



 **ASX:MEI**

# **METEORIC**

**Caldeira - The World's Highest Grade Ionic Adsorption Clay REE Deposit**

**MARCH 2025**



# DISCLAIMER



These materials prepared by Meteoric Resources NL ("Meteoric" or the "Company") include forward looking statements. Forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

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The information in this presentation that relates to Mineral Resource Estimates at the Cupim Vermelho Norte and the Dona Maria 1 & 2 prospects was prepared by BNA Mining Solutions and released on the ASX platform on 12 March 2025. The information in this release that relates to Mineral Resource Estimates at the Soberbo and Capão del Mel deposits was prepared by BNA Mining Solutions and released on the ASX platform on 14 May and 13 June 2024 respectively. The information in this release that relates to Mineral Resource Estimates at the Figueira deposit was prepared by BNA Mining Solutions and released on the ASX platform on 5 August 2024. The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resources in this publication. The Company confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the BNA Mining Solutions findings are presented have not been materially modified.

This presentation includes exploration results, estimates of Mineral Resources and scoping study results. The Company has previously reported these results and estimates in ASX announcements dated 16 December 2022, 1 May 2023, 27 June 2023, 24 July 2023, 31 August 2023, 27 September 2023, 8 December 2023, 14 December 2023, 30 January 2024, 29 February 2024, 14 May 2024 and 13 June 2024, 8 July 2024, 5 August 2024, 22 October 2024, 12 December 2024, 5 February 2025 and 12 March 2025. The Company confirms that it is not aware of any new information or data that materially affects the information included in previous announcements (as may be cross referenced in the body of this announcement) and that all material assumptions and technical parameters underpinning the exploration results and Mineral Resource estimates continue to apply and have not materially changed.

All references to the scoping study and its outcomes in this release relate to the ASX announcement dated 22 October 2024 titled Caldeira's Scoping Study Confirms Exceptional Financials. Please refer to the ASX announcement for full details and supporting information.

# COMPANY OVERVIEW

MEI SNAPSHOT	
ASX Code	MEI
Share Price (18/03/25 Close)	A\$0.08
Shares on Issue	2.3B
Market Capitalisation	A\$177M
Cash (31/12/2024)	A\$29.1M
Trading volume (3-month Avg.)	5M

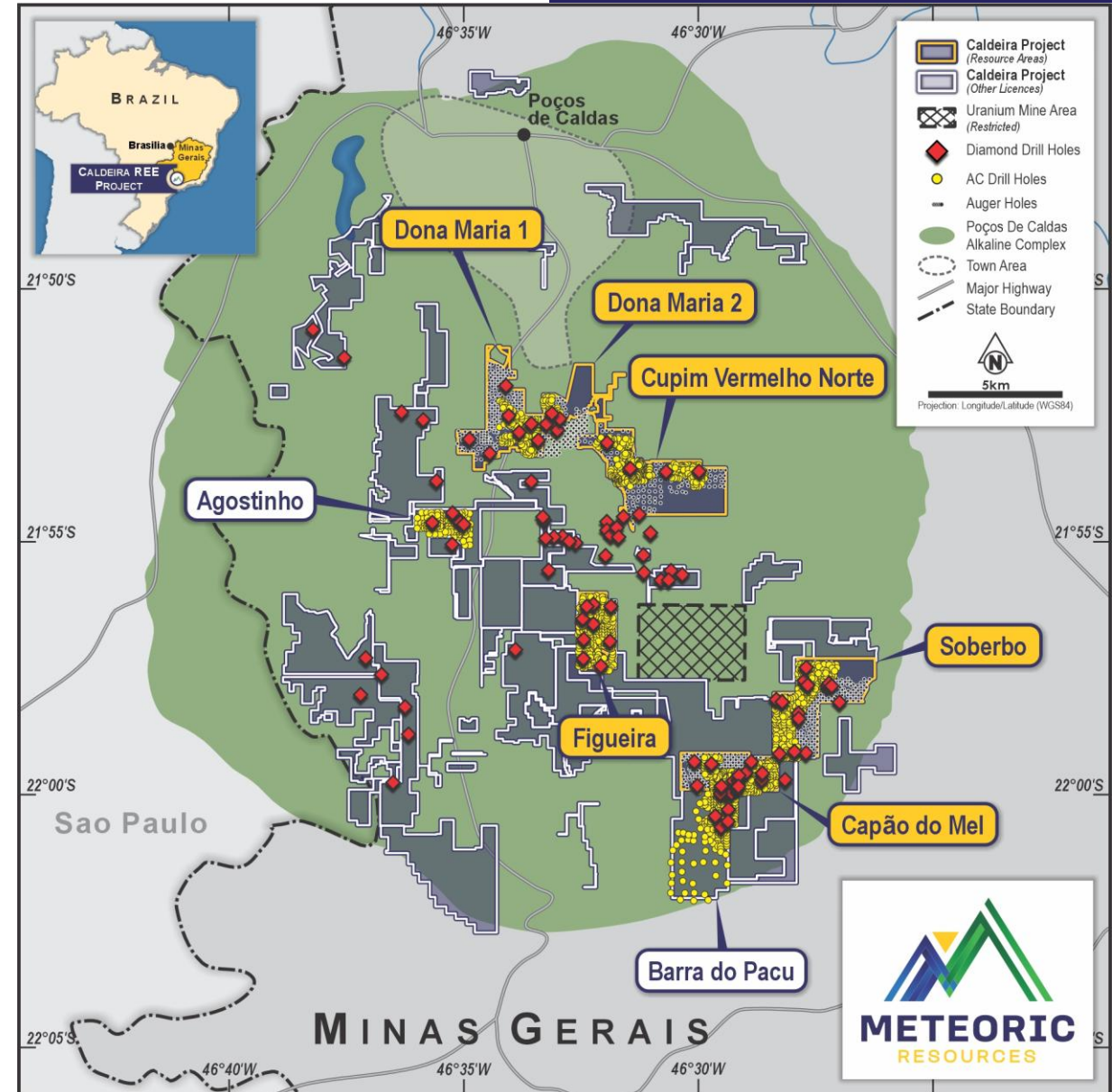
BOARD AND MANAGEMENT	
Executive Chairman	Dr Andrew Tunks
Executive Director	Dr Marcelo de Carvalho
Managing Director	Mr Stuart Gale
Non-Executive Director	Dr Paul Kitto
Non-Executive Director	Mr Peter Gundy
Non-Executive Director	Dr Nomi Prins
Chief Financial Officer	Mr Andy Thomson



