



# Premium Iron Ore

... for steel sector decarbonisation

*The time is now*

October 2023



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## ADDITIONAL INFORMATION

This presentation should be read in conjunction with MGT's Annual Report at 30 June 2023 together with any announcements made by MGT in accordance with its continuous disclosure obligations arising under the Corporations Act 2001 (Cth). Any references to resources estimations should be read in conjunction with MGT's Mineral Resources statement for its magnetite projects at 9 February 2023 and subsequent releases to the Australian Securities Exchange as referenced.

MGT confirms that it is not aware of any new information or data that materially affects the information included in its ASX announcement made on 9 February 2023 and, in the case of estimates of mineral resources and ore reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. All amounts within this presentation are stated in Australian Dollars consistent with the functional currency of MGT, unless otherwise stated. Tables contained within this presentation may contain immaterial rounding differences.

All references used in this presentation are included on Slide 22.

## ACKNOWLEDGEMENT OF COUNTRY

Magnetite Mines, our shareholders and our stakeholders acknowledge the Ngadjuri People as the Traditional Owners of the lands on which the Razorback Iron Ore Project is located. We respect their continuing custodianship of this Country, and their spiritual and cultural beliefs and practices.

# Magnetite Mines (ASX:MGT)

Developing Razorback: Expansive, premium-grade iron ore project in a tier 1 location



## The Company



### Focused on 100% owned Razorback Iron Ore Project

- Transformed Board & Management
- 6Bt in Resources, 2Bt in Ore Reserves<sup>1,2,3</sup>
- Progressing through Definitive Feasibility Study



### Rare, premium-grade Magnetite iron ore now needed

- Critical new supply for decarbonised 'green' steelmaking
- Currently only 3% of seaborne iron ore trade
- Forecast 200 Mtpa deficit by 2050

## The Opportunity



### Steelmakers are looking now

- Project will support JV with one or more partners
- MGT data room open, due diligence underway
- Potential for DFS funding support



### Supportive SA government

- 100% renewable energy on grid by 2030
- Committed to green hydrogen industry development
- Now developing 'Green Iron Strategy' for SA



### Substantial re-rating potential

- Project set for long life cash generation
- Very low market cap relative to project value
- Partnering and other milestones ahead should close the gap



# Corporate overview

Strengthened Board and Management with development in sights

## Market Cap

**\$32M**

(Share price \$0.43 at 20 Oct 2023)

## Cash

**\$5.1M**

(30 Jun 2023)

## Shares on Issue: 76.7M

Top 20: 31%  
Board & Management: 5.1%  
Other shareholders: 69%

## Unlisted Options: 4.6m

## Unlisted Performance Rights: 0.12m

## Board



### Jim McKerlie Chair of the Board

BA Economics (Hons), Dip Fin Mgt, FCA, FAICD

- International CEO and public company director
- Chaired four IPOs, deep experience in tech. / energy sectors
- Former Chair of Drillsearch and Beach Energy



### Simon Wandke Non-executive Director

BA Psych Mkt (Comm), GDip Corp Finance

- 40+ years mining and minerals industry experience
- Highly accomplished C-suite leader
- Former EVP and CEO of ArcelorMittal Mining



### Paul White Non-executive Director

MBA, MAICD

- Background of driving organisational performance
- Former CEO of ASX-listed Brisbane Broncos
- Executive experience with Anglo American and Xstrata



### Peter Schubert Non-executive Director

- Track record of developing resources sector businesses
- Magnetite Mines Executive Chairman Sep-18 to May-22
- Magnetite Mines Interim CEO Mar-21 to May-22



### Dr Carmen Letton Non-executive Director

BA Min.Eng (Hons), PhD, Mineral Economics, MAusIMM

- 35+ years' global mining experience
- Former head of asset strategy development at Anglo American
- Previous senior roles at BHP, Rio Tinto, Newmont and Newcrest

## Management



### Tim Dobson Chief Executive Officer

BAppSc (Ext.Metallurgy), GAICD, MAusIMM

- 35 years extensive international mining experience
- Track record of operating and transforming major projects
- ASX CEO & international senior executive leadership roles



### Simon Smith Chief Financial Officer

BCom, Accounting & Finance, CA

- CFO with 30+ years international experience
- Led equity and debt capital raisings of over A\$500 million
- Oversaw \$340m project financing of Woodlawn Zn Cu Mine



### Gemma Brosnan GM – External Affairs

BA Journalism (Hons), DipInVRel (AIRA)

- Corporate communications and investor relations professional
- 20+ years extensive experience in UK & Australia.
- Commenced career as journalist with London Evening Standard.



### Trevor Thomas Study Director

MEarthSci (Hons), MAIG, MAusIMM

- 14 years exploration & resource development geologist
- Lead for project management of all technical & feasibility studies
- Delivered Razorback Maiden Ore Reserve; acquired Muster Dam



### Allan Kane GM – Sustainability

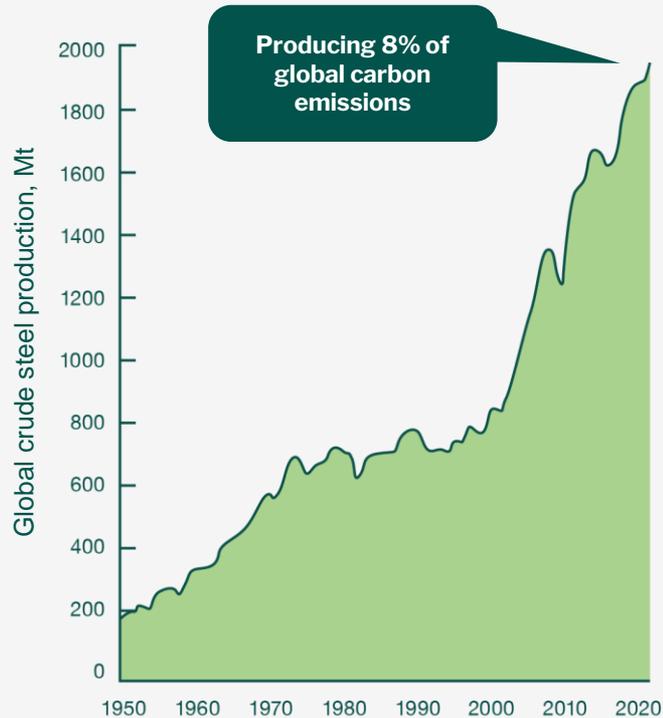
BEnvMgmt (Hons), GradCert ProjMgmt

- 14 years broad resources sector experience
- Lead for sustainability and corporate ESG framework
- Previous roles with SA Department for Energy and Mining

# Increasing global steel demand is a certainty

Steel is critical to tackling climate change – Razorback is a supply chain critical link

Production has doubled every 20 years since 1950 ...



