



# Becoming a World-Scale Critical Minerals Producer

Informa Mineral Sands Conference

Astron Corporation Limited (ASX:ATR)

19 March 2024

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## COMPETENT PERSONS STATEMENT

The information in this report that relates to the MIN5532 Mineral Resource estimate is based on information and supporting documentation compiled by Mrs Christine Standing, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mrs Standing is a full-time employee of Optiro Pty Ltd (Snowden Optiro) and is independent of Astron Corporation, the owner of the Mineral Resources. Mrs Standing has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. The Company confirms that the form and context in which the Competent Persons' findings are presented have not materially modified from the relevant original market announcement.

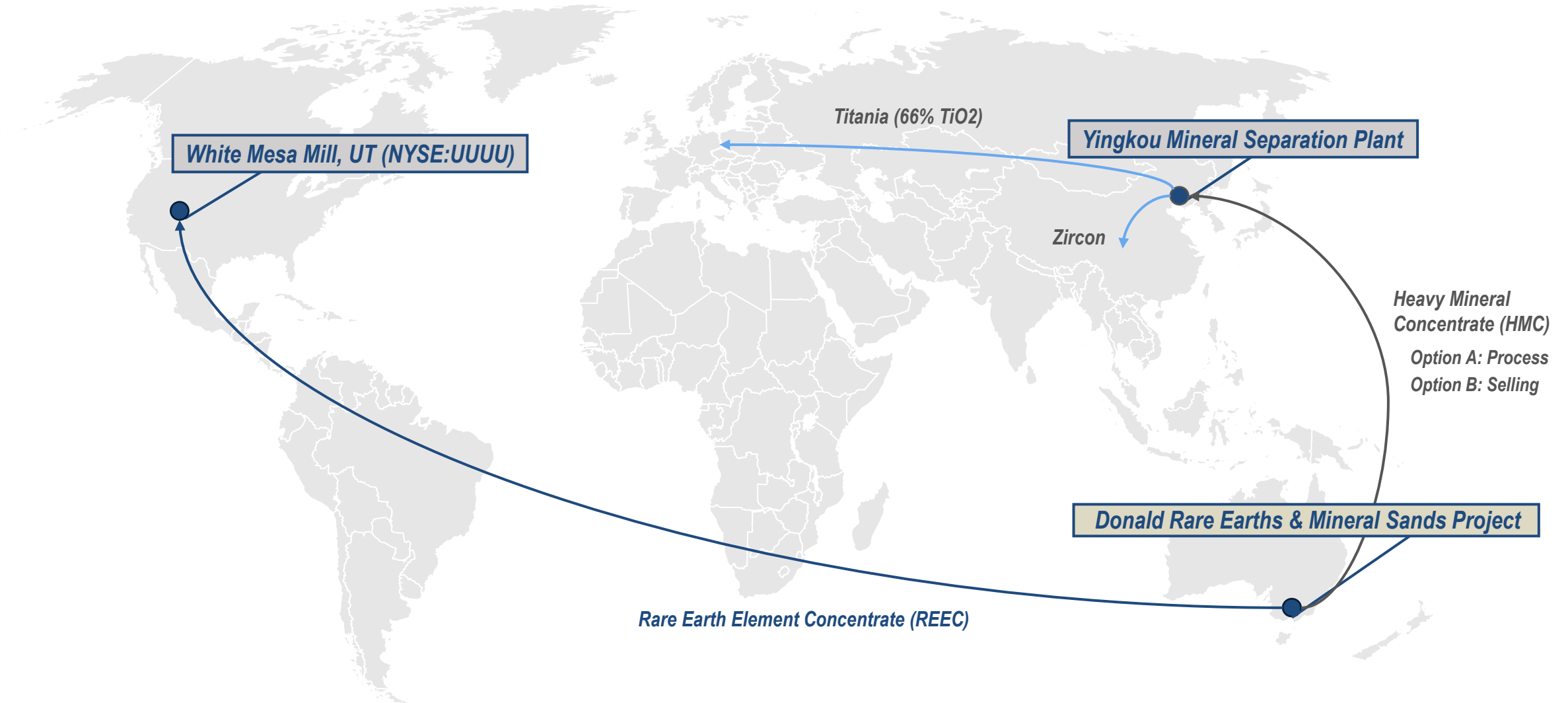
The information in this document that relates to the estimation of the RL2002 and RL2003 Mineral Resources is based on information compiled by Mr Rod Webster, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and Australian Institute of Geoscientists. Mr Webster is a full-time employee of AMC Consultants Pty Ltd and is independent of DMS, the owner of the Donald Project Mineral Resources. Mr Webster has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. The Company confirms that the form and context in which the Competent Persons' findings are presented have not materially modified from the relevant original market announcement.

The information in this document that relates to the estimation of the Ore Reserves is based on information compiled by Mr Pier Federici, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Federici is a full-time employee of AMC Consultants Pty Ltd and is independent of Astron. Mr Federici has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. The Company confirms that the form and context in which the Competent Persons' findings are presented have not prematurely modified from the relevant original market announcement.

The information in this document that relates to the metallurgical performance and outcomes of testwork is based on information compiled by Mr Ross McClelland, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr McClelland is the principal metallurgist and director of Metmac Services Pty Ltd. Mr McClelland has been involved with the metallurgical development of the Wimmera-style mineral sands resources for more than 30 years. He has provided metallurgical consultation services to DMS for more than 7 years. He qualifies as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been prematurely modified from the relevant original market announcement.

# Building a Global Strategic Minerals Value Chain

Partnership with US-based rare earth processor Energy Fuels aligns with Australian Government's Critical Minerals Strategy



# Donald Project – Highlights

A multi-generational (50 years+) supplier of critical minerals and downstream valuable materials for decarbonisation

## Tier 1 project of global significance

3<sup>rd</sup> largest rare earth resource ex-China

Largest global zircon resource

## Compelling financial metrics and multi-phased approach

Phase 1 DFS:  
Post-tax NPV<sub>8</sub> – A\$852m  
Cashflow: Q3 2025

Phase 1+2 PFS:  
Post-tax NPV<sub>8</sub> – A\$2.2b  
Cashflow: Q4 2030

## Major approvals in hand, project technically de-risked

EES, EPBC, CHMP,  
Mining Licence granted

Extensive metallurgical test work

## Favourable market dynamics across product mix

Rare earth demand growth – 6.0% CAGR

Zircon – short to mid term supply deficits

## Focus on execution and value creation for shareholders

Experienced Management Team

Clearly defined project timetable

## Non-Binding MoU executed with leading U.S. Critical Minerals Company

100% Rare Earth Off-take into the U.S.

~\$180m of Funding towards Construction

Site of Donald Project

# Experienced Team To Deliver

Board & management with strong project delivery experience, project team established with strong technical expertise



**George Lloyd**  
*Chairman*

George has 30 years resource industry and corporate business development and finance experience, including with RGC Limited, as well as serving as a senior executive and director of a number of listed and unlisted companies with interests in industrial minerals, base and precious metals, as well as energy sector.



**Tiger Brown**  
*Managing Director*

Tiger joined Astron in 2018, holding various business development planning and executive roles in China and Australia prior to joining the board in 2019. Appointed managing director in February 2019 and has overseen the detailed planning for the delivery of the Donald project.



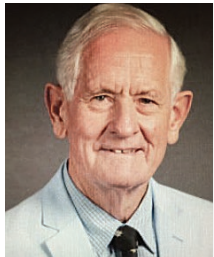
**Rong Kang**  
*Non-Executive Director*

Rong joined Astron in 1995 and has been a key contributor to the establishment of Astron's historic downstream processing and global marketing and sales activities. Rong helped over see the sale of Astron's downstream operations for A\$200m to Imerys S.A. in 2009. Previously served as Astron's COO and joined Astron's board in 2014.



**Sean Chelius**  
*Donald Project Director*

Sean joined Astron in January 2022 as Project Director for Donald, over 30 years international experience in project planning and implementation, including full responsibility for taking projects from concept through to commissioning and production. Experience involves project management and engineering roles in Australia, South Africa, Zimbabwe, PNG and Fiji with BHP, Anglo, Newcrest and Ausenco.



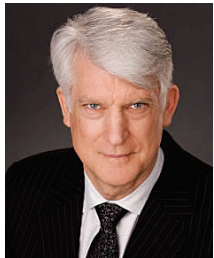
**Gerard King A.M.**  
*Non-Executive Director*

Gerard is a former partner of Lavan & Walsh, which became Phillips Fox Perth. Experienced in commercial contracting, mining law and corporate and ASX compliance. A former member of the Australian Mining & Petroleum Lawyers Association Served as a non-executive director for several companies.



**Greg Bell**  
*Chief Financial Officer*

Greg's advisory and corporate experience spans more than 23 years, working initially in corporate advisory and assurance services with Deloitte, followed by 8 years with Mineral Deposits Limited (MDL) as Accounting Manager and then Chief Financial Officer. Subsequent to MDL, Greg held both consulting and executive roles with international mineral sands and resource companies.



**Dr Mark Elliott**  
*Non-Executive Director*

Mark has 27 years experience in corporate roles, both as chairman and managing director on several ASX-listed and private companies. Involved in identifying and securing resource projects, capital raisings, marketing and completing commercial agreements, feasibility studies, mine development plans and their execution.



