

### **Exploration Success continues at Muckanippie**

# Saprolite drill results confirm very high HM grades from surface and up to 60m thick

#### **Highlights**

- Drill results continue to expand the footprint of the very high-grade titanium discovery at Muckanippie.
- Drilling intercepted thick, high-grade Heavy Mineral (HM) from surface at both the Nardoo and Duke HM saprolite targets, less than 10km from PTR's high-grade Rosewood Titanium Project including:

#### **Duke Prospect**

- o 60m @ 39.3% HM from surface incl. 6m @ 61.6% HM from 25m (25DK005)
- o 24m @ 26.1% HM from surface (24DK001)
- o 31m @ 21.5% HM from surface (25DK004)
- o 37m @ 21.0% HM from surface (25DK007)
- 61m @ 19.7% HM from surface (24DK004) previously released<sup>1</sup>

#### **Nardoo Prospect**

- o 35m @ 31.5% HM from 18m (25ND011)
- o 44m @ 23.9% HM from 1m (24ND002)
- o 60m @ 16.3% HM from surface (24ND022)
- o 36m @ 25.7% HM from surface (25ND018)
- 30m @ 30.4% HM from surface (25ND019)
- o 44m @ 29.4% HM from surface (24ND003) previously released1
- Initial laboratory XRF results of HM concentrate from both prospects (7 holes assayed to date) confirm the presence of titanium in all drill holes assayed, with six of the seven holes returning zones of at least 15m at >20% TiO<sub>2</sub> content.
- QEMSCAN analysis of HM concentrate from both prospects (4 analyses reported) indicate
  the potential for a high-quality ore, with the samples returning 73-93% Valuable HM (VHM)
  (all as titanium-bearing minerals).
- QEMSCAN of these samples indicate a high proportion of altered ilmenite (42-70%), which
  is a form of ilmenite with high TiO₂ content.
- HM mineralisation is open along strike at both prospects with excellent potential to significantly extend the mineralisation along the 16km long magnetic anomaly.

**PTR Minerals Limited** (ASX: PTR) ("**PTR"** or "the Company") is pleased to announce HM assay results and preliminary mineralogical assessment of exploration drilling completed at the Duke and Nardoo saprolite targets at the Muckanippie Heavy Mineral Sands (HMS) Project in South Australia.



A total of 2,578 metres of drilling in 65 air core drillholes have been completed at the two prospects, over three separate programs (Figure 1). The Nardoo and Duke Prospects are located on tenement EL6715 – a 70% PTR Minerals (ASX:PTR) and 30% Narryer Metals (ASX:NYM) joint venture.

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 VHM has the potential to be separated using standard wet concentration techniques.

Initial results from the first program were announced in February 2025¹. The current results from more recent drill programs have returned multiple holes with very high HM grades and thicknesses, generally associated with magnetic features linked with the unique weathered Muckanippie Suite anorthosite. Preliminary mineralogy (laboratory XRF assays and QEMSCAN data) of the HM Concentrate (HMC) from both prospects shows that there could be a significant component of very high VHM, including altered ilmenite. Altered ilmenite is a higher grade  $TiO_2$  form of ilmenite.

#### PTR Chief Executive Officer, Peter Reid, commented:

"Following strong exploration<sup>2</sup> and metallurgical<sup>3</sup> results at Rosewood, the exploration success at Duke and Nardoo continues to build on the outstanding potential of the larger Muckanippie HM Project as an emerging camp-style titanium province.

"The Rosewood Titanium Project now extends over 40km² and includes two extensive high-grade strandlines which remain open. Recent metallurgical testing has yielded strong recoveries (86-95%) and produced a high quality HMC product (91-98% HM). The recent discovery of a new sediment-hosted mineralised zone at Echo to the north-east of Rosewood already provides the Company with the potential for multiple large-scale, high-grade HM systems that remain open in multiple directions.

"This potential is significantly enhanced with confirmation of the size, thickness and high-grade nature of the saprolite hosted HM mineralisation. In particular, the titanium dominant mineral assemblage has the potential to complement future production at Rosewood. The Duke and Nardoo Prospect mineralisation is associated with a prominent magnetic trend that extends approximately 16 kilometres on our tenement area and which we believe to be mineralised along most of its length offering significant potential for the identification of large tonnages.

"Whilst the Rosewood Project is the main focus for the Company, the mineralisation at Duke and Nardoo continues to expand the high-grade mineralisation of the larger Muckanippie HM Project. The Company will now undertake bench scale separation testing to assess the economics of producing a HMC using standard wet separation techniques."