# THE CALDEIRA PROJECT

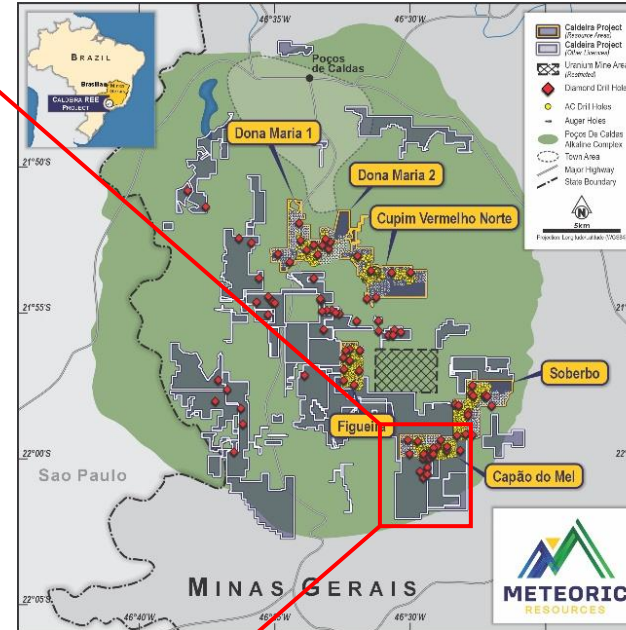
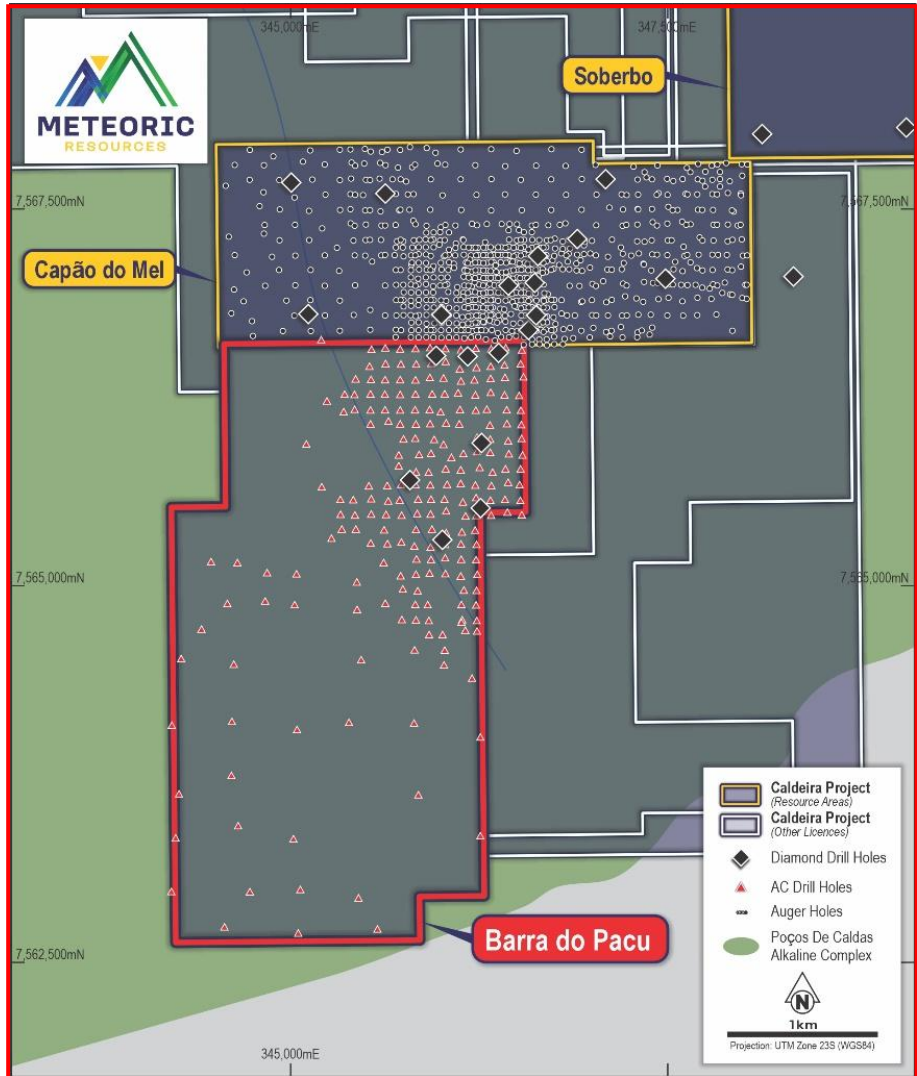
Low cost, multi target with significant growth optionality and government support

