



**RED HAWK WEBINAR PRESENTATION**  
**BLACKSMITH PROJECT**  
**PRE-FEASIBILITY STUDY**  
**ANNOUNCED 1 MAY 2024**

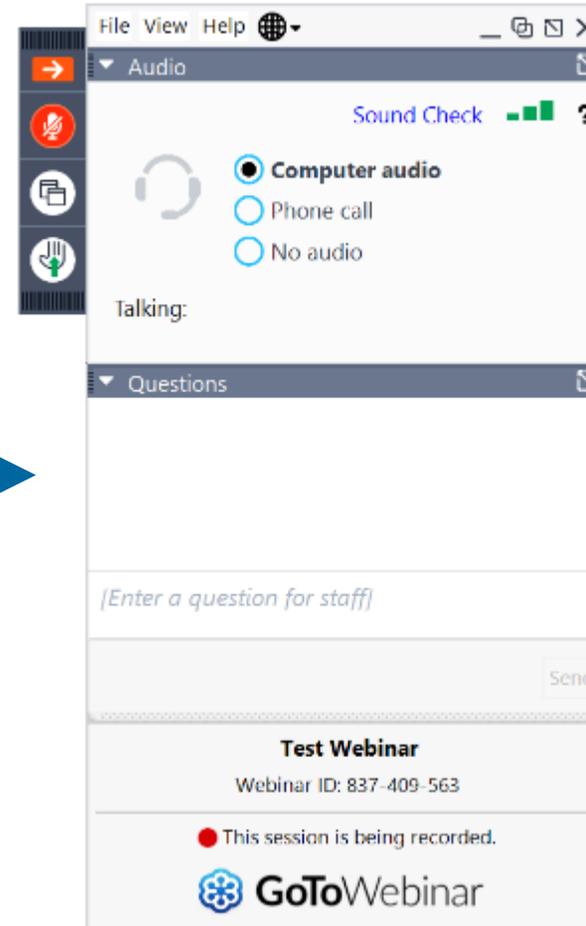


**ASX: RHK**

**RED HAWK MINING, MAY 2024**

## TEXT QUESTIONS

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Shares on issue	199.8M
Performance rights/options	11.2M
Share price (2 May 2024)	\$0.87
12 month high	\$0.80
12 month low	\$0.39
Market capitalisation (2 May 2024)	\$173.6M
Cash at bank <sup>1</sup>	\$9.3M

## SHARE PRICE



## DIRECTORS

Hon. Cheryl Edwardes, AM	Independent Non-Executive Chair
Steven Michael	Managing Director and CEO
Rob Foster <sup>2</sup>	Non-Executive Director
Daniel Harris	Independent Non-Executive Director
Amy Jiang <sup>3</sup>	Non-Executive Director

## MANAGEMENT TEAM

Adam Hall	GM – Projects
Jeanette Hasleby	GM – ESG and Approvals
Matt Owen	Chief Financial Officer
Andrew Whitehead	GM – Commercial
Lisa Wynne	Company Secretary

## MAJOR SHAREHOLDERS

TIO (NZ)	60.71%
OCJ Investment (Australia)	21.20%

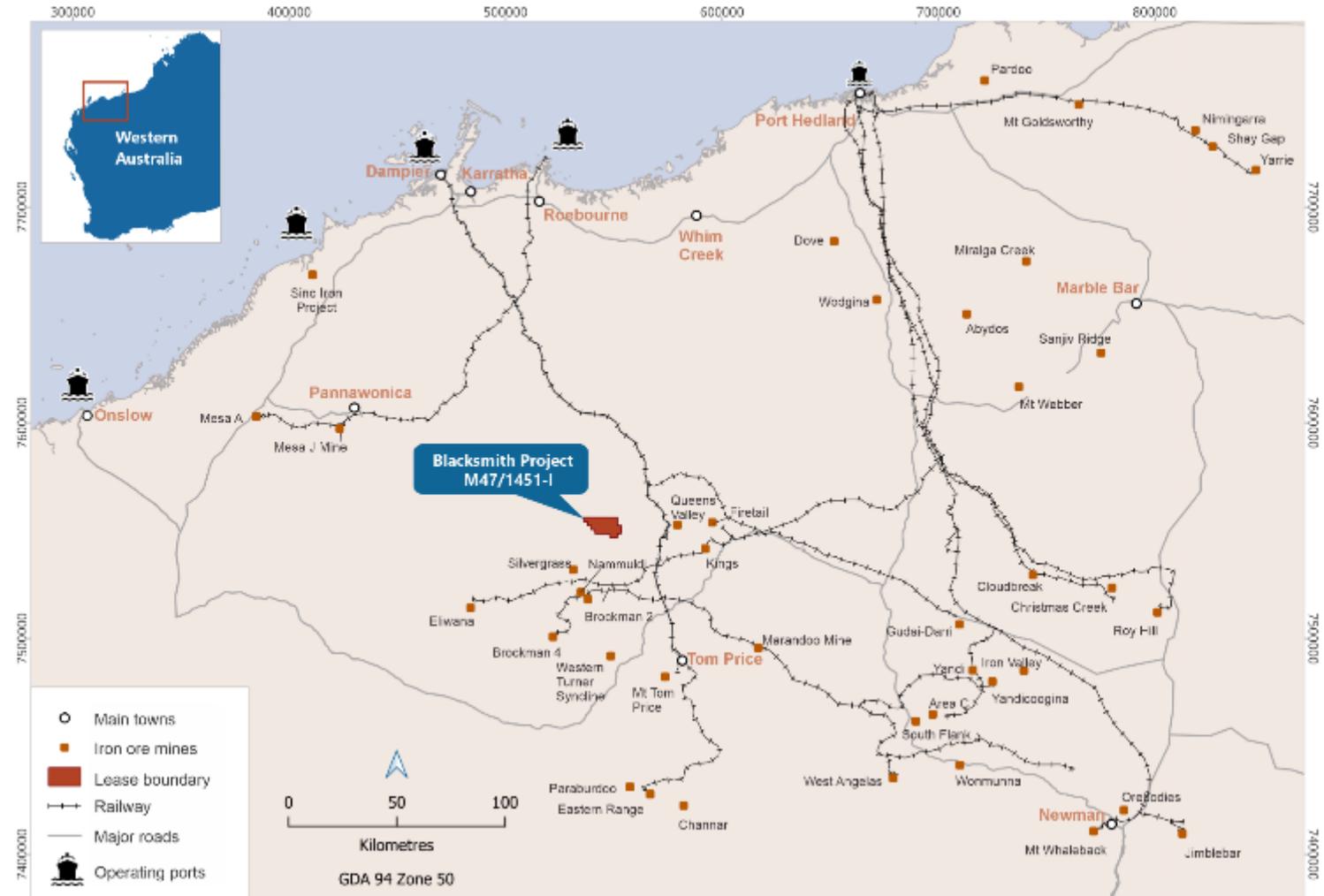
1. As at 31 March 2024

2. Nominee of TIO (NZ)

3. Nominee of OCJ Investment (Australia)

# BLACKSMITH PROJECT OVERVIEW

- Located approximately 70km north-west of Tom Price
- Nestled amongst many major iron ore projects, including Mt Tom Price, Brockman, Solomon and Eliwana
- The region contains significant road, rail and power infrastructure



# KEY PRE-FEASIBILITY STUDY RESULTS



**The Pre-Feasibility Study for the Blacksmith Iron Ore Project demonstrates the economic viability of developing a 5Mtpa DSO project**

## ANNUAL PRODUCTION

5Mtpa

## NPV<sub>8%</sub> (PRE-TAX)

\$523M

## CAPITAL PAYBACK

3.3 years

## AVERAGE GRADE

60.5% Fe

## IRR (PRE-TAX)

31%

## LIFE OF MINE

23 years

## LOM C1 COSTS

US\$51/t

## CAPITAL COSTS

\$217M

## TOTAL LOM PRODUCTION

101Mt

- Inclusion of four deposits – Delta, Paragon, Blackjack and Champion
- Maiden Ore Reserve at the Delta deposit underpinning the first 13 years of production
- Development of an AACE Class 4 capital and operating cost estimate and execution schedule