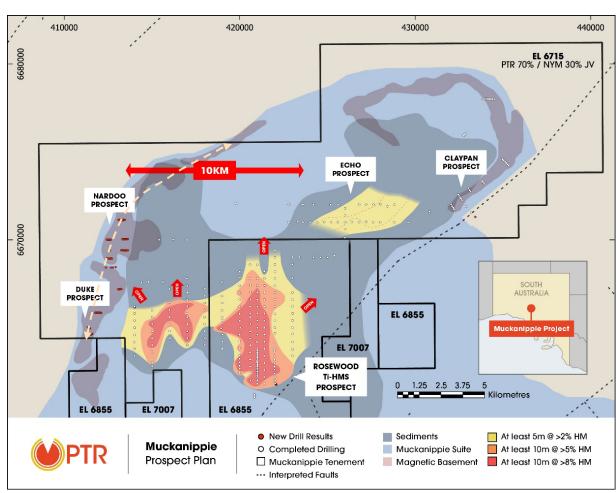


Figure 1: Muckanippie Project Area – Duke and Nardoo Prospects and Rosewood

#### **Duke HM Saprolite Prospect Exploration Results**

Within the Muckanippie HM Project, the Duke Prospect is a 3.3km long north-northeast trending magnetic feature, and part of a larger overall magnetic trend extending for over 16 kilometres on PTR's leases. An initial east-west trending line of five air core holes was drilled across the feature in late 2024, intersecting significant shallow high-grade HM including **61m @ 19.7% HM** from surface (24DK004)¹. In March 2025, a further three traverses were drilled targeting both magnetic and non-magnetic parts of the system (Figure 2). A total of 25 drill holes for 944 metres have been drilled at Duke, and to date all the best results came from holes testing the magnetic targets. Drill collar locations are presented in Appendix 1.



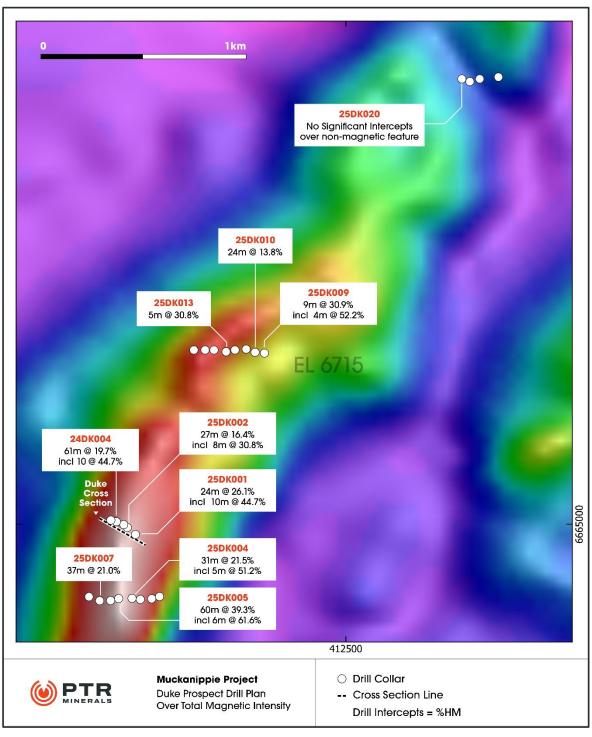


Figure 2: Duke Prospect drilling results over magnetic image

New significant intersections at Duke confirm the very high grades and thickness identified in the first phase of drilling and include:

- 60m @ 39.3% HM from surface incl. 6m @ 61.6% HM from 25m (25DK005)
- 24m @ 26.1% HM from surface (24DK001)
- 31m @ 21.5% HM from surface (25DK004)
- 37m @ 21.0% HM from surface (25DK007)



- 27m @ 16.4% HM from surface (24DK002)
- 42m @ 14.6% HM from surface (24DK003)
- 9m @ 30.9% HM from 6m (25DK009)

Complete results are presented in Appendix 2.

HM mineralisation at Duke has been confirmed over ~1.3km strike length and up to 200m wide and 60m thick (Figure 3). Potential to extend mineralisation is high with the Duke magnetic anomaly open to the north-northeast, extending for a further 1.5km beyond traverse 3 (Figure 2).

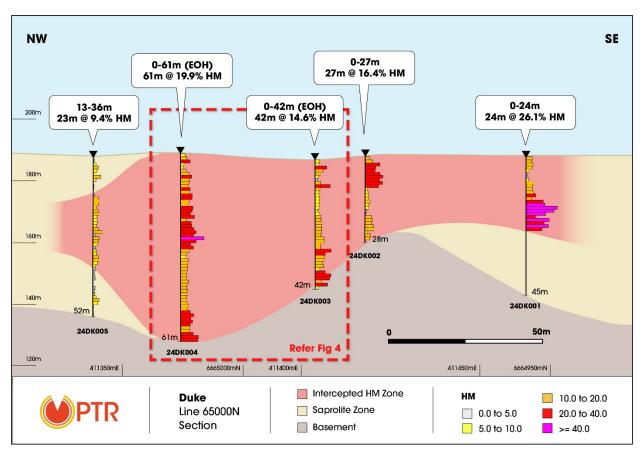


Figure 3: Duke Prospect Cross-Section

#### **Duke Prospect Mineralogy**

Laboratory XRF analysis of 1m HM concentrate samples from the 2024 drilling returned significant levels of TiO<sub>2</sub>, indicating the presence of TiO<sub>2</sub> minerals such as ilmenite and altered ilmenite. Significant XRF results include **41m @ 34.4% TiO<sub>2</sub>**, **including 9m @ 59.6% TiO<sub>2</sub>** from 9m (24DK003). Other significant XRF results are highlighted in Table 1.