- **World class resource:**
  - High grade with high recoveries
  - Low capital development cost
  - Operating costs in lowest quartile
- **1.1Bt @ 2,413ppm TREO** with additional resource updates to follow
- **Eight license** areas drilled from the 69 available
- Targeting additional **value adding heavy REO**
- **Recent drilling results** identify high grade intercepts
- **Environmental permitting** on track



# EXPLORATION - BARRA DO PACU

Supports expanded low-cost, high grade operations for > 10 years near processing facility



Drilled 6,538m for 224 holes with outstanding intercepts including (ASX 12/12/24):

- BDPAC0171 - 37m @ 7,998ppm TREO [0m]
- BDPAC0178 - 34m @ 6,862ppm TREO [0m]
- BDPAC0164 - 31m @ 5,791ppm TREO [0m]
- BDPAC0001 - 37m @ 5,591ppm TREO [0m]
- BDPAC0169 - 38m @ 4,981ppm TREO [0m]
- BDPAC0111 - 46m @ 4,920ppm TREO [0m]
- BDPAC0010 - 48m @ 4,858ppm TREO [2m]
- BDPAC0009 - 45m @ 4,682ppm TREO [0m]
- BDPAC0007 - 50m @ 4,540ppm TREO [0m]

Mineralisation averages 27m thickness over of the entire License (2km by 4km) from surface