*"I am extremely proud of the Red Hawk team along with the technical and commercial consultants who have delivered an outstanding Pre-Feasibility Study for the Blacksmith Project.*

*The increase in scope to 5Mtpa and continued optimisation of mining, process and haulage has created a technically robust and financially attractive project.*

*Red Hawk remains committed to delivering first ore on ship in late 2025 and will move rapidly onto preparation of a Definitive Feasibility Study with all workstreams driven by this goal."*

**The Hon. Cheryl Edwardes AM  
Chair, Red Hawk Mining**

# PRE-FEASIBILITY STUDY CONTRIBUTORS



## A team of high-quality consultants and partners



### Ausenco

Process plant, infrastructure, road and intersection design, capital and operational cost estimates, master schedule, risk assessment, project development, forward work plan



### AMS

Aerodrome design consultants



### ERM Australia

Geology and Mineral Resource Estimates



### FTI Consulting

Financial modelling and analysis



### Hypercube Scientific

Haulage simulation modelling



### MGM Bulk

Transport and logistics



### NeoMet

Metallurgy and marketing



### Orelogy

Mine planning and Ore Reserve



### Pastin

Transport logistics



### Preston Consulting

Approvals and environment consultants



### SME Geotechnical

Open pit geotechnical assessment



### Worley

Hydrology and hydrogeology



### WSP

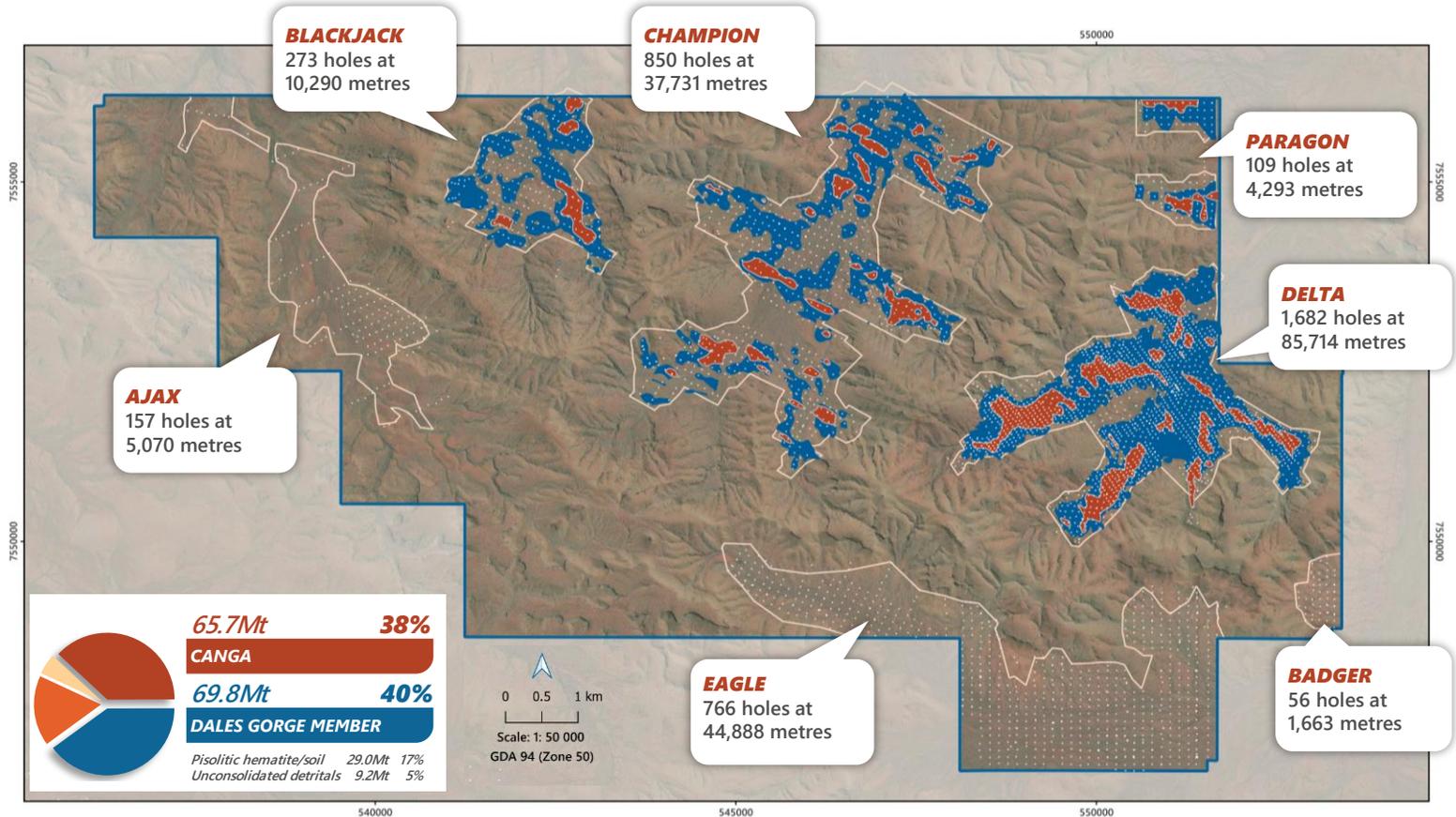
Plant site geotechnical engineering

# GEOLOGY AND MINERAL RESOURCE ESTIMATES

- Extensive exploration drilling completed from 2008 to 2024 has defined iron ore resources in seven shallow deposits
- Over 200,000m of historic drilling, mainly RC, with additional diamond core and sonic drilling
- Hematite-dominant canga generally has iron content above 60% Fe
- Dales Gorge Member underlies canga and is predominantly goethite

## BLACKSMITH DSO MINERAL RESOURCE ESTIMATE (57.5% Fe cut-off)<sup>1</sup>

JORC classification	Tonnage Mt	Fe %	P %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	LOI %
Indicated	165.2	60.0	0.085	5.11	3.24	4.86
Inferred	8.6	59.8	0.102	4.12	2.54	6.98
<b>Total</b>	<b>173.8</b>	<b>60.0</b>	<b>0.086</b>	<b>5.06</b>	<b>3.20</b>	<b>4.97</b>