Table 1: Duke Prospect 2024	drilling - XRF	assays
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Drillhole ID	From	То	Int	TiO <sub>2</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)
24DK001	2	24	22	27.2	55.5
24DK002	4	25	21	14.9	50.4
24DK003	1	42	41	34.4	41.4
Inc	9	18	9	59.6	36.2
24DK004	3	60	57	35.4	45.3

XRF assays from the Duke prospect returned very low levels of deleterious elements  $Cr_2O_3$  (not detected (nd)),  $V_2O_5$  (<0.2%),  $SnO_2$  (nd), Th (<5 ppm) and U (nd).

Based on the laboratory XRF results, two 1m HM concentrate samples were selected from the high titanium and HMC grade part of the drill section for QEMSCAN analysis for preliminary mineralogic identification (Figure 4). QEMSCAN utilises scanning electron microscope technology to identify mineral concentrations, determine their composition, and map their distribution and grain size.

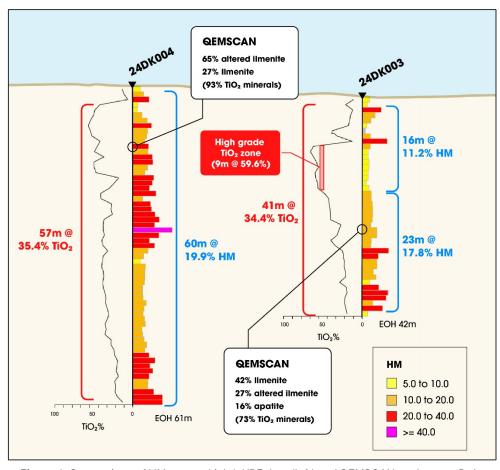


Figure 4: Comparison of HM assays (right), XRF data (left) and QEMSCAN analyses at Duke

Importantly, the two QEMSCAN samples (Table 2) indicate the potential for a high value titanium product at Duke, returning 73-93%  $TiO_2$  minerals which were dominantly made up of altered ilmenite (55-70%  $TiO_2$ ) and ilmenite (40-55%  $TiO_2$ ). The higher  $TiO_2$  XRF grades correlate with a higher proportion of altered ilmenite identified in the QEMSCAN analysis (Figure 4). The  $TiO_2$  minerals were coarse grained with the 2 QEMSCAN samples recording a P50 grain size of 200-400 microns ( $\mu$ m). The favourable grain size suggests it may be highly amenable to spiral separation.



Cautionary note: The QEMSCAN analysis is limited to date and may not reflect the broader mineralogy of the Duke system. Further mineralogical studies including sachet logging, additional XRF and QEMSCAN analysis is planned.

**Table 2:** QEMSCAN Analyses, Duke Prospect (only minerals >0.5% shown)

	Sample ID	24DK003 25-26m	24DK004 11-12m
	Altered Ilmenite	27.1	64.9
	Ilmenite	42.0	27.2
	Titano Fe Oxide	1.8	0.5
Mineral Mass %	Ti Fe Intergrowths	1.9	0.3
Mas	Apatite	15.7	0.0
eral	Fe Oxides	4.7	5.3
Min	Kaolinite	0.5	0.3
	Tourmaline	0.6	0.4
	Micas	2.9	0.0
	Other Silicates	1.9	0.5
TOTAL		100.0	100.0

#### **Nardoo HM Saprolite Prospect Exploration Results**

The Nardoo Prospect is a series of magnetic features approximately 5 kilometres north of the Duke Prospect and is part of the same magnetic trend extending for over 16 kilometres (Figure 1). An initial east-west trending line of five air core holes were drilled across the feature in late 2024 and following the successful identification high-grade of heavy minerals in these holes a further five traverses were drilled targeting both magnetic and non-magnetic parts of the system (Figure 5).

A total of 40 drill holes for 1,634 metres have been drilled at Nardoo (Appendix 3). Drilling assays confirmed the very high and thick grades encountered in the first phase of drilling, including **44m @ 29.4% HM** from surface (24ND003)<sup>1</sup>. The new 2025 phase of drilling extended the mineralisation, with significant new results including:

- 35m @ 31.5% HM from 18m (25ND011)
- 44m @ 23.9% HM from 1m (24ND002)
- 60m @ 16.3% HM from surface (25ND022)
- 36m @ 25.7% HM from surface (25ND018)
- 30m @ 30.4% HM from surface (25ND019)
- 44m @ 29.4% HM from surface (24ND003)

Complete results are presented in Appendix 4.