**Jessica Reid**  
*General Manager Sustainability*

Experienced environmental and social professional, working across Australia and PNG on natural resource and major infrastructure projects for over 18 years as Principal at Tetra Tech (formerly Coffey). Previous experience includes the delivery of Donald Project E.E.S. and Gippsland Renewable Energy Zone in VIC, environmental approvals for the Wafi-Golpu Project, Ok Tedi Mine Life Extension in PNG.



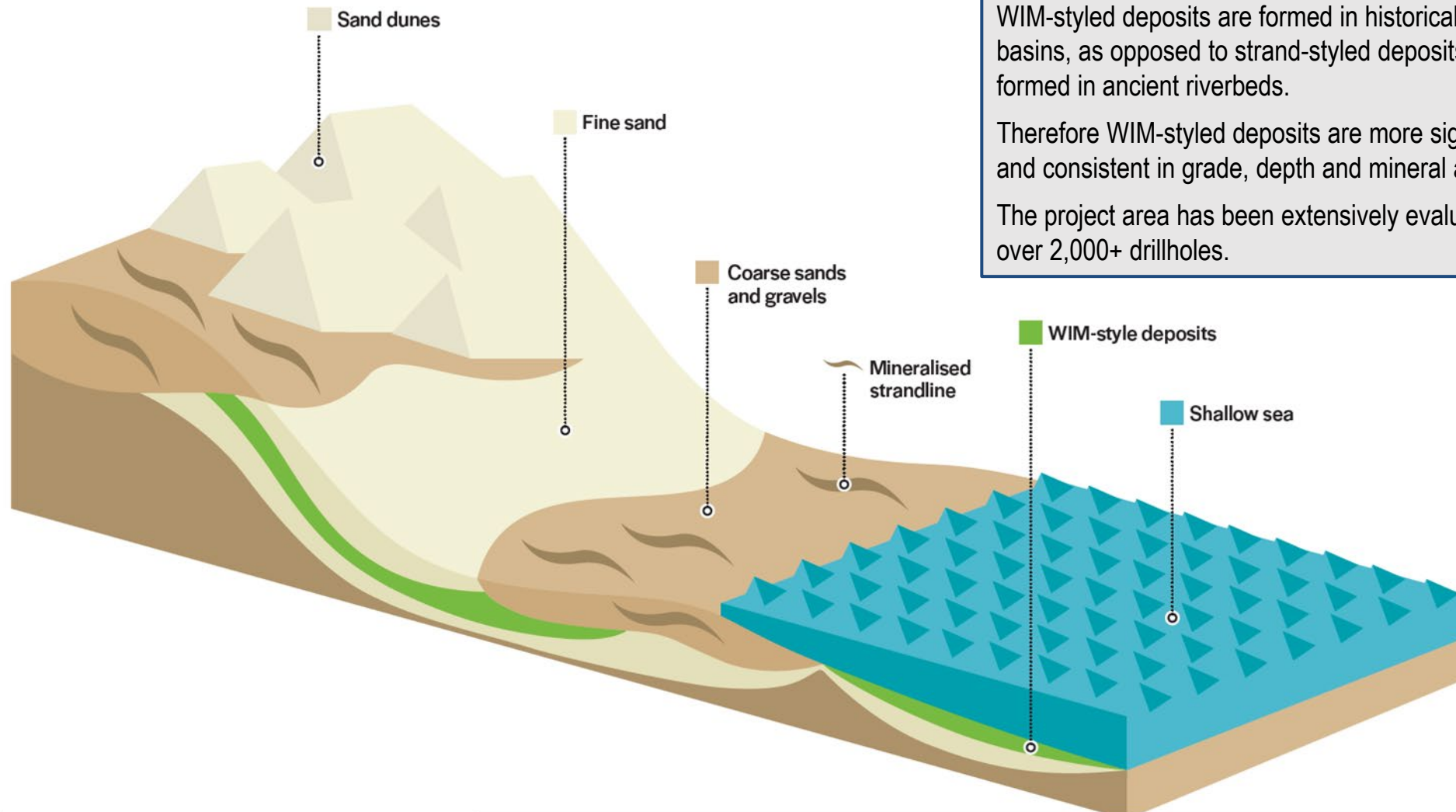
# The Donald Project



*Donald WCP Pilot Plant, 2018*

# WIM-Styled Deposits - Significant Size and Scale

WIM-style deposits are typically flat, shallow & extensive containing greater tonnages and more consistent VHM characteristics



WIM-styled deposits are formed in historical land sea basins, as opposed to strand-styled deposits which are formed in ancient riverbeds.

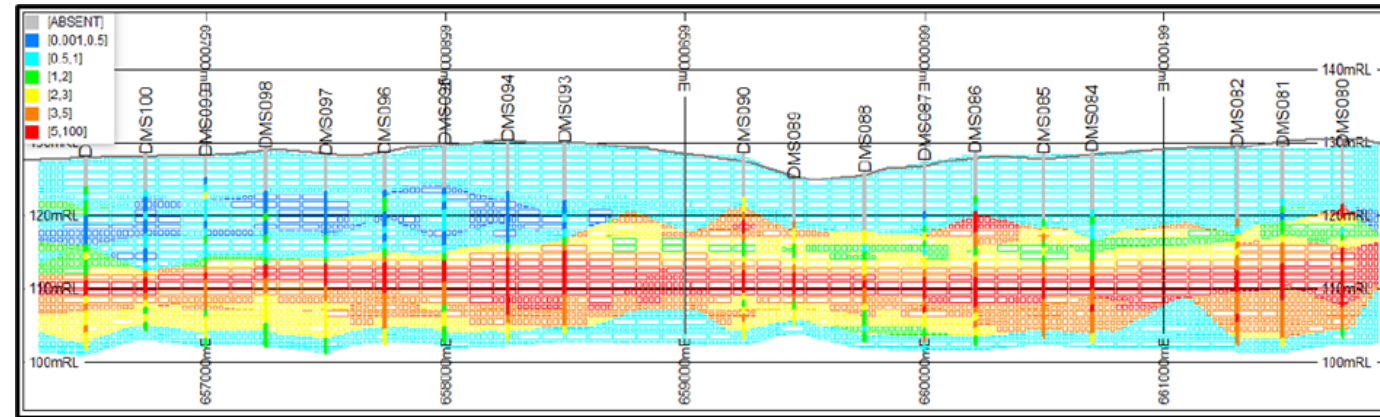
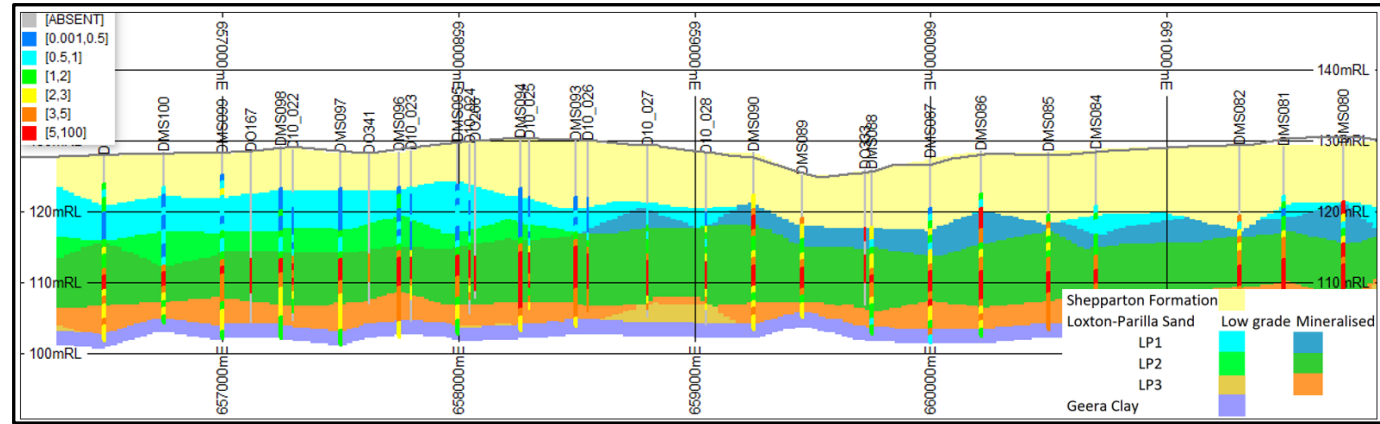
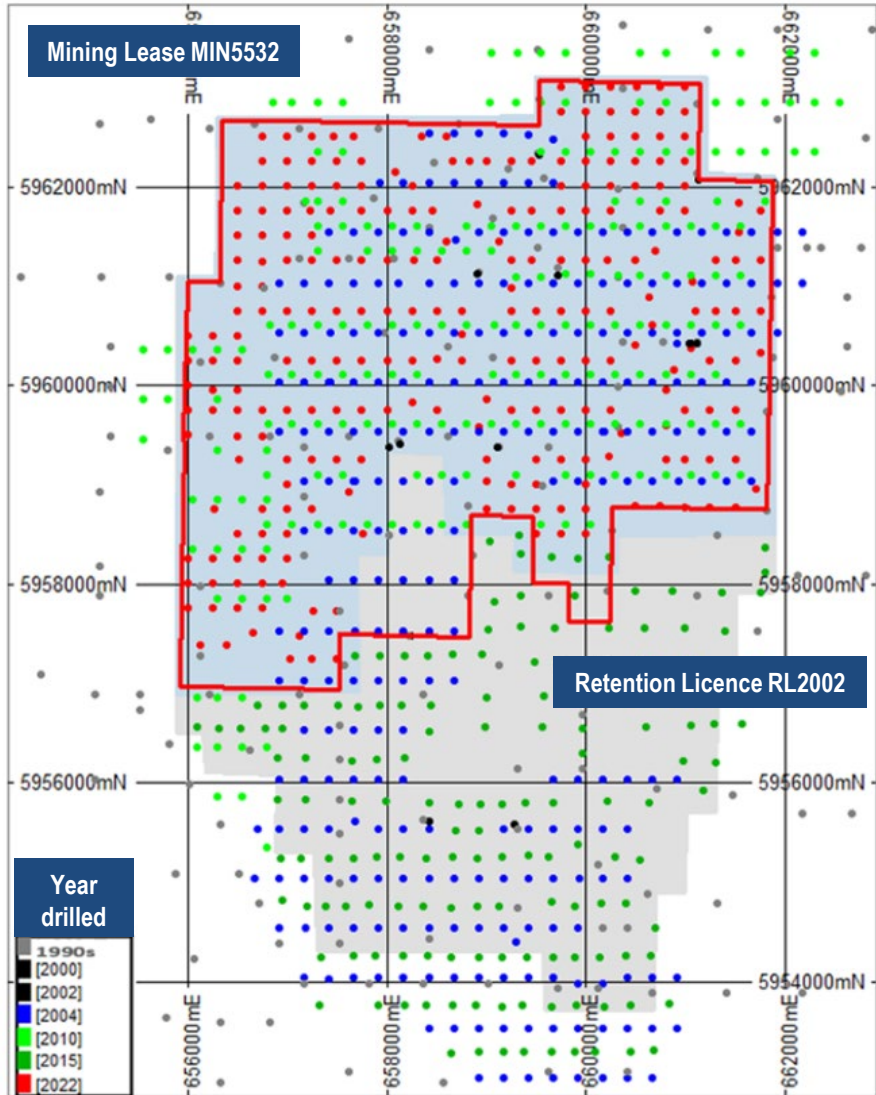
Therefore WIM-styled deposits are more significant in size and consistent in grade, depth and mineral assemblage.

