ASX ANNOUNCEMENT
29th November 2022

New Heavy Rare Earth Breccia target identified at Tanami Project, WA

Combination of mapping and drill results highlights a prospective new target below recent REE intercepts at Watts Rise.

Highlights

- Detailed mapping at Watts Rise has identified a Breccia Zone that is continuous over 1km which is a **REE mineralisation target**.
- The Breccia Zone is interpreted to intersect the unconformity at depth below the mineralisation intersected in PVW's 2022 drilling programme at Watts Rise.
- The geological setting for this new target is similar to the structurally-controlled Northern Minerals (ASX:NTU) Wolverine deposit at the Browns Range Project (6.44Mt at 0.96% TREO) where mineralisation is hosted in the older rocks below the unconformity.
- Heavy Rare Earths rich in high value dysprosium and terbium are essential ingredients in the production of NdFeB magnets used in clean energy, military, and technology solutions. Mineralisation identified at the Tanami Project has a high proportion of Heavy Rare Earths and in particular dysprosium and terbium.

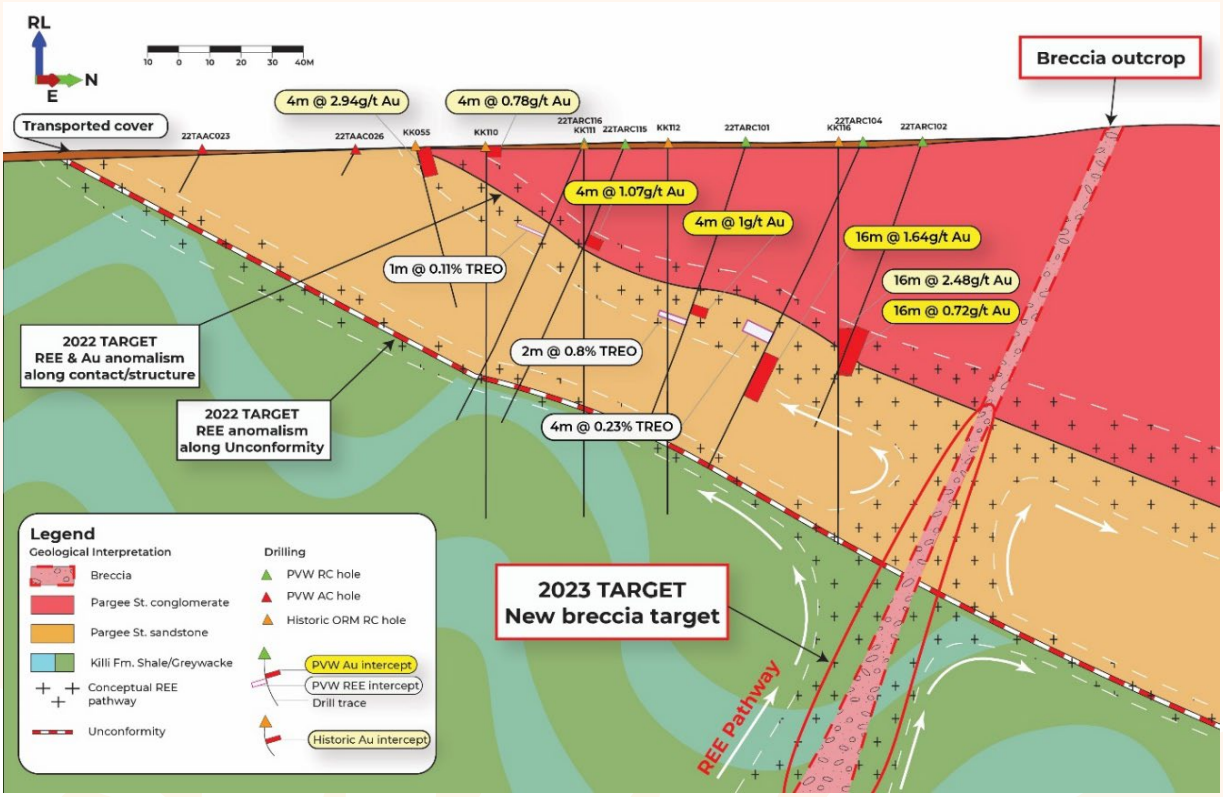

Figure 1: Schematic cross section showing Breccia Target. All results are detailed in announcement ASX:PVW, 24 October 2022, Latest assays confirm rare earths and gold potential at Tanami REE Project, WA