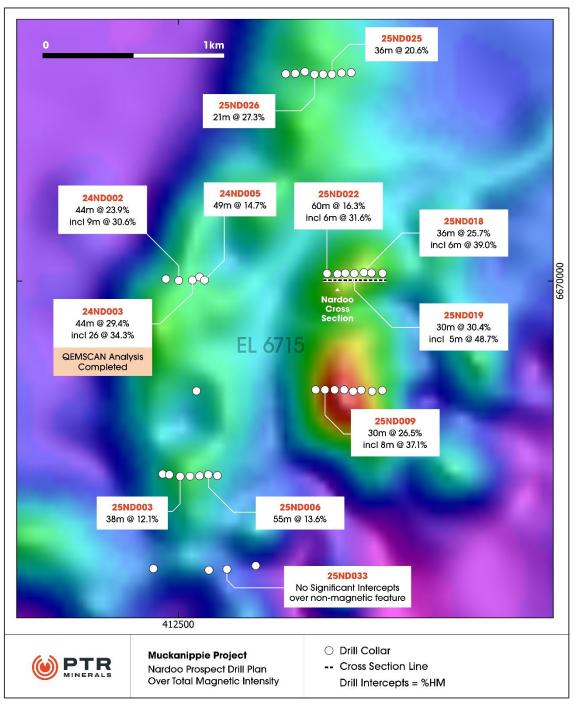


Figure 5: Nardoo Prospect drilling results over magnetic image

The five drill traverses which targeted the most magnetic part of the Nardoo system all returned significant HM mineralisation, with better intercepts generally, but not exclusively, occurring above the magnetic highs. Within these drill traverses the high-grade envelope (at least 10m grading >20% HM) ranges from 150m to 200m wide across strike and up to 60m in vertical thickness (Figure 6) within a broader mineralised zone up to 350m wide (>10% HM).

As at the Duke Prospect, some of these zones are open at the ends of the drill traverses and will require further investigative drilling to confirm the continuity of the mineralisation.



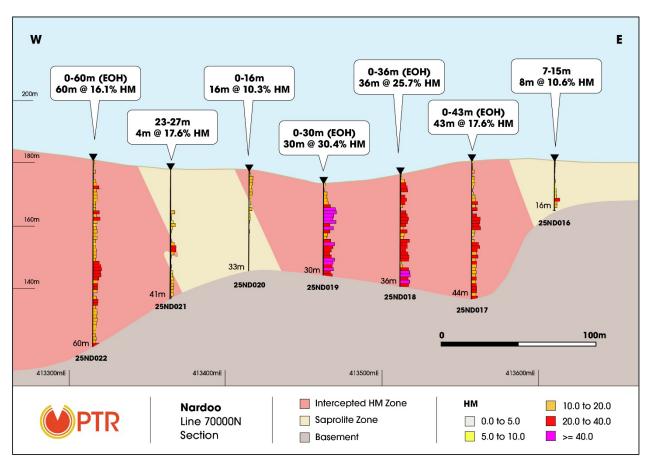


Figure 6: Cross section of Nardoo Prospect

#### **Nardoo Prospect Mineralogy**

Laboratory XRF results from the initial 2024 drilling confirmed significant titanium-bearing minerals in all three holes submitted. High-grade intervals up to 42m @ 27.6%  $TiO_2$  from 2m, including 15m @ 37.6%  $TiO_2$  from 29m (24ND003) were received. Other significant results are summarised in Table 3 below.

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Drillhole ID	From	То	Int	TiO <sub>2</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)
24ND001	27	36	9	12.9	63.8
24ND002	15	39	24	18.4	60.1
24ND003	2	44	42	27.6	55.7
Inc	29	44	15	37.6	47.5

Table 3: Nardoo Prospect 2024 drilling XRF assays

XRF assays from the Nardoo prospect returned very low levels of deleterious elements  $Cr_2O_3$  (<0.3%),  $V_2O_5$  (<0.1%),  $SnO_2$  (nd), Th (<2 ppm) and U (nd).

Two HM concentrates from drill hole 24ND003 were submitted for QEMSCAN analysis for preliminary mineralogic identification (Figure 7). The QEMSCAN samples indicate the potential for a high value product at Nardoo, returning 78-93% TiO<sub>2</sub> minerals, mainly as altered ilmenite and ilmenite (Table 4).