Source: 2022 World Steel Association

... and more steel is necessary for energy transition

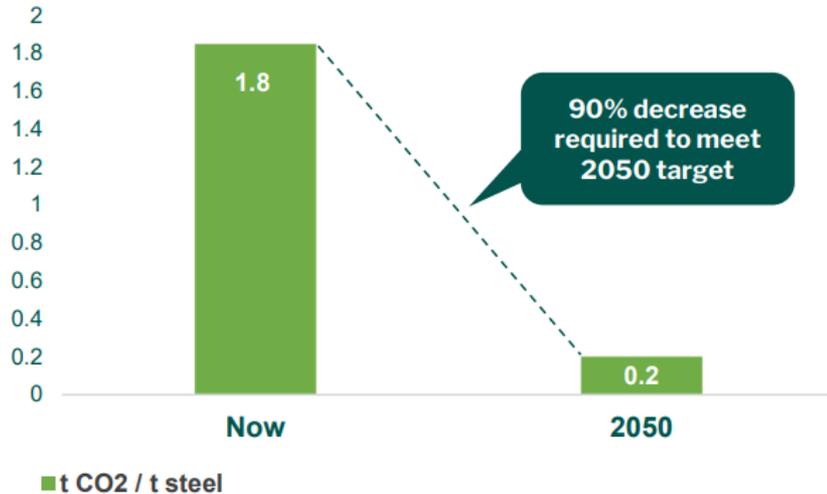


Source: Ben Ellis et al, 2022 [Pathways to decarbonisation episode two: steelmaking technology](#)

# Challenging decarbonisation targets have been set

Industry is now committed and seeking new high grade ore supply

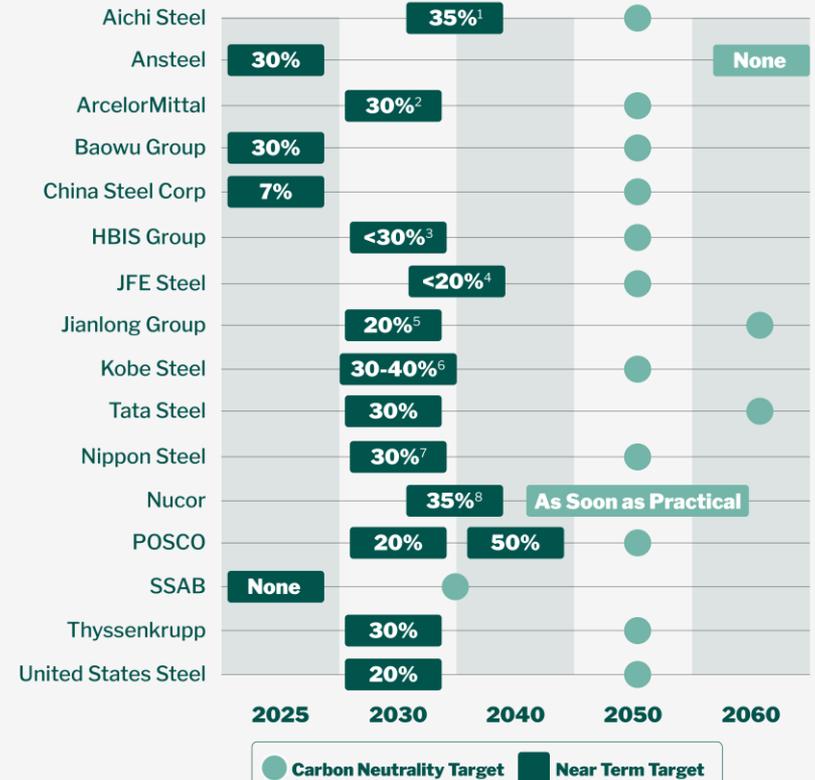
## Direct emissions intensity of steel production



### 'Steel Breakthrough Agenda' COP27 (2022)

- Consistent international standards for low emissions steel
- Policies to incentivise low-emissions steel production
- Public funding of projects along steelmaking value chain

