Further Strategic Expansion of Caldeira REE Project

Highlights

- Binding Option Agreement to acquire significant and strategic Ionic Clay Rare Earth Element (**REE**) Rights on licences that merge crucial areas identified in the recent Maiden Resource Estimate (**MRE**) for the Tier 1 Caldeira REE Project in the Minas Gerais State of Brazil
- The proposed acquisition comprises the REE Rights on 18 Licences (5 Mining Licences, 6 Mining Licence Applications, 6 Exploration Licences and 1 Exploration Licence Application)
- The new Licences cover 20.5 km^2 and will increase Meteoric's total REE area held in this remarkable REE province to 193km^2

  The proposed acquisition will amalgamate an important area immediately west of the Figueira Licence, of approximately 7km^2, in the most prospective southern portion of the Caldeira Project. The recent MRE quantified the Figueira Resource at 50Mt @ 2,811ppm TREO[1] at a 1,000ppm cut-off.
- The Company recently published its JORC 2012 Maiden MRE for the Caldeira REE Project which stands at **409Mt @ 2,626 ppm TREO at a 1,000ppm cut off[2]**
- Assay results from the ongoing deep diamond drilling program designed to test extension of mineralisation beneath the Resource Model are imminent.

Meteoric Resources NL (**ASX: MEI**) (**Meteoric** or **the Company**) is pleased to announce it has entered into a Binding Option Agreement to acquire further significant Ionic Clay REE Rights on licences in the Minas Gerais State of Brazil.

Executive Chairman, Dr Andrew Tunks said,

*This is another exciting potential addition to our Caldeira Project in Brazil which will further consolidate our ground position in the southern portion of the Caldera. Following the release of our recent MRE which now stands at 409Mt @ 2,626 ppm TREO at a 1,000ppm cut off (**Table 2**), we have sought to further increase our landholding in this highly prospective region. The area that is the subject of the Option Agreement is of great importance as it will secure the western boundary of the Figueira Licence, which has an inferred MRE of 50Mt @ 2,811ppm TREO. Our resource work clearly demonstrates that high grade mineralisation is present right up to the western boundary of the Figueira Licence and likely continues into key Licences now under Option.*

[1] TREO = La_2O_3 + CeO_2 +Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3

