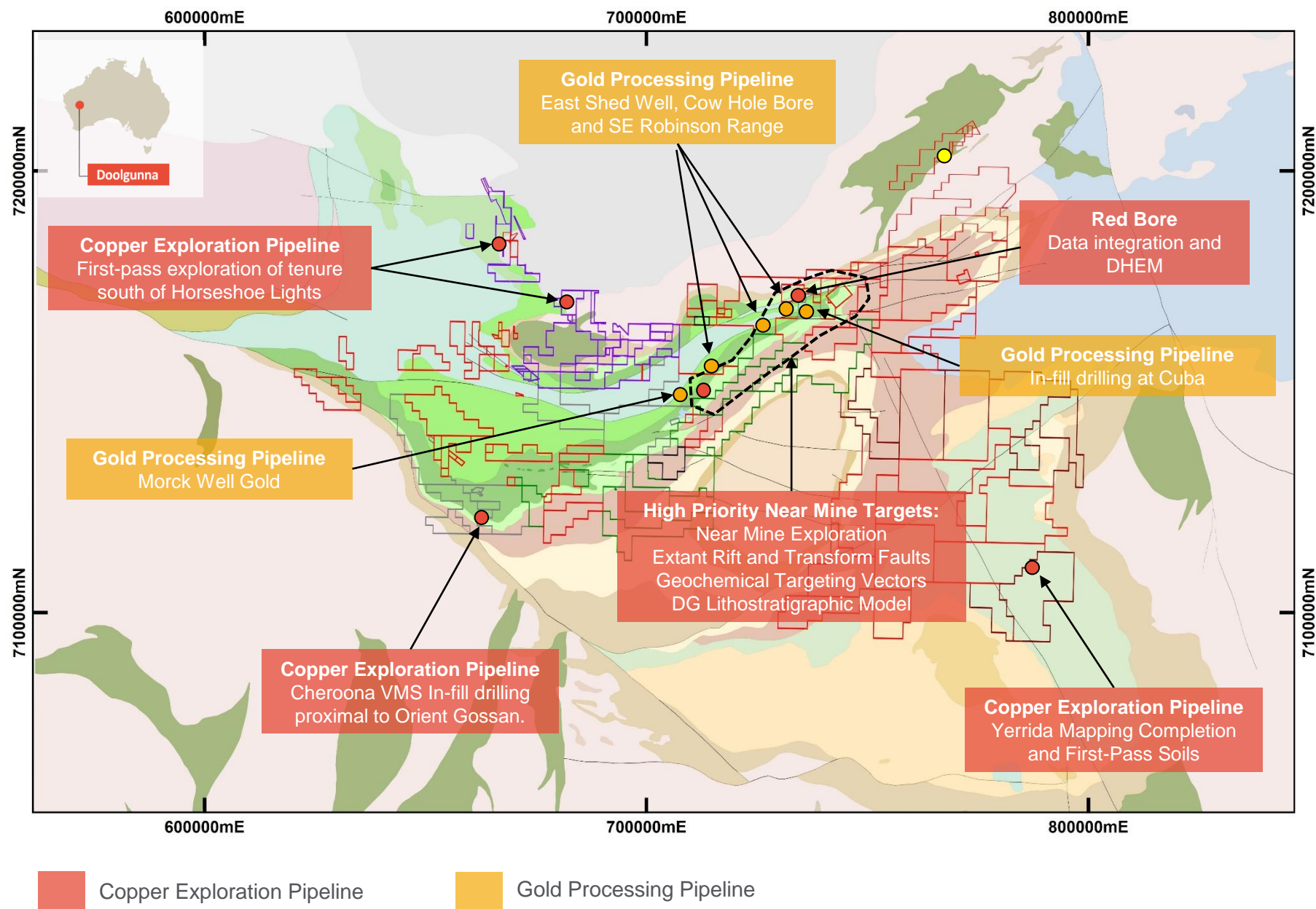
## Central-East Links:

- 25m x 25m RC pattern revised to 50m x 50m spacing, with a focus on the deeper portion of the program.
- Planned total of 20 RC holes totalling 2,445m.