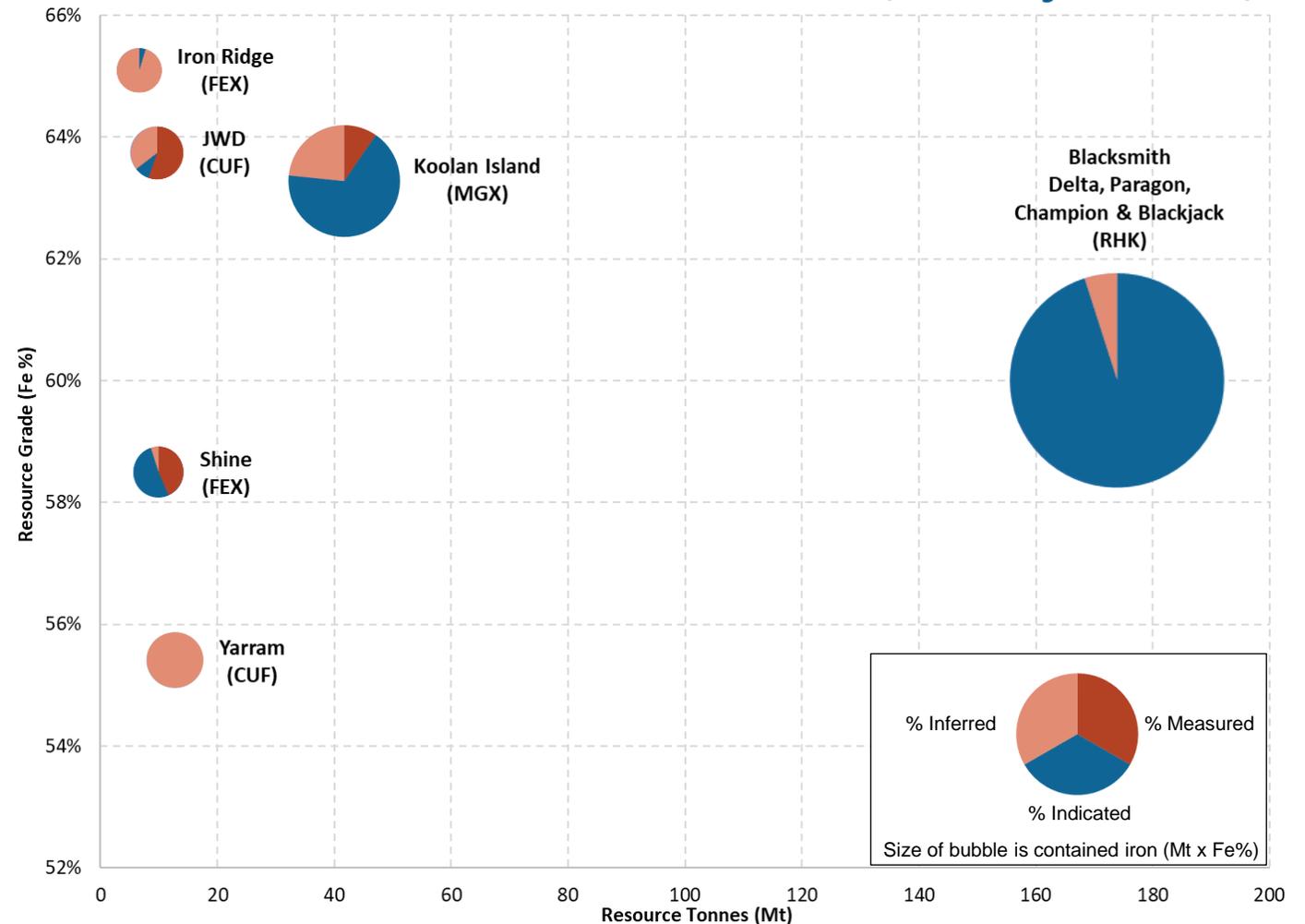
1. See notes on slide 23

# IRON ORE RESOURCES (ASX-LISTED COMPANIES)<sup>1</sup>

- Total Blacksmith DSO Mineral Resource Estimate of 174Mt at a grade of 60% Fe
- 95% of the Mineral Resource Estimate is classified as Indicated
- Blacksmith contains the largest undeveloped hematite/goethite resources in the Pilbara wholly owned by an ASX-listed junior iron ore company
- Potential to increase DSO Mineral Resource Estimate through re-interpretation of Eagle and Badger deposits



IRON ORE RESOURCES FOR SELECTED ASX-LISTED COMPANIES (excludes magnetite resources)



1. See notes on slide 23

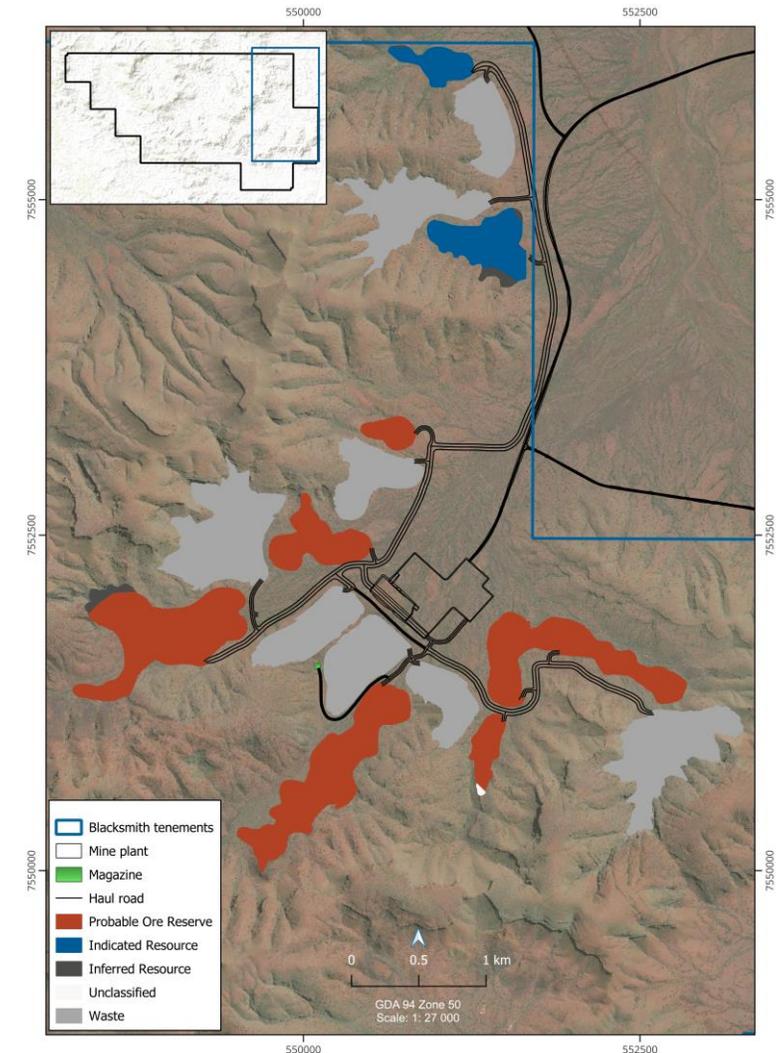
# MAIDEN ORE RESERVE

- PFS supports the reporting of a maiden JORC-compliant Probable Ore Reserve for the Delta deposit of 46Mt at 60.5% Fe
- Reserve includes 48% of the Project's total ore mined and 86% of the Project's first 13 years of production
- In addition, the Reserve is substantially above the water table
- Ore Reserve has been determined as economically viable as a stand-alone project

## BLACKSMITH DSO PROBABLE ORE RESERVE (57.9% Fe cut-off)<sup>1</sup>

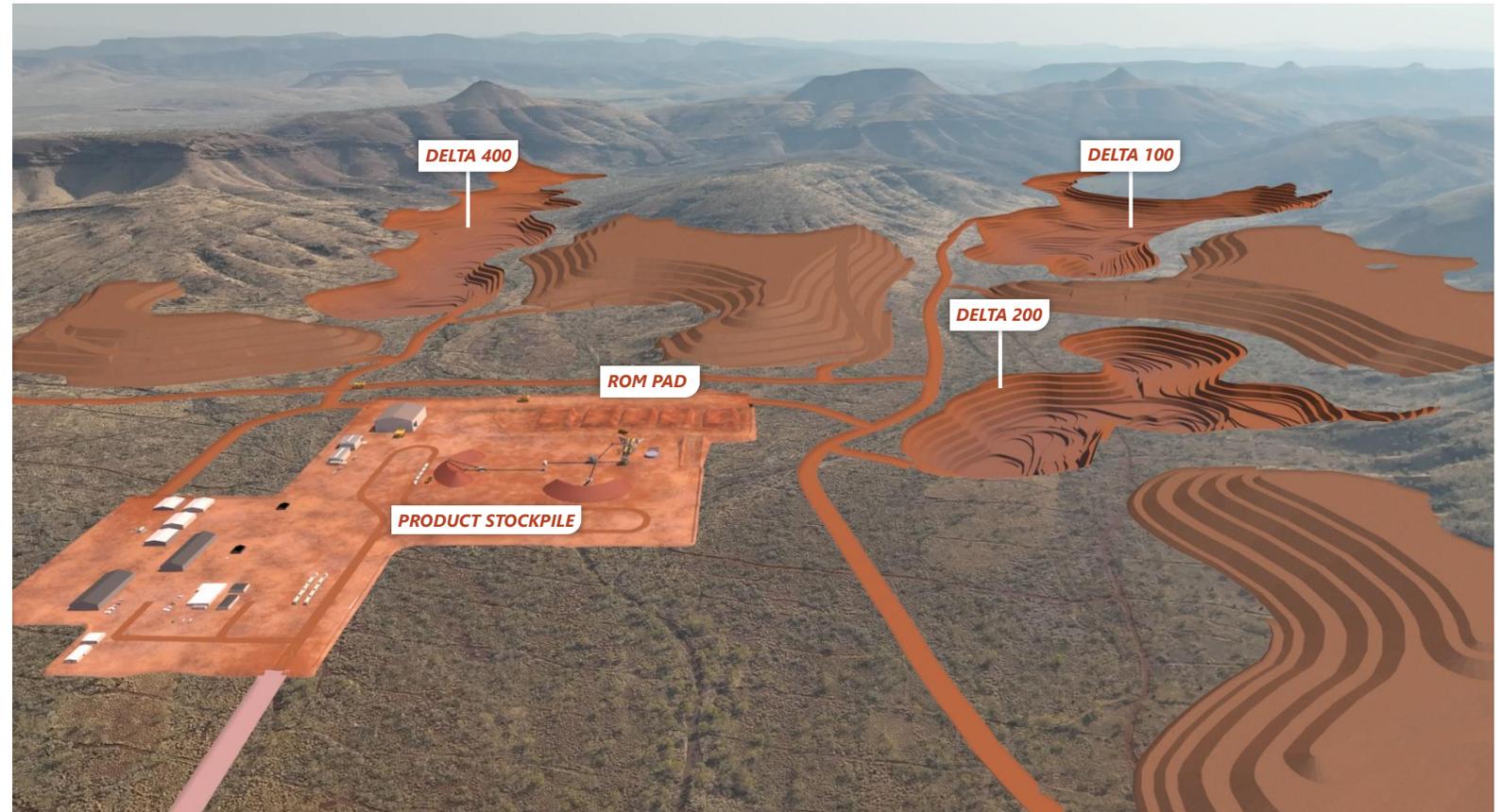
Description	Units	Quantity
Probable Ore Reserve	Mt	45.98
	Fe%	60.54
Waste	Mt	75.37
Total	Mt	121.35
Strip ratio	Waste : ore (tonnes)	1.64