## Major steel producer carbon reduction targets

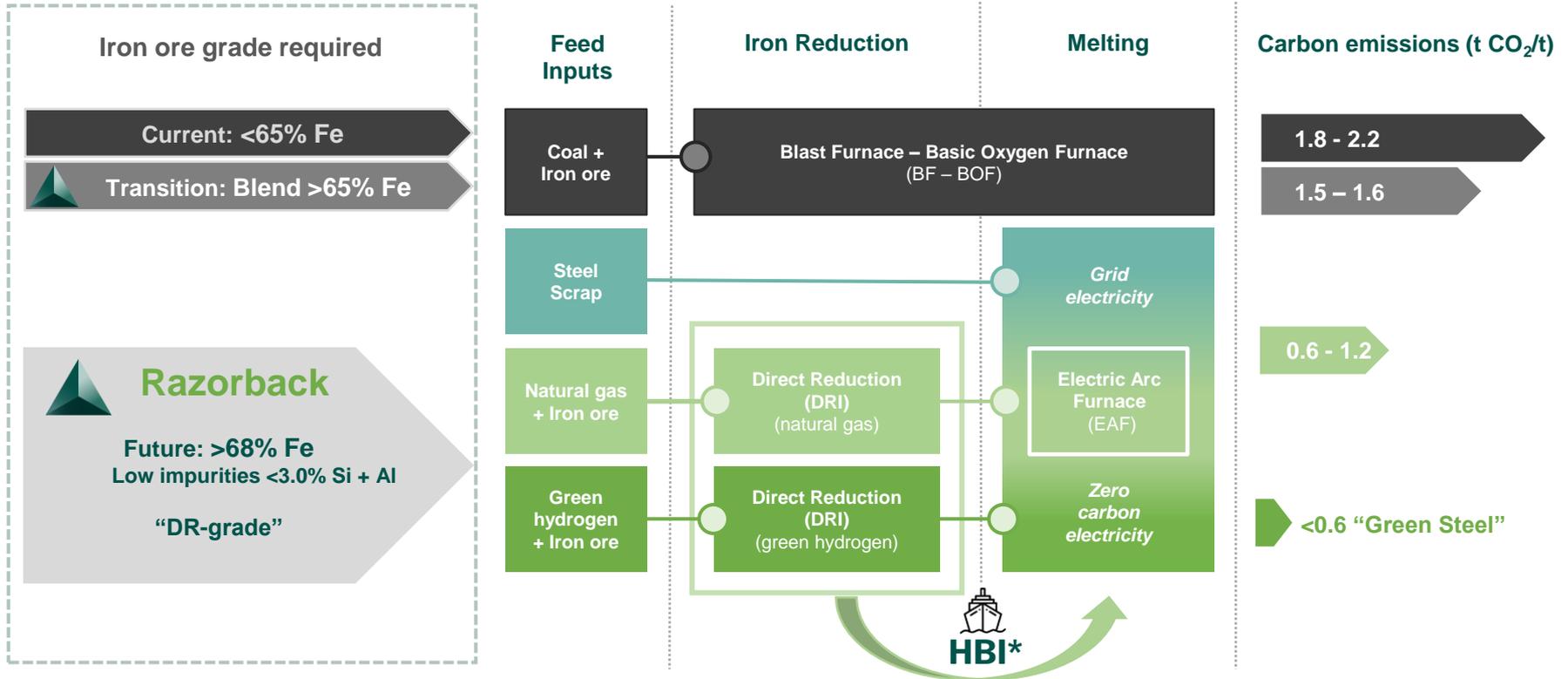


1. by 2030 compared to 2013 levels | 2. by 2030 over 2018 | 3. by FY2030 compared to 2022 | 4. by FY2030 compared to FY2013 | 5. lower by 2033 | 6. by 2030 from 2013 levels | 7. by 2030 compared to 2013 levels | 8. by 2030 using 2015 baseline

# The transition away from coal has commenced

Razorback to supply high-grade, low-impurity iron ore for replacement technologies

## Coal-using blast furnaces to be replaced over next 5 – 25 years



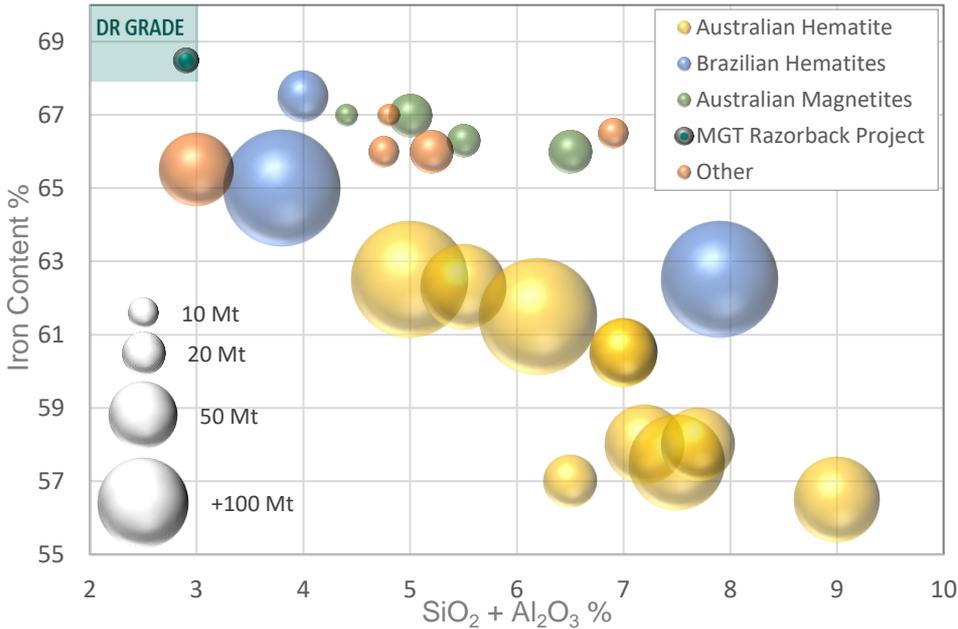
\*Hot Briquetted Iron (HBI) is a transportable form of direct reduced iron

# New premium-grade iron ore supply critical to transition

*Razorback Project positioned to meet urgent new demand*

**Razorback >68% Fe concentrates positioned in DR-grade range\***

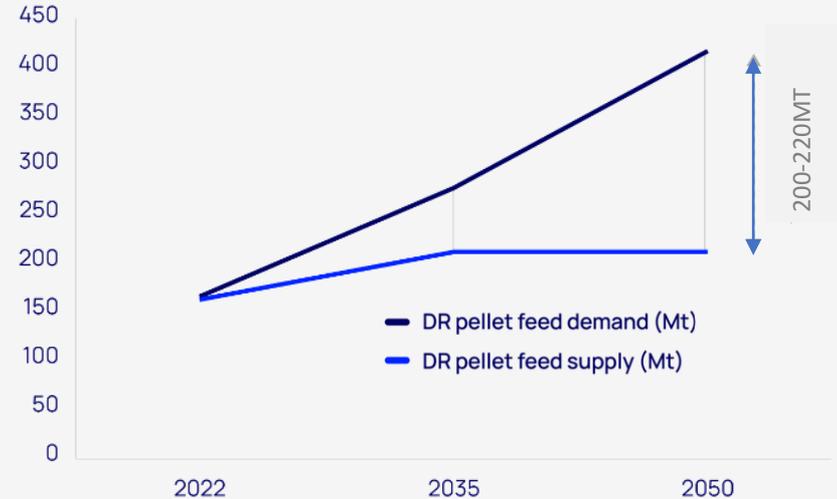
**Exported Iron Ore – Fe Grade Comparison**



