13 August 2025

Muckanippie Project Update

Highlights

- **PTR has appointed a highly experienced mineral sands professional, Victor Araujo, as Head of Project Development to advance technical studies in respect of the Rosewood Titanium Project.**
- **PTR has earned a further 19% beneficial interest in EL 6715 taking its equity position to 70%, pursuant to the Narryer Metals (ASX NYM) Farm-in Agreement.**
- **Rosewood East bulk sample metallurgical test work is progressing well with feed processing and trial spiral separation testing underway to produce an initial Heavy Mineral Concentrate (HMC).**
- **Assessment of saprolite HMS mineralisation from recent drilling at Duke, Nardoo and Claypan Prospects is continuing. This is a new style of high-grade, titanium rich HM mineralisation located to the west and north of the Rosewood Titanium project. Findings will be presented later in the quarter once TiO_2 content and titanium mineralogy test work has been completed on the HM assays.**
- **Orientation drilling in preparation for future resource drilling at Rosewood is scheduled to commence from early September. In addition, further exploration drilling of sediment-hosted mineral sands targets will be undertaken to follow up key targets and test for extensions to the current Project mineralisation**.

Petratherm Limited (ASX: PTR) ("**PTR**" or "**the Company**") is pleased to provide an update on the Muckanippie Project located in the northern Gawler Craton of South Australia. Muckanippie hosts the Rosewood Titanium Prospect, which continues to develop as a potentially world-class discovery and includes several other significant titanium prospect sites where only very limited drilling has been completed to-date (Figure 1).

Previously at Rosewood, PTR reported exceptional high-grade, thick and shallow drill intersections, confirming the continuity of mineralisation over a continuous 20km^2 area, which remains open in multiple directions particularly to the north.[1,2,3]

Significant drill intercepts from the recent Phase 2 exploration drilling include:

- **26m @ 17.2% HM** from 7m, incl. **6m @ 36.4% HM** from 27m - 25RW002
- **11m @ 16.4% HM** from 6m, incl. **7m @ 23.8% HM** from 6m, and
  incl. **1m @ 55.7% HM** from 11m - 25RW030
- **12m @ 12.7% HM** from 4m, incl. **7m @ 17.1% HM** from 5m - 25RW023
- **9m @ 15.1% HM** from 5m, incl. **6m @ 20.3% HM** from 8m - 25RW033
- **7m @ 17.4% HM** from 6m, incl. **3m @ 30.1% HM** from 9m - 25RW037

(refer to PTR 23/06/2025 ASX Release for JORC Table 1 details)

[1] PTR ASX release 04 December 2024 – Drill Results Confirm Major HMS Discovery at Rosewood
[2] PTR ASX release 6 February 2025 – Drilling Confirms Potential for World-Class Titanium Project
[3] PTR ASX release 23 June 2025 – Impressive Drilling Results Expand Rosewood

Mineralogy results from the Rosewood East area have indicated HM sands with >95% Valuable Heavy Mineral content, with an assemblage dominated by high grade titanium minerals in excess of 70% TiO_2 (including leucoxene, high titanium (HiTi) leucoxene and rutile)[4]. Results from sizing analysis indicate the HM is coarse grained and likely highly amenable to producing excellent mineral recoveries using conventional gravity spiral processing techniques[5].

PTR Chief Executive Officer, Peter Reid, commented:

"We're pleased to welcome Victor Araujo as Head of Project Development. Victor brings deep expertise in the mineral sands sector. In particular, he has a very strong history in the successful development of heavy mineral sands projects around the world. Given the number and significance of the workstreams currently underway at PTR, he will play a key role as we continue to advance the Rosewood Titanium Project.

"Based on our work to-date, we continue to be of the view that the Rosewood Project is emerging as a major, potentially world-class titanium discovery. We look forward to continuing to update the market and all our stakeholders as new results come to hand."

Appointment of Highly Experienced Head of Project Development

Victor Araujo brings 28 years of experience in project analysis, development, engineering and construction primarily focused on the mineral sands mining and processing industries. His career has spanned multiple countries, including South Africa, Botswana, Mozambique, Sri Lanka, New Zealand, and Australia.