The project area has been extensively evaluated with over 2,000+ drillholes.

# Resource Delineation



Multiple drilling programs over several decades provides confidence in Ore Reserve and Mineral Resource



Donald Deposit cross-section east-west at 5,961,300mN (x 30 vertical exaggeration) – HM% block grades

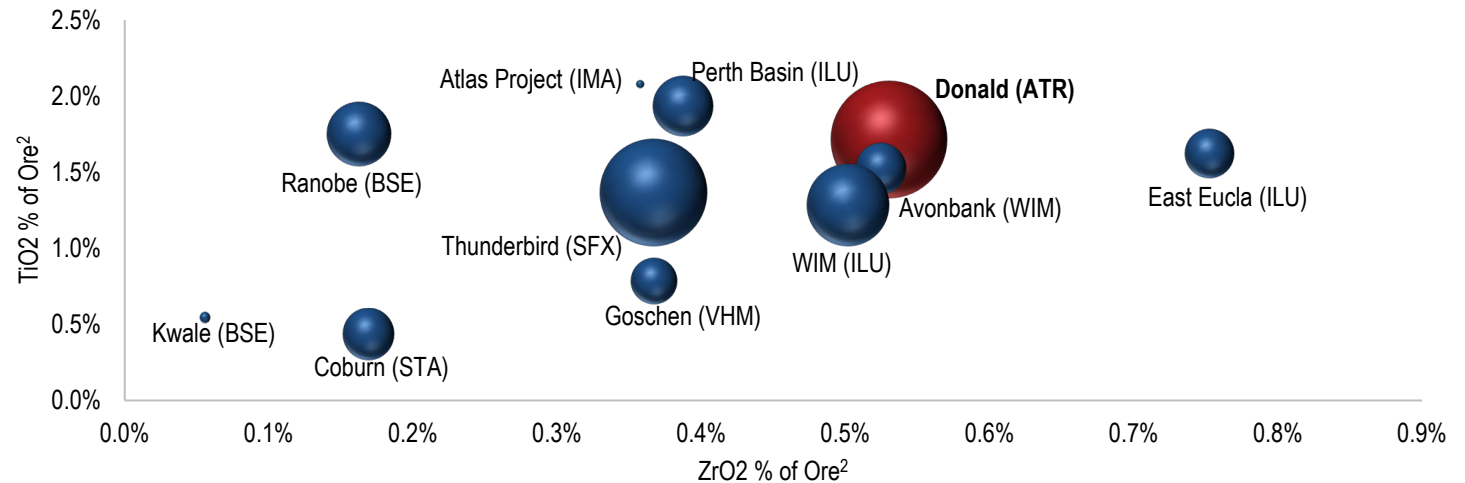
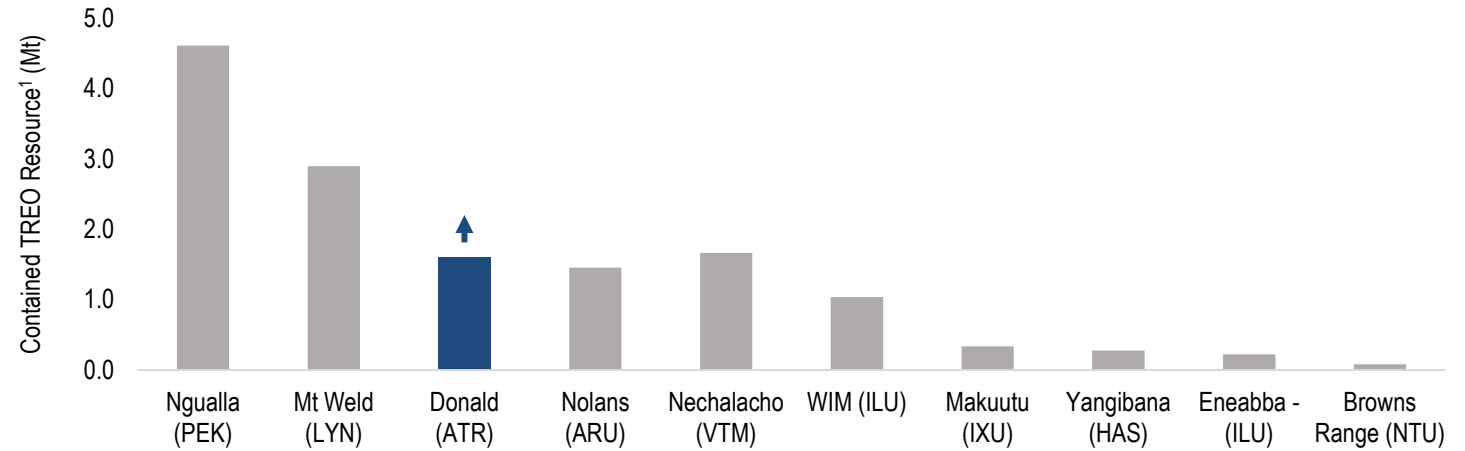


# Significant Critical Mineral Resource by Size and Scale

The Donald Project is one of the most significant critical mineral resources globally

<b>3rd</b>	Largest rare earth resource ex-China by monazite alone
<b>3:1</b>	Monazite to xenotime ratio confirmed over MIN5532, demonstrating further R.E. upside across project area
<b>1st</b>	Largest zircon resource globally
<b>22.1</b>	Million tonnes of in-situ zircon resource (Global zircon demand 1.2 Mtpa)
<b>75%</b>	Of Phase 1 Mineral Resource is <b>Measured</b>
<b>&gt; 58yr</b>	Mine life from MIN5532 + RL2002 alone at 15 Mtpa based on reserves of 825Mt

Rare Earths - Relative In-situ Rare Earth Resource



1. Selected ex-China producing and prospective rare earths projects with available resource data, based on publicly available information. Bar size denotes overall size of Total Rare Earth Oxide (TREO) equivalent resource. This assumes a conversion factor of 0.67 from Monazite and Xenotime to TREO.  
 2. Selected prospective developing mineral sands projects with available mineral resource data, based on publicly available information. Metallurgical assemblages are converted from optical assemblages.  
 3. ZrO2% is calculated as a percentage of overall ore. Bubble size denotes overall size of zircon-equivalent resource.  
 4. Astron Corporation's Mineral Resource Information derived from ASX announcement, 1 December 2022, Donald Rare Earth and Mineral Sands Project – Mining Licence Mineral Resource Update.