Corporate Office
Level 3, 1138 Hay Street
West Perth WA, 6005

T: +61 (0)408 931 746
info@pvwresources.com.au
pvwresources.com.au

ASX: PVW
ABN 36 124 541 466

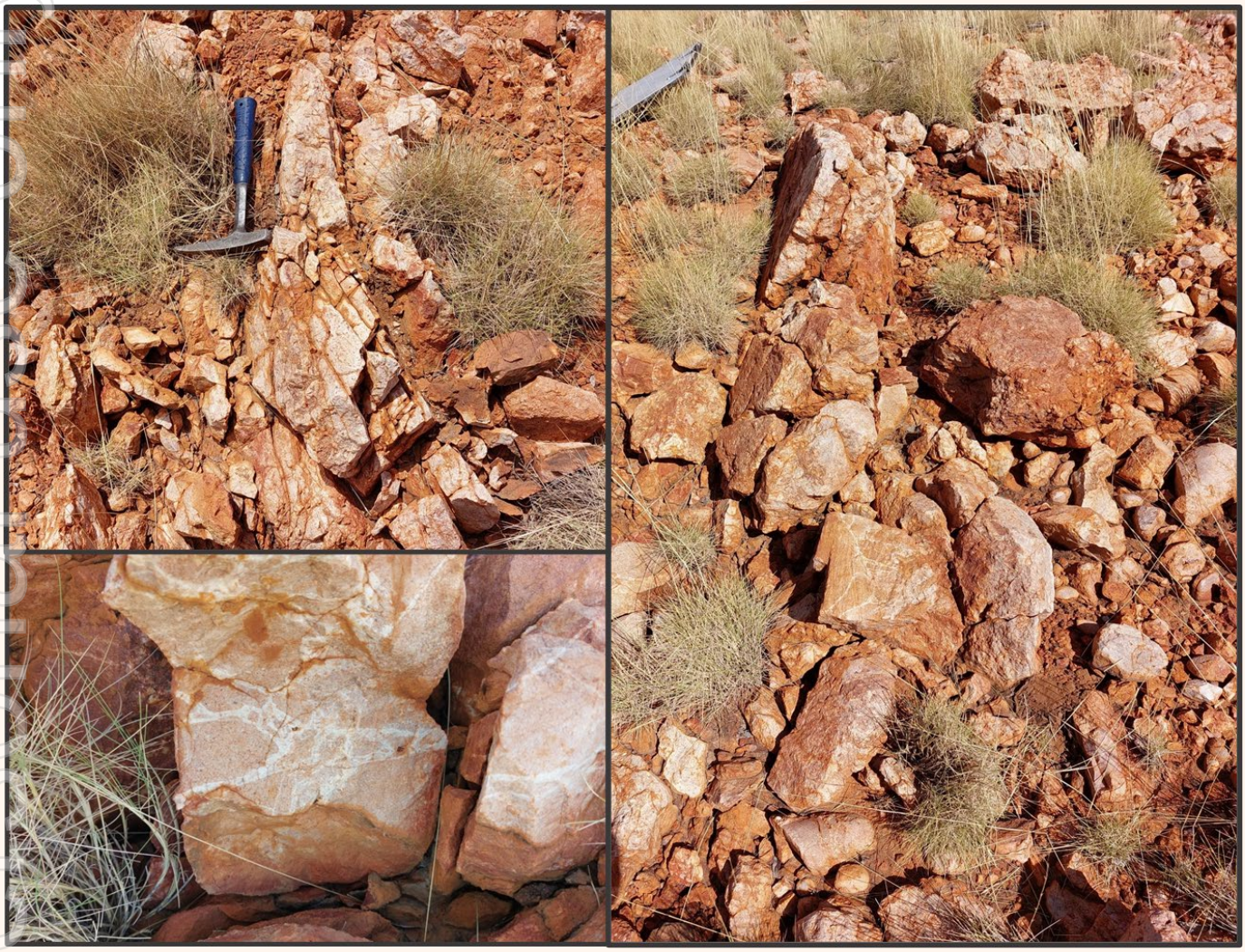

Figure 2: Quartz breccia outcrop, the surface expression of a structure that is interpreted to extend beneath Watts Rise REE mineralisation.

PVW Resources ('PVW', "the Company") is pleased to advise that it has identified a significant new REE exploration target at its 100%-owned **Tanami Heavy Rare Earth and Gold Project** in Western Australia following an important breakthrough by its exploration team.

The high-priority exploration target has emerged as a result of reinterpretation of the structural geology around the unconformity-hosted REE mineralisation intersected in the Company's recently completed 2022 drilling program at the Watt's Rise prospect.

An extensive mapping program conducted by a leading consultant geologist has resulted in the identification of a north-west oriented Breccia Zone which is a possible control on REE mineralisation in the area.

As a result, a new target has emerged based on the interpreted extension of this structure at depth where it intersects the unconformity at a high angle.

Executive Director Mr George Bauk said: "This is an exciting breakthrough by the team which highlights the value of systematic exploration utilising tried and tested methods such as detailed field mapping and structural geology.

"When the field geologists identified this breccia structure, they immediately realised its potential link to the existing mineralisation. At Watts Rise, the Pargee Sandstone may be acting as a 'cover' to significant mineralisation.

"The unconformity mineralisation which we intersected in south-oriented drilling earlier this year is controlled and confined by stratigraphy limiting its lateral extent, however structurally controlled mineralisation below this in steep structures may not have the same limitations.