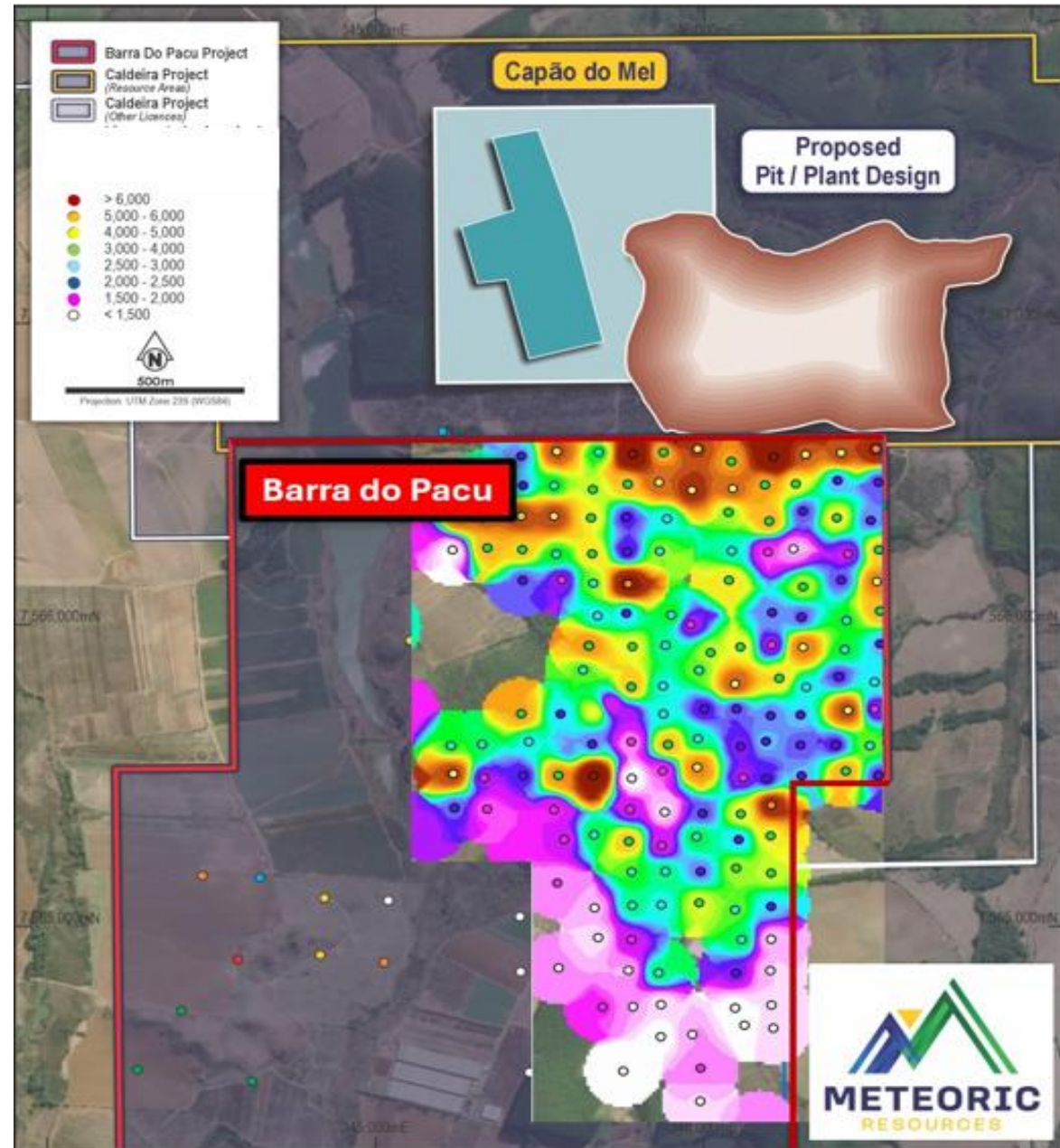


# BARRA DO PACU – MINERALISED INTERCEPTS



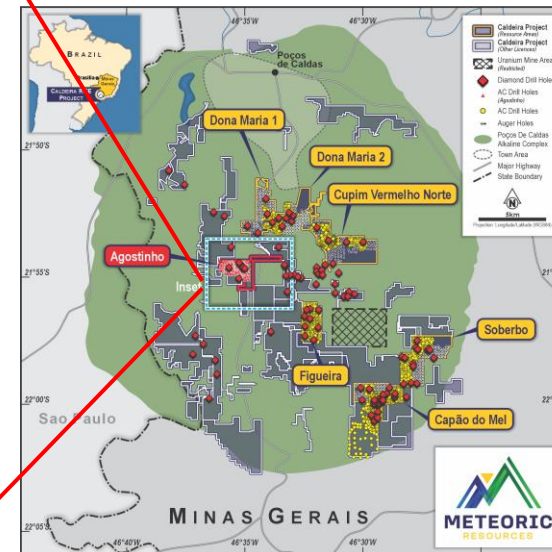
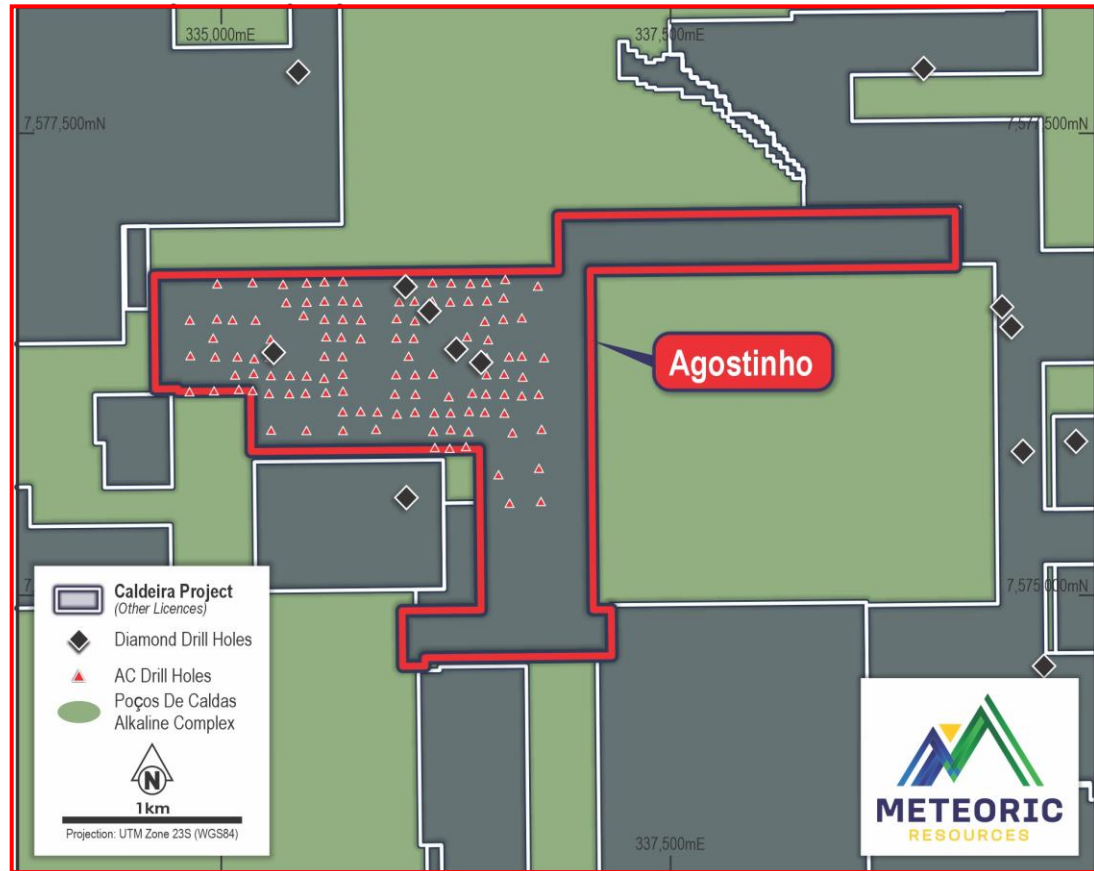
Near mine high grade >4,000ppm TREO extensions identified