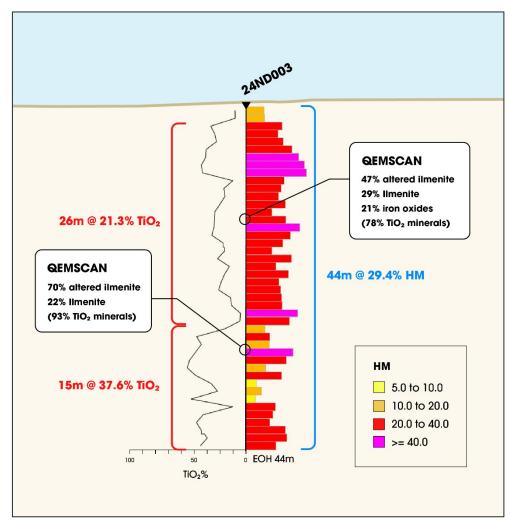


Figure 7: Comparison of HM assays (right), XRF data (left) and QEMSCAN analyses at Nardoo

Laboratory XRF TiO $_2$  grade increases with depth in drillhole 24ND003 (Figure 7) which correlates well with a higher proportion of altered ilmenite identified by the QEMSCAN analysis of the deeper sample. QEMSCAN sizing analysis indicates the TiO $_2$  minerals at Nardoo are very coarse with a P50 grain size of 400-500  $\mu$ m. Further sachet logging and XRF and QEMSCAN analyses is required to determine whether these minerals and titanium assay trends are present throughout the Nardoo magnetic complex.

Table 4: QEMSCAN Analyses, Nardoo Prospect (only minerals >0.5% shown)

	Sample ID	24ND003 14-15m	24ND003 31-32m
	Altered Ilmenite	47.4	69.6
%	Ilmenite	29.4	22.2
	Titano Fe Oxide	0.6	0.3
E E	Ti Fe Intergrowths		0.8
inera	Titano Fe Oxide  Ti Fe Intergrowths  Fe Oxides		1.0
Σ	Chlorite	0.3	1.6
	Other Silicates		4.0
TOTAL		100.0	100.0



## **Conclusions and Next Steps at Duke and Nardoo HM Saprolite Prospects**

- The shallow, thick, and high-grade HM offers great potential for a large-scale free dig operation which may compliment the Rosewood Discovery just a few kilometres away.
- Initial laboratory XRF and QEMSCAN analysis indicates that the HM mineralisation comprises primarily high-grade altered ilmenite.
- HM mineralisation is open along strike at both prospects with excellent potential to significantly
  extend the mineralisation as further drill testing is completed along the 16km long magnetic
  anomaly.
- Additional work will include HM sachet logging, laboratory XRF and QEMSCAN analysis, with the aim of better quantifying the high TiO<sub>2</sub> component of the mineral assemblage.
- Bench scale metallurgical test work will be undertaken to determine the optimal process for concentrating the HM into a saleable product.
- Additional drill testing to expand the HM resource potential

- END -

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

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<sup>&</sup>lt;sup>1</sup> PTR ASX release 19 February 2025 – New Style of Titanium Mineralisation at Muckanippie

<sup>&</sup>lt;sup>2</sup> PTR ASX release 1 October 2025 – Successful drill program significantly extends high-grade HMS at Rosewood and identifies new HMS zone at Echo

<sup>&</sup>lt;sup>3</sup> PTR ASX release 5 November 2025 – Positive Metallurgical Result from Rosewood Bulk Samples



#### **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 PTR Minerals Limited**

PTR Minerals Limited (ASX: PTR) is a 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 in South Australia where recent exploration has uncovered significant concentrations of titanium rich heavy mineral sands (HMS) over large areas at its Muckanippie Project, which remains open and prospective for increased mineralisation.

Mineralogical test work from the Rosewood East area have indicated HMS with up to >95% Valuable Heavy Mineral content, composed primarily of high value titanium minerals. In addition, the coarse-grained nature of the discovery suggests it is likely to be amenable to producing very high recoveries using conventional gravity spiral processing techniques.

The Company also has highly prospective copper, gold and rare earth projects. Its Woomera and Mabel Creek copper-gold projects are located in the world-class Olympic Copper-Gold Province of South Australia. Work has uncovered Iron-Oxide Copper-Gold style alteration/mineralisation and geophysical targeting work has identified several compelling Tier-1 Copper-Gold targets which are drill ready. The Company's Comet Project is historically noted for its numerous gold occurrences however early stage greenfields drilling has identified significant Rare Earths hosted in shallow clays over large areas, at 3 Prospect sites.



PTR Minerals' Project Locations in South Australia



#### Appendix 1: Duke Prospect drill hole collar information

Hole ID	Easting MGA94 Z53	Northing MGA94 Z53	RL metres	Dip Deg.	Azimuth Deg.	EOH Depth metres
24DK001	411463	6664954	188	-90	0	45
24DK002	411419	6664982	188	-90	0	28
24DK003	411408	6664995	187	-90	0	42
24DK004	411368	6665013	189	-90	0	61
24DK005	411341	6665023	188	-90	0	52
25DK001	411582	6664647	186	-90	0	40
25DK002	411544	6664632	186	-90	0	34
25DK003	411490	6664630	188	-90	0	51
25DK004	411442	6664636	188	-90	0	60
25DK005	411387	6664634	190	-90	0	60
25DK006	411340	6664625	189	-90	0	40
25DK007	411290	6664625	191	-90	0	37
25DK008	411236	6664644	192	-90	0	39
25DK009	412097	6665843	181	-90	0	15
25DK010	412054	6665847	184	-90	0	42
25DK011	412010	6665859	180	-90	0	30
25DK012	411955	6665859	180	-90	0	34
25DK013	411912	6665847	181	-90	0	25
25DK014	411853	6665857	182	-90	0	5
25DK015	411806	6665855	182	-90	0	27
25DK016	411757	6665857	184	-90	0	57
25DK017	413252	6667200	177	-90	0	25
25DK018	413162	6667191	179	-90	0	29
25DK019	413112	6667180	180	-90	0	50
25DK020	413067	6667188	178	-90	0	16



