

29 May 2025

## Drilling at Rosewood returns best results to date with 1.6km extension of high-grade HM mineralisation

### Highlights

- 73 Air Core (AC) holes were drilled at the Rosewood heavy mineral (HM) prospect in April. Results from first 10 drill holes now received and include numerous intercepts at higher grades than those previously encountered.
- New intersections include:
  - 25RW002 - **26m @ 17.2% HM from 7m, incl. 6m @ 36.4% HM** from 27m.
  - 25RW003 - **32m @ 11.1% HM from 10m, incl. 3m @ 22.7% HM** from 11m.
  - 25RW004 - **15m @ 11.5% HM from 6m, incl. 5m @ 20.9% HM** from 7m.
- **These results extend mineralisation an additional 1.6 kilometres northwards.** Mineralisation in the Rosewood East area now extends **at least 3.6 kilometres in a north-south direction.**
- **Mineralisation remains open to the north** at Rosewood East with the northernmost hole in this area intersecting strong HM mineralisation:
  - 25RW010 - **8m @ 13.1% HM from 6m, incl. 4m @ 20.5% HM** from 7m.
- Results support and upgrade previous drilling indicating widespread (>15km<sup>2</sup>), shallow, high-grade HM mineralisation at Rosewood.
- Mineralogy results to date indicate the Rosewood HM prospect has a very high, on average >95% Valuable Heavy Mineral content, composed primarily of high titanium dioxide (TiO<sub>2</sub>) minerals.
- Results from 63 remaining Phase 2 drill holes at Rosewood expected in approximately 3 weeks.

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### **Petratherm CEO, Peter Reid, commented:**

*“Drilling to date continues to demonstrate the potential size and high-grade mineralisation of the Rosewood prospect.*

*“Importantly, these results also confirm the high-grade continuity and thickness of the prospect over a very large area including right up to the extent of current drilling. On this basis, we would anticipate future step out Phase 3 exploration drilling in the coming weeks will continue to identify additional high-grade mineralisation and extend the potential size of the exciting Rosewood discovery.*

*“Bulk sample test work will shortly get underway to inform separation processing and will produce our initial HM sample products. This will be a key milestone and will go a long way to demonstrating the potential future commercial viability of the project.”*

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## Rosewood Prospect Drilling

**Petratherm Limited** (ASX: PTR) (“PTR” or “the Company”) is pleased to announce the first batch of HM assay results from the extensional drilling at the Rosewood Heavy Mineral Sand (HMS) Prospect. During April, the Company undertook a 128-hole vertical air-core drill program totalling 4,486 metres to test for titanium-bearing HM mineralisation at the Muckanippie Project in the northern Gawler Craton, South Australia.

As part of this program, 73 holes totalling 2,225 metres were drilled at the Rosewood Prospect to follow up the very high-grade HM mineralisation discovered late last year. Fifty drill holes for 1,697m were drilled in 2024 with the best results from the previous drilling including **22m @ 19.1% HM from 8 metres in drill hole 24RW020<sup>1</sup> and over 90% of holes drilled intersecting at least 5m at >5% HM.**

HM assay results from the first 10 drill holes drilled this year have now been received returning some of the best results to date at Rosewood including **26m @ 17.2% HM from 7 metres in drill hole 25RW002 and 32m @ 11.1% HM from 10 metres in 25RW003** (refer to Table 1). The ten holes on this section were drilled on a 400m spacing and **cover a strike length of 3.6km north-south**. Importantly, the northern-most drill hole ended in strong mineralisation (8m @ 13.1% HM from 6 metres), **extending the mineralisation an additional 1.6 kilometres northward** beyond previous drilling at the eastern part of Rosewood, with **mineralisation still open to the north**.

PTR previously reported high-grade titanium minerals from Rosewood with elevated HM grades, comprising of virtually no deleterious materials and averaging >95% Valuable Heavy Mineral (VHM) Content<sup>2</sup>.

**Table 1: 2025 Drilling Highlights**

Drill hole	Thickness (metres)	HM%	From (metres)	Including
25RW001	8	7.4%	2	2m @ 12.5% from 4m
25RW002	26	17.2%	7	6m @ 36.4% from 27m
25RW003	32	11.1%	10	3m @ 22.7% from 11m
25RW004	15	11.5%	6	5m @ 20.9% from 7m
25RW005	11	11.1%	6	2m @ 23.7% from 10m
25RW006	10	12.0%	8	3m @ 26.5% from 10m
25RW007	12	10.4%	6	3m @ 25.0% from 9m
25RW008	7	11.8%	5	3m @ 21.5% from 9m
25RW009	12	9.9%	3	4m @ 18.6% from 7m
25RW010	8	13.1%	6	4m @ 20.5% from 7m

<sup>1</sup> PTR ASX release 04 December 2024 – Drill Results Confirm Major HMS Discovery at Rosewood