[2] ASX:MEI 01/05/2023 - Caldeira REE Project Maiden Mineral Resource

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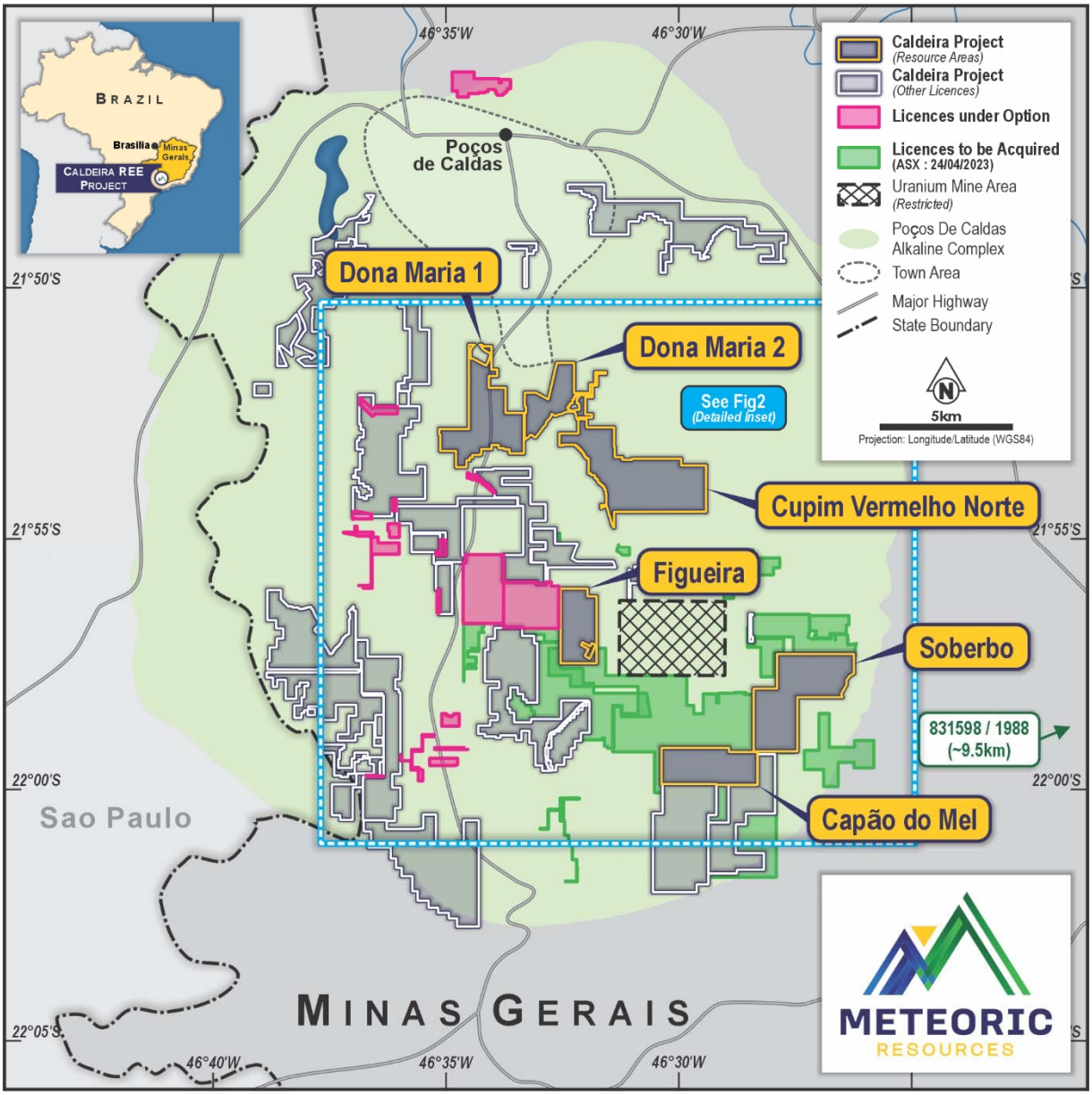
Details of the Licences

Under the Option Agreement, Meteoric has the right to acquire the REE Rights to 18 Licences comprising 5 Mining Licenses, 6 Mining Licence Applications, 6 Exploration Licences and 1 Exploration Licence Application on the terms set out below.

The licences have not been subject to previous exploration for REE and there is no technical data to report. However, the historic drilling of the Figueira Licence, that is adjacent to the main area of the proposed Option, demonstrates strong mineralisation which extends to the Licence boundary. As such, Meteoric believes that it is highly likely that the REE mineralisation will continue into the new areas. This opportunity will be the target of significant future exploration by the Company.

Figure 1. *Simplified regional geological map of the Poços de Caldas Intrusive Complex showing the new Licences under Option in red/pink*