*It should be noted that Inferred Resources have a lower level of geological confidence and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or Ore Reserves or that the production target itself will be realised.*

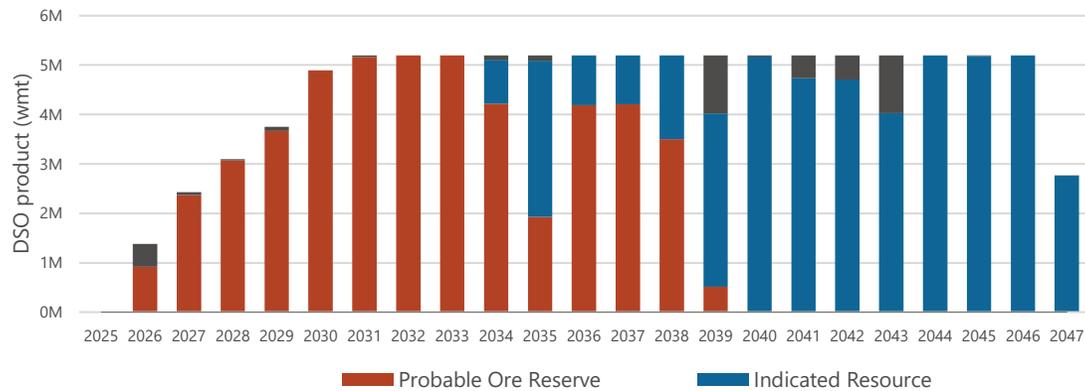


1. See notes on slide 23

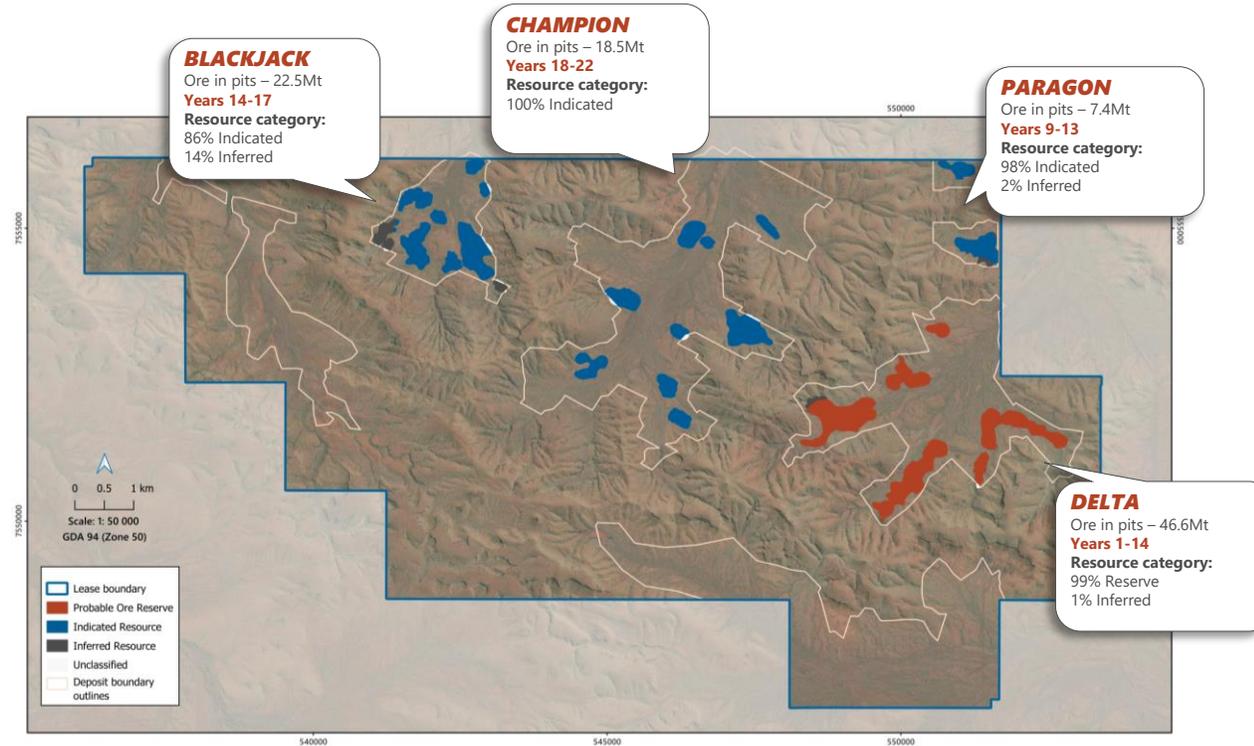
- *Blacksmith will be developed employing a conventional open pit mining methodology using a typical drill/blast/load/haul mining cycle*
- *The mining operations are planned to be undertaken by a suitably experienced mining contractor*
- *The mining contractor will supply, operate and maintain an appropriately sized mine production fleet to undertake the proposed mining operation*
- *The scheduling approach, target and constraints used in developing the mine plan included a maximum total material movement (TMM) allowance of 16Mtpa and maintaining a long-term production rate of 5Mtpa*



- The PFS has delivered an updated mine plan for the Blacksmith Project to that of the Scoping Study
- It commences activity in Delta and Paragon and then transitions to the Blackjack and Champion deposit
- PFS extends the Life of Mine production of direct shipping ore (DSO) from 55Mt (Scoping Study) to 98Mt at a grade of +60.0% Fe
- Study also increases the long-term production rate from 3Mtpa to 5Mtpa

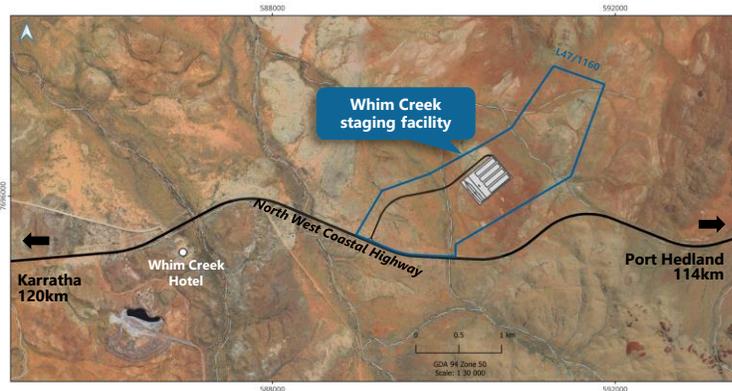


DSO by mineral classification product



Location and scheduling of Mineral Resource categories

- Iron ore will be transported over a combination of private roads and the public road network via a Whim Creek staging facility to the Utah Point Bulk Handling Facility
- The Whim Creek staging facility provides maximum operational flexibility for haulage, stockpiling, and risk mitigation
- Red Hawk entered a strategic partnership with MGM Bulk to develop and optimise the transport and logistics strategy, focusing on maximising productivity and reducing unit operating costs