He held numerous senior leadership, project management, and directorship positions with prominent mineral sands organisations globally. Notable positions include serving as Project Leader for Exxaro Resources (now Tronox) during the development of the Hillendale Mine and other initiatives within the Central Processing Complex in Empangeni, South Africa; leading maintenance and engineering teams for Crystal Mining (now Tronox) at both Ginkgo and Snapper Mines in the Murray Basin; and Deputy Project Manager for Iluka Resources WRP mine development in Ouyen, Victoria.

He also managed several feasibility studies for Iluka within the Eucla Basin and served as Country Manager and Director for Iluka's Sri Lankan entities associated with the PQ Project. After establishing his own consulting firm, Victor consulted on project management and engineering for various mineral sands projects in Australia and New Zealand including the Douglas Project PFS & DFS for Astron Resources in Victoria, the Wimmera Project, Jacinth and Ambrosia Mines and Eneabba RER for Iluka Resources, multiple work packages on the Atlas and Campaspe Projects for Tronox Australia and preliminary works relating to the Brownlee Extension, Buller, and Mananui Projects for Westland Mineral Sands in New Zealand.

Victor's proven ability to lead large, multi-disciplinary teams, as well as his extensive industry experience spanning the entire project lifecycle, from concept to execution, will significantly assist PTR's ability to rapidly advance the Rosewood Titanium Project.

70% Equity interest acquired on EL6715

The Company has advised Narryer Metals (ASX NYM) that the Stage 2 commitment[6] has now been met, thereby earning Petratherm a 70% legal and beneficial interest in EL 6715 (Figure 1). Under the Farm-in Agreement, NYM have in return notified PTR that they have elected to form a joint venture (PTR 70% : NYM 30%) to be managed by PTR.

The Rosewood Titanium Prospect primarily occurs on PTR's 100% owned EL 6855 and extends westwards onto the joint venture tenement EL 6715 (refer to Figure 1). EL 6715 additionally contains the Duke, Nardoo and Claypan Prospects where drilling results to date have identified a new style of high-grade Titanium rich HM mineralisation hosted in saprolite clay[7].

[4] PTR ASX release 20 January 2025 – Pure High-Value Titanium Mineral Assemblage at Rosewood
[5] PTR ASX release 5 March 2025 – Positive Rosewood Heavy Mineral Size Analysis
[6] PTR ASX release 18 April 2024 – Farm-in Agreement Expands Muckanippie Project
[7] PTR ASX release 19 February 2025 – New Style of Titanium Mineralisation at Muckanippie

Photo 1: *From left to right, Ian Warland (Senior Geological Consultant), Victor Araujo (Head of Project Development) and Sam Rasch (Project Geologist) inspecting HM sample sachets from Rosewood Prospect, August 2025*