"The mineralisation in the Pargee Sandstone and at the unconformity confirm the mineralising system and given the intensity of alteration, we believe it is close to a mineralising structure. If our interpretation is correct the real prize would lie deeper, and the Breccia Zone represents a possible controlling structure. The continuity and nature of the brecciation needs to be tested with drilling, which we plan to progress as soon as we can."

Technical Discussion

Tanami Project review – REE

The recent completion of the 2022 field campaign, comprising 10,727m of Reverse Circulation drilling, 16,206m of air-core drilling, ground gravity surveys and detailed mapping of the Castella and Watts Rises prospects has put PVW in a very informed position for its 2023 exploration program.

Positive drill results combined with initial mapping outcomes have already identified new REE targets. The full review of all levels of data is due in January 2023 and will be the pre-requisite to identifying and providing the technical support for new targets.

The REE mineralisation model at the Tanami is an unconformity/structurally controlled HREE system which is constantly being refined and developed as more geological data is acquired. During the 2022 exploration program, PVW tested the unconformity for mineralisation at both Castella and Watts Rise.

At Watts Rise, REE anomalism was intersected along the unconformity at the contact between the Killi Killi Formation and Pargee Sandstone, and higher-grade mineralisation in the Pargee Sandstone approximately 50-60m stratigraphically above this unconformity.

During the recent mapping program led by consultant geologist, Carl Brauhart, the brecciated structure north of the Watts Rise mineralisation was highlighted (Figure 1). This structure is approximately 1km long and up to 5m wide and disappears undercover to the north-west and south-east. Field maps are currently being digitised into a GIS format for use on plans and sections.

THREE KEY INGREDIENTS FOR DISCOVERY SUCCESS ...

An unconformity-related HREE deposit must have 3 key ingredients:

1 Unconformity

The right stratigraphic setting
Unconformity between the Pargee Sandstone and the Killi Killi Formation at Castella and Watts Rise is analogous to the unconformity between Gardiner Sandstone and Browns Range Metamorphics at Browns Range.

2 Castella Prospect
22TARC002 - **2m @ 6,496 ppm TREO**

The right style of mineralisation
Extensive surface mineralisation and mineralisation seen in RC drilling includes HREE in Xenotime, confirming the right ore-forming system (same as Browns Range).

3 Fault
Major EW shear

The right plumbing system
Structures (faults and folds) are present, offsetting and deforming the unconformity. The Pargee Sandstone and Killi Killi Formation both host mineralisation with breccia zones linking the two.

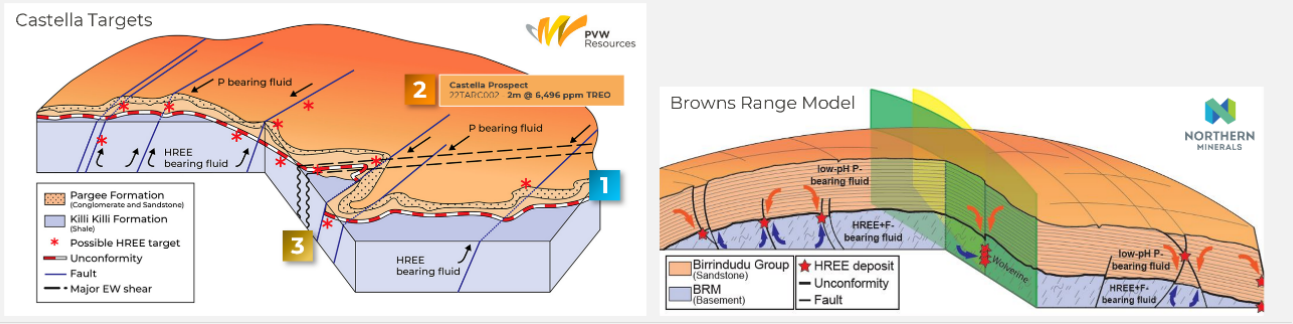

Figure 3: Tanami Project mineralisation model.