Whim Creek staging facility location

### BLACKSMITH TO WHIM CREEK

332km on Mine Access Road and Manuwarra Red Dog Highway

### WHIM CREEK TO UTAH POINT

114km on North West Coastal Highway and Great Northern Highway

### MINE ACCESS ROAD

23km private haul road

### WHIM CREEK STAGING FACILITY

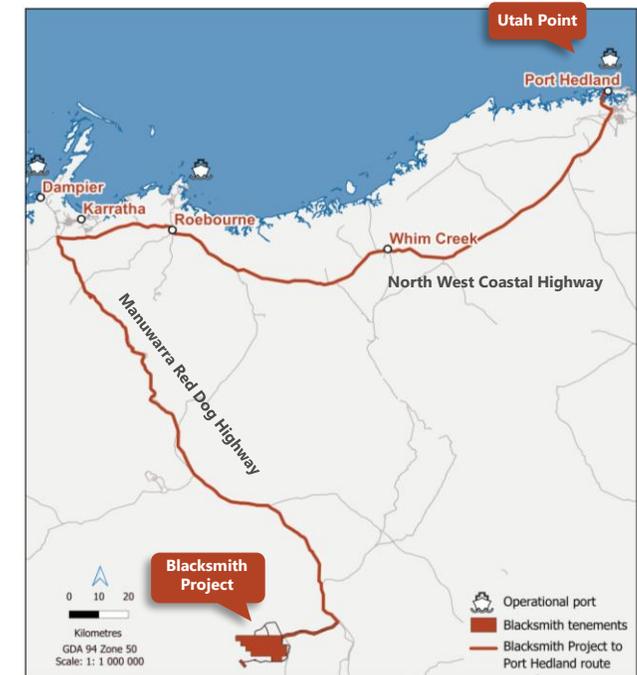
Stockpiling yard, capacity management functions, workshop, camp accommodation

### NUMBER OF OPERATING TRUCKS

20	33	50	66	83
1.2Mtpa	2Mtpa	3Mtpa	4Mtpa	5Mtpa

### NUMBER OF DRIVERS

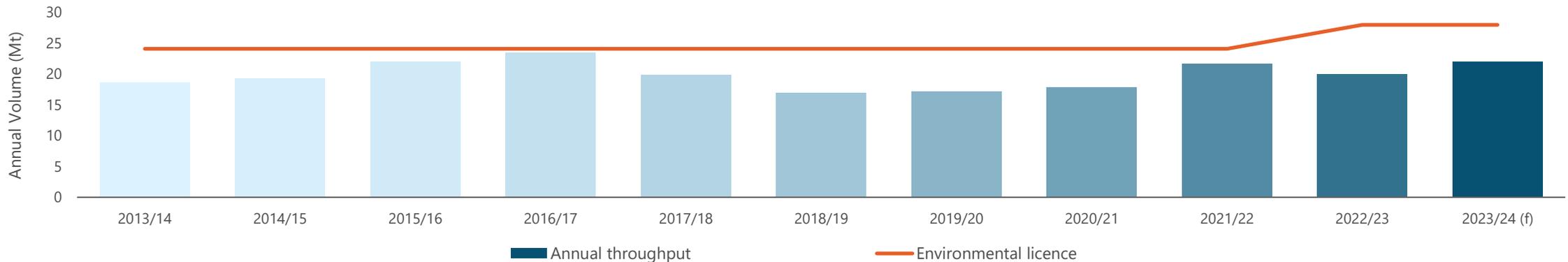
54	90	135	180	225
1.2Mtpa	2Mtpa	3Mtpa	4Mtpa	5Mtpa



Transport route to Utah Point



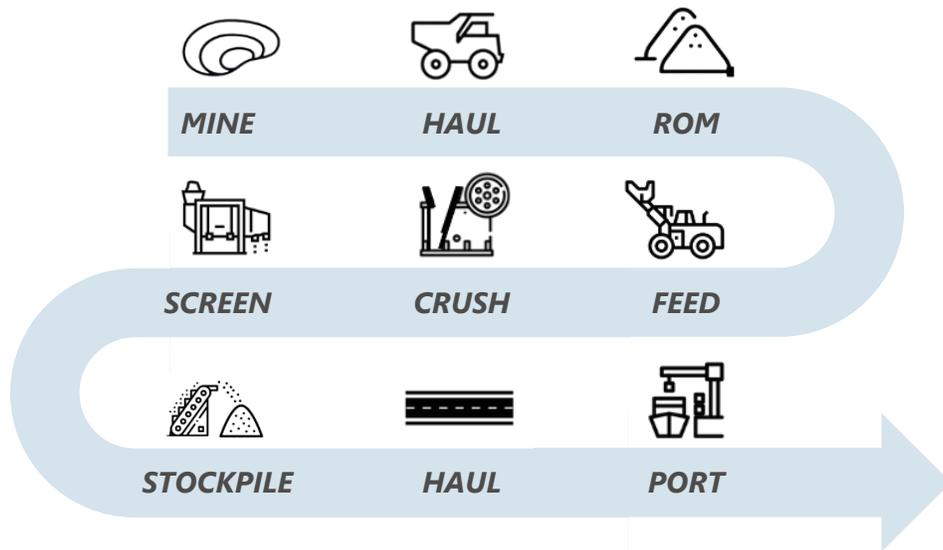
- *The Port of Port Hedland is the world’s largest bulk export port with iron ore exports in 2022-23 of 536Mt, accounting for 61% of Western Australia’s iron ore sales volumes. During 2023, 20Mt was exported from the Utah Point Bulk Handling Facility, with the majority being iron ore*
- *Red Hawk plans to use Utah Point for the export of its iron ore products and is working with Pilbara Ports to gain an allocation through multi-use bunkers when these become available*
- *Red Hawk is also holding discussions with existing users on capacity sharing at the port*



**Utah Point annual throughput and environmental licence capacity**

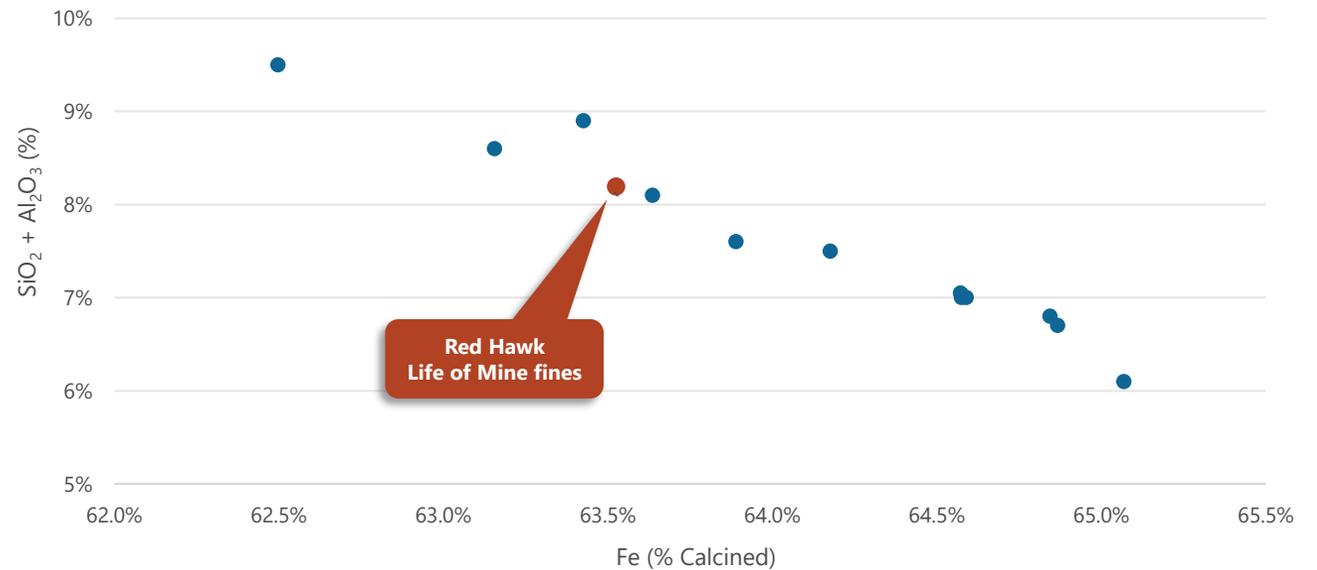
# PRODUCT QUALITY AND MARKETING

- *Blacksmith will produce a DSO fines product with a Life of Mine average grade of 60.5% Fe from a Pilbara standard dry crushing and screening process*
- *The fines product is expected to be in high demand as sinter feedstock for iron making with competitive chemical specification*
- *Additional testwork will be completed during the DFS to further improve the understanding of the properties of the ore and minimise any new entrant risk discount*