#### **Appendix 2: Duke Prospect significant intercepts (5% HM cut-off)**

Ballinia.	From	То	Interval	HM %
Drill Hole	(metres)	(metres)	(metres)	Original Sample
24DK001	0	24	24	26.1
inc	14	24	10	44.7
24DK002	0	27	27	16.4
inc	2	10	8	30.8
24DK003	0	42	42	14.6
inc	29	41	12	21.6
inc	37	39	2	32.2
24DK004	0	61	61	19.7
inc	17	31	14	27.1
inc	24	29	5	34.4
24DK005	2	8	6	8.9
inc	13	36	23	9.4
25DK002	2	16	14	7.5
and	20	25	5	15.8
25DK004	0	31	31	21.5
inc	22	27	5	51.3
and	56	60	4	46.9
25DK005	0	60	60	39.3
inc	13	19	6	56.7
inc	25	31	6	61.6
inc	48	53	5	55.6
25DK007	0	37	37	21
inc	8	15	7	25.6
inc	20	27	7	29.6
25DK008	0	20	20	10.6
inc	14	18	4	17.2
25DK009	6	15	9	30.9
inc	6	10	4	53.2
25DK010	3	27	24	13.8
inc	22	25	3	28.8
and	30	41	11	9.3
25DK011	4	16	12	6.3
25DK012	3	6	3	9.1
25DK013	4	9	5	15.9
and	14	19	5	30.8
25DK015	20	23	3	7.3
25DK016	15	25	10	8.7
inc	15	18	3	17.6
and	38	57	19	8
inc	40	47	7	10.3



#### **Appendix 3: Nardoo Prospect drill hole collar information**

	Easting	Northing				ЕОН
Hole ID	MGA94	MGA94	RL	Dip	Azimuth	Depth
	Z53	Z53	metres	Deg.	Deg.	metres
24ND001	412432	6670008	180	-90	0	36
24ND002	412501	6670004	179	-90	0	45
24ND003	412580	6670002	178	-90	0	44
24ND004	412636	6670009	178	-90	0	31
24ND005	412626	6670016	178	-90	0	62
25ND001	412416	6668943	184	-90	0	49
25ND002	412455	6668941	181	-90	0	24
25ND003	412512	6668932	182	-90	0	57
25ND004	412565	6668932	181	-90	0	46
25ND005	412617	6668932	181	-90	0	54
25ND006	412665	6668941	179	-90	0	55
25ND007	412707	6668935	178	-90	0	24
25ND008	413253	6669409	179	-90	0	32
25ND009	413305	6669406	177	-90	0	42
25ND010	413356	6669406	178	-90	0	27
25ND011	413406	6669405	179	-90	0	53
25ND012	413453	6669397	180	-90	0	29
25ND013	413505	6669402	180	-90	0	44
25ND014	413557	6669398	181	-90	0	36
25ND015	413616	6669403	181	-90	0	34
25ND016	413611	6670043	181	-90	0	16
25ND017	413558	6670042	181	-90	0	44
25ND018	413512	6670045	177	-90	0	36
25ND019	413463	6670040	174	-90	0	30
25ND020	413415	6670040	178	-90	0	33
25ND021	413365	6670039	178	-90	0	41
25ND022	413315	6670040	181	-90	0	60
25ND023	413444	6671141	178	-90	0	60
25ND024	413393	6671137	179	-90	0	54
25ND025	413341	6671129	179	-90	0	54
25ND026	413291	6671130	180	-90	0	39
25ND027	413246	6671130	180	-90	0	60
25ND028	413190	6671142	177	-90	0	53
25ND029	413140	6671134	180	-90	0	42
25ND030	413089	6671132	175	-90	0	47
25ND031	412925	6668445	177	-90	0	8
25ND032	412868	6668425	182	-90	0	26
25ND033	412767	6668424	182	-90	0	27
25ND034	412665	6668421	181	-90	0	41
25ND035	412600	6669399	182	-90	0	39