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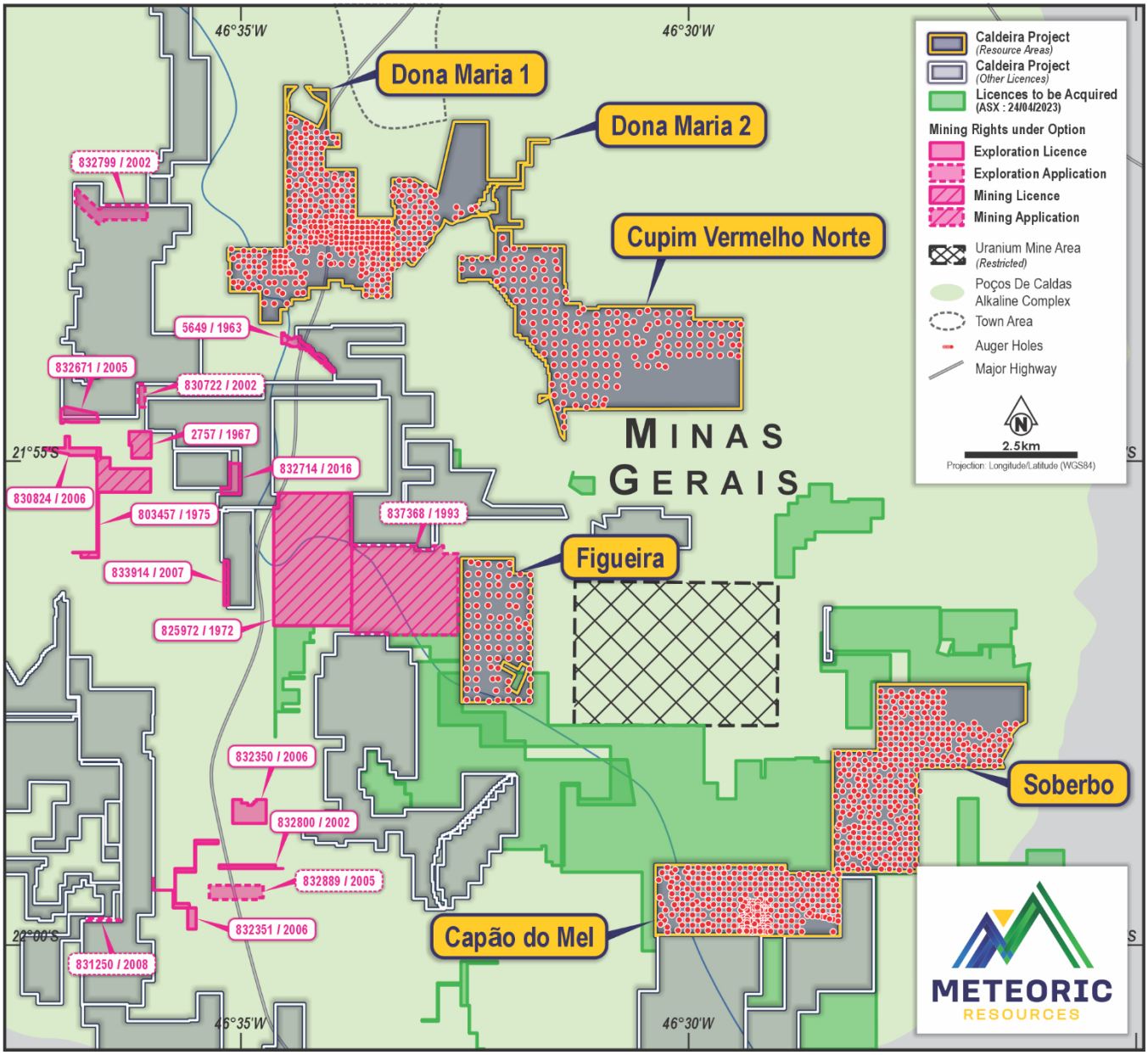

Figure 2. *Detail of the status of the Licences under Option. Also highlighted is the Exclusion Zone around the The Utsumi Uranium Mine, which is administered by the Indústrias Nucleares do Brazil S.A. (INB) government agency.*

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Option Agreement Terms

The material terms of the Option Agreement pursuant to which Meteoric may acquire the REE Rights to 18 licences from Raj Minerios Ltda are as follows:

- US$200,000 for a 120-day exclusivity period for the purposes of technical, legal and financial due diligence by Meteoric (**Exclusivity Period**);
- At the end of the Exclusivity Period, should Meteoric wish to proceed, Meteoric is granted a three- year exclusive option period to conduct exploration activities on the Licences (**Option Period**); and
- At the end of the Option Period, should Meteoric wish to acquire the REE Rights to the Licences, it shall pay US$1,500,000.