- ~8,000ppm TREO material (ASX 12/12/24)
- **Immediately adjacent** to Starter Pit
- **Near processing** facility (green highlights)
- **Extension** requires environmental approval
- **All holes mineralised**
- 100 x 100 drill spacing



# AGOSTINHO – MORE HIGH GRADE

Identifying scale and grade which supports a Northern expansion



**Drilled 3,301m for 116 holes with outstanding intercepts (ASX 5/2/25):**

- AGOAC0107 - 24m @ 6,918ppm TREO [0m]
  - 6m @ 19,183ppm TREO [2m] with 34.9% MREO
- AGOAC0110 - 22m @ 4,422ppm TREO [0m]
  - 10m @ 7,831ppm TREO [0m] with 35.6% MREO
- AGOAC0079 - 28m @ 3,183ppm TREO [0m]
  - 8m @ 7,462ppm TREO [0m] with 37.6% MREO
- AGOAC0098 - 28m @ 5,315ppm TREO [0m]
- AGOAC0070 - 22m @ 4,890ppm TREO [0m]
- AGOAC0092 - 22m @ 4,323ppm TREO [0m]

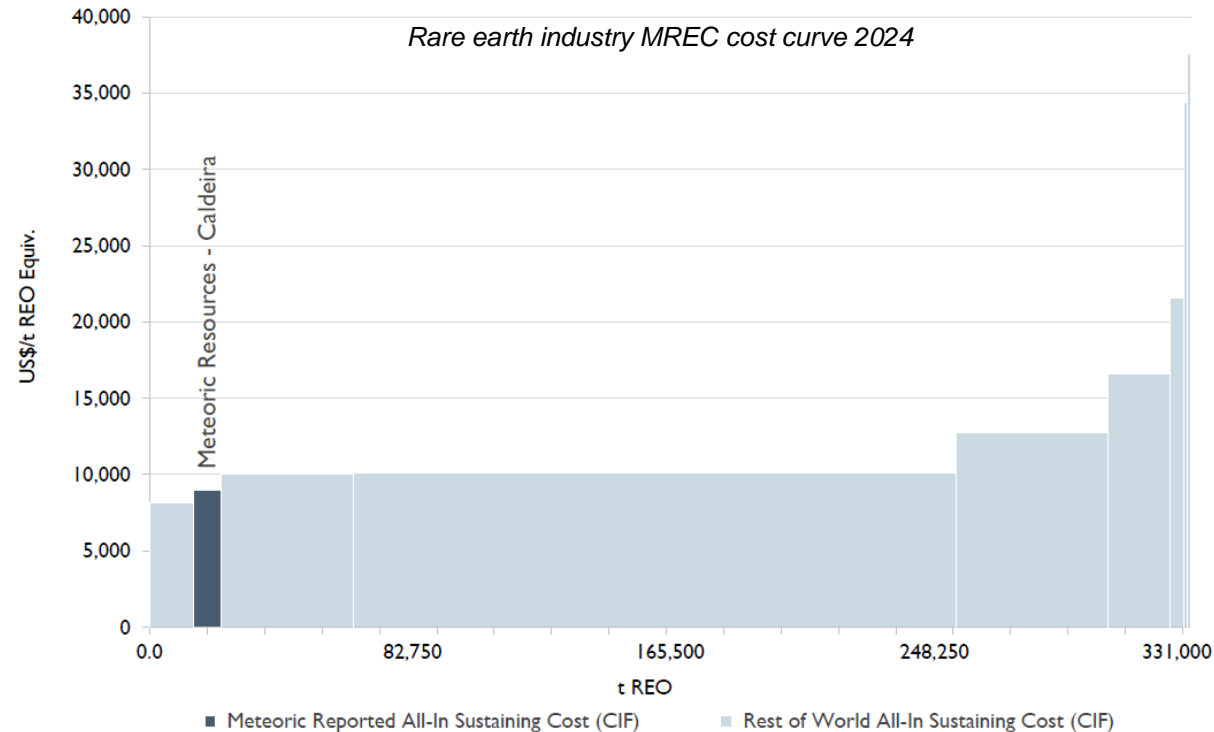
**Mineralisation** averages 28.4m thickness from surface over of the entire License