# Phase 1 Definitive Feasibility Study

AACE level 2 study demonstrating robust financial metrics, delivers long-life sustainable cash-flows to drive shareholder value



Phase 1 is forecast to generate A\$852m Post-Tax NPV<sub>8</sub> at an IRR of 25.8%



Accessing only 17% of the total Mineral Resource, Phase 1 has a mine life of 41.5 years



Total capital requirement of ~\$400m to deliver \$147.8m EBITDA per year over mine life



Low strip ratio, minimal induration, conventional and proven flowsheet, high VHM recoveries

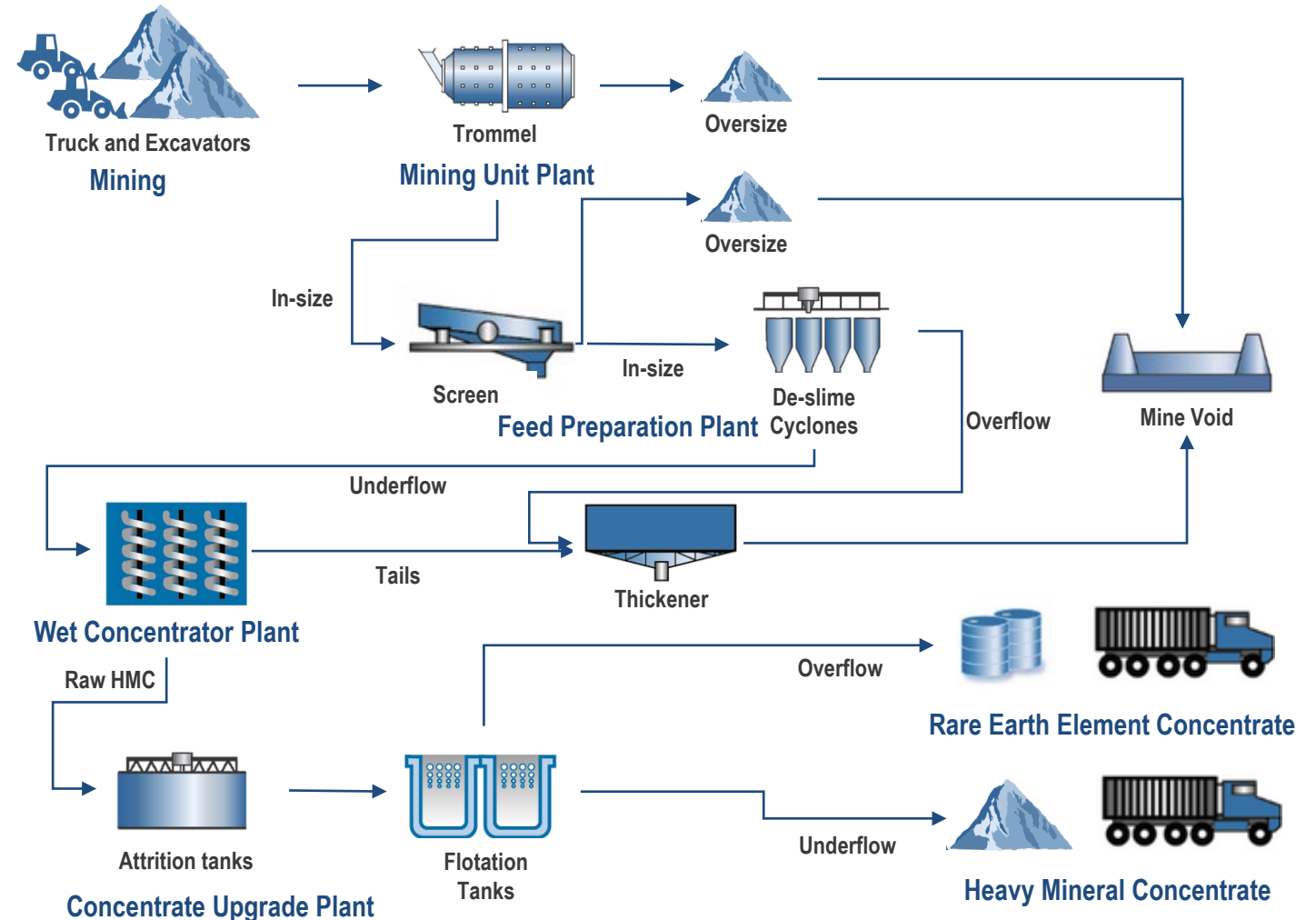


>8ktpa of REEC over first 5 years of Phase 1, >60% TREO, >20% Nd/Pr, >2% Dy /Tb



>250ktpa of HMC over first 5 years of Phase 1, over 95% HM, ~37% TiO<sub>2</sub>, ~20% ZrO<sub>2</sub>

## Phase 1 - Process Flow Diagram



# Extensive Evaluation & De-risking

Project significantly de-risked through successful pilot plant test work exhibiting strong heavy mineral recovery



WCP Pilot Plant – MT, QLD, 2019



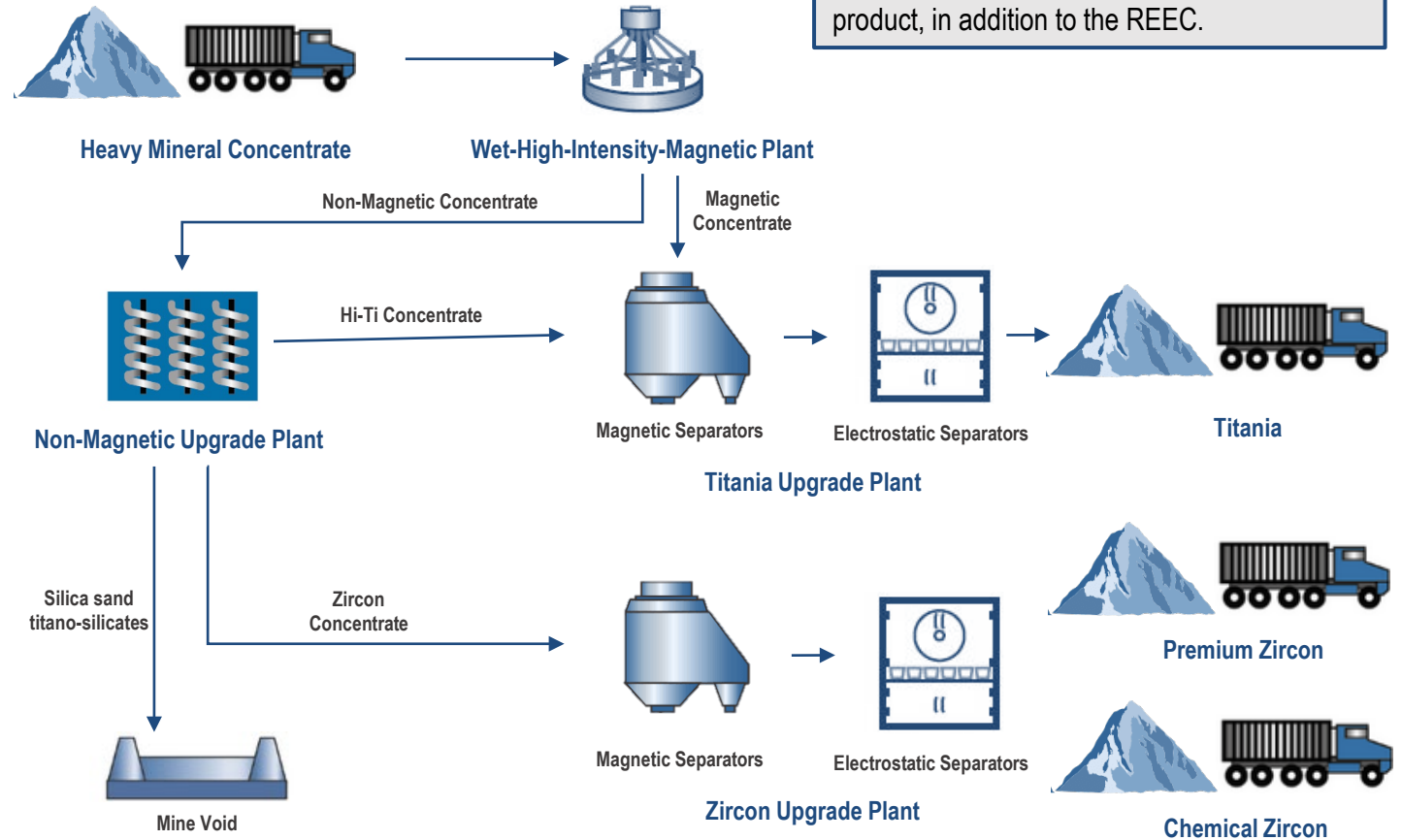
Rare Earth Flotation Pilot Plant – Nagrom, WA, 2021

# The Donald Project - Phase 2

Duplication of mining throughput and the production of final mineral sands products

	<p>Capital Expenditure for Phase 2 to be funded through internally generated cashflows</p>
	<p>PFS demonstrates incremental NPV of \$1.4B Extending mine-life to 58 years</p>
	<p>Extensive evaluation in engineering design, pilot-scale test work for MSP undertaken demonstrating commercial recoveries</p>
	<p>The production of final mineral sands products facilitates access to a more global market</p>
	<p>Average &gt;13,000tpa of REEC, ~95,000tpa of zircon, 260,000tpa of titanium feedstock</p>
	<p>Construction is project to start in 2029, production forecasted towards Q4 2030</p>

## Phase 2B - Process Flow Diagram



Phase 2b plans to produce final mineral sands products of premium zircon, chemical zircon, and titania from the heavy mineral concentrate product, in addition to the REEC.