Table 1. *Details of New Licences*

LICENCE	AREA (Ha)	Licence Type	NAME
5649/1963	12.4	Mining Licence	RAJ MINERIOS LTDA
2757/1967	20.1	Mining Licence	RAJ MINERIOS LTDA
815237/1971	132.0	Mining Licence Application	RAJ MINERIOS LTDA
825972/1972	377.4	Mining Licence	RAJ MINERIOS LTDA
803457/1975	60.6	Mining Licence	RAJ MINERIOS LTDA
831598/1988	930.9	Mining Licence Application	RAJ MINERIOS LTDA
837368/1993	340.0	Mining Licence Application	RAJ MINERIOS LTDA
830722/2002	5.6	Mining Licence Application	RAJ MINERIOS LTDA
832889/2005	27.8	Mining Licence Application	RAJ MINERIOS LTDA
830824/2006	13.2	Exploration Licence	RAJ MINERIOS LTDA
832350/2006	27.1	Exploration Licence	RAJ MINERIOS LTDA
832351/2006	16.8	Exploration Licence	RAJ MINERIOS LTDA
831250/2008	2.5	Mining Licence Application	RAJ MINERIOS LTDA
832799/2002	38.4	Exploration Licence Application	RAJ MINERIOS LTDA
832714/2016	13.6	Exploration Licence	RAJ MINERIOS LTDA
832800/2002	6.9	Exploration Licence	RAJ MINERIOS LTDA
832671/2005	16.9	Exploration Licence	RAJ MINERIOS LTDA
833914/2007	7.0	Mining Licence	RAJ MINERIOS LTDA
TOTAL	**2049.3**		

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Background Information on Ionic Clay REE Deposits

Geologically, the Caldeira REE Project is classified as an Ionic Adsorption Clay REE Deposit, which is characterised by the following key criteria:

- Formed in the saprolite (clay) zone of the weathering profile
- The majority of the REE's are **adsorbed** onto clay minerals and accumulate in the soil or clay zone of the regolith profile
- Adsorbed REE are ionically attached to the clay minerals and can be liberated by washing in a weak solution of ammonium sulphate (or other metal salt) at near neutral pH
- Ionic Adsorption Clay REE Deposits are typically found near the surface, often at depths of less than 10 meters
- The U and Th levels in Ionic Clay REE Deposits are typically low, as these elements are less soluble in ground waters and are not preferentially adsorbed by clays during the weathering and leaching processes

Mineral Resource Statement – Caldeira Project (ASX:MEI 1/5/2023)

Table 2. *Caldeira REE Project 2023 Mineral Resource Estimate– by licence at 1,000ppm TREO cut-off*

Licence	JORC Category	Tonnes Mt	TREO ppm	Pr_6O_{11} ppm	Nd_2O_3 ppm	Tb_4O_7 ppm	Dy_2O_3 ppm	MREO ppm	MREO/TREO %
Capão do Mel	Inferred	68	2,692	148	399	4	22	572	21.3%
Cupim Vermelho Notre	Inferred	104	2,485	152	472	5	26	655	26.4%
Dona Maria 1 & 2	Inferred	94	2,320	135	404	5	25	569	24.5%
Figueira	Inferred	50	2,811	135	377	5	26	542	19.3%
Soberbo	Inferred	92	2,948	190	537	6	27	759	25.8%
Total	**Inferred**	**409**	**2,626**	**154**	**447**	**5**	**25**	**631**	**24.0%**

TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$

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

For further information, please contact:

Dr Andrew Tunks
Executive Chairman
Meteoric Resources NL
E ajtunks@meteoric.com.au
T +61 400 205 555

Victoria Humphries
Investor and Media Relations
NWR Communications
E victoria@nwrcommunications.com.au
T +61 431 151 676

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 a consultant to 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.