## Targeted product chemical specification

Product	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	S %	LOI %
Life of Mine	60.5	4.96	3.09	0.08	0.03	4.5

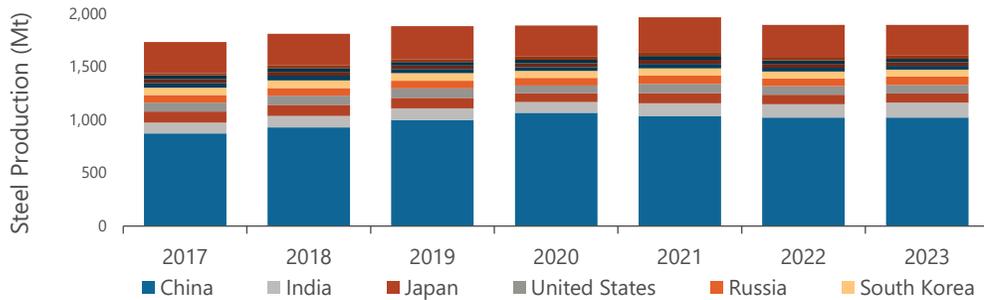


Pilbara iron ore product specification vs Red Hawk

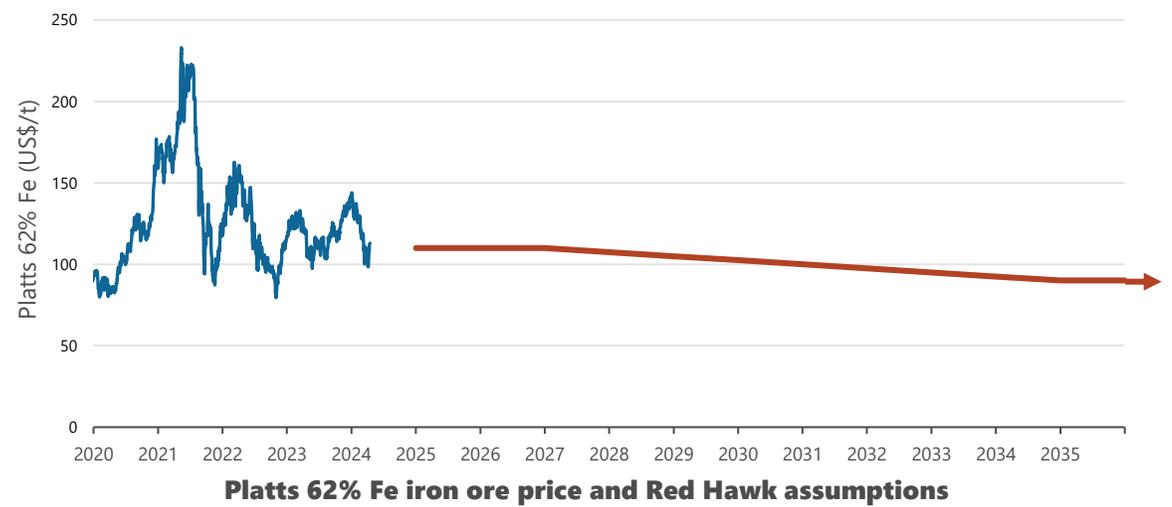
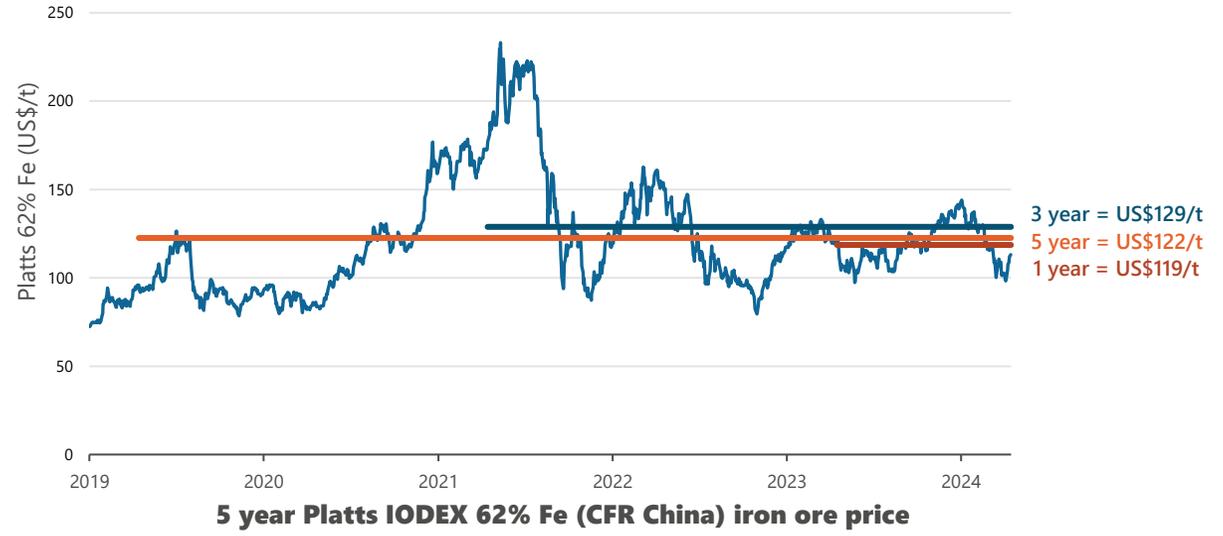
# ORE PRICING AND ASSUMPTIONS



- The past five years have seen a steady increase in iron ore prices due to increasing demand from China
- Benchmark iron ore prices have risen from US\$75 per dry metric tonne (dmt) in early 2019 to a high of over US\$230/dmt in May 2021 to a high of over US\$230/dmt in May 2021
- More recently, iron ore prices have settled in a range of US\$100/dmt – US\$140/dmt, averaging US\$129/dmt over the past three years
- Red Hawk has assumed a long-term iron ore price of US\$90/dmt and exchange rate of US\$0.675/A\$ in the PFS



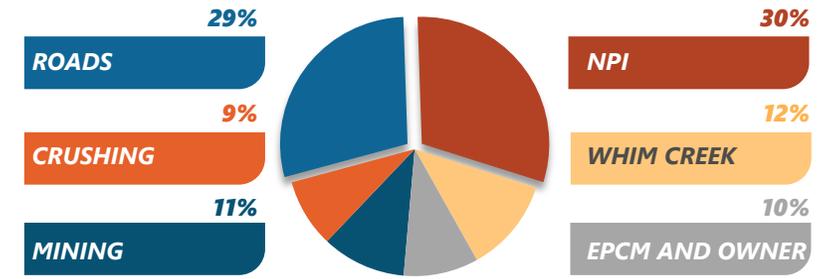
Global steel production by country



Platts 62% Fe iron ore price and Red Hawk assumptions

# CAPITAL COST

- The estimated cost to deliver the Blacksmith Project is \$216.8M, inclusive of a 20% contingency (\$35.2M), engineering, procurement, construction management (EPCM) costs (\$12.2M) and Owner's Team costs (\$5.5M)
- Capital intensity (capital cost per tonne of annual production) for the PFS is \$43/t, which is 13% lower than the Scoping Study at \$50/t of annual production



Capital cost summary (ex-contingency)