<sup>2</sup> PTR ASX release 20 January 2025 – Pure High-Value Titanium Mineral Assemblage at Rosewood

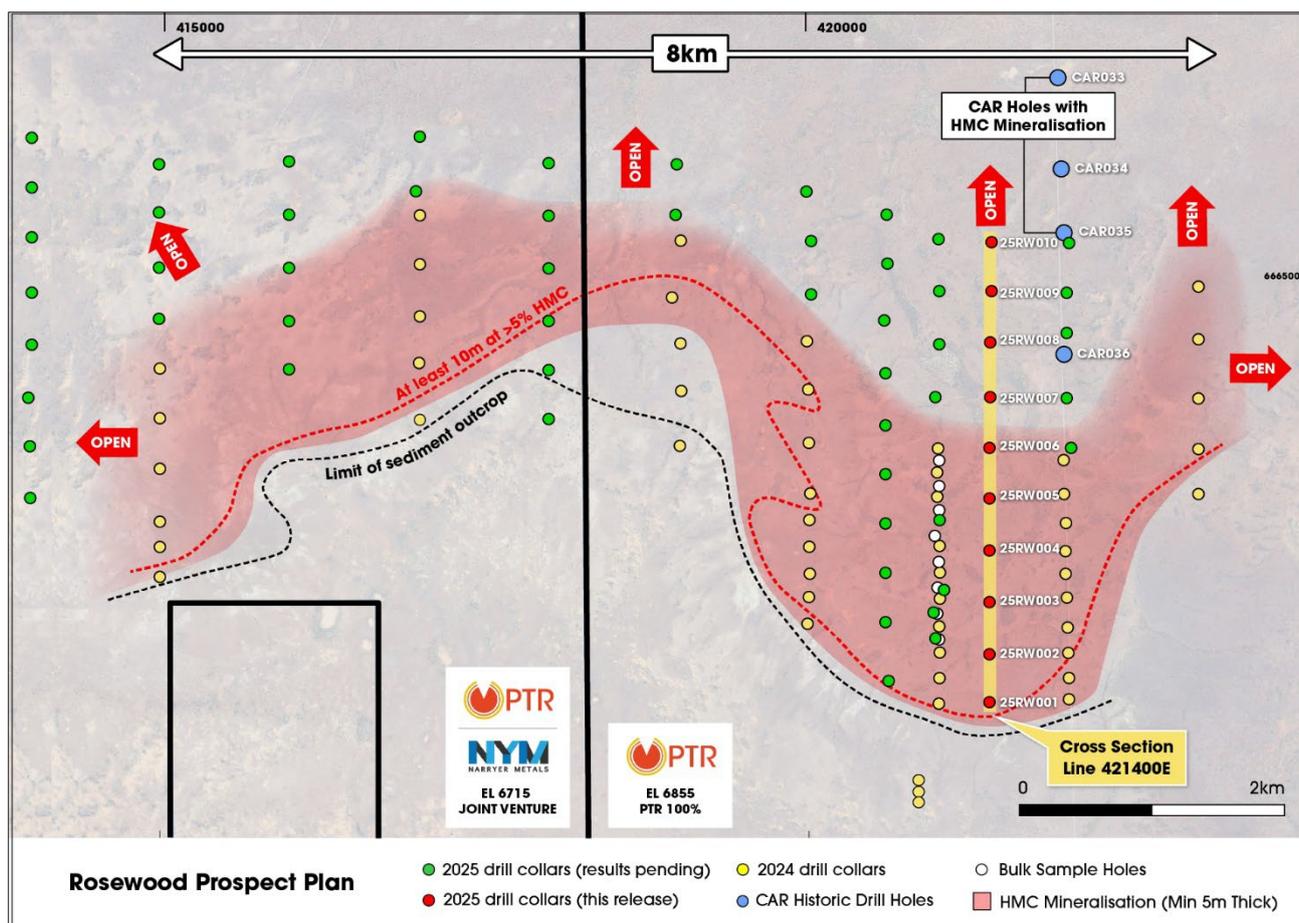


Figure 1 – Rosewood Prospect drilling results and cross section location.

## Rosewood Exploration Results

At Rosewood, drilling focused on extending mineralisation from the southern edge, where it outcrops in places, northwards where it extends under very thin cover (Figure 2). To date, all holes drilled at Rosewood have intersected the target host sediments, a silt, sand and clay rich sequence interpreted to be marine and fluvio-deltaic in origin. The iron-oxide content of the sediments is extremely low and they appear as bleached white sediment with dark titaniferous mineral banding.

The initial Phase 1 drilling undertaken in late 2024 identified a mineralised area extending across an 8 kilometre east-west extent with widths ranging between 500 metres and 2.2 kilometres in a north-south direction (Figure 1). The initial Phase 2 results released today extend this mineralised area to 3.6km north-south in the Rosewood East area, encompassing a total area of over 15km<sup>2</sup>.