# Doolgunna

## Dual-track exploration strategy



## Kalahari

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Expanding  
horizons in  
Botswana and  
Namibia



### **Kalahari (Botswana and Namibia)**

- Motheo Copper Mine
- Motheo Expansion Project
- Extensive Kalahari exploration portfolio (Botswana and Namibia)

## Motheo Production Hub

### A4 Mineral Resource update

#### July 2021 A4 Mineral Resource

Cu% Cut-Off	Mineral Resource Category	Weathering	Tonnes	Copper Grade (%Cu)	Silver Grade (ppm Ag)	Contained Cu (t)	Contained Ag (oz)
0.50%	Indicated	Saprolite	550,000	1.0	7.0	6,000	100,000
		Saprock	1,340,000	1.5	14.0	20,000	600,000
		Fresh	7,000,000	1.4	24.0	99,000	5,400,000
	<b>Total Indicated</b>		<b>8,900,000</b>	<b>1.4</b>	<b>22.0</b>	<b>124,000</b>	<b>6,200,000</b>
	Inferred	Saprolite	30,000	1.4	2.0	-	-
		Saprock	40,000	0.9	6.0	-	-
		Fresh	850,000	1.0	16.0	9,000	400,000
	<b>Total Inferred</b>		<b>920,000</b>	<b>1.0</b>	<b>15.0</b>	<b>9,000</b>	<b>400,000</b>
	<b>GRAND TOTAL</b>		<b>9,820,000</b>	<b>1.4</b>	<b>21.0</b>	<b>134,000</b>	<b>6,600,000</b>

Notes:

Calculations have been rounded to the nearest: 10kt; 0.1% Cu grade; 1kt Cu metal, 1g/t Ag grade; and 100koz Ag metal. Differences may occur due to rounding.

Full details of the A4 Mineral Resource update were provided in the Company's ASX Announcement titled 'Updated Mineral Resource for a \$ Copper-Silver Deposit' dated 21 July 2021.

- Updated Indicated and Inferred A4 Mineral Resource delivered a 34% increase in contained copper compared to the maiden Inferred Mineral Resource (released December 2020).

## Motheo Production Hub

### A4 Maiden Ore Reserve

#### A4 Open Pit Ore Reserve

Ore Reserve Category	Tonnes (Mt)	Copper Grade (%)	Contained Copper (Kt)	Silver Grade (g/t)	Contained Silver (Moz)
Probable	9.7	1.2	114	18.0	5.7
<b>Total</b>	<b>9.7</b>	<b>1.2</b>	<b>114</b>	<b>18.0</b>	<b>5.7</b>

Notes:

1. The Probable Ore Reserve is based on the Indicated category of the Mineral Resource. No Inferred category has been included.
2. The copper cut-off grade is variable, based on silver credits, contaminant penalties and variable metal recovery dependent on head grades for copper, silver, sulphur, arsenic, lead, zinc and the ratio of copper to acid soluble copper. A net smelter return (NSR) value was used to define the economic material for the Ore Reserve Estimate. An elevated copper cut-off grade of 0.5% was used for the majority of the life of mine (LOM). Material between the NSR marginal cut-off and the elevated cut-off was used to maintain plant feed and manage total material movement rates.
3. The minimum copper grade used in the NSR calculations was 0.25% Cu after deducting any acid soluble copper. In a scheduling period, the lowest average grade of ore added to the process plant feed was 0.54% Cu.
4. Ore Reserves are estimated based on a copper price of US\$3.40/lb and a silver price of \$18.77/oz.
5. Ore loss and dilution were applied to the Mineral Resource model which resulted in an ore loss of approximately 12% at 0.79% Cu and a diluted tonnage addition of approximately 16% at 0.0% Cu.
6. Metallurgical test work recoveries were applied in accordance to the recovery algorithms developed from the variability test work program conducted for the pre-feasibility study.

- Completion of Motheo Expansion Case Pre-Feasibility Study (PFS) supported reporting of a maiden Ore Reserve for A4.



# Motheo Production Hub

## Expansion Case PFS key elements

- Open pit mine at A4 – 1.2km long x 0.5km wide to be mined in 2 stages
- Expansion of the Motheo Processing Plant to 5.2Mtpa capacity
- Supporting infrastructure – breakdown workshops, fuel storage, power and office facilities
- Open pit dewatering infrastructure
- Haul road and services corridor linking A4 to the Motheo Processing Plant
- Light vehicle access road linking A4 to the permanent accommodation facility