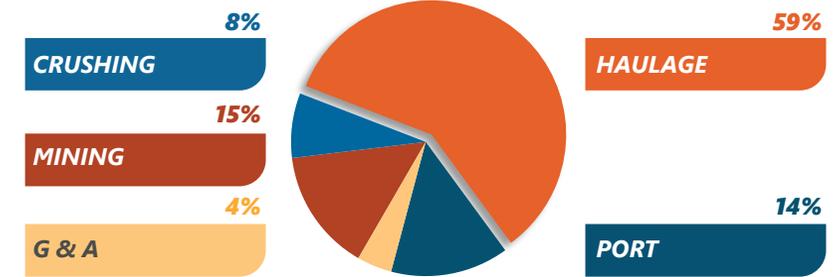
## Capital cost summary

Item	\$M
Mining	19.9
Crushing	16.2
Roads	49.4
Non-Process Infrastructure (NPI)	56.3
Whim Creek	21.7
EPCM and Owner's Team costs	17.7
<b>Sub-total (excluding contingency)</b>	<b>181.5</b>
Contingency (20%)	35.3
<b>Total capital cost</b>	<b>216.8</b>

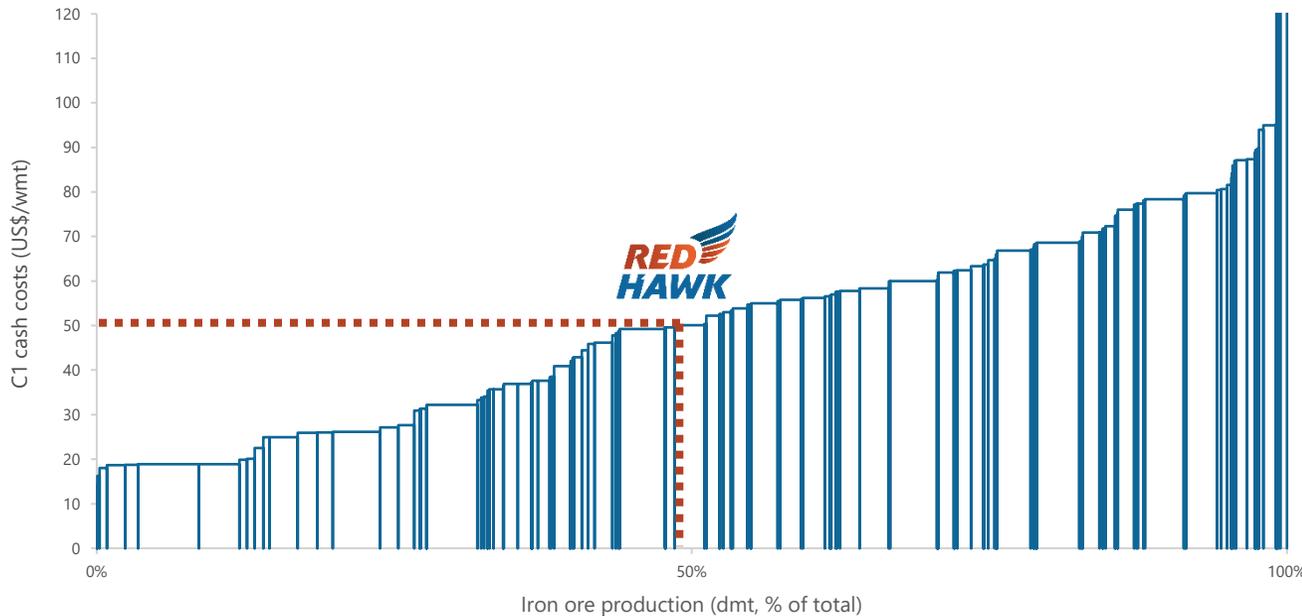
# OPERATING COST



- Red Hawk has worked closely with operating contractors from each major work area to build a robust Life of Mine cost profile
- The PFS tests the operating strategy and sees it remain cost competitive relative to peers, confirming a Life of Mine C1 cash cost of US\$51.10 per tonne
- The Blacksmith Project is placed in the forward half of the global iron ore cost curve (excluding major integrated producers)



Operating cost summary



Wood Mackenzie C1 cost curve (excluding major producers)

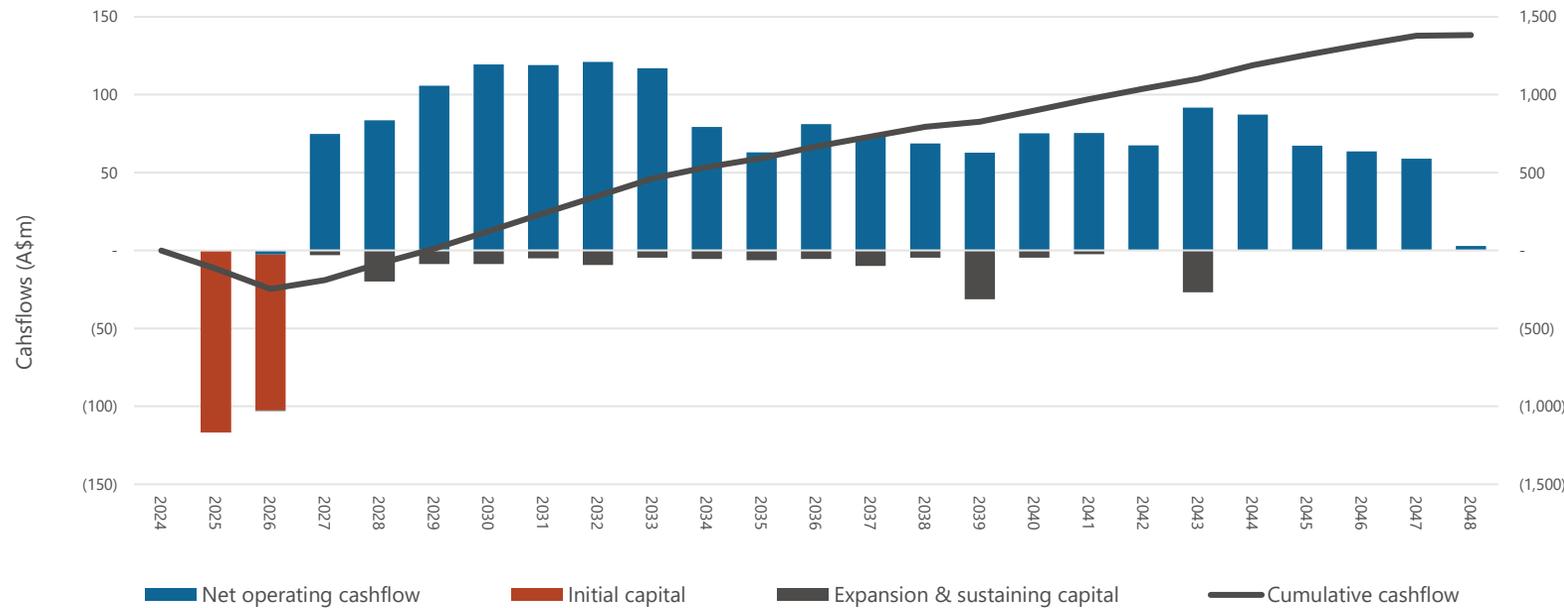
## Life of Mine C1 cash cost – PFS and Scoping Study

Cost group	US\$/wmt		Change US\$/wmt	Variance %
	Scoping	PFS		
C1 FOB	49.92	51.10	1.18	2.37%
C2	60.40	63.67	3.27	5.42%
C3	65.85	70.42	4.57	6.94%

# FINANCIAL ANALYSIS



- An independent financial analysis of the Blacksmith Project shows a pre-tax NPV<sub>8%</sub> of \$523M, IRR (pre-tax) of 31% and capital payback of 3.3 years from first revenue
- At current spot iron ore, exchange rate and diesel prices, the pre-tax NPV<sub>8%</sub> increases to \$1.8 billion, IRR (pre-tax) of 52% and capital payback less than 2.5 years



