

25 May 2023

## RARE EARTH DRILLING COMMENCES AT THE COMET PROJECT

### Highlights

- Aircore drilling program is underway at the Comet Project in South Australia to test extensions of the Artemis Rare Earth (REE) Prospect and over other high priority REE targets.
- The drill program will consist of approximately 100 Aircore (AC) drillholes totalling approximately ~4,500m.
- Artemis is characterised by a high-grade blanket of mineralisation grading over 1,000 ppm Total Rare Earth Oxide (TREO) hosted within the clay weathering profile, extending over a 1.5 kilometre by 800 metre area and is open laterally in all directions.
- Several large intrusive mafic bodies, thought to have excellent potential for REE mineralisation, will also be tested.

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**Petratherm Limited** (ASX: PTR) (**PTR** or the **Company**) is pleased to announce the commencement of aircore (AC) drilling operations on the 1,915 km<sup>2</sup> Comet Rare Earth Element (REE) Project, in South Australia, 80km south of Coober Pedy.

***PTR's Chief Executive Officer, Peter Reid Commented:***

*"This is an exciting time for PTR as we begin to rapidly advance REE exploration activities over the Comet Project. The Company is looking to build on the success from last year's drilling campaign, where two REE prospects were discovered, Meteor and Artemis.*

*"The Meteor and Artemis Prospects show excellent upside potential with high-grade clay hosted rare earths intercepted over a large area with impressive vertical thickness. It is important to note that only 10% of the project area has been explored, which offers significant upside potential.*

*"I look forward to updating the market further as this drill program progresses and drill results become available."*

As announced previously, PTR has already identified two significant REE occurrences on the Comet Project, the Meteor Prospect, and the Artemis Prospect (Figure 1). Both prospects include thick, shallow, high-grade clay hosted AC drill intercepts with a significant areal footprint.

The Comet REE Project is significantly under-explored, and the current round of drilling will be exploration-focused including testing areas around the Artemis Prospect (known REE mineralisation here is open laterally in all directions), and testing of several new REE targets associated with intrusive mafic rock complexes that may contain REE enrichments. The geological team at PTR have developed exciting new models regarding the genesis and deposition of REE mineralisation relevant

to the Comet Project area and are keen to apply these models to the 90% portion of the Project that has not yet been explored for Rare Earths.

This current round of drilling will comprise approximately 100 AC holes totalling ~4,500m. The Company will be drilling to ~30-50 metres depth, with a second follow-up phase of drilling scheduled to follow once assay results are received.

### Artemis REE Prospect

REE mineralisation typically starts from a depth of 9 to 15 metres and the average intercept thickness is 17 metres across the prospect. The average TREO intercept grade is 973 ppm, which includes 222 ppm Magnet Rare Earth Oxide (MREO) (23% of TREO).

The prospect area is approximately 1.5 kilometres by 800 metres and is open laterally in all directions.<sup>1</sup>

### Meteor REE Prospect

REE mineralisation starts from a depth of 3 to 6 metres and the average intercept thickness<sup>2</sup> is 11.5 metres across the prospect. The average TREO intercept grade is 936 ppm, which includes 242 ppm MREO (26% of TREO).

The prospect area is approximately 2 kilometres by 1 kilometre and remains open in several directions. Due to the shallow nature of mineralisation, there is potential for low-cost favourable free dig mining methods.

PTR has already begun beneficiation trials to increase head grade with leach optimisation work to follow.<sup>3</sup>