Previously PTR reported re-logging and assaying of historical South Australian Department of Mining drillholes (CAR series drill holes) which confirm that HM bearing sediments continue for at least another 1 kilometre north of the current drill traverse (Figure 1)<sup>3</sup> adding to the confidence for future successful drilling to the north.

Mineralisation starts at shallow depths across the Rosewood Prospect typically ranging from 0 to 14 metres and has an average starting depth of 5.7 metres across all holes containing significant intercepts.

<sup>3</sup> PTR ASX release 11 September 2024 – High-Grade Titanium Rich Heavy Mineral Sands at Muckanippie

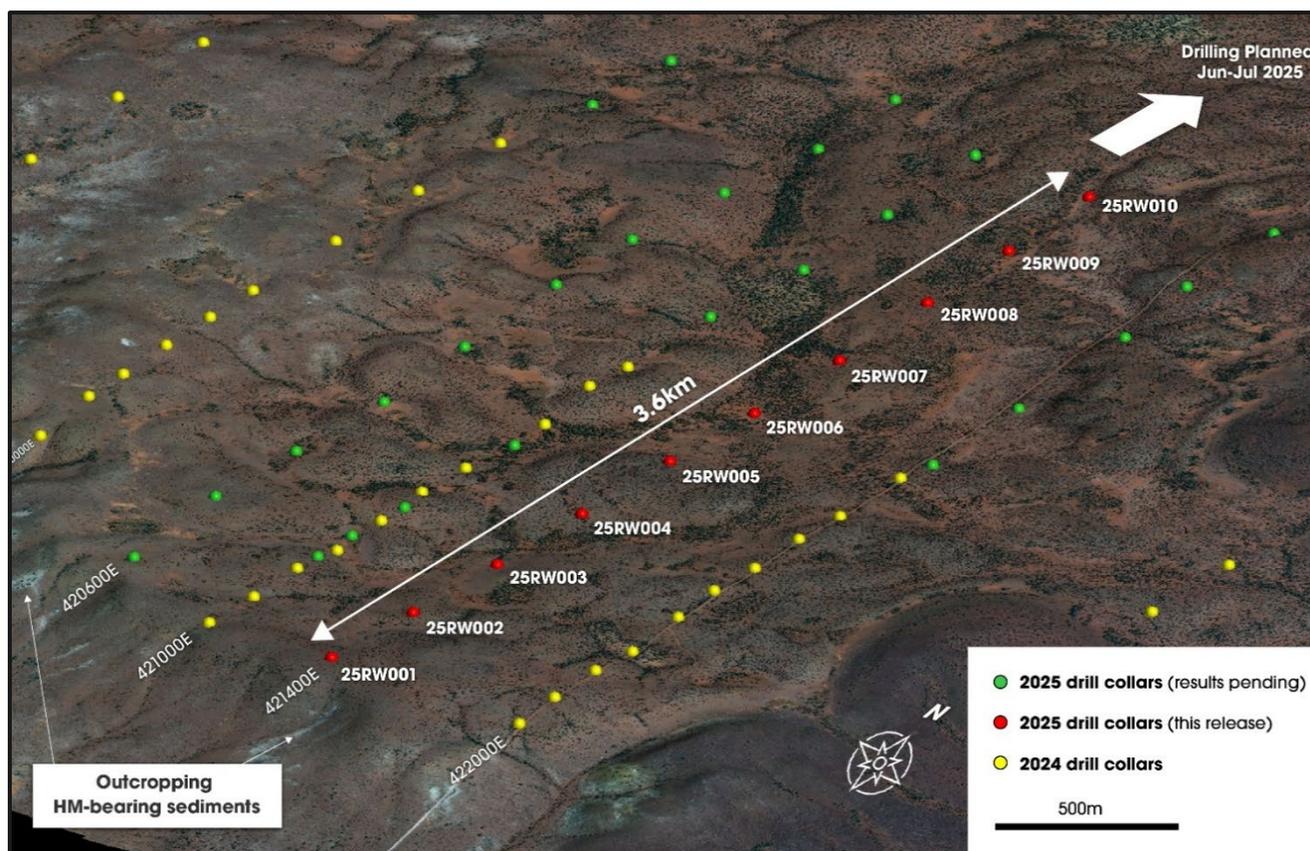


Figure 2 – Rosewood East drill hole locations on satellite image. Mineralisation is open to the north. Follow up drilling scheduled from late June.

## Rosewood Prospect – Eastern area current drilling

Results from the current drill traverse highlight the continuity and grade of HM mineralisation at the eastern part of the Rosewood Prospect (Figure 3). A thick continuous HM layer continues from outcrop in the south over 3.6 kilometres northwards where it remains open (Figure 2). All holes on this traverse intersected significant, thick high-grade HM mineralisation, with some excellent intercepts including:

- 25RW002 - **26m @ 17.2% HM** from 7m, incl. **6m @ 36.4% HM** from 27m.
- 25RW003 - **32m @ 11.1% HM** from 10m, incl. **3m @ 22.7% HM** from 11m.
- 25RW004 - **15m @ 11.5% HM** from 6m, incl. **5m @ 20.9% HM** from 7m.