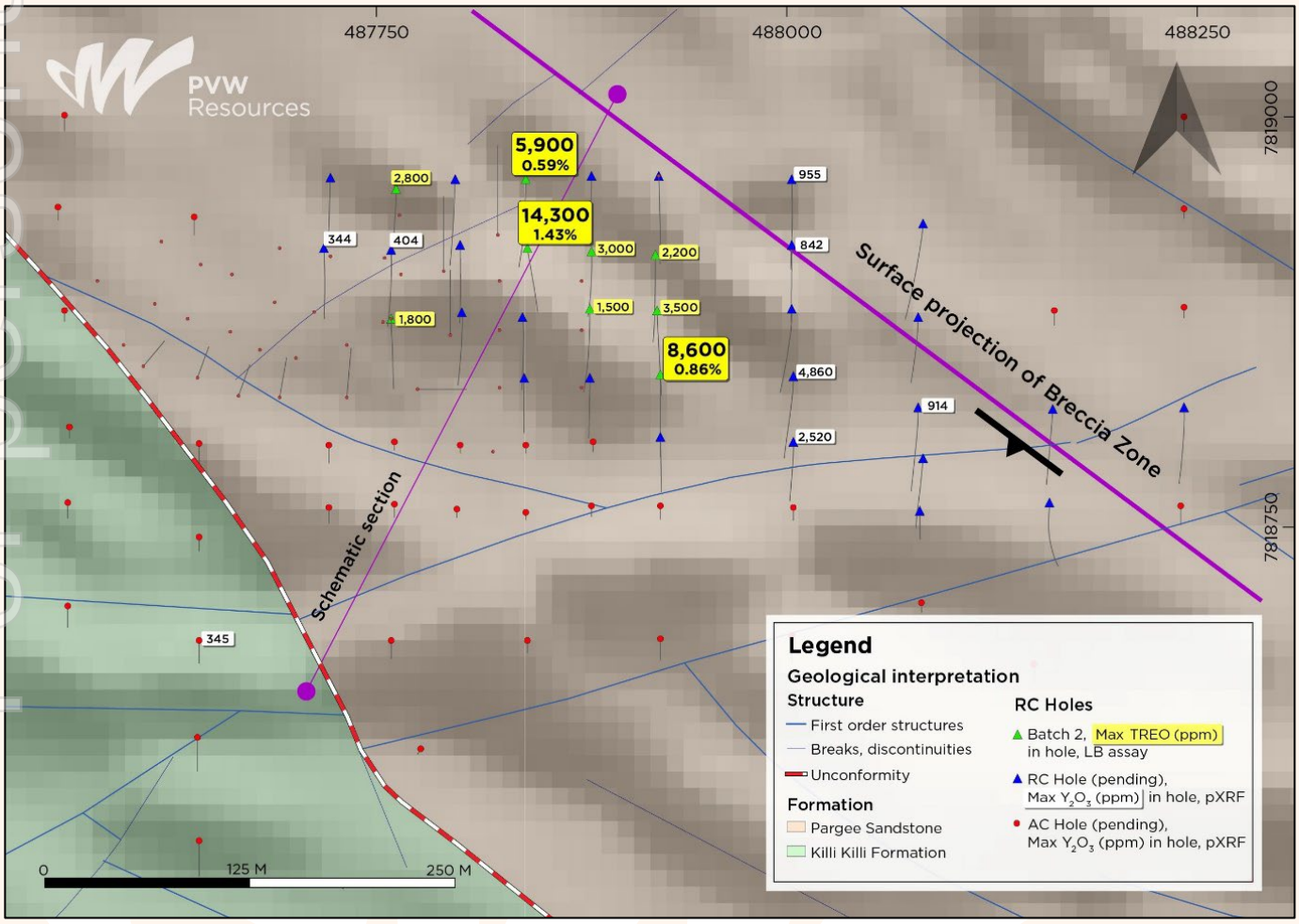

Figure 4: Drill hole location plan showing 2022 drilling, breccia location and section location. Results reported in announcement ASX:PVW, 24 October 2022, Latest assays confirm rare earths and gold potential at Tanami REE Project, WA.

