

Pilot Plant Delivering Outstanding Recoveries and MREC Production

Meteoric Resources NL (**ASX: MEI**) (**Meteoric** or the **Company**) is pleased to provide an update on the production performance at its recently commissioned Mixed Rare Earth Carbonate (MREC) Pilot Plant at the Caldeira Rare Earth Project (**Caldeira Project** or **Project**) located in Minas Gerais, Brazil.

Highlights

- Achieved **70% average magnet rare earth recovery** to MREC, matching ANSTO's continuous test work, validating the process flowsheet.
- Achieved nameplate **MREC production capacity of ~2.0kg per day** (dry) with recent production up to **2.6kg per day**.
- **Heavy magnetic recoveries higher** than ANSTO piloting while all other results are in line
- **MREC production include 32.7%** magnetic rare earth oxide with 1.0% dysprosium and terbium oxides
- MREC samples being provided for product qualification by offtake partners.
- Water and ammonium sulfate recovery systems operating in accordance with plan
- Continues **to de-risk the Caldeira Project flowsheet** and provides a basis to support further downstream processing in Brazil

Managing Director, Stuart Gale, said: *"Following the successful construction and commissioning of the Pilot Plant in Poços de Caldas, the team have done an amazing job in maintaining and improving operational performance over the last month.*

Results achieved at the Pilot Plant to date have bettered the extensive test work conducted by ANSTO which is a great credit to our team who have spent significant time developing Meteoric's understanding of the Caldeira Ionic Clay deposits.

The Pilot Plant is part of our strategic initiative creating a unique opportunity to provide product to offtake partners, support downstream processing and further optimise the MREC production process leading to commercial production. All of this continues to de-risk the Caldeira Project as we work towards completion of the definitive feasibility study, construction licencing and ultimately the final investment decision."

Pilot Plant Update

Meteoric's Brazilian Pilot Plant in *Poços de Caldas* has been able to consistently produce MREC at or above nameplate capacity since completion of commissioning. The output achieved during continuous processing operations, at the large scale Pilot Plant, are consistent with the results from independent pilot testing conducted by ANSTO through-out 2024 and 2025.

These results validate the process undertaken by Meteoric's metallurgy and engineering teams who utilised ANSTO information to design a flowsheet, select, acquire and build equipment to efficiently and effectively design and build the Pilot Plant.

Output from the Pilot Plant will be used to de-risk the proposed commercial plant design, provide to key offtake customers and used to consider further downstream processing options in Brazil.

Samples from the Pilot Plant have been assayed at SGS' laboratory in Belo Horizonte. Overall magnet rare earth and total rare earth oxide recoveries achieved at the pilot plant in Poços de Caldas are consistent or better than previous independent ANSTO pilot testing on Capão do Mel ore. Key results include:

- Average magnet rare earth element recoveries **70%** (consistent with ANSTO).
- Average magnet rare earth recoveries by element are excellent, demonstrating strong and consistent recovery of both light and heavy magnet rare earth elements under steady-state pilot plant operating conditions. They include:
 - **70% for neodymium (Nd)**
 - **71% for praseodymium (Pr)**
 - **56% for dysprosium (Dy)** v ANSTO result of 49%
 - **61% for terbium (Tb)** v ANSTO result of 57%
- Recycling approximately 85% of all water;
- Recovering approximately 90% of ammonium sulfate for re-use in the process;
- MREC impurity levels of 2.3% aligned with prior ANSTO piloting;
- Competency handling of spent clays supports a smooth backfilling and rehabilitation process;
- Results achieved while processing a blend of Capão do Mel and Soberbo ionic clay material with typical head grades of 4,000–5,000 ppm TREE;
- Capital and operating costs are tracking in line with budget.

The pilot plant processing will continue with further optimisation trials and testing of additional tenements within the current resource, as well as selected tenements outside the life-of-mine resource, including Dona Maria 1 & 2 and Cupim Vermelho Norte.

Figure 1: 11.7kg (12.55kg with packaging) of dry MREC produced over 4.5 days, i.e. 2.6kg/ day vs nameplate design of 1.8kg per day



Figure 2 - Left Foreground - MREC produced over 4.5 days at 11.7 kg (dry) **Right Foreground** – White MREC bed (~20cm high) shown in thickener.



This release has been approved by the Board of Meteoric Resources NL.