This traverse was drilled 400 metres east of Section 421000E, where metallurgical work undertaken to date has on average recorded >95% Valuable Heavy Mineral (VHM) content.

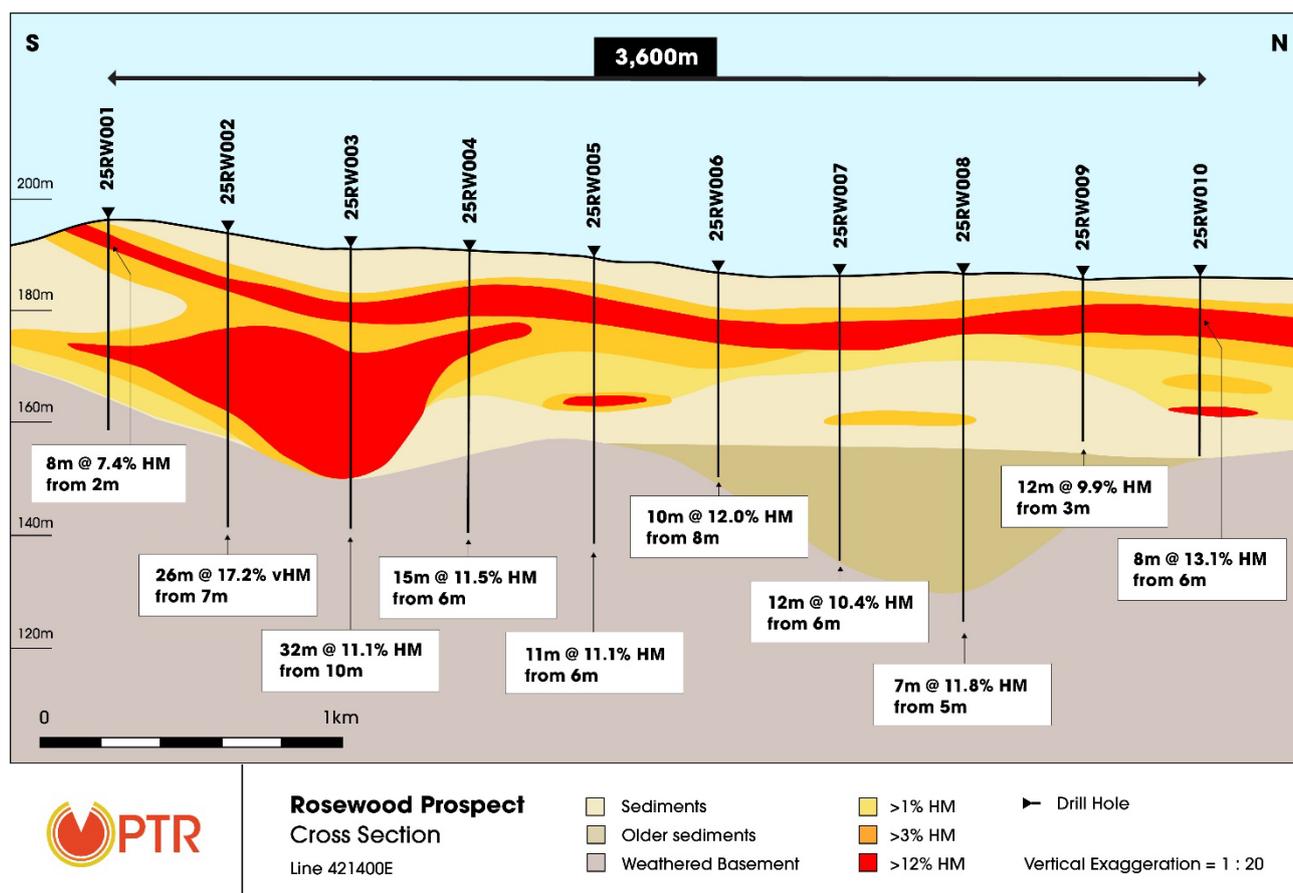


Figure 3 – Rosewood Geological Cross Section 421400E – Eastern Area.

## Next steps

At Rosewood East, a 1 tonne bulk sample from the upper mineralised zone, was composited from 8 holes spaced 200 metres apart along a 1.4-kilometre trend. This material will undergo large scale metallurgical test work once initial HM assaying has been completed. The bulk sample will be processed by IHC Mining in Brisbane using a wet concentrator plant, followed by magnetic and electrostatic separation to produce HM concentrates. The study aims to inform mineral recovery processing and potential mineral products.