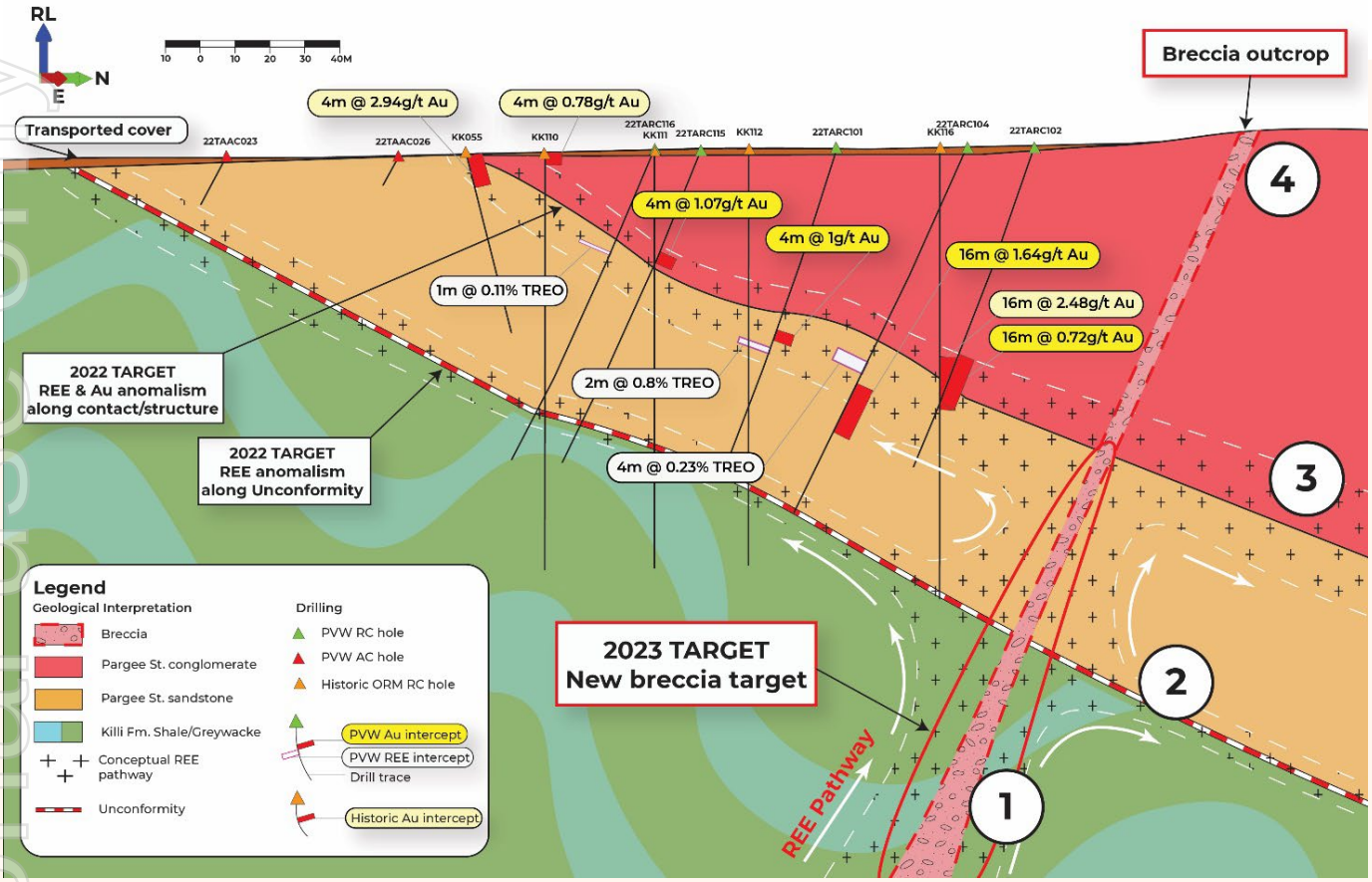

Figure 5: Schematic cross section for Watts Rise annotated with key points for reference.

When putting the mapping and interpretation into context with the drilling results at Watts Rise, a significant new REE target (**1** above) emerges.

Mineralisation at the unconformity (**2** above) and in the Pargee Sandstone (**3** above) is shown in the Figure 5 above. The breccia zone (**4** above) mapped as dipping to the south-east, is sub-parallel to 2022 drilling and therefore the conceptual location has not been tested by current drilling. While the structure is not mineralised at surface, it could control mineralisation along the unconformity and within the Pargee Sandstone. The breccia at surface displays intense silicification and a level of brecciation not seen elsewhere within the Pargee Sandstone, which suggests the breccia could serve as a REE fluid pathway and a feeder to the system. In addition, a geochemical discontinuity appears between holes drilled either side of the interpreted position of the breccia zone. A distinct increase in aluminium content is seen in drill holes within the interpreted footwall when compared to those in the hanging wall of the breccia zone.

Mineralising fluids migrating up the structure from depth could intersect the unconformity and suitable host rock within the Pargee Sandstone or Killi Killi Formation and precipitate REE mineralisation as is evident in the 2022 drilling results (max 1.43% TREO @ 63m, 90% HREO/TREO, 22TARC101). This could potentially leave the segment of the breccia structure near surface devoid of REE mineralisation. Importantly, the segment of breccia structure (1) below the unconformity in the Killi Killi Formation represents a part of the system that could host untested mineralisation.

The size of the structure and continuity away from the mapped outcrops (down-dip and along strike) is uncertain, however based on the interpretation, the target is clearly a priority for the Company's next drilling campaign. Ground gravity survey interpretation, due in December 2022, will be useful in further developing this target.

Recognition of the difference between the well-defined mineralisation at Watts Rise and the more dispersed mineralisation at Castella highlights a number of important points:

- Based on current information, the unconformity/Pargee Sandstone host at Watts Rise has provided a better trap for REE mineralisation.
- The mineralisation intersected so far at Castella represents dispersed mineralisation along the unconformity. The unconformity and immediately adjacent lithologies have acted as a suitable host over a large area, however a local control (chemical or rheological) that potentially controls and constrains the REE mineralisation has not been intersected
- While breccia zones have been intersected in drilling and mapped at Castella, they are locally not large enough to develop significant REE mineralisation. However, their presence and the fact they are mineralised suggests there is a larger controlling structure nearby.

There are a number of other general observations and comments made following the initial mapping outcomes.