For further information, please contact:

Stuart Gale

Managing Director

Meteoric Resources NL

E sgale@meteoric.com.au

T +61 8 6166 9112

Michael Vaughan

Investor and Media Relations

Fivemark

E michael.vaughan@fivemark.com.au

T +61 422 602 720

Some statements in this document may be forward-looking statements. Such statements include, but are not limited to, statements with regard to capacity, future production and grades, projections for sales growth, estimated revenues and reserves, targets for cost savings, the construction cost of new projects, projected capital expenditures, the timing of new projects, future cash flow and debt levels, the outlook for minerals prices, the outlook for economic recovery and trends in the trading environment and may be (but are not necessarily) identified by the use of phrases such as “will”, “expect”, “anticipate”, “believe” and “envisage”.

By their nature, forward-looking statements involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future and may be outside Meteoric’s control. Actual results and developments may differ materially from those expressed or implied in such statements because of a number of factors, including levels of demand and market prices, the ability to produce and transport products profitably, the impact of foreign currency exchange rates on market prices and operating costs, operational problems, political uncertainty and economic conditions in relevant areas of the world, the actions of competitors, activities by governmental authorities such as changes in taxation or regulation.

The information in this announcement that relates to exploration results is based on information reviewed, collated and fairly represented by Dr Carvalho a Competent Person and aa Member of the Australasian Institute of Mining and Metallurgy and an Executive Director of Meteoric Resources NL. Dr. Carvalho has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr. Carvalho consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this announcement that relates to the metallurgical results were compiled by Tony Hadley who is an employee of Meteoric resources and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr. Hadley has sufficient experience that is relevant to the metallurgical testwork which was undertaken to qualify as a Competent Person as defined in the 2012 JORC Code. Mr. Hadley consents to the inclusion in this announcement of the matters based on the information in the form and context in which it appears.

APPENDIX 1 - JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	<ul style="list-style-type: none"> For powered Auger drill holes, tarpaulins were placed on either side of the hole and samples of soil and saprolite were collected every 1m of advance, logged, photographed with subsequent bagging of the sample in plastic bags. For Aircore drill holes, two (2) metre composite samples are collected from the cyclone of the rig in plastic buckets. The material from the plastic buckets is passed through a single tier, riffle splitter which generates a 50/50 split. One half is bagged and numbered for submission to the laboratory, and the other half bagged and given the same number, then stored as a duplicate at the core facility in Poços de Caldas.
Drilling techniques	<ul style="list-style-type: none"> Powered auger drilling employed a motorised post hole digger with a 4 inch diameter. All holes were drilled vertical. The maximum depth achievable was 20m, providing the hole did not encounter fragments of rocks/boulders within the weathered profile and/or excessive water. Final depths were recorded according to the length of rods in the hole. Aircore drilling was completed using a HANJIN 8D Multipurpose Track Mounted Drill Rig, configured to drill 3-inch Aircore holes. The rig is supported by an Atlas Copco XRHS800 compressor which supplies sufficient air to keep the sample dry down to the current deepest depth of 73m. Drilling is stopped at 'blade refusal' when the rotating bit is unable to cut the ground any further. This generally occurs in the transition zones (below clay zone and above fresh rock). All holes are drilled vertical.
Drill sample recovery	<ul style="list-style-type: none"> For powered Auger, recovery was estimated visually based on the amount of sample recovered per 1m interval drilled. Recoveries were generally in a range from 75% - 100%. If estimates dropped below 75% recovery in a 1m interval, the field crew aborted the drill hole and redrilled the hole. For Aircore, every 2m composite sample is collected in plastic buckets and weighed. Each sample averages approximately 12kg. This is considered acceptable given the hole diameter and specific density of the material.
Logging	<ul style="list-style-type: none"> For powered Auger, material is described in a drilling bulletin every 1m and photographed. The description is made according to the tactile-visual characteristics, such as material (soil, colluvium, saprolite, rock fragments); material color; predominant particle size; presence of moisture; indicator minerals; extra observations. For Aircore, material is logged at the drill rig by a geologist. Logging focused on soil (humic) horizon, saprolite/clay zones and transition boundaries. Other parameters recorded includes: grainsize, texture and colour, which can help to identify the parent rock before weathering. The chip trays of all drilled holes have a digital photographic record and are retained at a Core facility in Poços de Caldas.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> Plant feed composite material (ROM) is generated at several-day intervals by applying cone-and-quartering of selected Aircore and powered Auger samples, comingled using shovels and rakes, ensuring the final blend met the target head grade of 4,000–5,000 ppm TREE. Only clay material was considered.
Quality of assay data and laboratory tests	<p><u>Pilot Plant Samples</u></p> <ul style="list-style-type: none"> Laboratory used: All samples were analysed by SGS Geosol (Brazil), an ISO/IEC 17025-accredited facility listed in the Inmetro RBLLE laboratory accreditation register. Analytical methods: SGS operates under globally standardized geochemistry procedures, including validated analytical methods, SOPs, and consistent workflows enforced through the SGS Laboratory Information Management System (SLIM). Internal laboratory QA/QC: The lab applies routine internal quality controls, including certified reference materials (CRMs), blanks, preparation duplicates, reagent blanks, and statistical process-control