# Project Approvals

# The Next Mineral Sands Development

Submission of the Work Plan positions Donald as the most advanced rare earths project in the eastern states of Australia

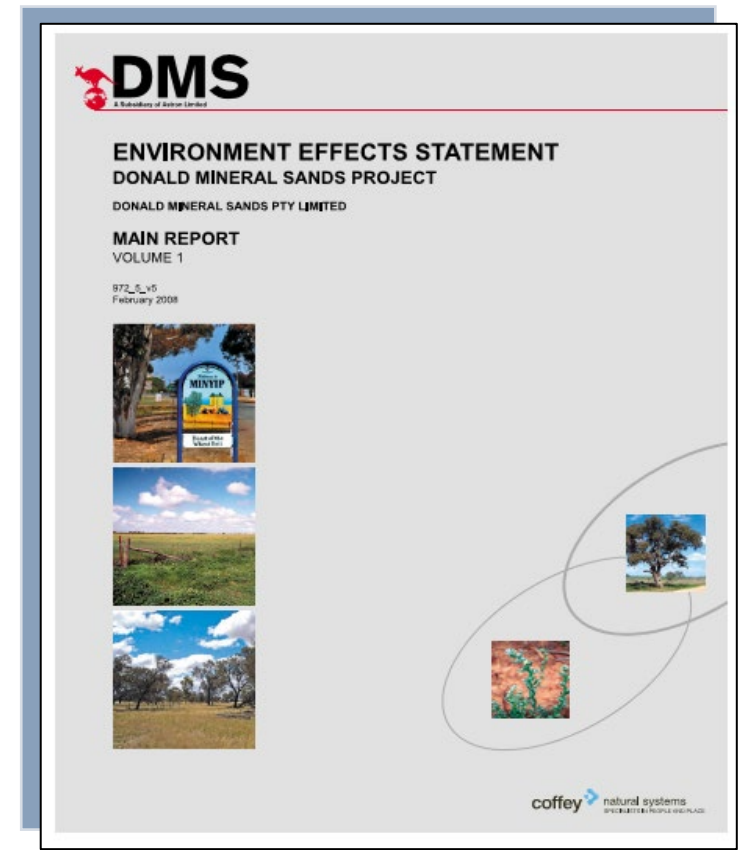
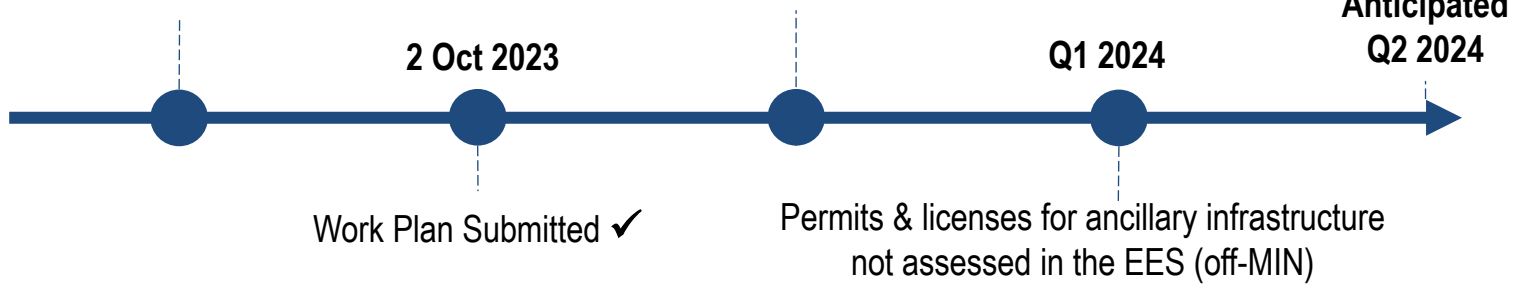
Advanced Regulatory Approval Status			
Key Approval Requirement	Completed	Date	Expiry
Environmental Effects Statement	✓	2008	None
Commonwealth EPBC Act approval	✓	2009	2042
Mining licence MIN5532	✓	2010	2030
Water Rights	✓	2011	Option to renew
Cultural Heritage Management Plan	✓	2014	None
Radiation Licence	✓	2015	To be renewed
HMC export licence	✓	2016	To be renewed

## Further approval requirements

Demonstrate alignment with 2008 EES

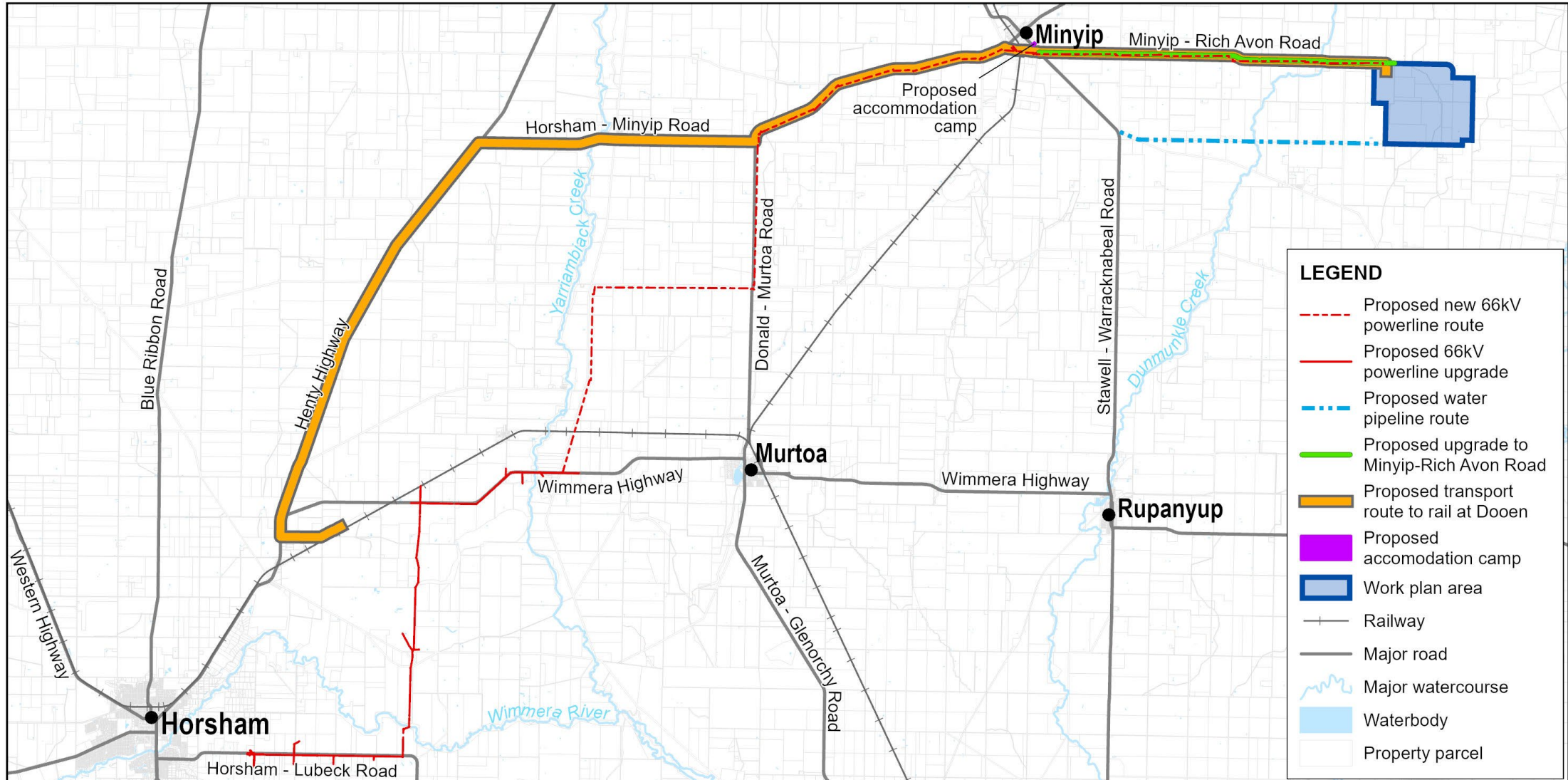
Secondary permits & licences (A10, Take & Use, works over waterways)

Work Plan Approval



# Off-Site Infrastructure: Road, Water, Power and Accommodation

The Project is located in close proximity to infrastructure of roading, water pipelines, and powerlines





# Rehabilitation



*Site of Donald Project rehabilitated test-pit from 2022*



# Environmental Management, Rehabilitation and Sustainable Development

Minimise environmental impact through sustainable mining & rehabilitation, assisting Astron's social license

- ✓ Products are critical in assisting the energy transition
- ✓ Donald represents an auditable source of rare earth minerals from an ESG-standpoint
- ✓ Mining operations to be undertaken on cleared land, predominantly used for cropping
- ✓ Mined land to be rehabilitated within 3 to 5 years of excavation. Demonstrated through successful test-pit
- ✓ Recycling of process water, no surface water run-off, and groundwater is hyper-saline (non-potable)
- ✓ Commitment to explore renewable energy use during production