## Motheo Production Hub

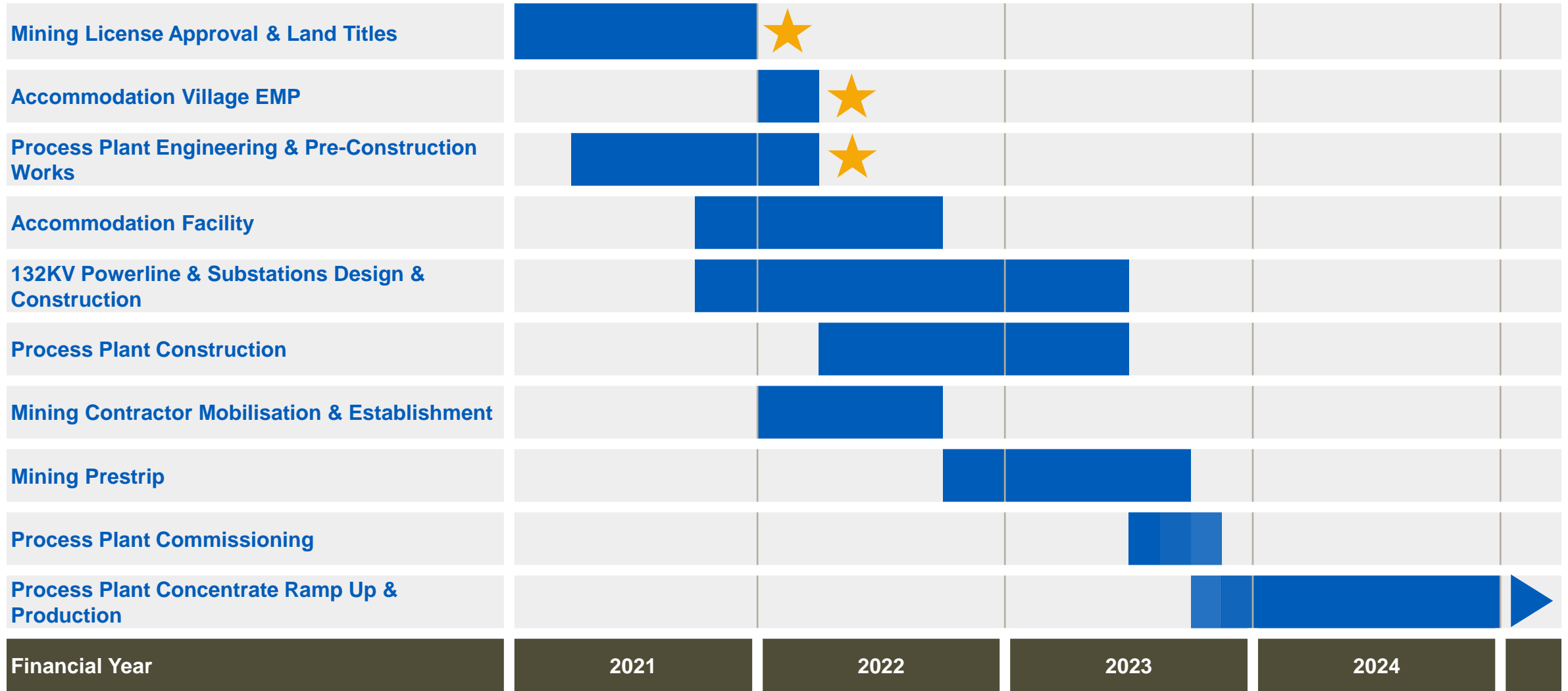
### Expansion case pre-feasibility study outcomes

- **47% increase** in estimated life-of-mine revenue to **US\$3.6 billion** (A\$4.9 billion) using an updated forecast long-term copper price of US\$3.49/lb
- **116% increase** in pre-tax **NPV<sub>7%</sub>** to **US\$682 million** (A\$937 million) and IRR of 36%
- **99% increase** in post-tax **NPV<sub>7%</sub>** to **US\$417 million** (A\$574 million)
- **88% increase** in pre-tax net cash-flow to **US\$1.24 billion** (A\$1.70 billion)
- **Payback** period reduced to **2.9 years** (previously 3.2 years) from production start
- **US\$71 million** (A\$98 million) **pre-production capital** (inclusive of US\$20m pre-approved) for process plant expansion to 5.2Mtpa and development of A4 open pit
- **Mine life** of **10.5 years** with a peak **production of 60Ktpa** of copper in concentrate
- **20% decrease** in LOM C1 cash costs to **US\$1.32/lb** and **15% decrease** LOM AISC to **US\$1.56/lb**