# WORLD-CLASS PROJECT

Industry-leading project of scale, expansion potential with sustainable low operating costs



Life of Mine (ASX 22/10/2024)	Unit	Value
Life of Mine	Years	20
Plant Nameplate Capacity ROM	Mtpa	5
TREO Feed Grade	PPM	3,724
Annual Production (REO)	t	9,679
MREO recovery	%	73



Source: Project Blue Consulting

**NPV<sub>8</sub> \$1.4bn**

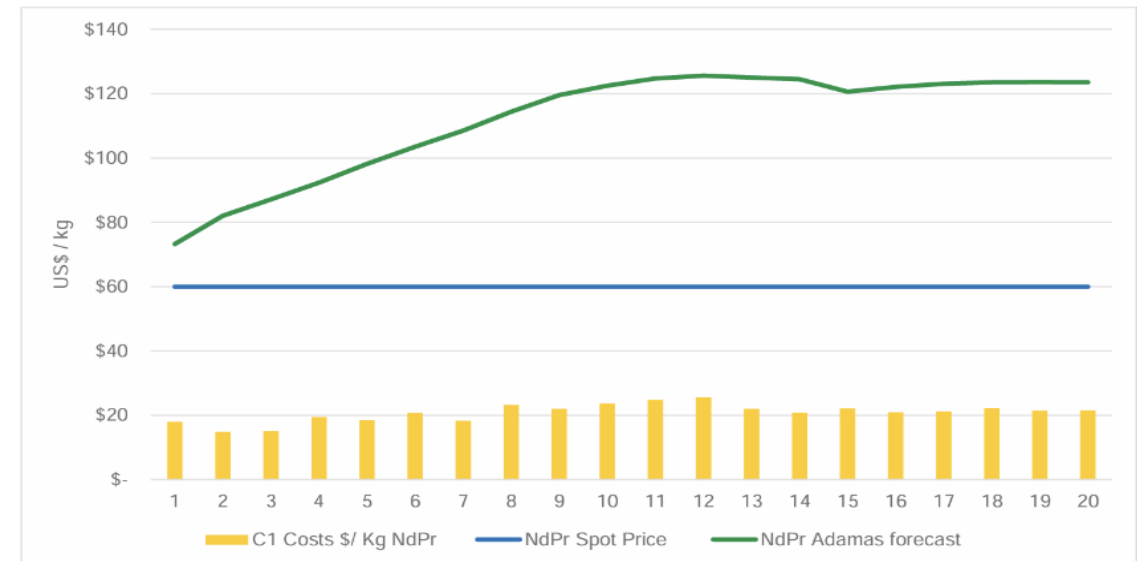
Pre-tax at  
Adamas  
forecast  
discounted by  
40%

**IRR 40%**

Based on  
conservative  
pricing  
assumptions

**Payback 2.2  
years**

Even under  
current  
pricing  
scenario 3.7  
years





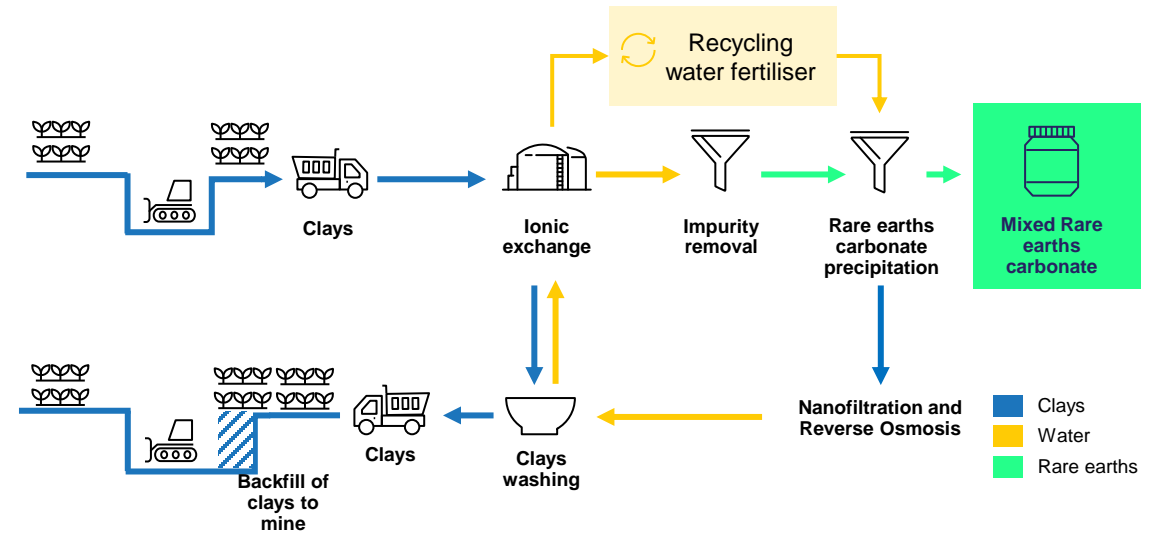
# SIMPLE PROCESS FLOWSHEET

Caldeira's ionic clay metallurgy allows Meteoric to produce a refined mixed rare earth carbonate product at a low cost and energy intensity