Source: Dazmin Consulting

\* Initial Razorback Project production phase target concentrate specification, subject to further testwork

**High-grade iron ore demand-supply gap to increase**



Source: Wood Mackenzie, "Metamorphosis": How decarbonisation is transforming the iron and steel industry (Oct 23)

## Attracting international investment



## Magnetite + Renewable Energy + Green Hydrogen

- ✓ **Tier 1, geopolitically stable location**
- ✓ **Abundant magnetite resources**
- ✓ **100% renewable energy on grid by 2030**
- ✓ **Government commitment to green hydrogen**

## Value adding

Australia's opportunity can be realised through collaboration and investment in green iron hubs



Razorback DR-grade ore essential supply to each step in the value chain

# Razorback: Expansive, soft, outcropping iron ore

South Australia's Braemar Iron Formation – a globally significant magnetite province



## The Braemar advantage

- **Outcropping** ore: very low strip ratio
- Siltstone-hosted iron ore, not BIF\*
- **Soft** relative to WA magnetite ores
- Concentrates to premium grade iron ore
- **Undeveloped**, low intensity pastoral country

## 6.0 Billion Tonnes in Resources

- **2,000km<sup>2</sup>** total iron ore tenements
- **110km** strike length
- **4.5Bt** Razorback Resource<sup>1</sup> (JORC 2012 Indicated & Inferred)
- **1.5Bt** Muster Dam Resource<sup>2</sup> (JORC 2012 Inferred)

## 2.0 Billion Tonnes in Reserves

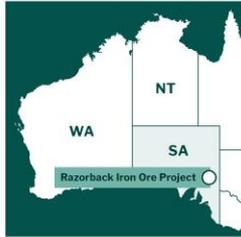
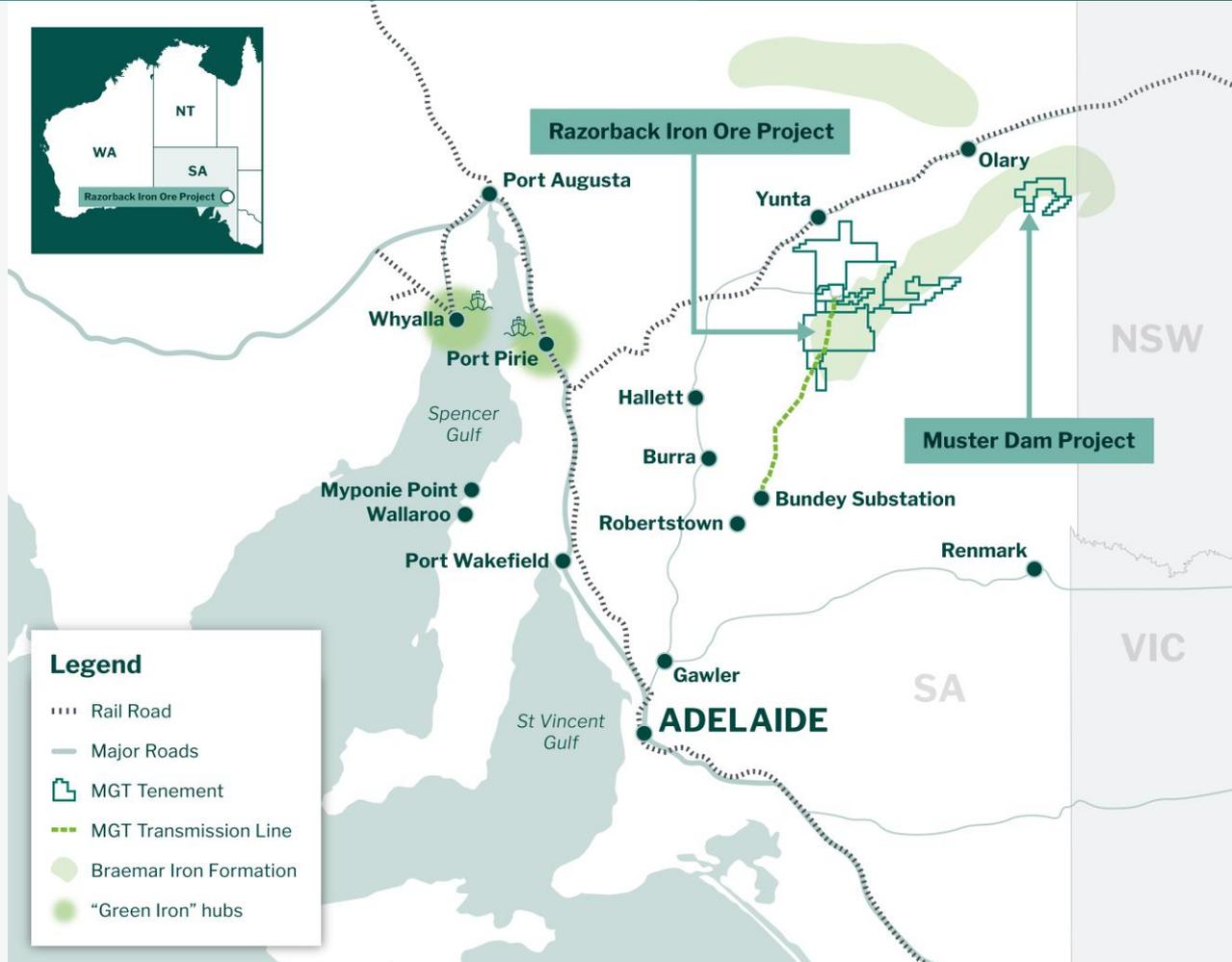
- **2.0Bt** Razorback Ore Reserves<sup>3</sup> (JORC 2012 Probable)