Key drivers	Unit	3.2Mtpa Base Case	5.2Mtpa Expansion Case	Var. %
Physicals				
Life of Mine (processing)	Years	12.5	10.5	-16%
Waste : Ore (inc. pre-strip)		6.1	6.5	7%
Cu grade	%	0.9	0.96	6%
Ag grade	g/t	12.2	13.4	10%
Cu recovery	%	92.1	92.3	0%
Ag recovery	%	87.3	88.2	1%
Cu in concentrate	kt	331	437	32%
Economic				
Cu price (LOM average) <sup>1</sup>	US\$/lb	3.16	3.49	11%
Ag price (LOM average)	US\$/oz	18.48	21.51	16%
Capex: Development & Pre-strip	US\$'M	259	366	41%
Capex: LOM	US\$'M	324	454	40%
Net cash flow (pre-tax)	US\$'M	661	1,241	88%
NPV (pre-tax, real, 7.0%)	US\$'M	316	682	116%
NPV (post-tax, real, 7.0%)	US\$'M	210	417	99%
IRR (pre-tax, real)	%	25.5	36.2	42%
Capital payback (from 1st production)	Years	3.8	2.9	(24%)
C1: LOM	US\$/lb	1.65	1.32	(20%)
AISC: LOM	US\$/lb	1.84	1.56	(15%)

1. Financial outcomes from the Base Case 3.2Mtpa DFS released on 1 December 2020 have been updated using an assumed copper price of US\$3.49/lb, reflecting long-term consensus forecasts, and bringing them in-line with the assumptions used in the Expansion Case 5.2Mtpa PFS reported in this announcement.

# Motheo Development Timeline



## Motheo Copper Mine

### Key Progress

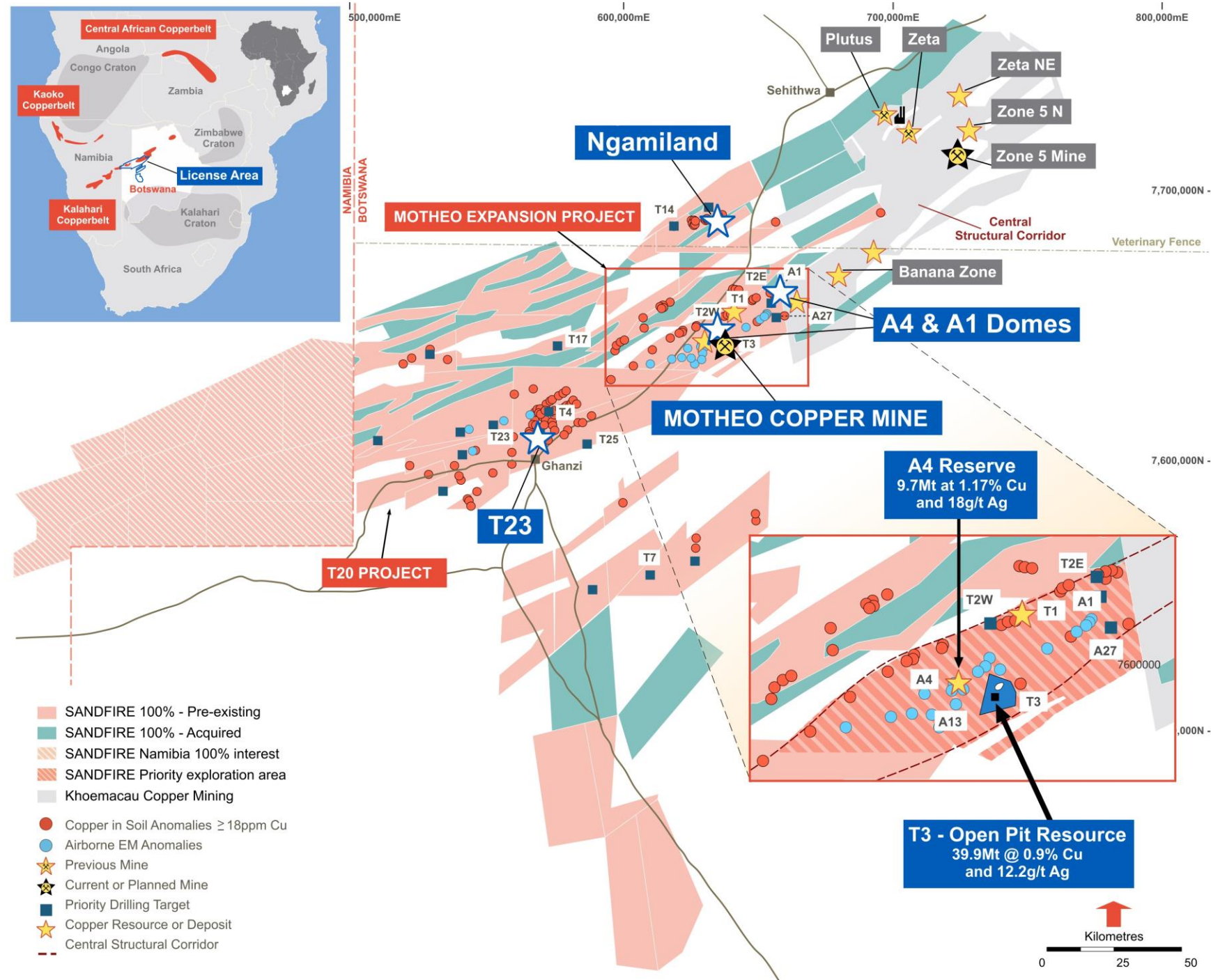
- Development is proceeding to plan
- Perenti is on track to commence mobilisation to site in November 2021
- Country Head and GM Operations now in-country
- The major earthworks contractor has mobilised to site and commenced works
- Construction accommodation village is now well advanced with 200 rooms operational
- Concrete, permanent accommodation village and HV contractors are currently mobilising to site
- Detailed engineering design of the process plant complete
- Expansion Case PFS and Maiden Ore Reserve estimate for A4 completed. Feasibility Study is on track for completion in March 2022 Quarter
- Project debt funding discussions progressing





