

15 October 2024

Muckanippie Titanium Drilling Underway

Highlights

- A 4,000-metre drilling program has commenced at Muckanippie
- Drilling at both the Rosewood and Claypan Prospects will test previously reported Titanium rich heavy mineral sands which occur over several square kilometres¹
- Titanium-Vanadium rich underlying fresh basement zones will be drill tested at Claypan
- Other possible Titanium-Vanadium rich rock horizons and heavy mineral sand areas will additionally undergo initial reconnaissance drilling.

Petratherm Limited (ASX: PTR) (“PTR” or “the Company”) is pleased to announce drilling has commenced at the Muckanippie Titanium Project in the northern Gawler Craton of South Australia. An approximate 4,000 metre drill program will assess at a regional scale the Rosewood and Claypan Prospect titanium rich heavy mineral sands (HMS) mineralisation. Drilling is also planned over high Titanium-Vanadium bearing source rock horizons for primary Vanadiferous Titanomagnetite (VTM) style mineralisation (Figure 1).



Photo 1 – Drilling underway at Claypan Prospect on EL6715 (Narryer Metals JV)

¹ PTR ASX release 11/09/2024 – High-Grade Titanium Rich Heavy Mineral Sands at Muckanippie

The air core drilling program will comprise of wide spaced (1 kilometre) drill traverses over prospective mineral sand areas with holes spaced at approximately 200 metres along lines and include some closer infill drilling in zones of interest. The previously reported shallow HMS mineralisation, starts from near surface to approximately 30 metres depth, and maximum hole depth's are expected to range between 30 to 40 metres.

Testing of VTM prospective areas such as at Claypan (EL 6715 Narryer JV area²) is likely to involve slightly deeper drilling to the top of fresh basement rock ranging between 40 and 70 metres depth. Targeting of potential VTM horizons is more discrete and hole spacing along drill lines will typically be at 50 metres. Mineral assays will be despatched for heavy mineral calculations, mineral testing, and geochemistry in stages during the drilling, with reporting of initial assay results scheduled to commence from late November.

PTR CEO Peter Reid Commented:

“The Company is extremely pleased to have drilling now underway at Muckanippie and is well-funded following the recent placement and oversubscribed SPP.

“The critical minerals, Titanium and Vanadium, have been identified over large areas and in a variety of target forms which is testament to the fertility of the Muckanippie area.

“This maiden drill program by Petratherm will assist in determining the extent of mineralisation of the prospect areas and the potential for future economic mineral resources. We look forward to providing further updates on the drilling program.”