HM Results from the remaining 63 drill holes at Rosewood are expected shortly. This includes those contained on the JV tenement EL 6715, part owned by Narryer Metals Limited (ASX:NYM)<sup>4</sup>. Further afield on the Muckanippie Project, HM drill assay results from a further 55 exploration holes, testing saprolite HM targets (Duke, Nardoo and Claypan Prospects) will follow, and are currently expected during July. These are also located on the JV tenement EL 6715. Bench scale mineralogical and metallurgical studies are being performed on the HM concentrates at Rosewood and the other saprolite HM prospects and results will be released as they come to hand over the coming months.

The next round of exploration drilling at Rosewood will test for further extensions of the Rosewood mineralisation, particularly to the north. Planning of the Phase 3 program will be guided by Phase 2 results and therefore will commence once the remaining Phase 2 assays have been received.

# ENDS

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

<sup>4</sup> ASX Announcement 18 April 2024 – Farm-in Agreement Expands Muckanippie Project

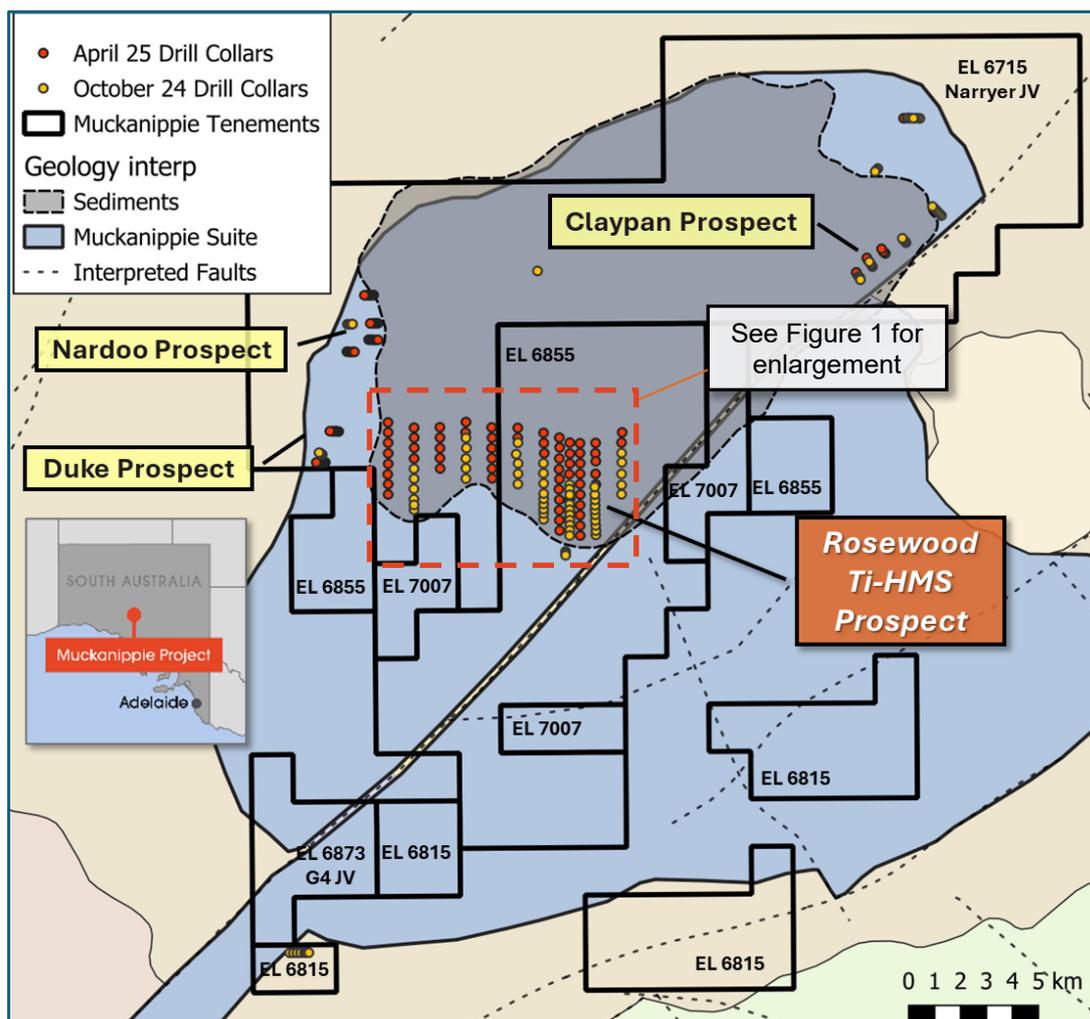


Figure 4 – Geology Map of Muckanippie Project Area, Tenements, Prospect Names and 2024 drill collars. The Project contains both 100% owned Petratherm tenure and the JV tenements, EL 6715 (Narryer Metals Limited, ASX:NYM) and EL6873 (G4 Metals)<sup>5</sup>

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 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.

