

## Nerramyne Project Exploration Update

*Recently granted exploration licence adjacent to the Yilgarn Craton margin contains  
40 kilometre long copper anomaly*

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### Key Points:

- **100% owned 462 square kilometre exploration licence granted covering large copper and PGE anomaly adjacent to the margin of the Yilgarn Craton;**
- **40 x 6 kilometre low level copper in soil geochemical anomaly identified in state geological survey (GSWA) regional data;**
- **New application lodged covering an additional 30 square kilometres to incorporate an additional intrusive feature;**
- **Previous exploration work is limited solely to surface geochemistry in the northern 6 kilometres of the granted tenement;**
- **Neighbouring companies include Chalice Gold Mines, S2 Resources and AusQuest Ltd;**
- **Detailed sampling program due to commence during the September 2021 quarter.**

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Todd River Resources Limited (**ASX: TRT**) (**Todd River** or the **Company**) is pleased to provide the following update on recently granted tenement E70/5289 and new application E70/5825(A) (**Nerramyne Project**) located adjacent to the margin of the Yilgarn Craton approximately 130 kilometres north east of the port town of Geraldton. (Figure 1).

The Company originally acquired tenement application E70/5289 through the acquisition of Marlee Base Metals Pty Limited in September 2020 and recent detailed desk top study and exploration planning work highlighted the presence of an unpegged interpreted mafic/ultramafic intrusive body adjacent to the original tenement leading to the application for E70/5825(A).

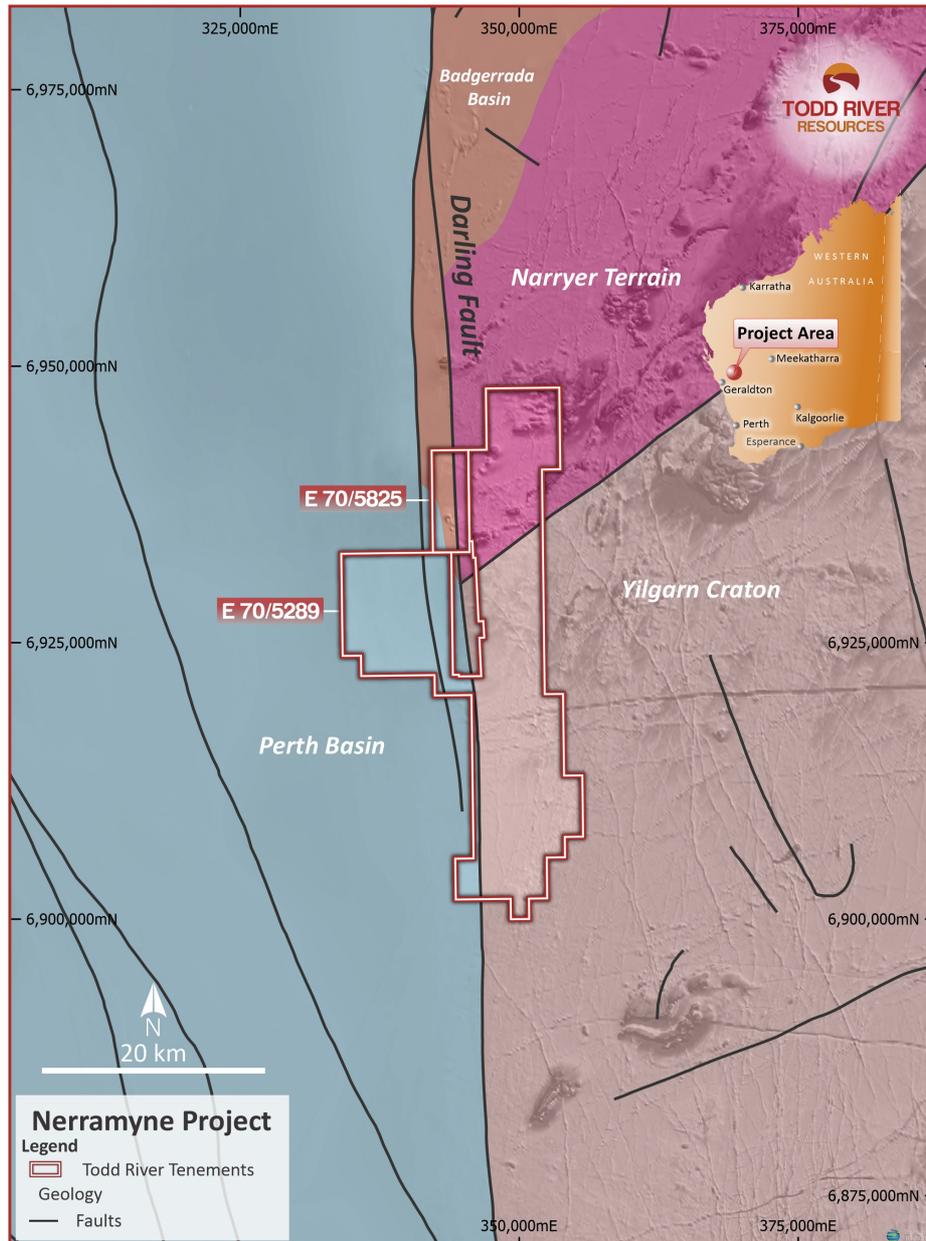


**Figure 1 – WA Project Location Plan**

## **Geological Rationale**

The Nerramyne Project covers an 8-10 kilometre wide, 45 kilometre long position along the margin of the Yilgarn Craton where the craton is juxtaposed against the Narryer terrane (Figure 2). The Yilgarn and Narryer rocks are mapped predominantly as gneissic terrane, with mafic rocks (hornblendite) in the south. The north-south Darling Fault transects the project area. A portion of the project area is covered by wind-blown sands and alluvial sediments which potentially mask any surface expression of mineralisation and render simple soil geochemistry unreliable.