1. Excavation



2. Tailings Return



3. Topsoil Levelling



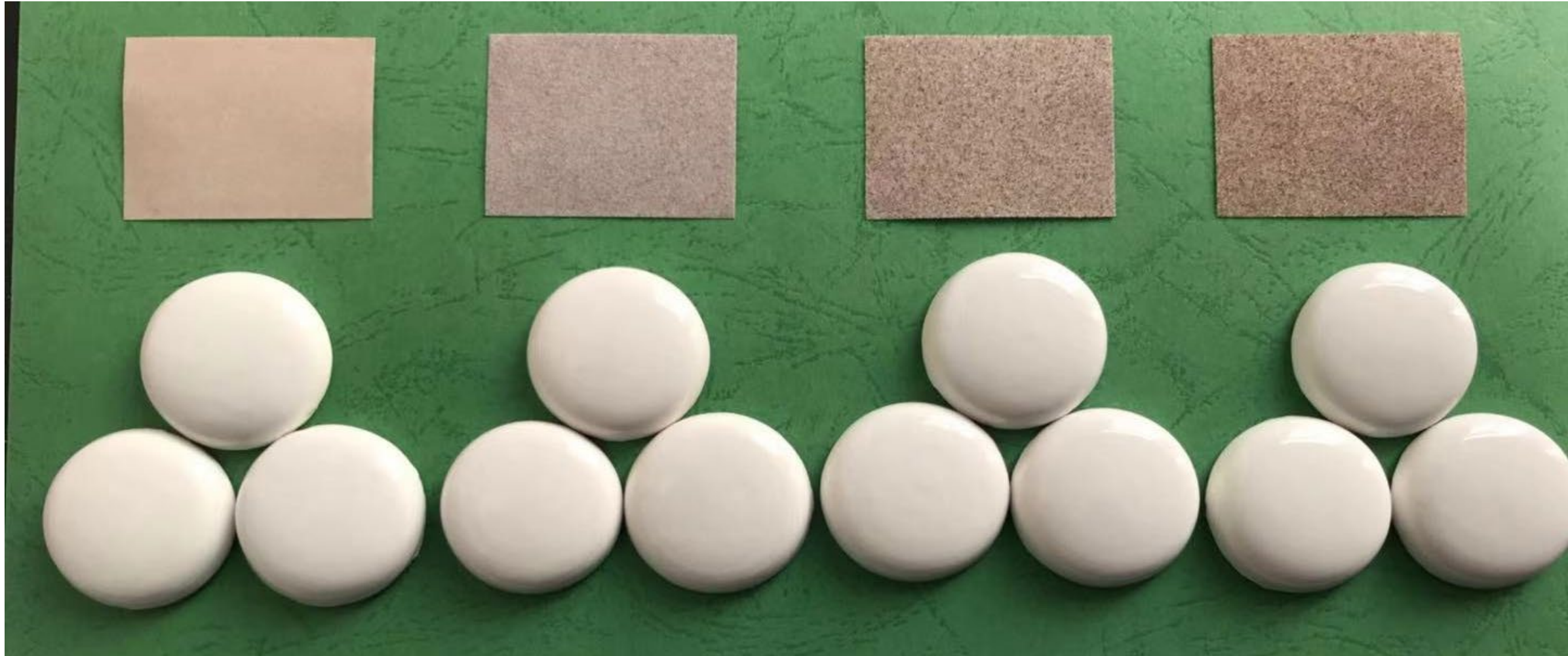
4. Rehabilitation



# Product Attributes

# Quality Product Attributes

Astron's attractive reserve assemblage translates into a high-quality product suite ensuring market acceptance



Donald Premium

Competitor 1

Competitor 2

Competitor 3

# Rare Earth Mining

Permanent magnet demand driving demand for Rare Earths

## Rare Earths used in Permanent Magnets

### Light Rare Earth Elements (LREE)

✓ Nd/Pr

### Heavy Rare Earth Elements (HREE)

✓ Dy/Tb

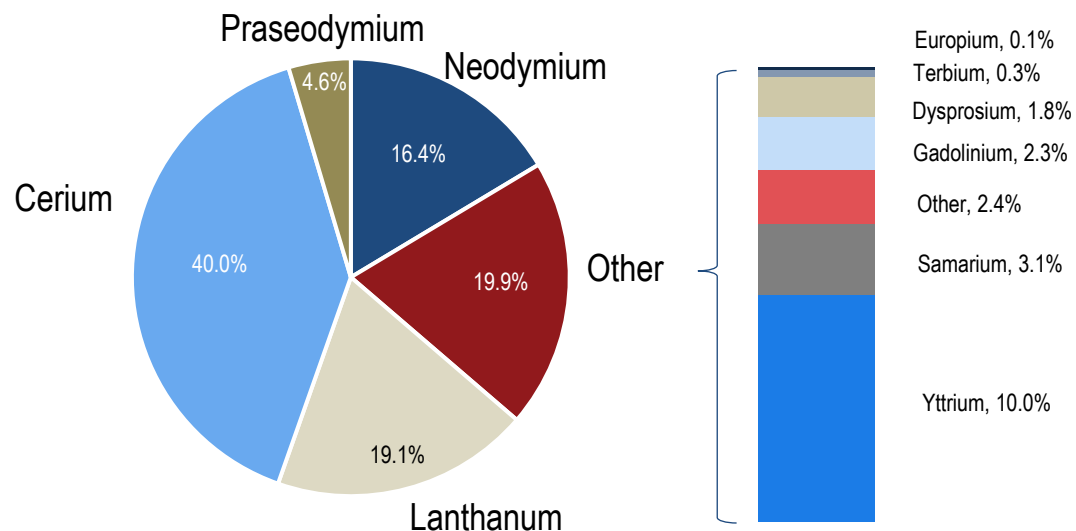
## Commercial Deposit Type Comparison

	Hard Rock Deposits	Sand Deposits
TREO Header Grade	Higher	Lower
Mining Costs	Higher	Low
Revenue Mix	Single Commodity	Diverse Product Mix

## Donald Rare Earth Attributes

- Placer (sand) rare earth deposit
- Contains significant heavy rare earths (xenotime)
- Donald REEC product has competitive TREO% (60%) & basket value compared with other projects

## Distribution of Rare Earth Oxides in Donald REEC



Source: Adamas Intelligence, data as at Q1 2023

# Feasibility Study and Financials

# Phase 1 Financials

Robust financial metrics deliver long-life, sustainable cash flows to drive shareholder value

Revenue

**\$314.4m**  
per year

Cash Costs

**\$166.6m**  
per year

EBITDA

**\$147.8m**  
per year

Trending Against Definitive Feasibility Study

Capital Expenditure



Operating Expenditure



Rare earth revenue



HMC revenue



CAPEX

**\$364.7m**

Mine Life

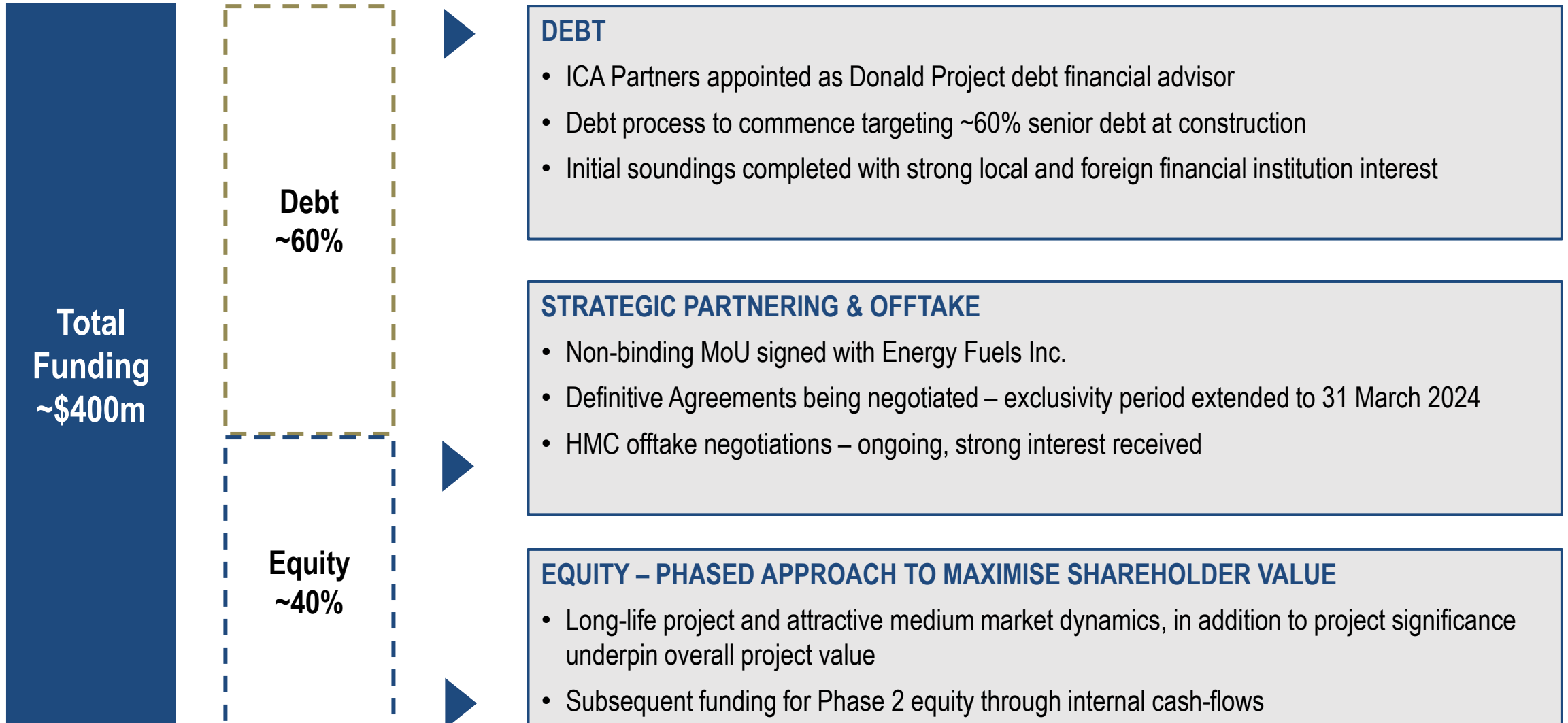
**41.5 years**

Post-Tax IRR

**25.8%**

# Funding Strategy

Project capital expenditure estimate to be funded by efficient deployment of debt and equity capital