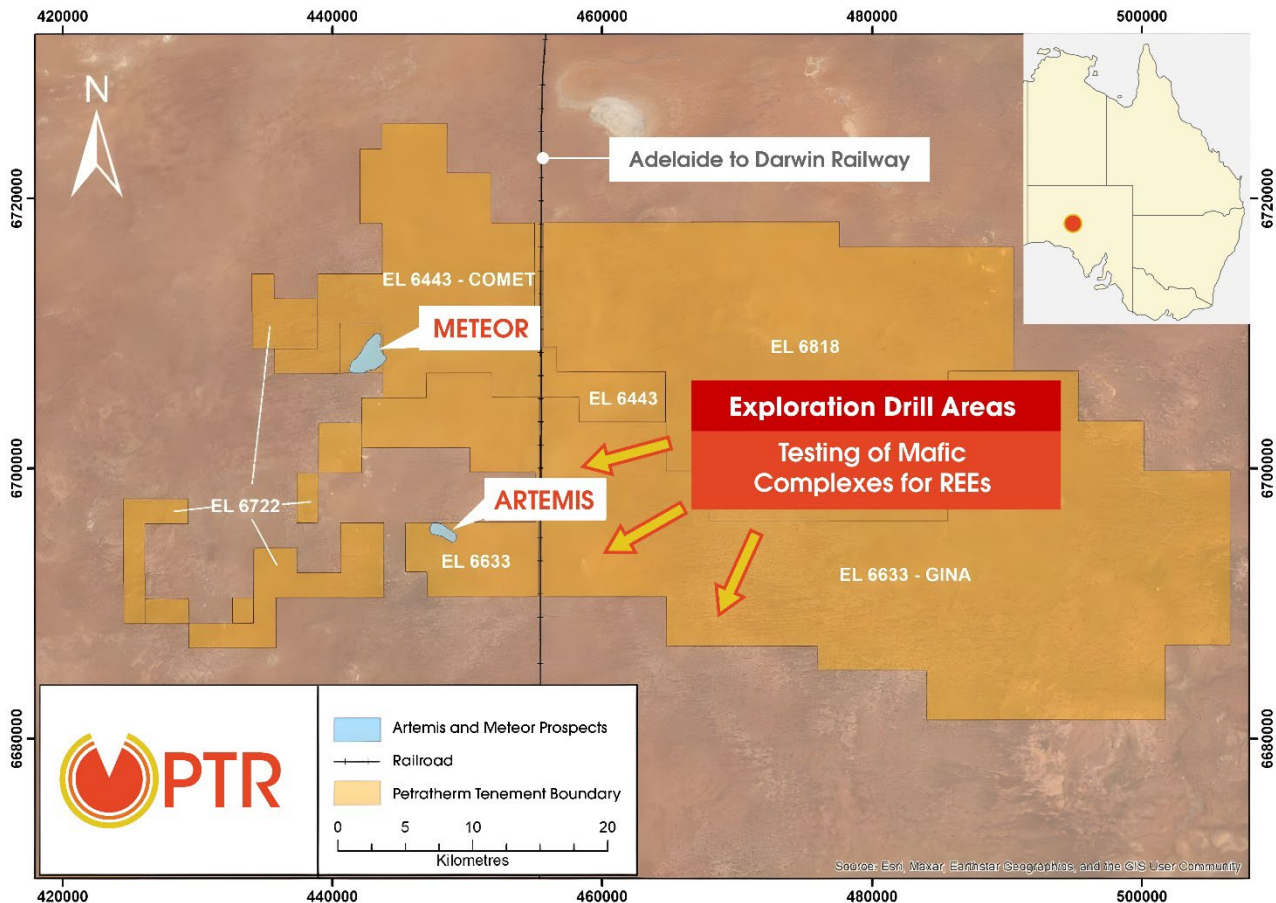


**Photo - Drilling Operations Underway at Comet**

<sup>1</sup> PTR ASX Release 24/02/2023 - Drilling Identifies Major New Rare Earth Prospect

<sup>2</sup> Intercept grade and thickness's based on > 500 ppm TREO cut-off over the prospect area

<sup>3</sup> PTR ASX Release 15/02/2023 - Meteor Prospect - Exceptional Rare Earth Drill Intersections



**Figure 1 – Artemis and Meteor Rare Earth Prospects, located on pastoral country close to a major railway. Layered mafic intrusions under shallow cover will be drill tested for REE.**

**END**

This announcement has been authorised for release on the ASX by the Company's Board of Directors.

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#### Competent Persons Statement:

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Peter Reid, who is a Competent Person, and a Member of the Australian Institute of Geoscientists. Mr Reid is not aware of any new information or data that materially affects the historical exploration results included in this report. Mr Reid is an employee of Petratherm Ltd. Mr Reid 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'. Mr Reid consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.