- Drilling at Watts Rise this year was orientated to the south as illustrated in Figure 4 and Figure 5. This is sub-parallel to the dip of the breccia structure, shown in Figure 4 and 5. The drilling was correctly oriented targeting the unconformity, however the breccia structure needs to be drilled with holes dipping towards the north-east, orientated to target the south-east dipping structure. Figure 5 is a schematic diagram based on observations and field measurements, and further modelling will refine this interpretation. It needs to be noted that structures of this nature could be inconsistent and irregular at depth, influenced and moved by other local and regional structures

Focus on Rare Earths

Over the past few years, significant actions have been taken globally to ensure an alternative supply chain to China and also to meet the growing demand for Rare Earths. With relation to Light Rare Earths, rich in neodymium and praseodymium, Lynas and MP Materials have been undertaking significant capital works to increase production and shift downstream. This has been greatly assisted with government funding from the US and Australia.

With respect to Heavy Rare Earths, we have seen significant advancement of activities in Australia with Iluka Resources moving forward with the development of Rare Earth processing capability in Western Australia with the support of the Australian Government. In more recent times, we have seen the strategic partnership between Iluka and Northern Minerals to develop the Browns Range project for feed for the Iluka plant with particular focus on dysprosium and terbium.

At PVW Resources, we are targeting deposits similar to the Browns Range project which are rich in dysprosium and terbium. The high levels of these elements coupled with developed flow sheets to extract the minerals out, makes for an exciting journey. The mineralogy is critical in Rare Earth processing and a xenotime hosted deposit will be a premium deposit.

Key Next Steps

Task	Status	Description
RC and air-core results are incoming for remaining gold and REE samples.	All assays are expected to be returned mid-January 2023.	Remaining results for REE and gold exploration will be staggered from December.
Regional targeting and exploration	Ongoing with field component in 2023.	Regional exploration, including surface sampling, pXRF and mapping campaigns will target prospective stratigraphy and structures interpreted from regional datasets.
Regional air-core drilling	Complete for 2022, 11 regional lines remain for completion in 2023.	Exploration along strike from Watts Rise to Castella, and then south of Castella to test regional gold targets. Approx 5km of strike remains untested with drilling planned in 2023.
Ground gravity survey	Field component complete. Processing complete, and interpretation underway.	Completion of interpretation expected to take a further 1-2 weeks available early December to include in the development of targets.
Detailed outcrop mapping	Field component is complete.	Digitising is underway and will be in a usable GIS format in December.
Follow-up RC drilling and diamond drilling	Planning in progress for 2023 commencement	The follow-up drilling will utilise all of the available datasets, include final assays, gravity survey results and mapping.

About Rare Earths

Rare Earths are fundamental to the modern economy, enabling significant dollars in global GDP via a wide range of clean energy including the electrification of transport, information technology, defense and industrial applications such as robotics.

Unique magnetic and electrochemical properties of the Rare Earth elements enable technologies to perform with greater efficiency, performance and durability – often by reducing weight, emissions or energy consumption.

Rare Earths drive technology to power global economic growth, enable life-saving products, and help shrink our carbon footprint. With the infancy of technological development, application of Rare Earths has just commenced.

Figure 6: Rare earth elements used in electric vehicles

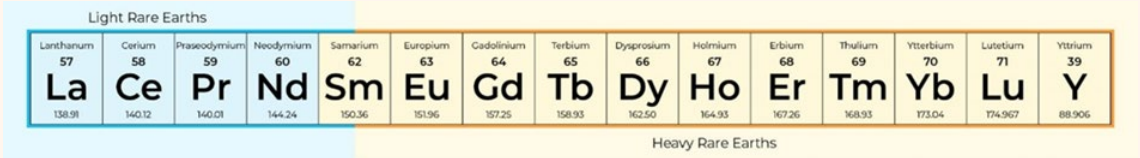

Figure 7: Light and heavy rare earths

Hydrothermal unconformity-related REE deposits

Hydrothermal unconformity-related REE deposits are a class of REE deposits that have a similar geological setting to unconformity-related uranium deposits of Australia and Canada. The best-known examples are at Browns Range where mineralisation occurs as xenotime-rich veins and breccias close to a regional unconformity between Archean metasediments and overlying

younger Proterozoic sandstones. The deposits formed at 1.65 to 1.61Ga (Nazari-Dehkordi et al, 2018) along or adjacent to steeply dipping faults that transect the unconformity. Watts Rise and Castella prospects share many geological similarities with this style of mineralisation.