\*BIF: Banded Iron Formation, common host geology for West Australian magnetite deposits

# Outstanding project location in the undeveloped Braemar

Close to potential future green iron hubs at Whyalla & Port Pirie

<p>Adelaide 240km</p>	
<p>Open-access rail ~50km</p>	
<p>Whyalla Port 315km</p>	
<p>Port Pirie 180km</p>	
<p>Grid Power 100% renewable by 2030 ~125km</p>	



# Low risk conventional project configuration

*Well-proven mining practices and processing technologies*



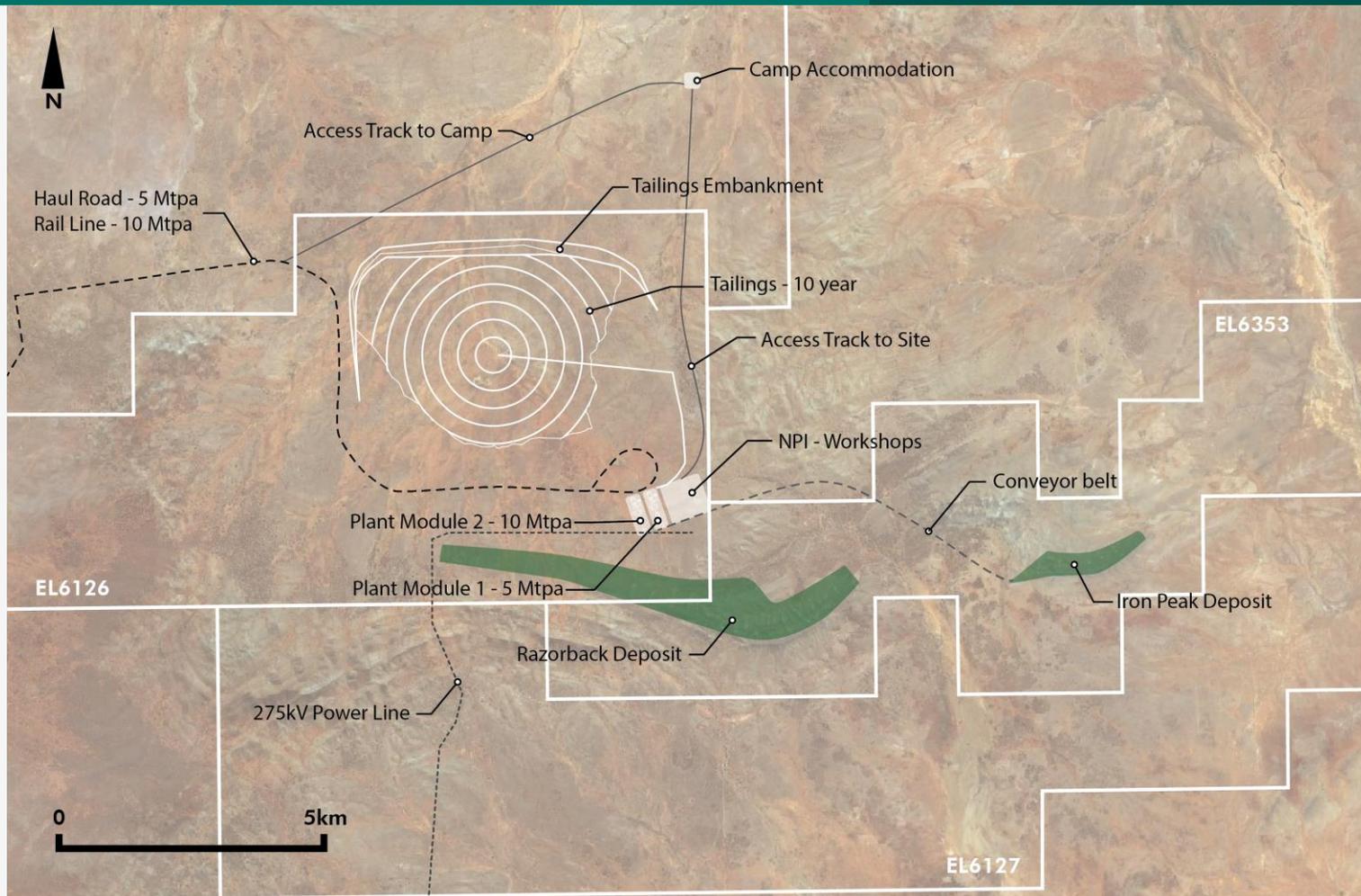
**Open cut mining**



**Magnetic separation**



**Truck haulage to rail siding**



# High-grade Iron Peak deposit: prioritised for production

*New maiden Ore Reserve*

## Iron Peak included in Razorback Project:

- ✓ **4km from Razorback deposit**
- ✓ **Best mass recovery**
- ✓ **Best concentrate quality**
- ✓ **First 10 years plant feed**
- ✓ **Orebody open along strike/depth**

### Mineral Resources (Inferred + Indicated)<sup>4</sup>

Tonnes **503 Mt**

Mass Recovery: **19.4%**

### Iron Peak target concentrate grade\*

Iron Grade **68.5% Fe**

Impurities: **<2.5% SiO<sub>2</sub>** (silica)  
**0.4% Al<sub>2</sub>O<sub>3</sub>** (alumina)