Criteria	Commentary																																																			
	<p>checks to monitor accuracy, precision, and contamination throughout sample preparation and analysis.</p> <ul style="list-style-type: none">▪ Appropriateness of methods: All analytical methods used by SGS are internationally recognised and appropriate for the sample matrix and target analytes. <ul style="list-style-type: none">▪ Head and Leach Residue (REE extractions) were determined by Lithium metaborate fusion followed by inductively coupled plasma mass spectrometry (ICPMS) or ICP optical emission spectrometry (ICPOES), as appropriate.▪ Sulfate levels in the Spent Clay were determined by a hydrochloric acid digest followed by ICP-OES. <p><u>MREC Samples</u></p> <ul style="list-style-type: none">▪ The concentrations of the rare earth elements (REE) and impurity elements were determined using an aqua regia digest followed by inductively coupled plasma mass spectrometry (ICPMS) or ICP optical emission spectrometry (ICPOES), as appropriate.▪ Loss on ignition was determined on the sample by, firstly, drying slowly over 48 hours at 70°C followed by slow heating to 1000°C with a hold time at temperature of two hours.																																																			
Verification of sampling and assaying	<ul style="list-style-type: none">▪ All data is in digital format and stored in a cloud server, also the company maintains a backup in a desktop computer to assure that the data could be restored if any problem occurs with the cloud or with the desktop server.▪ Raw assays that are received as Elemental data (ppm) from SGS Geosol laboratories are converted to Element Oxide data using the following conversion factors: <table><tr><th>Symbol</th><th>Conversion Factor</th><th>Oxide Species</th></tr><tr><td>La</td><td>1.1728</td><td>La₂O₃</td></tr><tr><td>Ce</td><td>1.2284</td><td>CeO₂</td></tr><tr><td>Pr</td><td>1.2082</td><td>Pr₆O₁₁</td></tr><tr><td>Nd</td><td>1.1664</td><td>Nd₂O₃</td></tr><tr><td>Sm</td><td>1.1596</td><td>Sm₂O₃</td></tr><tr><td>Eu</td><td>1.1579</td><td>Eu₂O₃</td></tr><tr><td>Gd</td><td>1.1526</td><td>Gd₂O₃</td></tr><tr><td>Tb</td><td>1.1762</td><td>Tb₄O₇</td></tr><tr><td>Dy</td><td>1.1477</td><td>Dy₂O₃</td></tr><tr><td>Ho</td><td>1.1455</td><td>Ho₂O₃</td></tr><tr><td>Er</td><td>1.1435</td><td>Er₂O₃</td></tr><tr><td>Tm</td><td>1.1421</td><td>Tm₂O₃</td></tr><tr><td>Yb</td><td>1.1387</td><td>Yb₂O₃</td></tr><tr><td>Lu</td><td>1.1372</td><td>Lu₂O₃</td></tr><tr><td>Y</td><td>1.2699</td><td>Y₂O₃</td></tr><tr><td>Sc</td><td>1.5338</td><td>Sc₂O₃</td></tr></table>	Symbol	Conversion Factor	Oxide Species	La	1.1728	La ₂ O ₃	Ce	1.2284	CeO ₂	Pr	1.2082	Pr ₆ O ₁₁	Nd	1.1664	Nd ₂ O ₃	Sm	1.1596	Sm ₂ O ₃	Eu	1.1579	Eu ₂ O ₃	Gd	1.1526	Gd ₂ O ₃	Tb	1.1762	Tb ₄ O ₇	Dy	1.1477	Dy ₂ O ₃	Ho	1.1455	Ho ₂ O ₃	Er	1.1435	Er ₂ O ₃	Tm	1.1421	Tm ₂ O ₃	Yb	1.1387	Yb ₂ O ₃	Lu	1.1372	Lu ₂ O ₃	Y	1.2699	Y ₂ O ₃	Sc	1.5338	Sc ₂ O ₃
Symbol	Conversion Factor	Oxide Species																																																		
La	1.1728	La ₂ O ₃																																																		
Ce	1.2284	CeO ₂																																																		
Pr	1.2082	Pr ₆ O ₁₁																																																		
Nd	1.1664	Nd ₂ O ₃																																																		
Sm	1.1596	Sm ₂ O ₃																																																		
Eu	1.1579	Eu ₂ O ₃																																																		
Gd	1.1526	Gd ₂ O ₃																																																		
Tb	1.1762	Tb ₄ O ₇																																																		
Dy	1.1477	Dy ₂ O ₃																																																		
Ho	1.1455	Ho ₂ O ₃																																																		
Er	1.1435	Er ₂ O ₃																																																		
Tm	1.1421	Tm ₂ O ₃																																																		
Yb	1.1387	Yb ₂ O ₃																																																		
Lu	1.1372	Lu ₂ O ₃																																																		
Y	1.2699	Y ₂ O ₃																																																		
Sc	1.5338	Sc ₂ O ₃																																																		
Location of data points	<ul style="list-style-type: none">▪ The ROM material comes from powered Auger and Aircore samples from the Capão do Mel and Soberbo deposits.																																																			
Data spacing and distribution	<ul style="list-style-type: none">▪ Samples were selected from >100 drill holes to be representative of optimised Pits at Capão do Mel and Soberbo, which represent the first 3-5 years of processing in the Caldera Prefeasibility Study (PFS). Material >4,000ppm TREO was targeted.																																																			