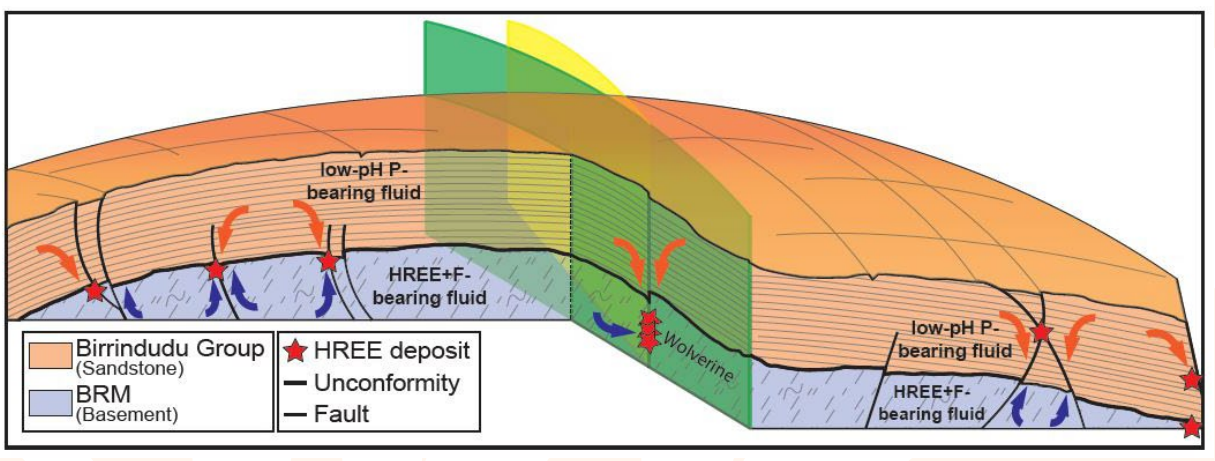

Figure 8: Model for the formation of hydrothermal unconformity related REE deposits

Northern Minerals (ASX:NTU) Browns Range – Wolverine Deposit.

To compare the Wolverine deposit to the target at Watts Rise, the following observations should be made. In the above Figure 9 schematic section, the yellow line represents the current ground surface at Wolverine, with stratigraphy and the unconformity removed from above, eroded from the profile.

Considering the erosion, the Wolverine mineralisation would then be equivalent in location to the interpreted structure and possible mineralisation beneath Watts Rise.

In both cases at Castella and at Watts Rise the Pargee Sandstone may be acting as "cover" to significant mineralisation.

It is important to consider this scenario based on the significance of the Wolverine Deposit.

Wolverine Deposit Metrics (Northern Minerals ASX : NTU, 10 October 2022 Independent review increases Wolverine REE Mineral Resource estimate by 47% at Browns Range)

- 6.44 million tonnes @ 0.96% = 61,492 tonnes of contained TREO.