<sup>5</sup> ASX Announcement 29 Feb 2024 – Farm-In Agreement Executed – Muckanippie Project Expansion

**TABLE 2: Rosewood Heavy Mineral Significant Intercepts**

<b>Table 2 - Rosewood Heavy Mineral (HM) %, Significant Intercepts</b>				
<b>Drill Hole</b>	<b>From (metres)</b>	<b>To (metres)</b>	<b>Interval (metres)</b>	<b>HM % Original Sample</b>
<b>25RW001</b>	2	10	8	<b>7.4%</b>
<i>incl.</i>	4	6	2	<b>12.5%</b>
<i>and</i>	22	27	5	<b>4.9%</b>
<b>25RW002</b>	7	33	26	<b>17.2%</b>
<i>incl.</i>	9	11	2	<b>17.6%</b>
<i>incl.</i>	19	22	3	<b>19.5%</b>
<i>incl.</i>	27	33	6	<b>36.4%</b>
<b>25RW003</b>	10	42	32	<b>11.1%</b>
<i>incl.</i>	11	14	3	<b>22.7%</b>
<i>incl.</i>	20	25	5	<b>18.3%</b>
<b>25RW004</b>	6	21	15	<b>11.5%</b>
<i>incl.</i>	7	12	5	<b>20.9%</b>
<i>incl.</i>	15	16	1	<b>18.9%</b>
<b>25RW005</b>	6	17	11	<b>11.1%</b>
<i>incl.</i>	10	12	2	<b>23.7%</b>
<i>and</i>	24	28	4	<b>6.9%</b>
<b>25RW006</b>	8	18	10	<b>12.0%</b>
<i>incl.</i>	10	13	3	<b>26.5%</b>
<b>25RW007</b>	6	18	12	<b>10.4%</b>
<i>incl.</i>	9	12	3	<b>25.0%</b>
<b>25RW008</b>	5	12	7	<b>11.8%</b>
<i>incl.</i>	9	12	3	<b>21.5%</b>
<b>25RW009</b>	3	15	12	<b>9.9%</b>
<i>incl.</i>	7	11	4	<b>18.6%</b>
<i>incl.</i>	9	11	2	<b>23.6%</b>
<b>25RW010</b>	6	25	19	<b>7.2%</b>
<i>incl.</i>	6	14	8	<b>13.1%</b>
<i>incl.</i>	7	11	4	<b>20.5%</b>
<i>incl.</i>	9	11	2	<b>27.6%</b>
<i>incl.</i>	24	25	1	<b>13.3%</b>

## 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 Petratherm tenure and the JV tenements, EL 6715 (Narryer Metals Limited, ASX:NYM)<sup>6</sup> and EL6873 (G4 Metals)<sup>7</sup>. 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 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 2025 calendar period.



**PTR's Project Locations in South Australia**

<sup>6</sup> PTR ASX release 18 April 2024 – Farm-in Agreement Expands Muckanippie Project

<sup>7</sup> PTR ASX release 29 Feb 2024 – Farm-In Agreement Executed – Muckanippie Project Expansion

**TABLE 3: Drill Hole Collars**

Hole ID	Easting MGA94 Z53	Northing MGA94 Z53	RL metres	Dip Deg.	Azimuth Deg.	EOH Depth metres
25RW001	421405	6661805	190	-90	0	38
25RW002	421403	6662192	187	-90	0	52
25RW003	421396	6662599	184	-90	0	51
25RW004	421403	6662988	183	-90	0	51
25RW005	421407	6663397	182	-90	0	51
25RW006	421400	6663805	179	-90	0	37
25RW007	421402	6664203	179	-90	0	51
25RW008	421407	6664611	179	-90	0	63
25RW009	421398	6665006	178	-90	0	30
25RW010	421396	6665388	179	-90	0	33