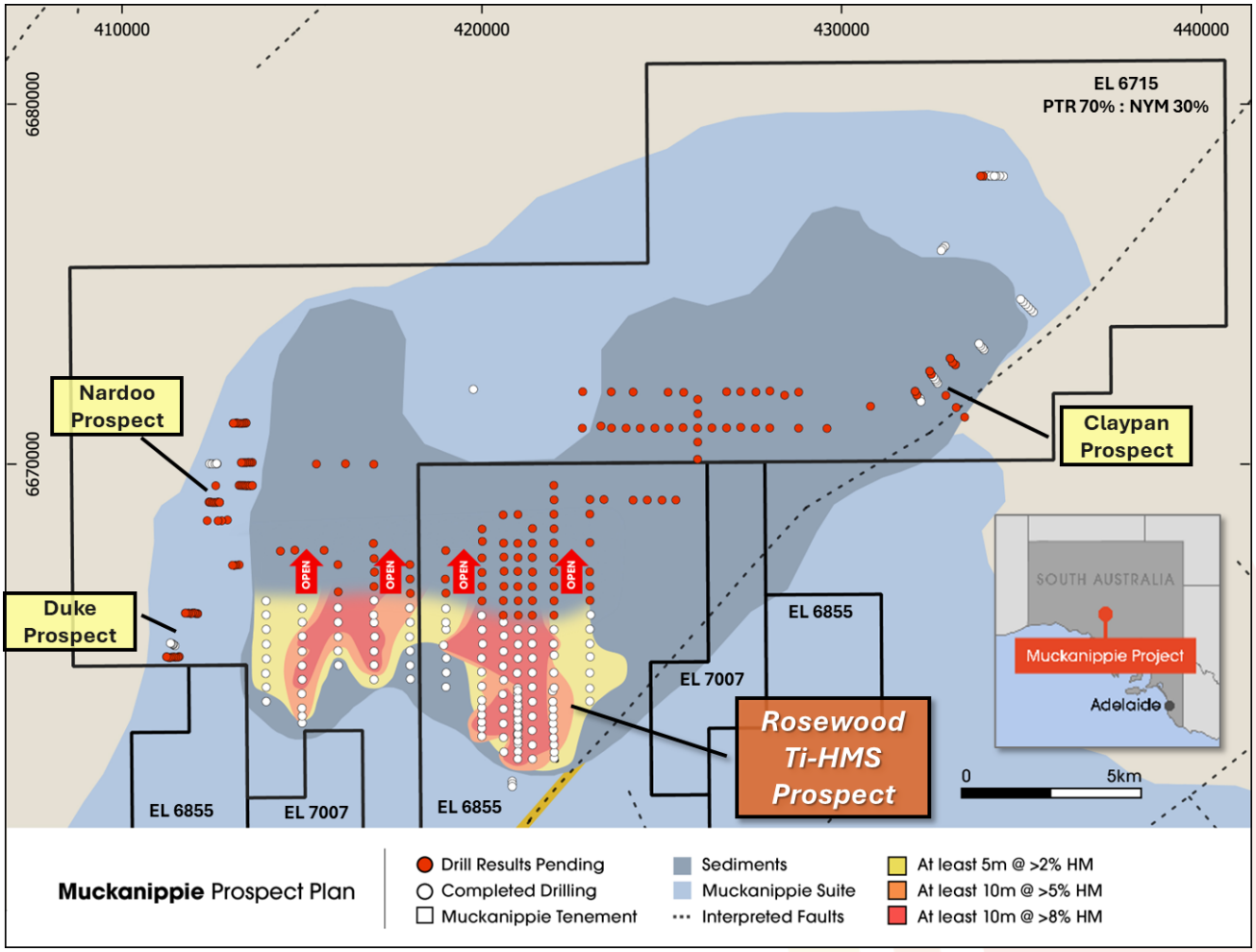

Figure 1: *Rosewood Mineralisation, other Prospects, and tenement holdings.*

Rosewood Bulk Sample Test Work

Bulk sample testing is advancing at IHC Laboratories in Brisbane. A representative approximate 1 tonne sample was composited from 8 holes spaced 200 metres apart along a 1.4 kilometre trend extending over the central southern Rosewood East area. At the time of writing, Feed Preparation Process Testing was in progress, using a trommel with a small scrubber upfront allowing for the assessment of key characteristics of the mineralisation. Initial spiral sighter testing of the HM sand fraction is also underway. The entire stage of works will inform a potential production process utilising typical mineral sands equipment, including dry screen classification, electrostatic separation and magnetic separation to target a high grade titanium suite of products. The entire program is scheduled to be completed during the December 2025 quarter.

The Rosewood mineralisation occurs over a very large area, currently in excess of 20km^2, and remains open in multiple directions[3]. Additional bench scale testing of HM zones from different portions of the Rosewood mineralisation utilising mid-sized samples (each 80-100kg) will commence during August. These studies will provide important support to the major bulk sample test work and provide a basis for a future scoping study.

Photo 2: *HM sample being fed into the trommel.*

Saprolite HMS mineralisation - Duke, Nardoo and Claypan Prospects

At Duke, Nardoo and Claypan Prospects, away from the Rosewood Titanium Project (Figure 1), previous exploration drilling identified a new style of high-grade titanium rich HM mineralisation hosted in saprolite clay.[7] Previous drilling results included (refer to PTR 19/02/2025 ASX release for JORC Table 1 details):

- Nardoo Prospect: 24ND003 - **44m @ 29.4% HM** from surface to end of hole.
- Duke Prospect: 24DK004 - **61m @ 19.7% HM** from surface to end of hole.
- Claypan Prospect: 24CP009 - **45m @ 27.0% HM** from 6m.
  24CP004 - **48m @ 23.5% HM** from 10m to end of hole.