## Key advantages

- 1** Free dig, no drill and blast with low strip ratio 0.21 LOM
- 2** Low acidity pH 4.5 - 5, with 30 min leach time, at ambient temp and pressure
- 3** ANSTO continuous testing confirms exceptional recoveries ~70% MREO
- 4** Proven process flowsheet and technologies
- 5** Dry stack tails process to backfill with no tailings dam requirement

## Process Flowsheet



A simple process with low technical risk  
and high environmental credentials

Scalable opportunities across the Caldeira Project

# CAPITAL COSTS, FUNDING AND OFFTAKE

Low capital intensity and operating costs make Caldeira a highly financeable project in all market conditions (ASX 22/10/24)



## Funding

- Continued **government support** in the form of debt and grant financing
- **BNDES** ramping up support for the Strategic Minerals sector
- **BIP** inclusion – development of downstream industry
- Pursue **strategic partnerships**
- **Export Credit Agency** basis for project financing



## Capex

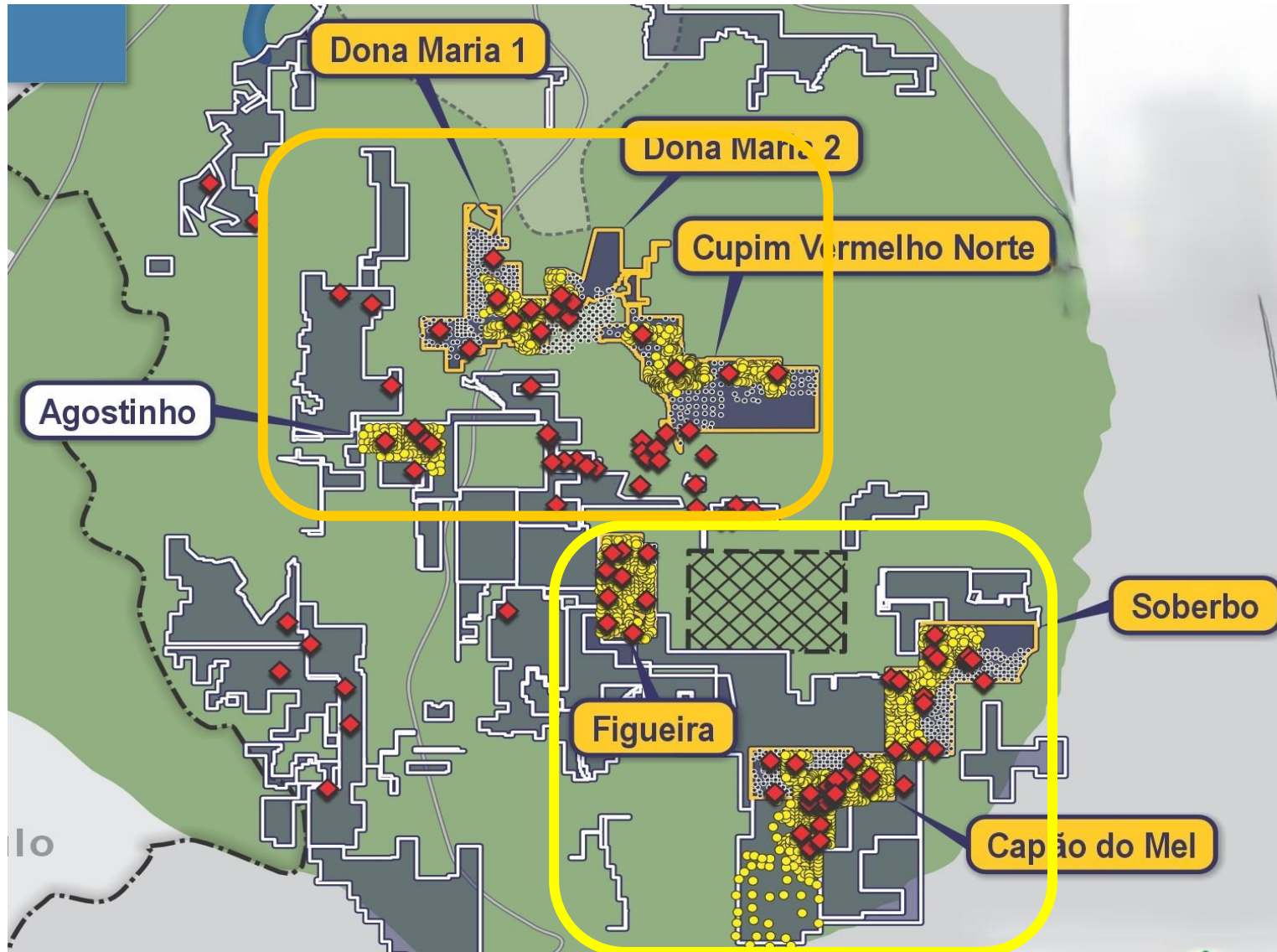
- **Base case 5Mtpa** estimated at US\$297M
- **Class 5 estimate** (nominal accuracy of +/- 40%) with a 35% contingency for a reported total capital cost estimate of US\$403M
- Includes all direct and indirect costs, taxes and owner's costs
- **Low capital intensity** per tonne of MREC and REO