EL6815, EL6855, EL6715, EL6873 & EL7007 (Muckanippie Project) JORC Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse Au that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<p><b>Drilling</b></p> <ul style="list-style-type: none"> <li>128 air core drillholes have been selected for Heavy Liquid Separation (HLS) testing, from recently completed Petrathern drilling.</li> <li>Assay results presented in the report are from the first 10 drill holes from the Rosewood Prospect</li> <li>A rotary cone splitter attached to the bottom of the cyclone was used to collect a representative sample (25% split) for each 1m interval drilled and collected into a prenumbered calico bag, with the remainder of the sample collected in a green plastic bag and retained</li> <li>A handful of sample from each 1m interval was panned to estimate HM% and other parameters by the on-site rig geologist.</li> <li>Based on the results of the panning sample intervals were selected for laboratory HM assay</li> <li>Samples were sent to Diamantina Laboratories for HM assay</li> <li>Samples were sent to Diamantina Laboratory in WA for assaying.</li> <li>Diamantina is considered to be a mineral sands industry leading laboratory.</li> <li>Samples were weighed on arrival. The laboratory sample was dried and passed through a rotary splitter to take 100 g sub-sample.</li> <li>This sub-sample is then wet screened on a Sweco vibrating screen deck at a top aperture of 2 mm (oversize 'OS') and a bottom screen of 38 µm (SLIMES fraction).</li> <li>The sand fraction containing the THM (-2 mm and +38 µm) is used for heavy liquid separation using funnels and a heavy liquid, Tetrabromoethane (TBE), with a density of between 2.92 and 2.96 gcm-3 to determine total heavy mineral (THM) content.</li> <li>Historic drill hole information has been sourced from open file public records managed by the South Australian Department of Primary Industries and Resources.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Additional details from historic drilling are unknown.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>The air core drilling was completed by Mcleod Drilling using a 6-wheel Landcruiser mounted drill rig with face sampling blade bits with a diameter of 85mm and NQ diameter (76mm) rods</li> <li>All holes were drilled vertically</li> <li>Air core is the standard industry technique for HMS exploration.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Air core drilling methods were utilised throughout the duration of the program.</li> <li>A geologist was on site for every drill hole and air core samples were recorded as wet or dry and recoveries monitored to ensure that they were appropriate. Excellent recoveries were recorded.</li> <li>1m sample intervals were collected in buckets or large sample bags and a 1 metre split (~ 25%) sample taken using a rotating cone splitter attached to the drill cyclone into pre-numbered calico bags.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All samples were geologically logged by the on-site geologist via digital entry into a Microsoft excel spreadsheet.</li> <li>Geological logging is qualitative.</li> <li>The logging consisted of lithology, colour, grainsize, sorting, hardness, sample condition, washability, estimated HM%, SLIMES and INDURATION.</li> <li>A mineral sands consultant was present during some of the logging of mineral sands.</li> <li>A small handful of sample (~ 50g) was selected from each metre and panned on site by a geologist, with samples &gt; 0.5% estimated HM selected for laboratory assay. Additional samples were taken for laboratory assay above and below mineralised zones as appropriate.</li> <li>Representative chip trays containing 1m geological sub-samples were collected.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample</li> </ul>	<ul style="list-style-type: none"> <li>Representative samples were taken every 1m and collected by a 25% split cone splitter mounted on the bottom of the cyclone.</li> <li>Samples sizes ranged from 1 to 1.5kg for laboratory assay</li> <li>25% sample split from each metre is considered representative of the drill sample collected.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>preparation technique.</i></p> <ul style="list-style-type: none"> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The cyclone and splitter were checked and cleaned regularly and kept clear of blockages to prevent contamination between samples.</li> <li>• No contamination has been noted.</li> <li>• PTR inserted standards and duplicate samples at rate of approximately 1 in 30.</li> <li>• Field duplicates were collected with a PVC spear through the green bag from top to bottom</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were sent to Diamantina Laboratory in WA for assaying.</li> <li>• Diamantina is considered to be a mineral sands industry leading laboratory.</li> <li>• Samples were weighed on arrival. The laboratory sample was dried for up to 24 hours @ 105 – 110 degrees Celsius.</li> <li>• The sample was loosened until friable and passed through a rotary splitter to take 100 g sub-sample.</li> <li>• The sub-sample was soaked overnight using TKPP solution , then washed and dried.</li> <li>• This sub-sample is then wet screened on a Sweco vibrating screen deck at a top aperture of 2 mm (oversize 'OS') and a bottom screen of 38 µm (SLIMES fraction).</li> <li>• The sand fraction containing the THM (- 2 mm and +38 µm) is then dried and used for heavy liquid separation using funnels and a heavy liquid, Tetrabromoethane (TBE), with a density of between 2.92 and 2.96 gcm-3 to determine total heavy mineral (THM) content.</li> <li>• Field duplicates and the HM standards are inserted into the sample string at a frequency rate of 1 per 30 primary samples.</li> <li>• Diamantina also completed their own internal QA/QC checks by inserting laboratory repeats at a rate of 1 in 30 and the insertion of Standard Certified Reference Material at a rate of 1 in 40.</li> <li>• The nature, quality and appropriateness of sample preparation has been achieved.</li> <li>• Laboratory analytical charge sizes are standard sizes and considered adequate for the material being</li> </ul>