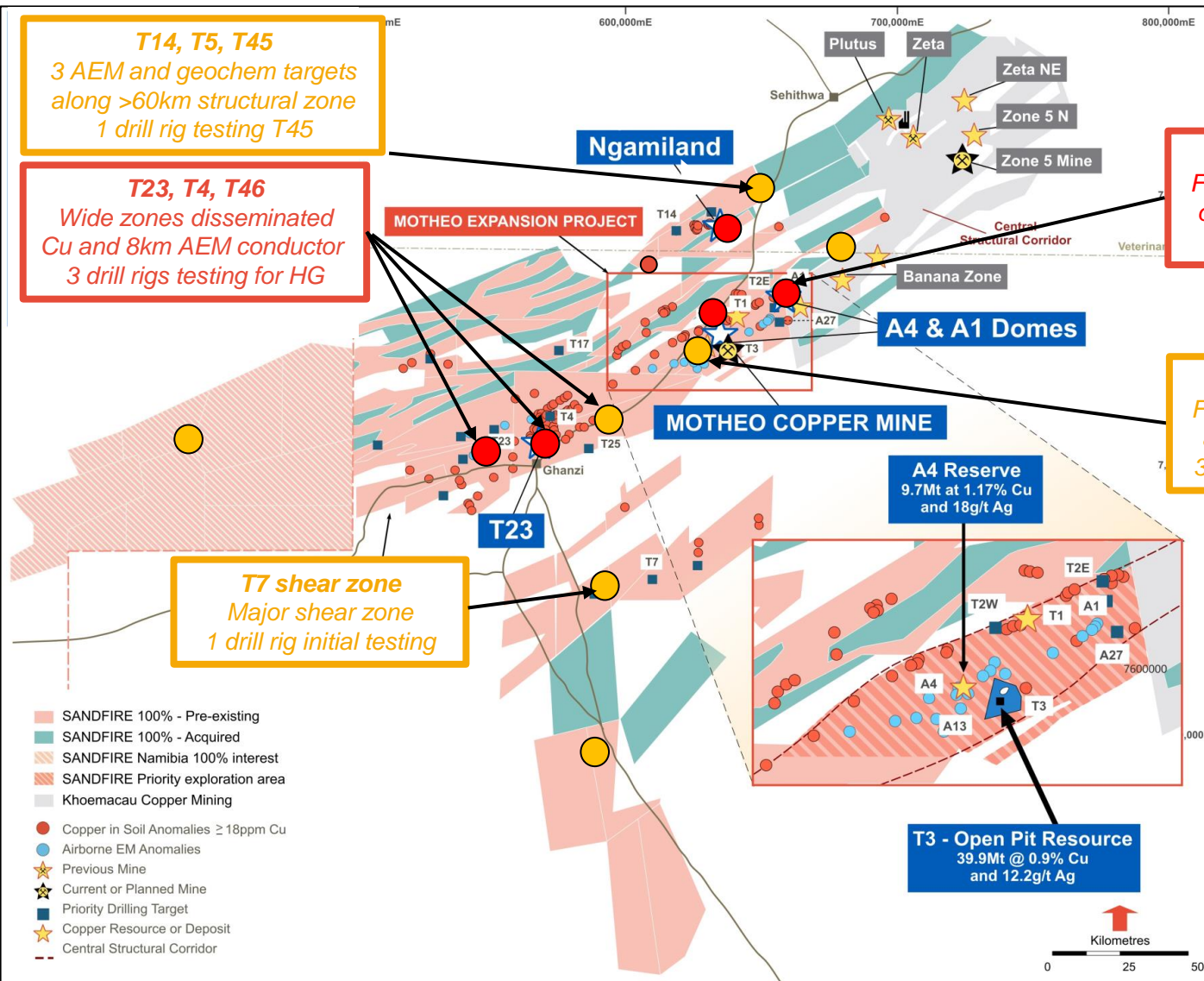
# Kalahari Copper Belt

Consolidation of exploration ground in Botswana





# Sandfire Kalahari Exploration – Priority Target Areas



- Currently 8 diamond and reverse circulation drill rigs in operation – increasing to 10 drill rigs in November
- Motheo Expansion Project remains a high priority targeting high grade vein mineralisation (A4 West, A1 Dome)
- Sheared NPF contact zones targeting vein hosted Cu mineralisation similar to Zone 5 Mine (T1, T2E)
- Regional drilling targeting major mineralised shear zones (T23, T4, T46 and T14, T5, T45)