Independent visual mineral logging of HM concentrates reported variable valuable heavy mineral content, ranging from 36.6% to 78.4% HM, and comprising dominantly high-grade altered ilmenite with leucoxene credits[7].

Saprolite is the deeply weathered upper clay rich zone of basement rock, that has been chemically broken down, however the titanium minerals present are resistant to weathering and have been concentrated within the saprolite zone. This style of HM mineralisation has potential for free dig mining and the valuable heavy minerals have the potential to be separated using standard wet concentration techniques.

In April 2025, a total of 55 follow-up drill holes for 2,261 metres were drilled for this style of mineralisation at each of these prospects. Initial HM concentration results are nearly complete, however additional assaying is required to characterise the HM intercepts before reporting.

Previous work highlighted significant zonation of titanium and iron mineralisation, PTR will now undertake XRF assay analysis of the HM samples to determine titanium (TiO_2) and iron (Fe_2O_3) contents of the HM across each prospect area. Selected QEMSCAN analysis to determine breakdown of the titanium mineral assemblage will also be completed. These combined mineral and assay studies allow for a balanced and accurate assessment of the significance of the drill intercepts hosted within the saprolite. Findings from this study are expected to be completed late in the current September 2025 quarter.

Phase 3 drilling – July 2025

At Rosewood East and West, a Phase 3 drill program was completed in July. In total, 110 drill holes were drilled for 3,231 metres[8]. The drilling tested areas north of Rosewood, and other early-stage prospects and target areas (Figure 1). At Rosewood East, regional drilling was extended a further 3.2 kilometres. Drill samples have been dispatched for HM assaying and first results are expected late in the current September 2025 quarter.

Photo 3: *PTR Non-Executive Director, Simon Taylor, panning HM from drill hole 25RW030 – Intercept interval 7m @ 23.8% HM from 6m, July 2025[3]*

[8] PTR ASX release – 29 July 2025 – Quarterly Activities/Appendix 5B Cash Flow Report.

Phase 4 Drill Program

Further exploration drilling will commence from early September. In addition, limited infill and orientation study drilling will be undertaken over the high grade mineralised areas at Rosewood East, with data collected to be used to aid design of a potential future JORC resource drill out. The Rosewood East zone is high grade with intercepts typically of at least 10 metres @ >8% HM^3.

Rosewood is a large and as yet un-constrained discovery. This initial drill orientation program is aimed at outlining a program procedure with a view to undertaking a future JORC Inferred and Indicated Level Resource drilling program (refer to Forward Looking Statements Disclaimer below).

ENDS

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 Ian Warland, who is a Competent Person, and a Member of the Australian Institute of Geoscientists. Mr Warland is not aware of any new information or data that materially affects the historical exploration results included in this report. Mr Warland is an employee of Nile Exploration Pty Ltd and is currently consulting to Petratherm Limited. Mr Warland 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 Warland consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statements Disclaimer

This document contains "forward looking statements" as defined or implied in common law and within the meaning of the Corporations Law. Such forward looking statements may include, without limitation, (1) estimates of future capital expenditure; (2) estimates of future cash costs; (3) statements regarding future exploration results and goals.