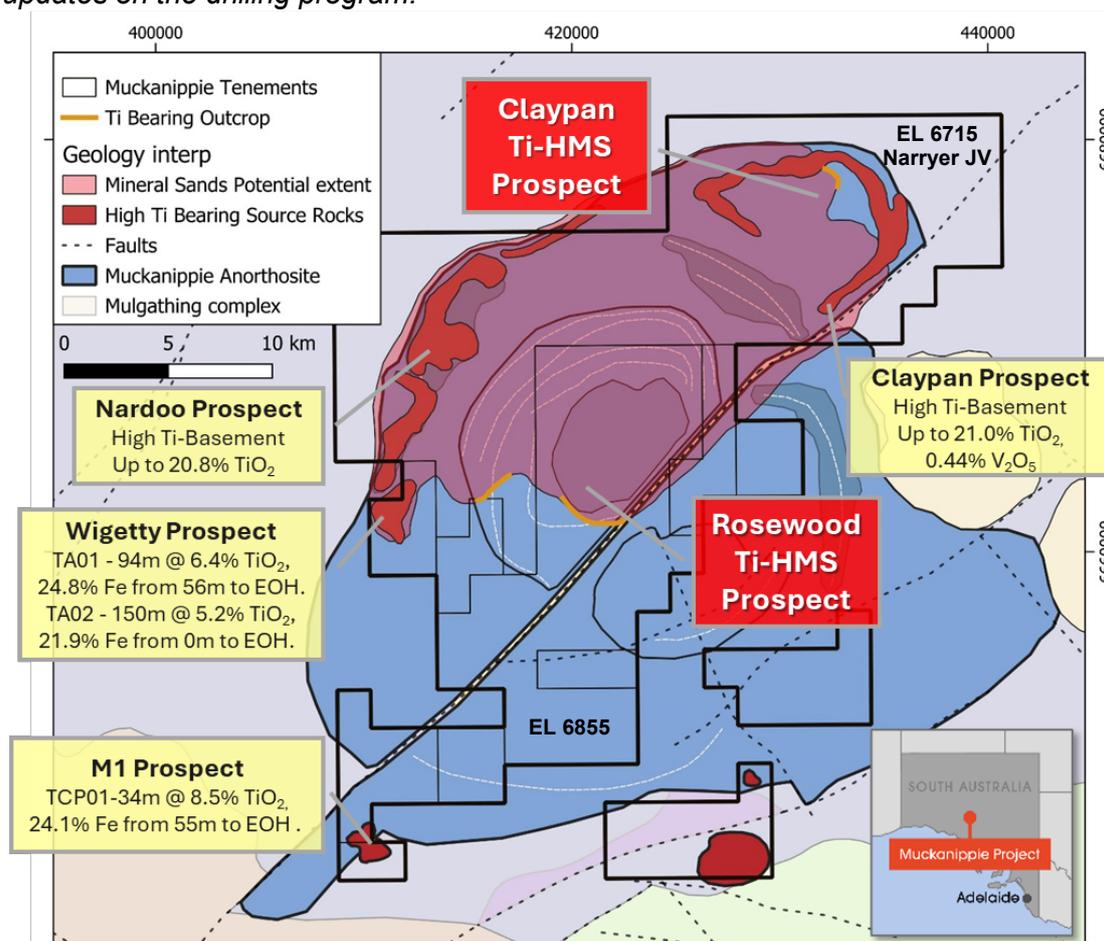


Figure 1 – Interpreted Geology Map of Muckanippie Project Area, High TiO₂ basement source rock prospects (yellow labels)³, HMS Titanium Prospects (red labels) and interpreted extent of Titanium Rich Mineral Sands.

² PTR ASX release 18/04/2024 – Farm-in Expands Muckanippie Project

³ PTR ASX release 14/11/2022- Muckanippie Project Tenement Granted

About the Muckanippie Project

In September, PTR announced a high-grade heavy mineral sand (HMS) discovery at its Muckanippie Project area southwest of Coober Pedy in South Australia (Figure 1). The Muckanippie Titanium Project contains both 100% owned Petratherm tenure and the JV tenement EL 6715, owned by Narryer Metals Limited (ASX:NYM)². Reconnaissance mapping and surface sampling along with assaying of historic drill core stored at the South Australian Government's Core Library identified previously unknown high-grade Titanium mineralisation spanning many square kilometres at two prospect sites, Rosewood and Claypan.

Outcrop samples recorded exceptional grades ranging between 10% and 50% titanium dioxide (TiO₂). The mineralisation occurs from or near surface (<10 metres) and is present as heavy mineral bands forming sheet-like Heavy Mineral Sand (HMS) mineralisation. Re-assaying of historical wide spaced drilling confirms HMS mineralisation extends at least 6 kilometres to the North.

At Claypan significant Titanium-Vanadium mineralisation has also been identified in the underlying basement source rock, returning grades up to 21.0% TiO₂ and 0.44% V₂O₅, and additionally has potential for primary basement mineralisation (Refer to PTR ASX Release 11/09/2024 for details and JORC Table 1 information).

ENDS

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

For further information:

Peter Reid

Chief Executive Officer
preid@petratherm.com.au
0435 181 705

Media and Broker Contact

Jason Mack

White Noise Communications
jason@whitenoisecomms.com
0400 643 799

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 Limited. 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.

About Petratherm Limited

Petratherm Limited (ASX: PTR) is a copper and critical minerals explorer focused on the discovery of world-class deposits in both frontier and mature mineral provinces. The Company has two major exploration projects in the world-class Olympic Copper-Gold Province of South Australia. Work in the region has uncovered Iron-Oxide Copper-Gold style alteration/mineralisation at both its Mabel Creek and Woomera Project Areas. Geophysical targeting work has defined several compelling Tier-1 Copper-Gold targets which the Company is aiming to drill test during the 2024 calendar period.

In addition, PTR has a major project holding in the northern Gawler Craton of South Australia. Recent exploration has uncovered significant concentrations titanium rich heavy mineral sands (HMS) over large areas. The mineral sands are associated with the weathering of a major intrusive complex, the Muckanippie Suite, which has been found to be highly prospective for other critical minerals including Platinum Group Elements, Vanadium, and Titanium. This is an early-stage Greenfields project with exceptional upside potential.



PTR's Project Locations in South Australia