# Next Steps





# Next Steps - Donald

Methodical development of a globally significant critical minerals resource

## Regulatory

- Work Plan – **submitted, awaiting approval**
- Secure secondary approvals for project facilities - **underway**

## Financial

- Debt Funding process to secure debt component of funding – **in progress**
- Negotiate Offtake arrangements for HMC – **in progress**

## Technical

- Front-end engineering and design package (FEED) – **Commenced**
- Negotiate and appoint EPC Construction Manager – **Preferred supplier selected**

## Operational

- Develop operational readiness plan and build operations team – **in progress**
- Finalise community planning for project impacts including transport, construction and operational workforces – **community consultation underway**

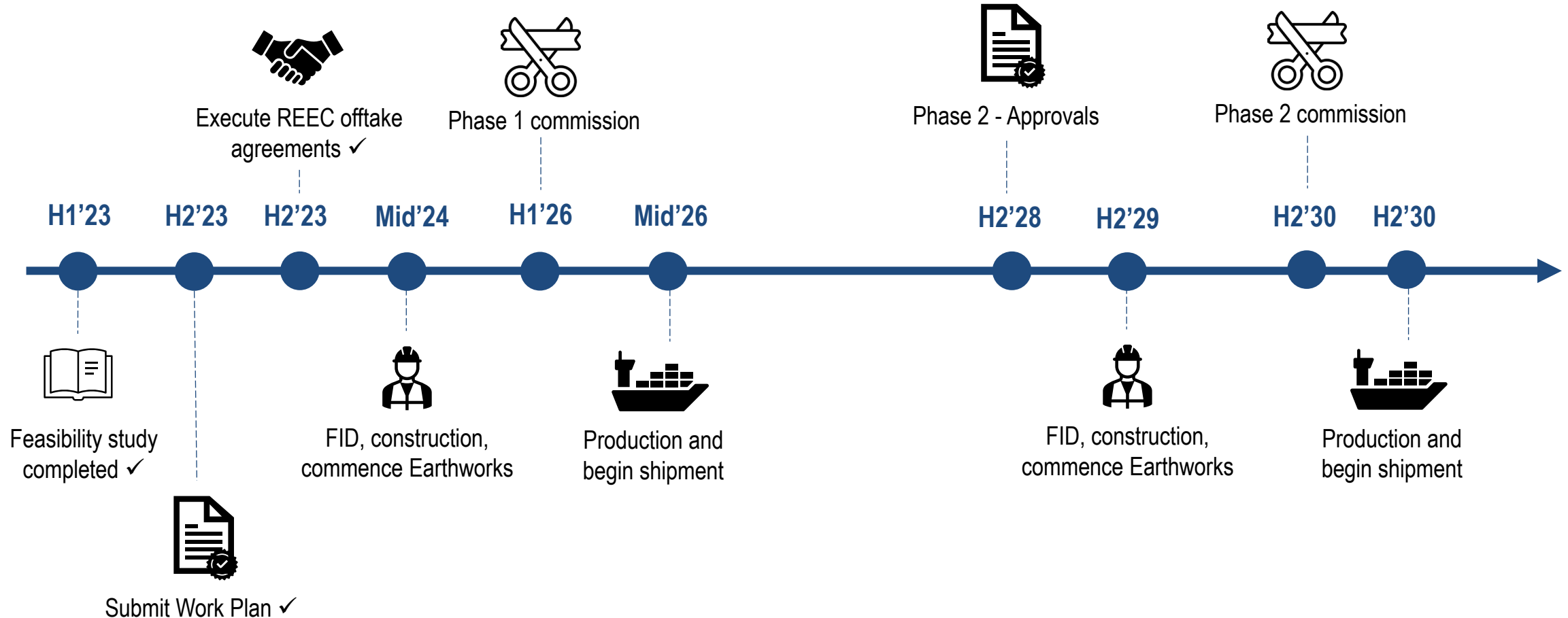
# Project Timeline

The project has a dedicated and achievable timeline to first production and positive cash flows

## Phase 1 Development

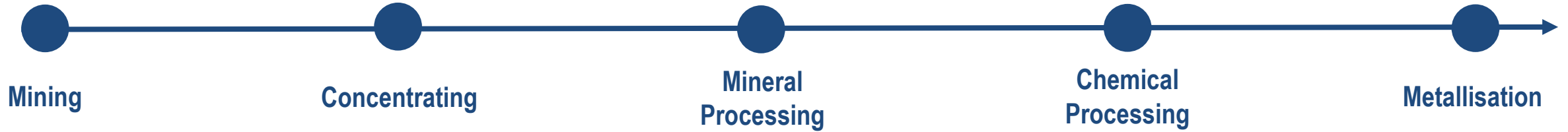
## Phase 2 Development

17% of total Mineral Resources to be used in Phase 1, supporting \$852m NPV and 41 year+ life




# Phased Approach to Long Term Value Delivery

Unparalleled resource position enables phased development, with multiple independent value-chains




Rare Earths

Phase 1 + 2a



Forecast NPV<sub>8</sub>  
\$1.8B



58-year+ mine life

Phase 3




Further downstream processing




Partnership model

Mineral Sands

Phase 2b




Incremental NPV<sub>8</sub>  
\$431m




Payback period  
1.5 years

Phase 3 and beyond



Specialist processing technologies



>35 years Mineral Sands Industry Experience

# Further Information

## **Tiger Brown**

**Managing Director**

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Email: [contact@astronlimited.com](mailto:contact@astronlimited.com)

## **Joshua Theunissen**

**Company Secretary**

Tel: +61 3 5385 7088

Email: [contact@astronlimited.com](mailto:contact@astronlimited.com)



# Appendix: Donald Project – Ore Reserve Statement

## MIN5532

The Ore Reserve has been classified as Proven Ore Reserves, based on Measured Mineral Resources and Probable Ore Reserves, based on Indicated Mineral Resources. The results of the Ore Reserve estimate reflect the Competent Person's view of the deposit.

The JORC Code 2012 Table 1, Section 4 to support the Ore Reserve Estimate is included in Appendix B of the Donald Project Ore Reserve Statement released **31 March 2023**. The Ore Reserve estimates have been compiled in accordance with the guidelines defined in the 2012 JORC Code.

Note that Mineral Resources are reported inclusive of the Ore Reserve.

Classification	Tonnes (Mt)	Slimes (%)	Oversize (%)	HM (%)	Ilmenite (%HM)	Leucoxene (%HM)	Rutile (%HM)	Zircon (%HM)	Monazite (%HM)	Xenotime (%HM)
<b>Within MIN5532</b>										
Proved	263	15.4	9.8	4.4	21.6	25.9	5.5	16.7	1.8	0.67
Probable	46	19.7	11.1	4.1	21.3	20.1	5.5	15.3	1.8	0.64
<b>Total</b>	<b>309</b>	<b>16.1</b>	<b>10.0</b>	<b>4.4</b>	<b>21.6</b>	<b>25.1</b>	<b>5.5</b>	<b>16.5</b>	<b>1.8</b>	<b>0.66</b>

### Note:

1. The ore tonnes have been rounded to the nearest 1Mt and grades have been rounded to two significant figures.
2. The Ore Reserve is based on Indicated and Measured Mineral Resource contained within mine designs above an economic cut-off.
3. A break-even cut-off has been applied defining any material with product values greater than processing cost as Ore.
4. Mining recovery and dilution have been applied to the figures above.
5. The area is wholly within the mining licence (MIN5532).
6. The rutile grades are a combination of rutile and anatase minerals.
7. The Ore Reserve estimates have been compiled in accordance with the guidelines defined in the 2012 JORC Code

## RL2002 outside of MIN5532

The Ore Reserve has been classified as Proven Ore Reserves, based on Measured Mineral Resources and Probable Ore Reserves, based on Indicated Mineral Resources. The results of the Ore Reserve estimate reflect the Competent Person's view of the deposit.