Criteria	Commentary
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> The mineralisation is flat lying and occurs within the saprolite/clay zone of a deeply developed regolith (reflecting topography and weathering). Vertical sampling from the drilling is appropriate.
Sample security	<ul style="list-style-type: none"> Samples were recovered from Core Shed or the Meteoric sample farm and transported to the Pilot Plant facility to be prepared.
Audits or reviews	<ul style="list-style-type: none"> No independent audit of mixing techniques used in the Pilot Plant has been completed.

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> No change since reported in Quarterly Activities Report on 27 January 2026. Given the rich history of mining and current mining activity in the Poços de Caldas there appears to be no impediments to obtaining a License to operate in the area.
Exploration done by other parties	<ul style="list-style-type: none"> Licenses under the TOGNI Agreement: significant previous exploration exists in the form of surface geochem across 30 granted mining concessions, plus: geologic mapping, topographic surveys, and powered auger (1,396 holes for 12,963 samples). MEI performed Due Diligence on historic exploration and are satisfied the data is accurate and correct (refer ASX Release 13 March 2023 for a discussion). Licenses under VAGINHA and RAJ Agreements: no previous exploration exists for REEs.
Geology	<ul style="list-style-type: none"> The Alkaline Complex of Poços de Caldas represents in Brazil one of the most important geological terrain which hosts deposits of ETR, bauxite, clay, uranium, zirconium, rare earths and leucite. The different types of mineralization are products of a history of post-magmatic alteration and weathering, in the last stages of its evolution (Schorscher & Shea, 1992; Ulbrich et al., 2005), The REE mineralisation discussed in this release is of the Ionic Clay type as evidenced by development within the saprolite/clay zone of the weathering profile of the Alkaline syenite basement as well as enriched HREE composition.
Drill hole Information	<ul style="list-style-type: none"> Samples were selected from more than 100 powered Auger and Aircore drill holes, determined to be representative of Clay ore material from optimised Pits at Capão do Mel and Soberbo. This Clay material represent the first 3-5 years of processing in the Caldera Prefeasibility Study (PFS).
Data aggregation methods	<ul style="list-style-type: none"> Mineralised Intercepts are reported with a minimum of 4m width, lower cut-off 1000ppm TREO, with a maximum of 2m internal dilution. High-Grade Intercepts reported as “including” are reported with a minimum of 2m width, lower cut-off 3000 ppm TREO, with a maximum of 1m internal dilution. Ultra High-Grade Intercepts reported as “with” are reported with a minimum of 2m width, lower cut-off 10,000 ppm TREO, with a maximum of 1m internal dilution.
Mineralisation widths and intercept lengths	<ul style="list-style-type: none"> All holes are vertical and mineralisation is developed in a flat lying clay and transition zone within the regolith. As such, reported widths are considered to equal true widths.
Diagrams	<ul style="list-style-type: none"> Photos provided in the body of the text.
Balanced reporting	<ul style="list-style-type: none"> Highlights of the Mineralised Intercepts are reported in the body of the text with available results from every drill hole drilled in the period reported in the Mineralised Intercept table for balanced reporting.
Other substantive exploration data	<ul style="list-style-type: none"> A maiden Inferred resource was published to the ASX on May 1st 2023 estimated from 1,379 drill holes for 13,309m to a maximum depth of 20m. Subsequent updated resources were published to the ASX for Soberbo, Capão do Mel and Figueira deposits on 13 May 2024, 12 June 2024, and 04 August 2024 respectively. Updated resources were published to the ASX for Dona

Maria 1 & 2 and Cupim Vermelho Norte deposits on 12 March 2025. A maiden resource estimate at Barra do Pacu was published on ASX on 15 April 2025.

Further work

- Proposed work is discussed in the body of the text.

For personal use only