New identified/acquired targets FY21



Previously identified Cu-Ag targets

## Black Butte

Montana, USA



### **Black Butte Copper Project (Montana, USA) (87%)**

- Johnny Lee Copper Deposit
- Lowry Deposit



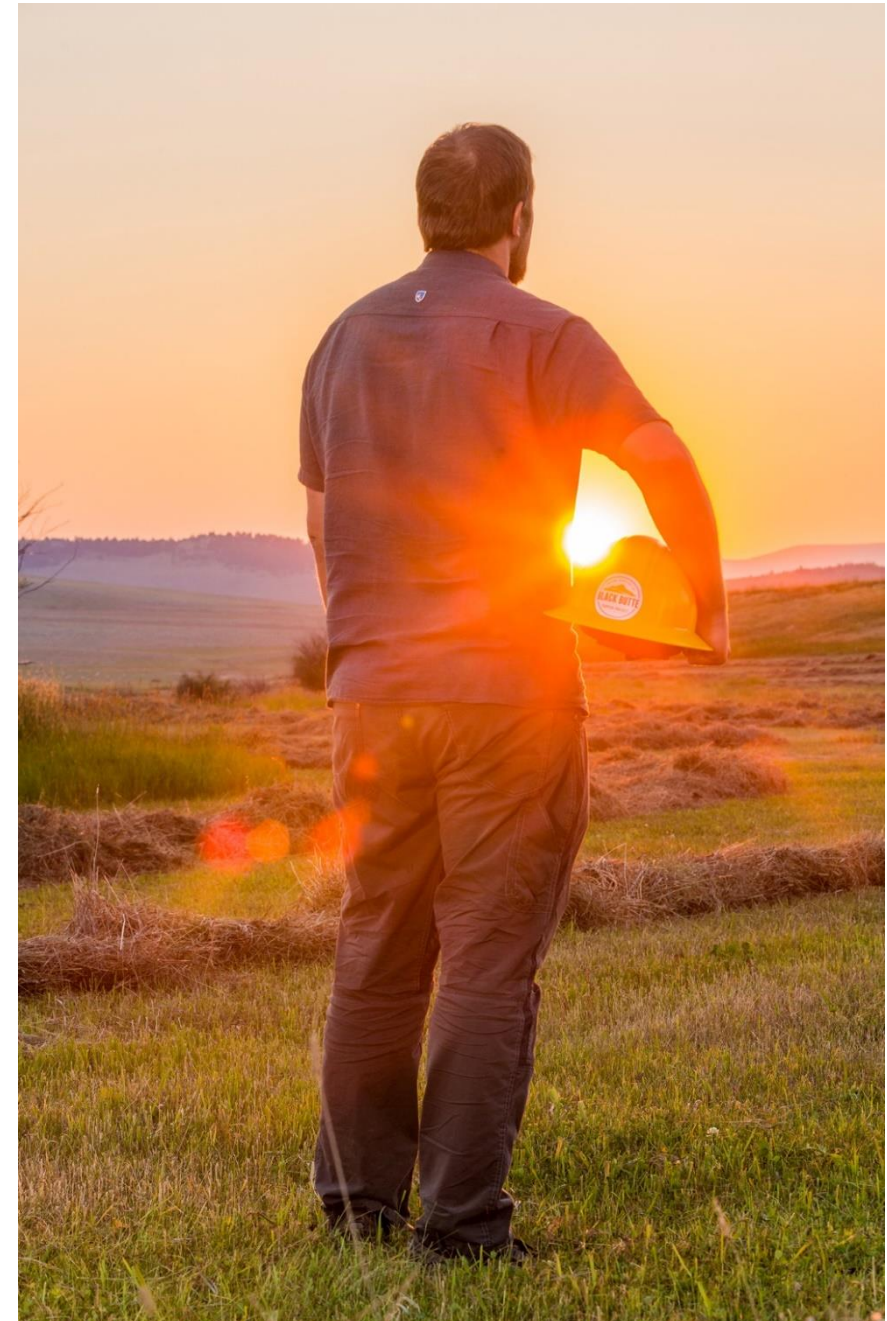


## Black Butte

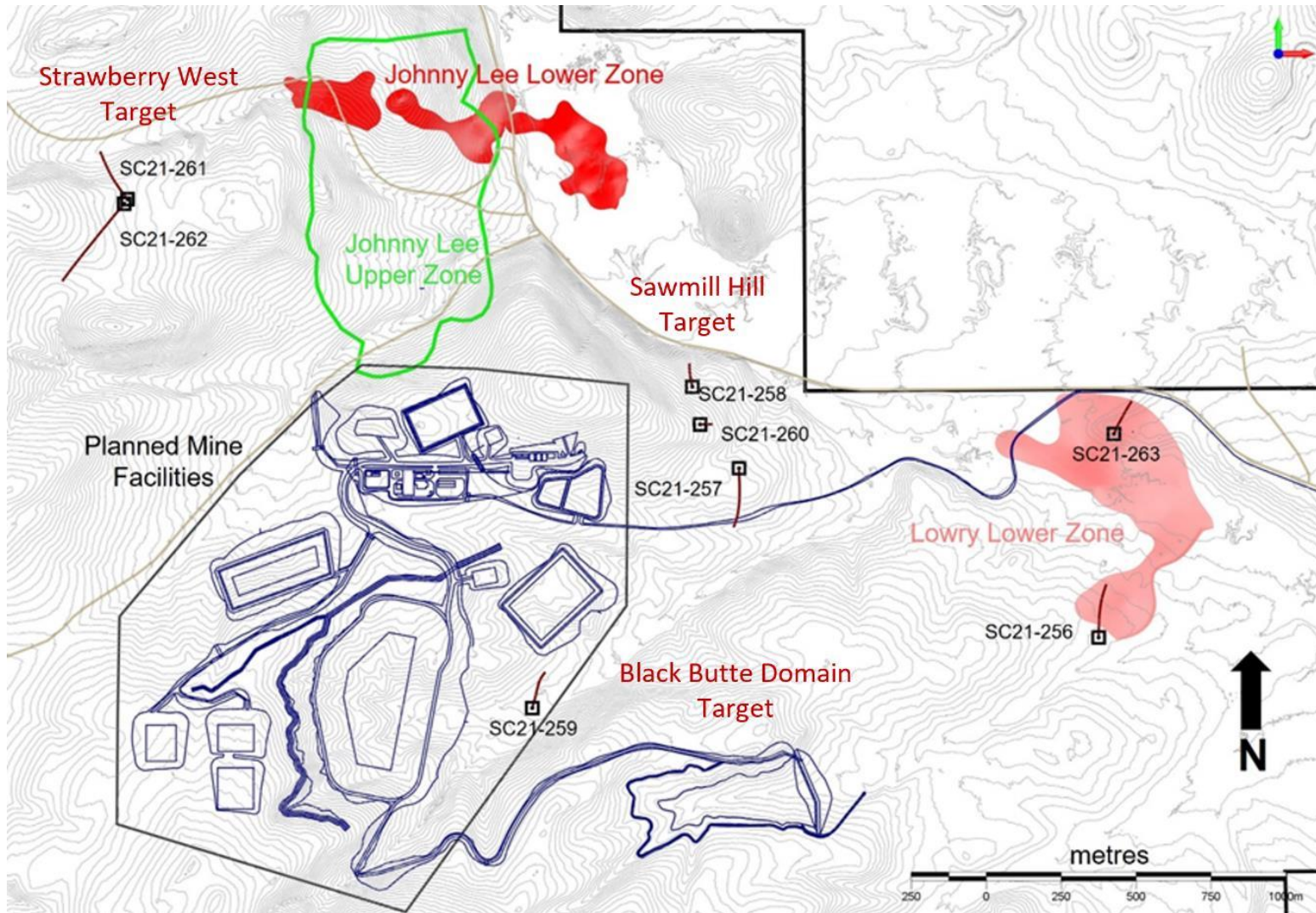
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Montana, USA