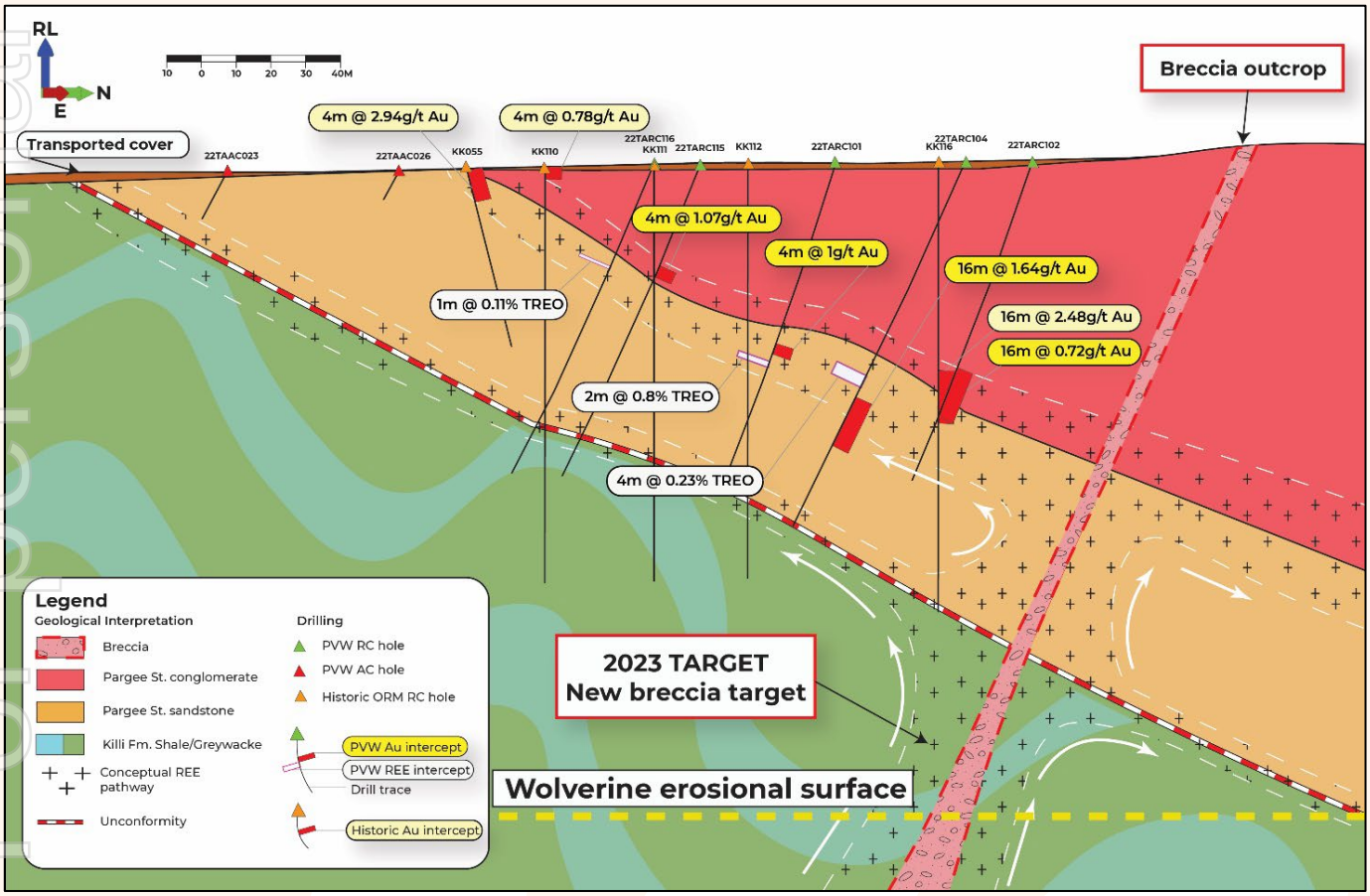

Figure 9: Schematic cross section for Watts Rise breccia target, showing the Wolverine location equivalent and relative erosional surface.

Competent Person's Statement

The information in this documents that relates to REE Exploration Results is based on information compiled by Mr Robin Wilson who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Wilson is a consultant to PVW Resources and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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' (the JORC Code). Mr Wilson consents to the inclusion of this information in the form and context in which it appears.

The information in this document relating to gold Exploration Results is based on information compiled by Mr Karl Weber, a professional geologist with over 25 years' experience in minerals geology including senior management, consulting, exploration, resource estimation, and development. Mr Weber completed a Bachelor of Science with Honours at Curtin University in 1994; is a member of the Australasian Institute of Mining and Metallurgy (Member No. 306422) and thus holds the relevant qualifications as Competent Person as defined in the JORC Code. Mr Weber is a full-time employee of PVW Resources. Mr Weber has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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' (the JORC Code). Mr Weber consents to the inclusion of this information in the form and context in which it appears.

Authorisation

This announcement has been authorised for release by the Board of PVW Resources Limited.

For further information, please contact:

George Bauk
Executive Director
+61 408 931 746
george@totode.com.au

Joe Graziano
Company Secretary
+61 411 649 551

Media enquiries:
Nicholas Read
Read Corporate
+61 419 929 046

PVW Resources

Tanami

About PVW Resources:

PVW Resources (ASX: PVW) is a diversified resource company established by a group of highly experienced mining executives including key founding members of mining company, Northern Minerals, who oversaw the development of the Browns Range Heavy Rare Earths Project.

With a project portfolio spanning Tier-1 mining jurisdictions in the Tanami region of WA, Kalgoorlie and Leonora, PVW has embarked on a potentially game-changing exploration campaign at its flagship Tanami Heavy Rare Earths and Gold Project in WA.

Located in the heart of the world-class Tanami mineral province, the Tanami Project offers exceptional potential for significant heavy rare earths and gold discoveries. At a time when demand and pricing for critical minerals such as rare earths has never been more favourable, incentive for discovery and development of new supply sources for a diversified global supply chain is strong.

Tanami Region
100% ~1,270km²

- Significant historical REE and gold results
- Limited previous exploration
- Recent exploration by PVW has confirmed the REE potential with rock chips up to 12.45% TREO
- Historic gold results up to 12m at 2.94g/t and 5m at 6.99g/t
- ~35,000m drill program underway

For recent REE results refer to ASX:PVW, 13 Oct 2021, Confirmation of high-grade Heavy Rare Earths at Tanami. All historical Tanami Project exploration drilling results refer to ASX:PVW, Thred Prospectus Appendix A - Independent Geologists Report, Appendix 1.

Kalgoorlie Region
100% 150km²

- Numerous near-term drill targets with historic results of 6m at 2.61g/t and 4m at 2.39g/t

All historical Kalgoorlie Project exploration drilling results refer to ASX:PVW, Thred Prospectus Appendix A - Independent Geologists Report, Appendix 1.

Leonora Region
100% 195km²

- Jungle Well & Brilliant Well Projects
- Small gold resource at Jungle Well with numerous follow-up targets

Refer to the Thred Ltd website Prospectus – Appendix A - Independent Geologists Report, 2.4 Mineral Resource Estimation – Jungle Well Deposit. The Company confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed at the time of publication.

West Yilgarn Region
100% 950km²

- Ballinue Project is located in the West Yilgarn Ni-Cu-PGE province that hosts Chalice's Julimar Project