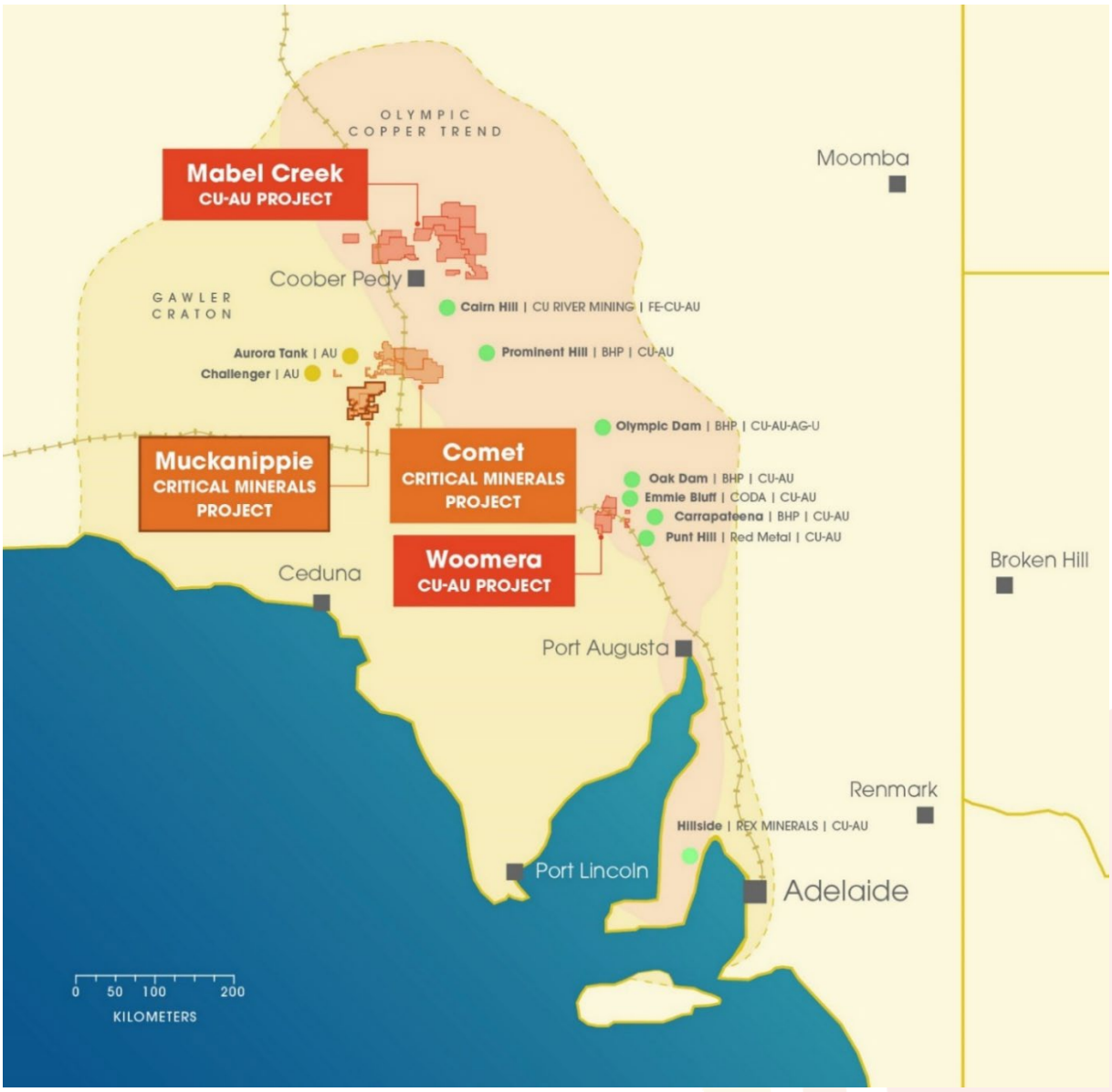
Where the Company or any of its officers or Directors or representatives expresses an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and the Company or its officers or Directors or representatives, believe to have a reasonable basis for implying such an expectation or belief.

However, forward looking statements are subject to risks, uncertainties, and other factors, which could cause actual results to differ materially from future results expressed, projected, or implied by such forward looking statements. Such risks include, but are not limited to, commodity price fluctuation, currency fluctuation, political and operational risks, governmental regulations and judicial outcomes, financial markets, and availability of key personnel. The Company does not undertake any obligation to publicly release revisions to any "forward looking statement".

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 a major project holding in the northern Gawler Craton of South Australia. Recent exploration has uncovered significant concentrations of titanium rich heavy mineral sands (HMS) over large areas at its Muckanippie Project Area. The Project contains 100% owned PTR tenure and the JV tenements, EL 6715 (Narryer Metals Limited, ASX:NYM)[9] and EL6873 (G4 Metals)[10]. 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 critical minerals including Platinum Group Elements, Vanadium, and Titanium. This is an early-stage Greenfields project with exceptional upside potential.

The Company also 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 are drill ready.



PTR's Project Locations in South Australia

[9] PTR ASX release 18 April 2024 – Farm-in Agreement Expands Muckanippie Project
[10] PTR ASX release 29 Feb 2024 – Farm-In Agreement Executed – Muckanippie Project Expansion