Iron Peak

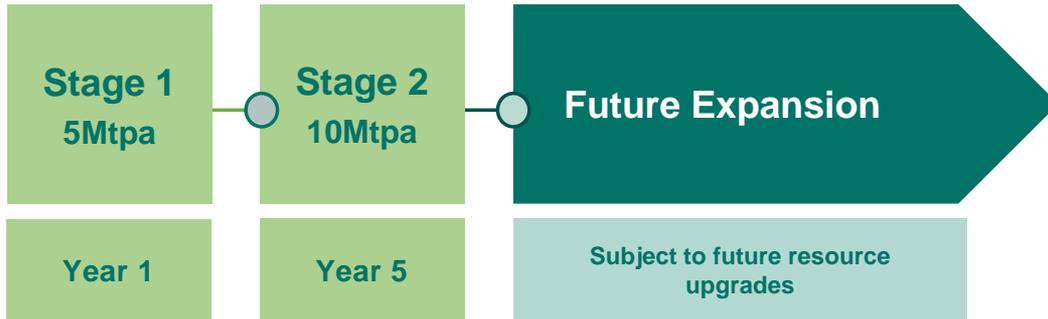


Razorback Ridge (from Iron Peak)

# Positive Razorback Project Optimisation Study economics

Results leading to larger scale production and staged expansion strategy

## Staged development pathway manages risk



## Respected consulting partners



## Key project metrics<sup>5</sup>

Physical Metrics	Unit	Base Case	Expansion Option
Concentrate production rate	dry Mtpa	5	10
Life of mine	Years	91	39
Mining rate (first 10 years)	Mtpa	57	91
LOM strip ratio	tt	0.35	0.35
Nominal plant feed at scale	Mtpa	25	67
Financial Metrics	Unit	Base Case	Expansion Option
Value-in-use price premium <sup>a</sup>	US\$/t	41	41
Value-in-use operating cost (62% Fe eq.) <sup>b</sup>	US\$/t	46 – 55	39 – 48
Pre-production capital <sup>c</sup>	US\$B	1.0 – 1.3	2.3 – 2.8

a. Value-in-use price premium is the forecast 2027 quality adjustment premium over and above the 62% iron ore index reference price as calculated by Wood Mackenzie for Razorback Project concentrate specification.

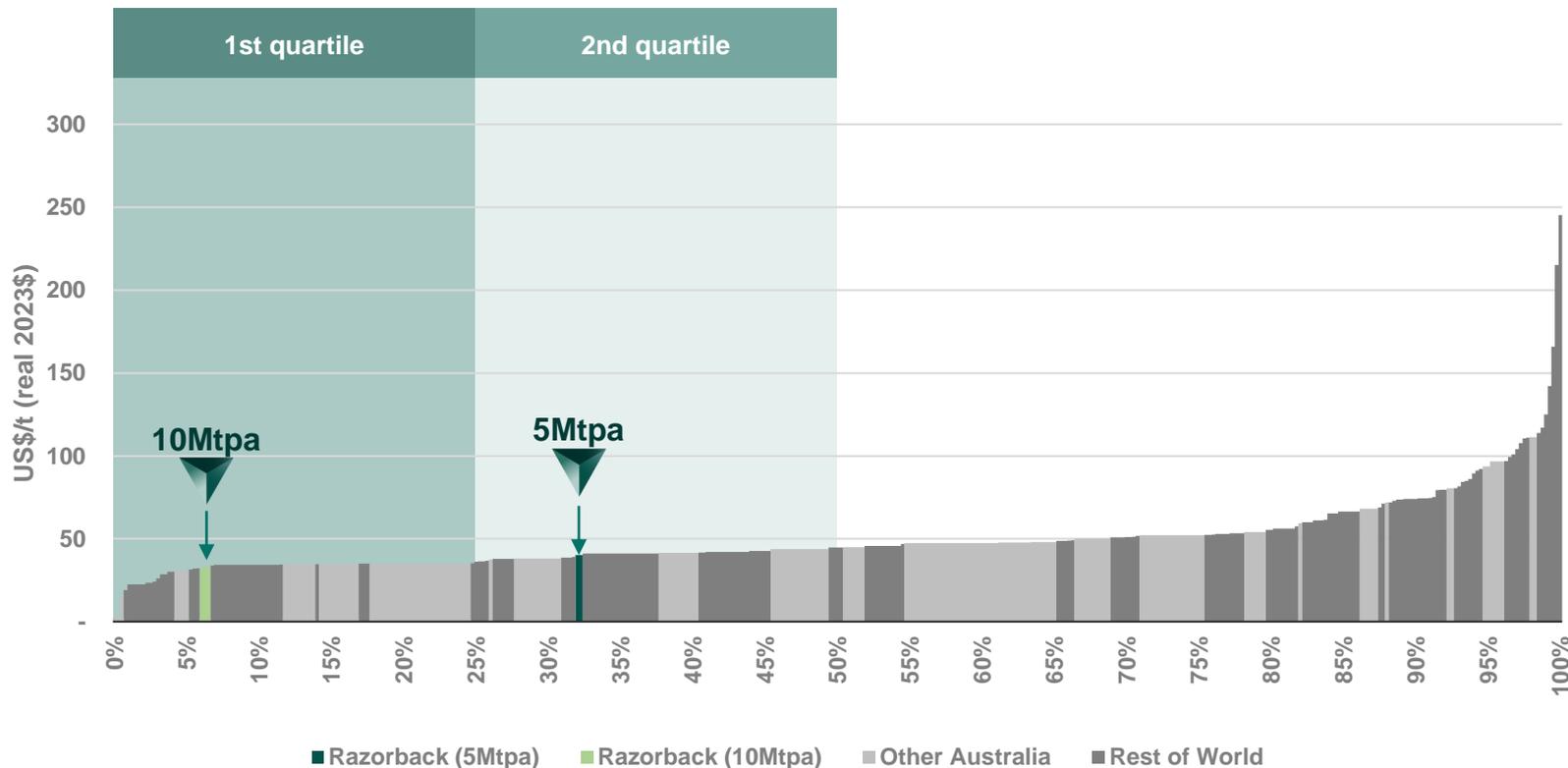
b. Value-in-use operating cost (62% Fe eq.) represents the total operating cost per tonne of concentrate produced for the first ten years of operations at scale, inclusive of freight, royalties, lease costs and sustaining capital, with the value-in-use price premium (see a. above) subtracted, enabling direct comparison with the benchmark 62% iron ore index reference price.

c. Pre-production capital represents the capital expenditure required to achieve production. For the Expansion Option, pre-production capital is the combined total for both initial and expanded production stages.