#### Appendix 4: Nardoo (HM) %, Significant Intercepts (5% HM cut-off)

Drill Hole	From	То	Interval	HM %
	(metres)	(metres)	(metres)	Original Sample
24ND001	18	36	18	29
24ND002	1	45	44	23.9
inc	4	13	9	30.6
inc	16	29	13	29.3
24ND003	0	44	44	29.4
inc	2	28	26	34.3
inc	5	9	4	26.5
25ND001	3	9	6	14.1
inc	4	6	2	21
and	18	19	1	34.5
25ND002	2	7	5	22.6
and	12	19	7	13.4
inc	15	18	3	23.2
25ND003	1	16	15	8.5
and .	19	57	38	12.1
inc	31	34	3	18.3
inc	46	57	11	20.4
25ND004	15	28	13	6.8
and	32	46	14	12.9
inc	41	46	5	18.8
25ND005	5	54	49	14.7
inc	12	18	6	22
25ND006	0	55	55	13.6
inc	35	53	18	19.1
25ND007	0	23	23	7.4
inc	18	21	3	14.9
25ND008	22	32	10	8.8
inc	25	27	2	14.8
25ND009	1	7	6	6.7
and	12	42	30	26.5
inc	27	35	8	37.1
25ND010	1	6	5	28.2
and	9	27	18	16.9
inc	18	22	4	32.6
25ND011	1	9	8	17.4
inc	5	9	4	24.7
and	18	53	35	31.5
inc	18	24	6	41.3
inc	27	32	5	40.7
25ND012	6	10	4	8.3
25ND013	1	7	6	14.4
and	11	30	19	22.8
inc	22	29	7	36.9
and	36	43	7	36.1
25ND014	3	8	5	5.1
25ND015	7	34	27	13.5
	i	i	i	<u>i</u>



Drill Hole	From	То	Interval	HM %
Dritt Hote	(metres)	(metres)	(metres)	Original Sample
inc	27	33	6	28.7
25ND016	7	15	8	10.6
inc	11	15	4	14
25ND017	0	44	44	17.6
inc	17	22	5	32.8
inc	26	33	7	24.3
25ND018	0	36	36	25.7
inc	12	17	5	30.2
inc	21	28	7	33.4
inc	30	36	6	39
25ND019	0	30	30	30.4
inc	8	13	5	48.7
inc	19	28	9	37.9
25ND020	0	16	16	10.3
inc	2	8	6	14.7
25ND021	13	19	6	9.6
and	23	27	4	17.6
and	32	40	8	9.7
25ND021	13	19	6	9.6
and	23	27	4	17.6
	32	40	8	9.7
and				
25ND022	0	60	60	16.3
inc	32	38	6	31.6
25ND023	5	12	7	12.9
inc	9	12	3	18.1
and .	16	19	3	9.5
and	22	40	18	11
25ND024	4	34	30	15.8
inc	30	34	4	27.2
25ND025	4	40	36	20.6
inc	26	31	5	28
inc	33	40	7	26
25ND026	6	27	21	27.3
inc	11	14	3	35.1
inc	19	21	2	37.5
and	23	26	3	42.1
25ND027	7	20	13	25.4
inc	10	13	3	42
inc	17	20	3	35.2
inc	32	38	6	31.6
25ND028	5	14	9	27.5
inc	8	13	5	42.8
25ND029	0	4	4	11.4
and	14	42	28	17.7
inc	15	31	16	24
inc	28	31	3	33.3
25ND030	9	47	43	10.7
inc	15	22	7	20.2
		i .	<u> </u>	



#### 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
Sampling techniques	<ul> <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</li> </ul>	Phase 1 Drilling - refer to JORC Table 1 published in 06/02/2025 PTR ASX release. 39 holes targeted saprolite.  Phase 2 Drilling - refer to JORC Table 1 published in 23/06/2025 PTR ASX release. 55 holes targeted saprolite.  Phase 3 - Drilling  110 air core drillholes were drilled in phase 3 drilling, 13 of which targeted saprolite. These were selected for Heavy Liquid Separation
	<ul> <li>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>	<ul> <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 Laboratory in WA for assaying.</li> <li>Diamantina is considered to be a mineral sands industry leading laboratory.</li> <li>Samples are weighed on processing. The laboratory sample will be dried and passed through a rotary splitter to take 100 g subsample.</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
		unknown.
Drilling techniques	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, facesampling bit or other type, whether core is oriented and if so, by what method, etc.).	<ul> <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>
Drill sample recovery	<ul> <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> <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 prenumbered calico bags.</li> </ul>
Logging	<ul> <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> <li>All samples were geologically logged by the onsite 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 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>
Sub-sampling techniques and sample preparation	<ul> <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 preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu material collected, including for</li> </ul>	<ul> <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> <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> </ul>

situ material collected, including for



Criteria	JORC Code explanation	Commentary
	<ul> <li>instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Field duplicates were collected with a PVC spear through the green bag from top to bottom
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <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 are weighed on processing. The laboratory sample will be dried for up to 24 hours @ 105 – 110 degrees Celsius.</li> <li>The sample is loosened until friable and passed through a rotary splitter to take 100 g sub-sample.</li> <li>The sub-sample is 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 complete 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 will be achieved.</li> <li>Laboratory analytical charge sizes are standard sizes and considered adequate for the material being assayed. The nature, quality and appropriateness of the assaying is considered total.</li> <li>Resulting heavy mineral concentrate sachets were selected and sent for XRF assay. Samples were prepared using a lithium borate fusion digest and fused bead for analysis, analysis and preparation was performed by bureau veritas laboratories</li> <li>Samples were analysed by Bureau Veritas using XRF Analysis by NQ797</li> <li>Quemscan analysys was conducted by Bureau Veritas. A sub sample is taken from the sample to aid in separation of the individual particles. The sub sample/graphite mixture is</li></ul>