Description	Cost (US\$M)
Equipment	103
Structural and Materials	36
Construction	80
Indirect	72
Mining	6
Contingency	106
<b>Total</b>	<b>403</b>



# FUTURE POTENTIAL

Developing optionality for expansion to the high grade Northern licences



## Stage 1: 5Mtpa processing facility

- Significant resource across CDM, Soberbo and Figueira
- BdP resource update pending
- PFS to incorporate all information on the Southern tenements

## Stage 2: North

- DM 1+2, CVM and Agostinho
- Resources to be updated for recent drilling
- Define key target areas



# THE CALDEIRA PROJECT

The world's most attractive rare earth development project and an industry disruptor



**High grade resource**

**Low operating cost**

**Low capital intensity**

**Excellent financial metrics**

**Strong Government support**

**Scale Optionality**







# METEORIC

## CONTACT US

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# Caldeira Project Minerals Resource Estimate (ASX: 12/3/2025)



Licence	JORC Category	Material Type	Tonnes Mt	TREO ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	MREO ppm	MREO /TREO
Capão do Mel	Measured	Clay	11	3,888	222	586	6	28	842	21.7%
Cupim Vermelho Norte	Measured	Clay	26	2,607	156	477	5	25	663	25.4%
<b>Total</b>	<b>Measured</b>		<b>37</b>	<b>2,983</b>	<b>176</b>	<b>509</b>	<b>5</b>	<b>26</b>	<b>715</b>	<b>24.0%</b>
Capão do Mel	Indicated	Clay	74	2,908	163	449	5	23	640	22.0%
Soberbo	Indicated	Clay	86	2,730	165	476	5	23	669	24.5%
Figueira	Indicated	Clay	138	2,844	145	403	5	28	582	20.5%
Cupim Vermelho Norte	Indicated	Clay	90	2,658	163	489	5	26	683	25.7%
Dona Maria 1	Indicated	Clay	111	2,253	128	376	4	23	531	23.6%
Dona Maria 2	Indicated	Clay	53	2,303	132	390	4	22	548	23.8%
<b>Total</b>	<b>Indicated</b>		<b>552</b>	<b>2,633</b>	<b>149</b>	<b>428</b>	<b>5</b>	<b>25</b>	<b>607</b>	<b>23.0%</b>
<b>Total</b>	<b>Measured + Indicated</b>		<b>589</b>	<b>2,655</b>	<b>151</b>	<b>433</b>	<b>5</b>	<b>25</b>	<b>613</b>	<b>23.1%</b>
Capão do Mel	Inferred	Clay	32	1,791	79	207	2	13	302	16.9%
Soberbo	Inferred	Clay	89	2,713	167	478	5	24	675	24.9%
Figueira	Inferred	Clay	9	3,105	139	379	5	28	551	17.7%
Cupim Vermelho Norte	Inferred	Clay	78	2,237	126	377	4	23	530	23.8%
Dona Maria 1	Inferred	Clay	49	2,225	121	383	5	25	534	24.0%
Dona Maria 2	Inferred	Clay	29	2,324	130	397	4	21	552	23.8%
Capão do Mel	Inferred	Transition	25	1,752	86	239	3	14	341	19.5%
Soberbo	Inferred	Transition	54	2,207	138	395	4	20	558	25.3%
Figueira	Inferred	Transition	24	2,174	115	328	4	21	468	21.5%
Cupim Vermelho Norte	Inferred	Transition	67	1,665	92	281	3	17	393	23.6%
Dona Maria 1	Inferred	Transition	42	1,703	95	275	3	17	390	22.9%
Dona Maria 2	Inferred	Transition	21	1,615	86	251	3	15	355	22.0%
<b>Total</b>	<b>Inferred</b>		<b>519</b>	<b>2,138</b>	<b>120</b>	<b>353</b>	<b>4</b>	<b>20</b>	<b>498</b>	<b>23.3%</b>
<b>Total</b>	<b>Measured + Indicated + Inferred</b>		<b>1,108</b>	<b>2,413</b>	<b>136</b>	<b>396</b>	<b>4</b>	<b>23</b>	<b>559</b>	<b>23.2%</b>