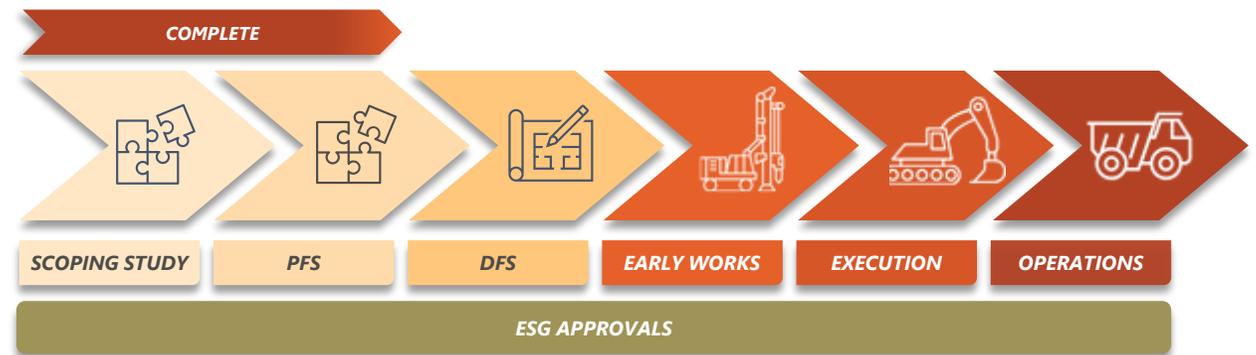
Project Life of Mine cashflows (pre-tax)

	PFS ASSUMPTIONS	SPOT PRICES
<b>REVENUE</b>	\$11,960M	\$15,871M
<b>NET CASHFLOW (PRE-TAX)</b>	\$1,382M	\$4,759M
<b>NPV<sub>8%</sub> (PRE-TAX)</b>	\$523M	\$1,815M
<b>IRR (PRE-TAX)</b>	31%	52%
<b>NPV<sub>8%</sub> (POST-TAX)</b>	\$365M	\$1,272M
<b>IRR (POST-TAX)</b>	27%	45%
<b>CAPITAL PAYBACK</b>	3.3 years	2.3 years

Financial analysis (PFS and Spot Prices)

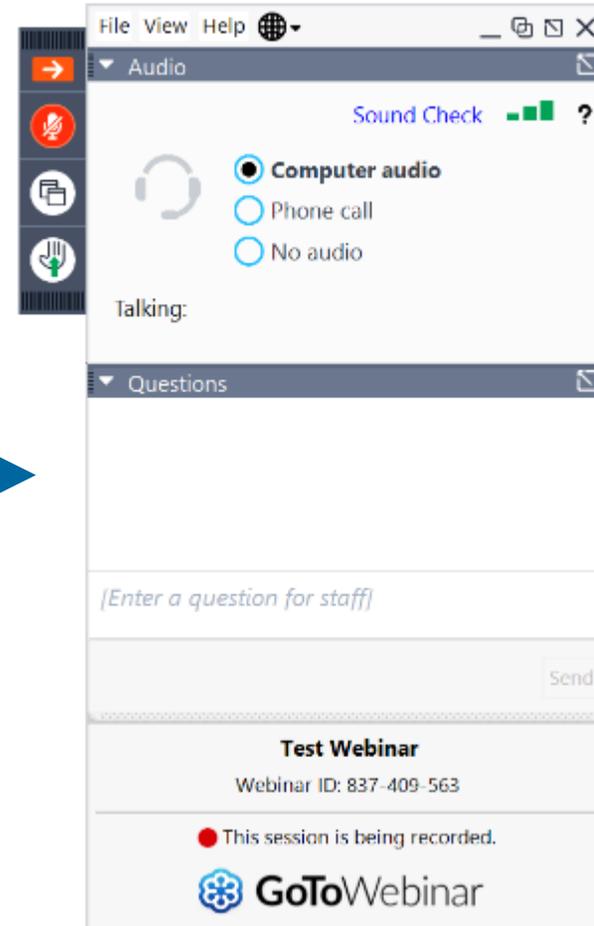
# EXECUTION PLAN

- Red Hawk is targeting the first ore from the Blacksmith Project in 4Q 2025
- The proposed schedule leverages significant historical Project development activities, including heritage surveys, permitting, drilling, geotechnical analysis and metallurgical testwork
- It is planned to use contractors to provide skilled labour, equipment, systems and procedures for the construction and operation of major Project components, including:
  - mining
  - design, construction and operation of the process plant
  - road haulage
  - camp construction and operation
  - port operations
- To support the FID, Red Hawk will continue to advance the definition of the Blacksmith resource, heritage clearance activities, gain required permits and approvals, and finalise access agreements with adjacent stakeholders



### TEXT QUESTIONS

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**IT'S  
TIME  
TO  
SOAR**



  
**DEVELOPING  
THE BLACKSMITH  
IRON ORE PROJECT**

**ASX: RHK**

**[www.redhawkmining.com.au](http://www.redhawkmining.com.au)**

**Ground Floor  
23 Ventnor Avenue  
West Perth**

## Competent Person's Statement:

The information in this report that relates to the Blacksmith Iron Ore Project Mineral Resource and Ore Reserve which was prepared in accordance with the requirements of the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012). The Mineral Resource information was included in the Company's previous announcements as follows:

ASX announcements dated:

- 6 September 2023: *DSO Mineral Resource Estimate: Delta and Paragon Deposits*
- 16 October 2023: *DSO Mineral Resource Upgrade: Champion and Blackjack*

The information in this Presentation that relates to the Blacksmith Iron Ore Project Mineral Resource was prepared in accordance with the requirements of the JORC Code (2012). This information was included in the Company's previous announcement as noted below or see [www.redhawkmining.com.au](http://www.redhawkmining.com.au)

The information in this report that relates to Mineral Resources for the Delta, Paragon, Champion and Blackjack deposits is based on, and fairly represents, information compiled by Mr Aaron Meakin and Mr Mark Pudovskis. Mr Aaron Meakin is a full-time employee of ERM Australia (formerly CSA Global) and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Mark Pudovskis is a full-time employee of ERM Australia (formerly CSA Global), and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Aaron Meakin and Mr Mark Pudovskis have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the JORC Code (2012). The Company confirms that the form and context in which the results are presented and all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed from the original announcements and that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original announcements on 6 September 2023 and 16 October 2023.

The information in this report that relates to Ore Reserves for the Delta deposit is based on and fairly represents information compiled by Mr Ross Cheyne. Mr Ross Cheyne is a full-time employee and Head of Consulting with Orelogy and is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Ross Cheyne has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person as defined in the JORC Code (2012). Mr Ross Cheyne consents to the inclusion of the information in this report in the form and context in which it appears.

## Iron ore resources for selected ASX-listed companies (Slide 8)

### *Producing mines*

- Iron Ridge – Fenix Resources Limited (ASX: FEX): 2023 Annual Report (ASX announcement 29/08/23)
- JWD – CuFe Limited (ASX: CUF): Investor Presentation, May 2023 (ASX announcement 09/05/23)
- Koolan Island – Mount Gibson Iron Limited (ASX: MGX): Global Iron and Steel Conference (ASX announcement 22/03/23)

### *Mines in development*

- Yarram – CuFe Limited (ASX: CUF): Investor Presentation, May 2023 (ASX announcement 09/05/23)

### *Projects at Study Phase*

- Shine (Care & Maintenance) – Fenix Resources Limited (ASX: FEX): 2023 Annual Report (ASX announcement 29/08/23)

## Disclaimer:

This announcement includes forward-looking statements within the prevailing regulatory laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of words such as "aim", "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "believe", "continue", "objectives", "targets", "outlook" and "guidance", or other similar words and may include, without limitation, statements regarding estimated reserves and resources, certain plans, strategies, aspirations and objectives of management, anticipated production, study or construction dates, expected costs, cash flow or production outputs and anticipated productive lives of projects and mines. Such statements are subject to prospective risks and uncertainties and may cause actual developments to differ materially from the reported results.

The forward-looking statements in this announcement were prepared based on the present intentions of the current Red Hawk board and management team, numerous assumptions concerning current conditions and future events, as well as the business environment where Red Hawk conducts business. Red Hawk has no obligation to guarantee that the valid information presented will bring the specific results as expected.

*This ASX announcement was authorised by the Managing Director and CEO of Red Hawk Mining Limited.*