# Razorback Project economics globally-competitive

Highly-competitive cost base on a standardised basis

**Wood Mackenzie 2027 VIU-adjusted (62% Fe eq.) cost curve (US\$/t)<sup>a,b</sup>**



a) Adjusts cost base for product premium or discount based on grade / specification relative to 62% Fe index  
 b) Operating costs per [Iron Peak Strengthens Razorback Project Economics](#), ASX Release June 9, 2023

# Razorback Project financing concept

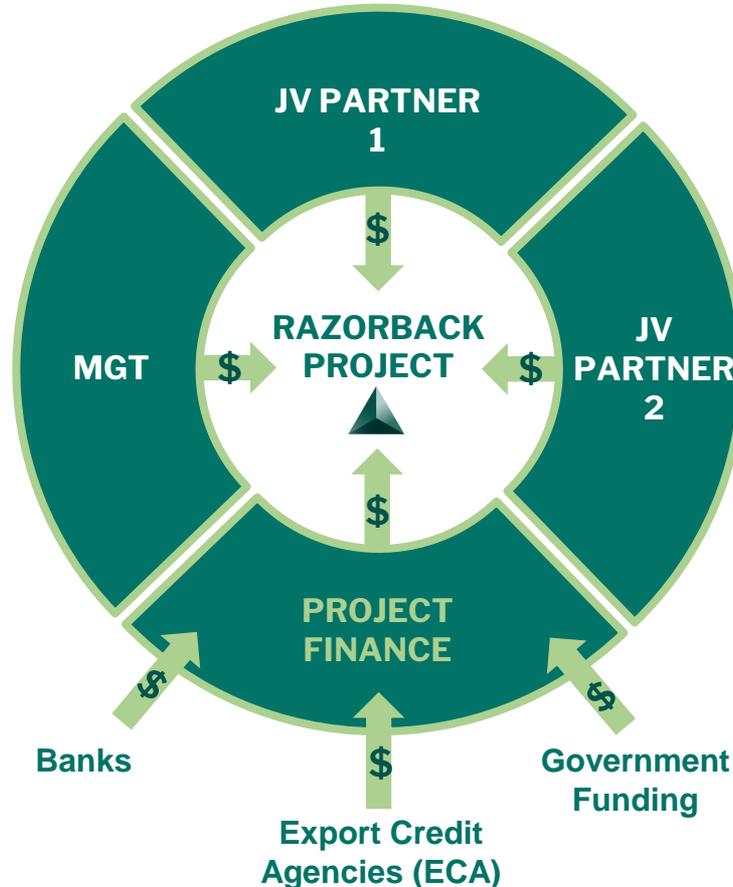
Joint venture with motivated offtakers



## Joint Ventures (JV)

- Well-proven model for big Australian iron ore projects over many decades
- Shares capital burden and project risk amongst the parties
- Enables access to low-cost capital, reducing dilution to MGT shareholders
- MGT can maintain largest stake and control as project operator

## UNINCORPORATED JOINT VENTURE (JV)



## Our choice of partners

- World-class asset has attracted many global steel industry players
- Assessment in progress:
  - Virtual data room access
  - Site visits
  - Due diligence
  - Ongoing discussions



**Cultural heritage survey with Ngadjuri team**



**MoU with Peterborough District Council**



**Grid-connected local renewable energy**

## foresight

### Environmental sustainability

- Enabling future low carbon steel production (green steel)
- Accessing 100% renewable energy on SA grid<sup>6</sup>
- Focus on responsible water use

### Accountable governance

- Globally-recognised assurance / disclosure standards adopted
- Amplified Board and Executive sustainability accountability
- South Aust – 3rd globally in Fraser Institute Policy Perception Index

### Social & community inclusion

- Partnering agreement in development with Ngadjuri Nation
- 3,500ha of baseline cultural heritage surveys at site completed
- Social and economic impact MoU with District Council of Peterborough<sup>7</sup>

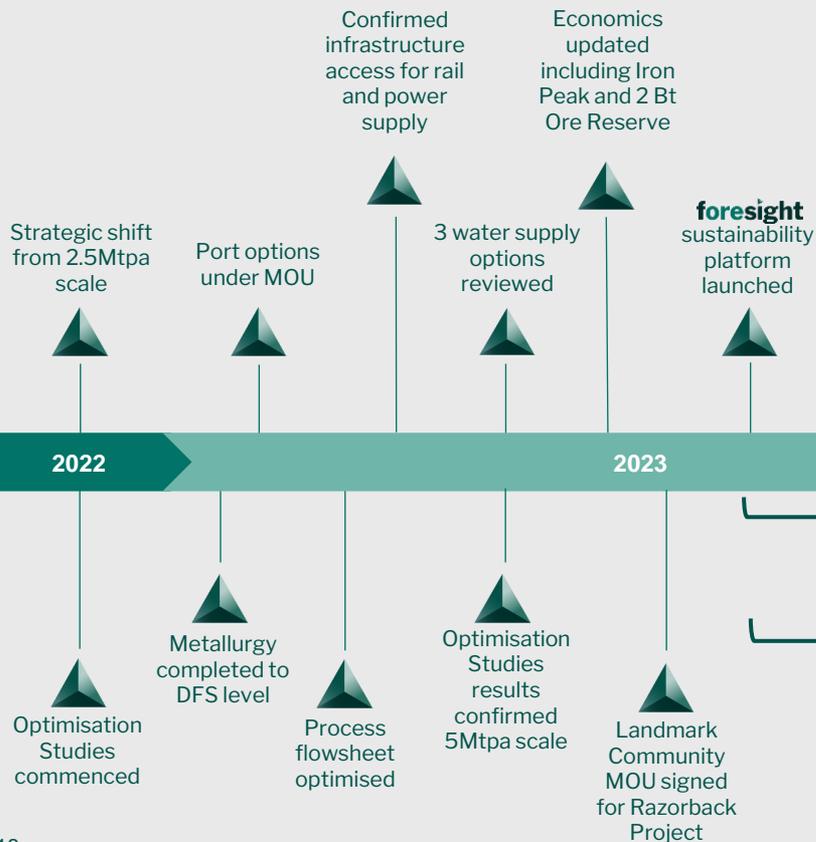
### People & culture

- Increasing employee engagement via cultural alignment & training
- Commitment to R&D (HILT CRC)
- Zero reportable incidents in 2022