- Acquisition of key mine property
- Enhancement of Feasibility Study being progressed
- Exploration program within the Mining Lease targeting potential extensions and other near-mine opportunities
- Continuing response to legal challenges to permitting



# Sandfire Montana, USA Exploration



- Hole SC21-262 – Strawberry West Upper Copper Zone – 6.8m of 1.2% copper and 33.0g/t silver
- Hole SC21-263 – Lowry North extension in Lowry Middle Copper Zone - 9.8m of 1.7% copper and 12.2g/t silver
- Hole SC21-263 – Lowry North extension in Lowry Lower Copper Zone - 7.1m of 1.4% copper and 6.5g/t silver

Full details of the assay results reported from Black Butte during the Quarter are available from Sandfire Resources America's website, [www.sandfireamerica.com](http://www.sandfireamerica.com).



## Key takeaways

September 2021  
Quarter

- 🕒 **Global vision** – transformational acquisition of the MATSA Mining Complex
- 🕒 **Strong growth platform** – DeGrussa cash-flows, \$405.5m cash at 30 September 2021
- 🕒 **New production hub** – construction of expanded 5.2Mtpa Motheo Copper Mine in Botswana underway
- 🕒 **Strong pipeline** – high-quality development opportunities and a global exploration portfolio in Tier-1 jurisdictions
- 🕒 **Refreshed and focused** – an international exploration, development and mining team strongly aligned with our growth objectives



## A4 Ore Reserve

The information in this presentation 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 Oreology 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. Refer to ASX Announcement, dated 22 September 2021, titled 'Maiden Ore Reserve for A4 Deposit and PFS confirms 5.2Mtpa Motheo Copper Project'.

## T3 Ore Reserve

The information in this presentation 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 Oreology 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. Refer to ASX Announcement, dated 1 December 2020, titled 'Sandfire Approves Development of New Long-life Copper Mine in Botswana'.

## T3 and A4 Mineral Resource

The information in this presentation that relates to T3 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 was 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 this release of the matters based on his information in the form and context in which it appears. Refer to ASX Announcement, dated 1 December 2020, titled 'Sandfire Approves Development of New Long-life Copper Mine in Botswana'.

The information in this presentation that relates to the A4 Mineral Resource is based on and fairly represents information and supporting documentation prepared by Mr Mark Zammit who is a Member of the Australian Institute of Geoscientists. Mr Zammit is a full-time employee of Cube Consulting Pty Ltd. Mr Zammit has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves'. Mr Zammit consents to the inclusion in this release of the matters based on the information in the form and context in which it appears. Refer to ASX Announcement, dated 21 July 2021, titled 'Sandfire delivers 34% increase in contained copper at satellite A4 Copper-Silver Deposit at Motheo'.

## Motheo Expansion Case






The Expansion Case to 5.2Mtpa referred to in this presentation, where it relates to A4 and other prospects, is based on the T3 Mineral Resource Estimate and Ore Reserve, the 3.2Mtpa Definitive Feasibility Study completed in December 2020, A4 Mineral Resource Estimate and Ore Reserve and the 5.2Mtpa Pre-Feasibility Study. The 5.2Mtpa Pre-Feasibility Study has been completed to an overall level of accuracy of  $\pm 15\text{-}25\%$  and is based on material assumptions outlined elsewhere in the ASX announcement titled 'Maiden Ore Reserve for A4 Deposit and PFS confirms 5.2Mtpa Motheo Copper Project' dated 22 September 2021.

## 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.



## Contact Details

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