Criteria	JORC Code explanation	Commentary
		The block is ground, polished and coated with carbon prior to QEMSCAN analysis. A ~5µm beam is used for analysis of minerals.
Verification of sampling and assaying	<ul> <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> <li>Drilling has been completed and assays presented are from the Duke and Nardoo Prospect areas, targeting saprolite HM mineralisation.</li> <li>Verification of intercepts has been undertaken by PTR Geologists, 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 field 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>Drill assays are pending.</li> <li>All data used is from primary sources.</li> </ul>
Location of data points	<ul> <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> <li>All maps and locations are in UTM grid (MGA94 Z53) and have been measured by a GPS with a lateral accuracy of ± 5 metres.</li> <li>Elevation data provided by PhotoSat with an accuracy of 20-50cm (dependant on vegetation coverage).</li> </ul>
Data spacing and distribution	<ul> <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> <li>Petratherm has targeted drilling over discreet magnetic features. Drill lines were positioned perpendicular to the strike of magnetic features and drilled at 50-100m hole spacings</li> <li>Data spacing is insufficient to establish the degree of geological and grade continuity required for a Mineral Resource estimation.</li> <li>No compositing was used.</li> </ul>
Orientation of data in relation to geological structure	<ul> <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 reported if material.</li> </ul>	<ul> <li>At Rosewood and Echo Prospects vertical drilling is targeting extensions of flat lying HMS mineralisation and provides an accurate account of thickness and extent of mineralisation drilled.</li> <li>At Duke, Nardoo and Claypan Prospects mineralisation is hosted in saprolite and drilling is orientated perpendicular over magnetic features that may be steeply dipping. Hole spacings are therefore closer, drilled at 50-100m to give an indication of mineralised width.</li> </ul>
Sample security	The measures taken to ensure sample security.	Samples were taken directly from the field to Petratherm's warehouse and then couriered to



Criteria	JORC Code explanation	Commentary
		Diamantina Laboratories in Perth.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	There is currently a review into the methods used to improve HM recoveries.

#### **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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> <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 has earned a 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>Native Title Claims: SCD2011/001 Antakirinja Matu-yankunytjatjara.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous exploration work includes;</li> <li>Surface Geochemical Sampling: Calcrete         Airborne Geophysics: Magnetics &amp; Radiometrics.         Ground Geophysics: Prospect scale Magnetics, Gravity and EM. Exploration Drilling: Open file records indicate 296 RAB / Air core, 2 sonic &amp; 51 RC reconnaissance and prospect scale holes drilled over Project Group.     </li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>Petratherm is exploring for Ti-Fe-V-P, rare earths, and Au-PGM associated with the Muckanippie Suite.</li> <li>Targets include primary basement mineralisation and secondary enrichments as HMS placer deposits in overlying younger cover strata.</li> </ul>
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the	Drill hole collar locations, RL, dip and azimuth of reported drill holes contained in Table 2 of this report.



Criteria	JORC Code explanation	Commentary
	following information for all Material drill holes:	
	<ul> <li>easting and northing of the drill hole collar</li> </ul>	
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul>	
	<ul> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> </ul>	
	<ul><li>hole length.</li></ul>	
	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.	
Data aggregation methods	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.      Where aggregate intercents.	<ul> <li>All reported drill results are true results as reported by the Laboratory.</li> <li>All results above 5% HM are reported in Tables 3 &amp; 4 of Significant Intercepts. Maximum of 2 metres of internal dilution used below that cut-off.</li> </ul>
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <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,</li> </ul>	<ul> <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>
	<ul> <li>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>	
Diagrams	Appropriate maps and	See figures in main body of release attached.



Criteria	JORC Code explanation	Commentary
	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.	
Balanced reporting	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.	Petratherm has completed drilling of 331 drill holes totalling 9551 metres at Rosewood and other prospects on the Muckanippie Project (see Figure 2) with the potential to host titanium-bearing Heavy Minerals.
Other substantive exploration data	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.	No other substantive exploration data has been collected by Petratherm.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or largescale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>A range of exploration techniques are being considered to progress exploration.</li> <li>Extensive assay, mineralogical and metallurgical test work will be conducted on current drill samples to determine grade, mineralogy and nature of the heavy mineral mineralisation.</li> <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>