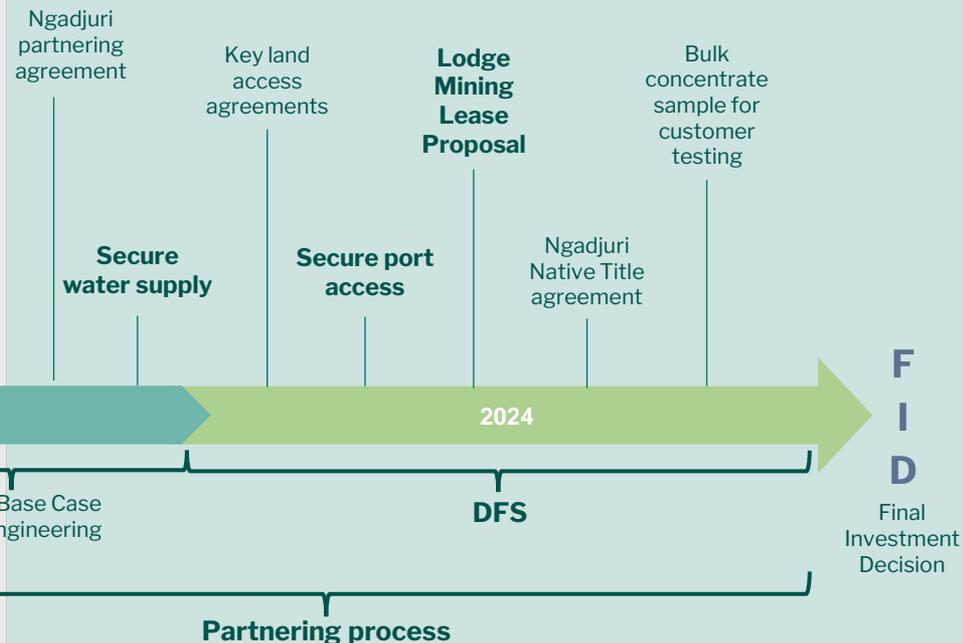
# Magnetite Mines is well positioned for success

*Aligned with timing and acceleration of downstream demand*

## KEY MILESTONES



## NEXT STEPS



Note: As at October 2023

# Magnetite Mines

## The opportunity is now

### Decarbonisation Tailwind

- Premium-grade iron ore needed now to enable decarbonised 'green' iron & steelmaking

### Outstanding Project Credentials

- Tier 1 location
- Close to port & rail
- 6 billion tonnes in Resources<sup>1,2</sup>
- 2 billion tonnes in Ore Reserves<sup>3</sup>

### Progressing to Development

- Partner interest increasing
- Experienced Board & management in place
- Progressing through Definitive Feasibility Study

### Substantial re-rating potential

- Project set for long life cash generation
- Very low MGT market cap relative to project value
- Project milestones ahead should close the gap

ASX:MGT

## References

1. ASX Announcement – 09/02/23 – Iron Peak Resource Significantly Improved
2. ASX Announcement – 22/11/22 - Muster Dam Mineral Resource Estimate
3. ASX Announcement – 22/03/23 - Razorback Iron Project Ore Reserves Increase 340% - Update
4. ASX Announcement – 09/06/23 - Iron Peak Deposit Maiden Ore Reserve
5. ASX Announcement – 09/06/23 - Iron Peak Strengthens Razorback Project Economics
6. ASX Announcement – 23/02/23 - Renewable grid power for Razorback Project
7. ASX Announcement – 05/05/23 - Landmark Community MOU Signed for Razorback

# MAGNETITE

M I N E S

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# Appendix 1

## Mineral Resources and Reserves

Razorback Iron Ore Project (Razorback & Iron Peak deposits combined) <sup>a</sup>								
Classification	Tonnes (Mt)	Mass Rec %	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	LOI %	Magnetite %
Indicated	1,675	15.95	18.36	48.02	8.06	0.18	5.46	15
Inferred	1,570	16.09	17.74	48.6	8.23	0.18	5.53	15.6
<b>Sub-total</b>	<b>3,245</b>	<b>16.02</b>	<b>18.06</b>	<b>48.3</b>	<b>8.15</b>	<b>0.18</b>	<b>5.49</b>	<b>15.3</b>

Results presented at 11% eDTR cutoff

Ironback Hill <sup>*b</sup>								
Classification	Tonnes (Mt)	Mass Rec %	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	LOI %	Magnetite %
Inferred	1,187	-	23.2	44.4	7.2	0.21	5.4	12.9

No cut-off applied to results

Muster Dam Iron Ore Project <sup>*c</sup>								
Classification	Tonnes (Mt)	Mass Rec %	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	LOI %	Magnetite %
Inferred	1,550	15.2	18.7	49.6	8.8	0.2	2.8	-

Results presented at 10% eDTR cutoff

Combined Mineral Resource Estimate								
Classification	Tonnes (Mt)	Mass Rec %	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	LOI %	Magnetite %
Inferred and Indicated	5,982	-	19.4	48.1	8.2	0.2	4.8	-

Results presented as weighted averages of items A, B and C

Razorback Iron Ore Project Ore Reserve <sup>*</sup>			
Classification	Ore (Mt)	Mass Rec %	Concentrate
Probable	1,977	14.6	68.5

Ore Reserves are a sub-set of Razorback Iron Ore Project Indicated Mineral Resource Estimate. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements below, and in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements. Tonnages and grades presented above are estimates of in-situ rock characteristics.