The JORC Code 2012 Table 1, Section 4 to support the Ore Reserve Estimate is included in Appendix B of the Donald Project Ore Reserve Statement released **18 February 2021**. The Ore Reserve estimates have been compiled in accordance with the guidelines defined in the 2012 JORC Code.

Note that the Mineral Resources are reported inclusive of the Ore Reserve.

Classification	Tonnes (Mt)	Slimes (%)	Oversize (%)	HM (%)	Ilmenite (%HM)	Leucoxene (%HM)	Rutile (%HM)	Zircon (%HM)	Monazite (%HM)
<b>RL2002 outside MIN5532</b>									
Proved	140	19.1	7.1	5.6	31.0	18.4	9.6	21.2	1.8
Probable	268	15.8	14.4	4.0	32.3	19.5	7.5	17.0	1.6
<b>Total</b>	<b>408</b>	<b>16.9</b>	<b>11.9</b>	<b>4.5</b>	<b>31.8</b>	<b>19.0</b>	<b>8.4</b>	<b>18.8</b>	<b>1.8</b>

### Note:

1. The ore tonnes have been rounded to the nearest 1Mt and grades have been rounded to two significant figures.
2. The Ore Reserve is based on Indicated and Measured Mineral Resource contained within mine designs above an economic cut-off.
3. A break-even cut-off has been applied defining any material with product values greater than processing cost as Ore.
4. Mining recovery and dilution have been applied to the figures above.
5. The rutile grades are a combination of rutile and anatase minerals.
6. The Ore Reserve estimates have been compiled in accordance with the guidelines defined in the 2012 JORC Code.

# Appendix: Donald Project – Mineral Resource Statement

## Mineral Resource above a 1% total HM cut-off

Classification	Tonnes (Mt)	Total HM (%)	Slimes (%)	Oversize (%)
<b>Within MIN5532</b>				
Measured	372	4.5	14.4	12.8
Indicated	75	4.0	13.8	13.1
Inferred	7	3.5	13.5	10.6
<b>Subtotal</b>	<b>454</b>	<b>4.4</b>	<b>14.2</b>	<b>12.8</b>
<b>Within RL2002 outside of MIN5532</b>				
Measured	343	3.9	19.8	8.1
Indicated	833	3.3	16.2	13.5
Inferred	1,595	3.3	15.7	6.0
<b>Subtotal</b>	<b>2,771</b>	<b>3.4</b>	<b>16.4</b>	<b>8.5</b>
<b>Total within Donald Deposit (RL2002)</b>				
Measured	715	4.2	17.0	10.6
Indicated	907	3.4	16.0	13.4
Inferred	1,603	3.4	15.7	6.0
<b>Subtotal</b>	<b>3,225</b>	<b>3.6</b>	<b>16.1</b>	<b>9.1</b>
<b>Total within Jackson Deposit (RL2003)</b>				
Measured	-	-	-	-
Indicated	1,903	2.8	19.0	5.8
Inferred	584	2.9	16.7	3.3
<b>Subtotal</b>	<b>2,487</b>	<b>2.9</b>	<b>18.5</b>	<b>5.2</b>
<b>Total Donald Project</b>				
Measured	715	4.3	18.1	11.1
Indicated	2,811	3.0	17.9	8.2
Inferred	2,187	3.3	16.4	5.5
<b>Total</b>	<b>5,712</b>	<b>3.2</b>	<b>16.9</b>	<b>7.3</b>

### Note:

1. MRE is based on heavy liquid separation (HLS) analysis only.
2. The total tonnes may not equal the sum of the individual resources due to rounding.
3. The cut-off grade is 1% HM.
4. The figures are rounded to the nearest: 10M for tonnes, one decimal for HM, slimes and oversize.
5. For further details including JORC Code, 2012 Edition – Table 1 and cross-sectional data, see previous announcements dated 7 April 2016 and 1 December 2022, available at ASX's website.

## Mineral Resource where VHM data is available reported above a cut-off of 1% total HM

Classification	Tonnes (Mt)	HM (%)	Slimes (%)	Oversize (%)	Zircon	Rutile/Anatase	% of total HM				
							Ilmenite	Leucoxene	Monazite	Xenotime	
<b>Within MIN5532</b>											
Measured	394	4.2	16	10	16	7	21	24	1.8	0.66	
Indicated	110	3.5	24	11	15	6	19	18	1.7	0.61	
Inferred	20	2.3	22	14	13	7	19	20	1.4	0.55	
<b>Subtotal</b>	<b>525</b>	<b>4.0</b>	<b>18</b>	<b>10</b>	<b>16</b>	<b>7</b>	<b>21</b>	<b>23</b>	<b>1.8</b>	<b>0.65</b>	
<b>Within RL2002 outside of MIN5532</b>											
Measured	185	5.5	19	7	21	9	31	19	2.0		
Indicated	454	4.2	16	13	17	7	33	19	2.0		
Inferred	647	4.9	15	6	18	9	33	17	2.0		
<b>Subtotal</b>	<b>1,286</b>	<b>4.8</b>	<b>16</b>	<b>9</b>	<b>18</b>	<b>8</b>	<b>33</b>	<b>18</b>	<b>2.0</b>		
<b>Total within Donald Deposit (RL2002)</b>											
Measured	579	4.6	17	9	18	8	25	22	1.9		
Indicated	564	4.1	17	13	17	7	31	19	2.0		
Inferred	667	4.8	15	6	18	9	33	17	2.0		
<b>Subtotal</b>	<b>1,811</b>	<b>4.6</b>	<b>16</b>	<b>9</b>	<b>18</b>	<b>8</b>	<b>30</b>	<b>19</b>	<b>1.9</b>		
<b>Total within Jackson Deposit (RL2003)</b>											
Measured	-	-	-	-	-	-	-	-	-		
Indicated	668	4.9	18	5	18	9	32	17	2.0		
Inferred	155	4.0	15	3	21	9	32	15	2.0		
<b>Subtotal</b>	<b>823</b>	<b>4.8</b>	<b>18</b>	<b>5</b>	<b>19</b>	<b>9</b>	<b>32</b>	<b>17</b>	<b>1.0</b>		
<b>Total Donald Project</b>											
Measured	579	4.6	17	9	18	8	25	22	1.9		
Indicated	1232	4.5	18	9	17	8	31	18	2.0		
Inferred	822	4.7	15	5	18	9	33	17	2.0		
<b>Total</b>	<b>2,634</b>	<b>4.6</b>	<b>17</b>	<b>8</b>	<b>18</b>	<b>8</b>	<b>31</b>	<b>18</b>	<b>2.0</b>		

### Note:

1. MRE is based on heavy liquid separation analysis and where valuable heavy minerals (VHM) have been determined.
2. The total tonnes may not equal the sum of the individual resources due to rounding.
3. The cut-off grade is 1% HM.
4. The figures are rounded to the nearest: 1Mt for tonnes, one decimal for HM, monazite, whole numbers for slimes, oversize, zircon, rutile + anatase, ilmenite and leucoxene and two decimals for xenotime.
5. Zircon, ilmenite, rutile+anatase, leucoxene, monazite and xenotime percentages are reported as a percentage of HM.
6. Rutile + anatase, leucoxene and monazite resource has been estimated using fewer samples than the other valuable heavy minerals outside MIN5532. The accuracy and confidence in their estimate is therefore lower.
7. For further details including JORC Code, 2012 Edition – Table 1 and cross-sectional data, see previous announcements dated 7 April 2016 and 1 December 2022, available at ASX's website

# Appendix: Competitor Information & Disclosure

## SELECT COMPETITOR INFORMATION SOURCES

1. ASX Announcement, Sheffield Resources, ASX:SFX, *Investor Presentation*, 11 April 2023, Production Stage
2. Kalbar Operations Pty Ltd, *Investor Presentation to TZMI*, November 2020, Development Stage – Pre-Feasibility
3. WIM Resources, <https://www.wimresource.com.au/irm/content/avonbank.aspx?RID=312>, extracted 7 February 2023, Development Stage – Definitive Feasibility Study Complete
4. ASX Announcement, VHM Ltd, ASX:VHM, *Prospectus*, 5 January 2023, Development Stage – Definitive Feasibility Study Complete
5. ASX Announcement, Strandline Resources, ASX:STA, *Annual Report to Shareholders*, 31 August 2022, Production Stage
6. ASX Announcement, Base Resources, ASX:BSE, *2022 Annual Report to Shareholders*, 22 August 2022, Development Stage – Definitive Feasibility Study Complete
7. ASX Announcement, Northern Minerals, ASX:NTU, *Annual Report to Shareholders*, 21 October 2022, Development Stage – Definitive Feasibility Study Complete, update to Definitive Feasibility Study to be released in 2024
8. ASX Announcement, Iluka Resources, ASX:ILU, *2022 Annual Report including Appendix 4E*, 21 February 2023, Development Stage – DFS Complete (Eneabba), Production (Eucla Basin), Pre-feasibility (WIM & Perth Basin).
9. ASX Announcement, Hastings Technology Metals Ltd, *Annual Report to Shareholders*, 30 September 2022, Construction stage
10. ASX Announcement, Ionic Rare Earths Ltd, *Annual Report to Shareholders*, 11 October 2022, Development Stage – Definitive Feasibility Study Complete