Criteria	JORC Code explanation	Commentary
		assayed. The nature, quality and appropriateness of the assaying is considered total.
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Verification of intercepts has been undertaken by PTR Geologists and independent geological contractors, who have collectively visually assessed drill samples and examined the laboratory data.</li> <li>No Twinned holes have been drilled at this stage</li> <li>Primary data was digitally entered via a Panasonic Toughbook using in house logging codes. The data was validated and loaded into MX Deposit database.</li> <li>No adjustments have been made to the assay data received.</li> <li>A check of the field and laboratory QAQC has confirmed they are all within specification</li> <li>All data used is from primary sources.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>All maps and locations are in UTM grid (MGA94 Z53) and have been measured by a GPS with a lateral accuracy of <math>\pm 5</math> metres.</li> <li>Elevation data provided by PhotoSat with an accuracy of 20-50cm (dependant on vegetation coverage).</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Petratherm has completed regional step out exploration drilling along wide spaced drill traverses and over magnetic anomalies. Drill hole traverses extend from 600 metres to 3.6 kilometres.</li> <li>Data spacing will be insufficient to establish the degree of geological and grade continuity required for a Mineral Resource estimation.</li> <li>No compositing was used.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and</li> </ul>	<ul style="list-style-type: none"> <li>At Rosewood Prospect step out vertical drilling is targeting extensions of flat lying HMS mineralisation and will provide an accurate account of thickness and extent once assaying is completed.</li> <li>At Duke, Nardoo and Claypan Prospects mineralisation is hosted in saprolite and drilling is orientated perpendicular to magnetic features and drilled at 50-100m to give an indication of mineralised width.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<i>reported if material.</i>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were taken directly from the field to Petratherm's warehouse and then couriered to Diamantina Laboratories in Perth.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>There is currently a review into the methods used to improve HM recoveries.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>EL6815 was granted 100% to Petratherm Limited on 12/08/2022 for a period of 6 years.</li> <li>EL 6855 was granted 100% to Petratherm Limited on 18/10/22 for a period of 6 years.</li> <li>EL 7007 was granted 100% to Petratherm Limited on 15/08/24 for a period of 6 years.</li> <li>EL6873 was granted to G4 Metals Pty. Ltd. on 18/11/2022 for a period of 6 years. Petratherm Ltd may earn up to a 70% interest via a 2 Stage Farm-in with further provisions, dependent on elections, to earn up to a 100% equity in the project. Refer to PTR ASX release 29/02/2024.</li> <li>EL6715 was granted on 06/04/2022 to Leasingham Metals Pty. Ltd. a, wholly owned subsidiary of ASX listed Narryer Metals Ltd. for a period of 6 years. Petratherm Ltd may earn up to an 70% interest, via a 2 Stage Farm-in with further provisions, dependent on elections, to earn up to an 80% equity in the project. Refer to PTR ASX release 18/04/2024</li> <li>The tenements are located approximately 120 km south south-west of Coober Pedy overlapping Bulgunnia, Mulgathing and Commonwealth Hill Pastoral Stations.</li> <li>The tenements are located within the Woomera Prohibited Area (Green Zone).</li> <li><b>Native Title Claims:</b> SCD2011/001 Antakirinja Matu-Yankunyjtajara.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Previous exploration work includes;</li> <li><b>Surface Geochemical Sampling:</b> Calcrete</li> <li><b>Airborne Geophysics:</b> Magnetics &amp; Radiometrics.</li> <li><b>Ground Geophysics:</b> Prospect scale Magnetics, Gravity and EM.</li> <li><b>Exploration Drilling:</b> Open file records indicate 296 RAB / Air core, 2 sonic &amp; 51 RC reconnaissance and prospect scale holes drilled over Project Group.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Petratherm is exploring for Ti-Fe-V-P, rare earths, and Au-PGM associated with the Muckanippie Suite. Targets include primary basement mineralisation and secondary enrichments as HMS placer deposits in overlying younger cover strata.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole collar locations, RL, dip and azimuth of reported drill holes contained in Table 3 of this report.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the</li> </ul>	<ul style="list-style-type: none"> <li>All reported drill results are true results as reported by the Laboratory.</li> <li>All results above 2% HM are reported in Table 2 of Significant Intercepts. Maximum of 2 metres of internal dilution used below that cut-off.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation viewed in drillholes is interpreted to be flat lying fluvio-deltaic marine sediments.</li> <li>Drilling is vertical and should give a true reflection of mineralisation thickness.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>See figures in main body of release attached.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Petratherm has completed drilling of 128 drill holes totalling 4,486 metres at 4 prospects on the Muckanippie Project (see Figure 1) with the potential to host titanium-bearing Heavy Minerals.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>No other substantive exploration data has been collected by Petratherm.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-</li> </ul>	<ul style="list-style-type: none"> <li>A range of exploration techniques are being considered to progress exploration.</li> <li>Extensive assay, mineralogical</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>out drilling).</i></p> <ul style="list-style-type: none"><li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li></ul>	<p>and metallurgical test work will be conducted on current drill samples to determine grade, mineralogy and nature of the heavy mineral mineralisation.</p> <ul style="list-style-type: none"><li>• Bulk sample testing will be undertaken to determine recovery's and potential mineral products.</li><li>• Further infill and extension drilling is likely to occur in the near future.</li></ul>