Limited previous exploration has concentrated entirely in the northern portion of the tenement, where a total of 5 soil sampling lines and 11 lag sampling lines were completed, with soils taken to 30 centimetre depth and lag collected at surface. More than half the soil samples collected were reported as being transported sand, suggesting that this shallow soil sampling completed was ineffective.



**Figure 2 Regional Geological location of the Nerramyne Project**

Despite this, the sampling returned anomalous results, with up to 29.1 ppb Pd, 18.2 ppb Pt, and 416 ppm Cu in lag sampling. Mapping and petrological studies also confirmed the presence of poorly exposed mafic rocks (gabbro and amphibolite) associated with the magnetic features and geochemical anomalism.

Regional regolith surface sampling by the GSWA on a 4 kilometre x 4 kilometre grid over the Ajana 1:250 000 map sheet has identified a broad low level copper-platinum-palladium anomaly that stretches over a 40 kilometre x 6 kilometre area (Figures 3 and 4). Within the project area, most samples were collected from sheetwash to a depth of 30 centimetres.

The best result for the GSWA sampling was from the north of the project coincident with a large magnetic feature, containing 228 ppm Cu, 21 ppb Pd, and 8 ppb Pt. This compares to a background throughout the



rest of the GSWA sampling in the Ajana maps sheet of 2-30 ppm Cu and mostly below detection for Pd and Pt.

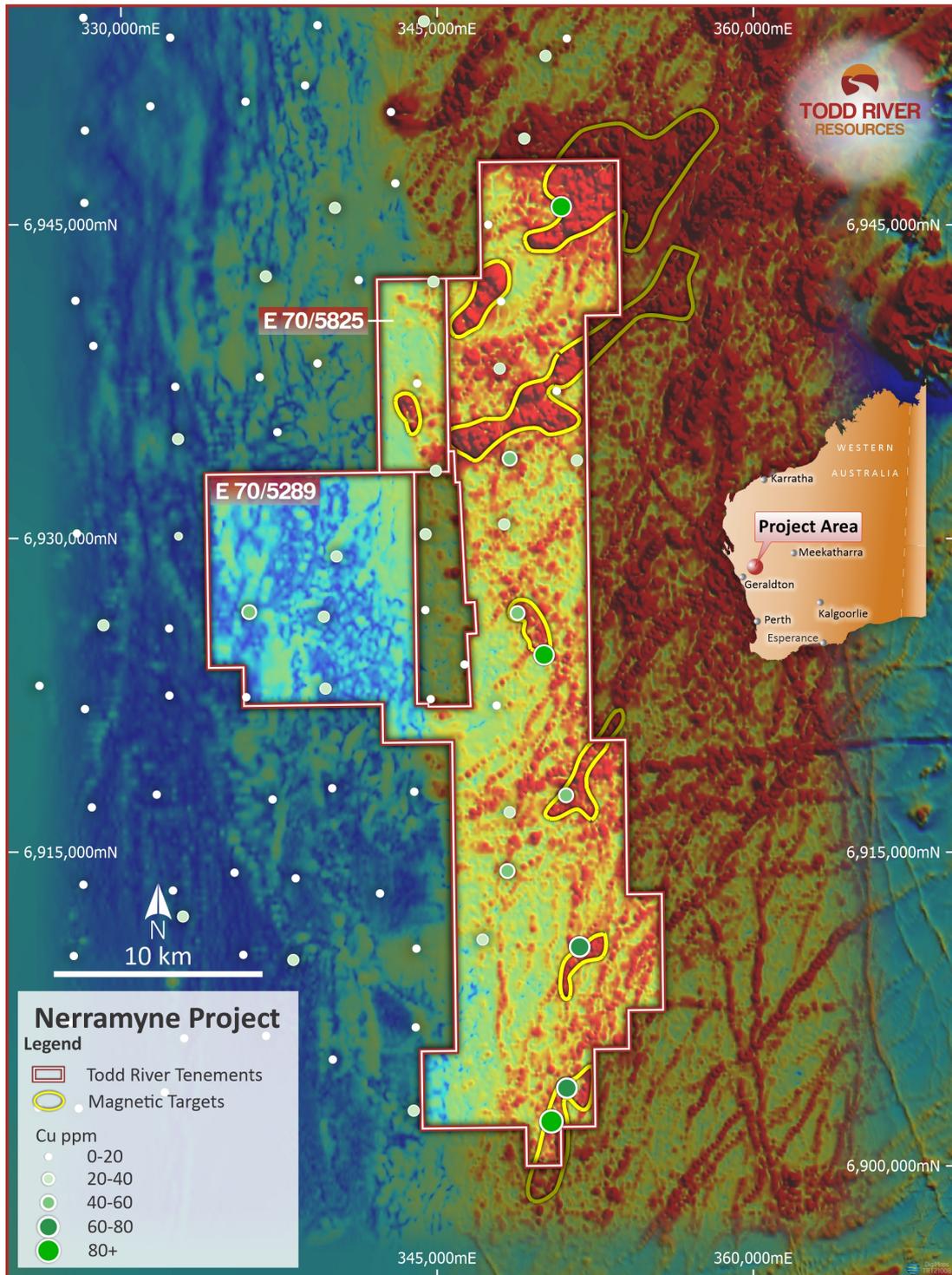


Figure 3 Cu (ppm) values from GSWA surface sampling over magnetics

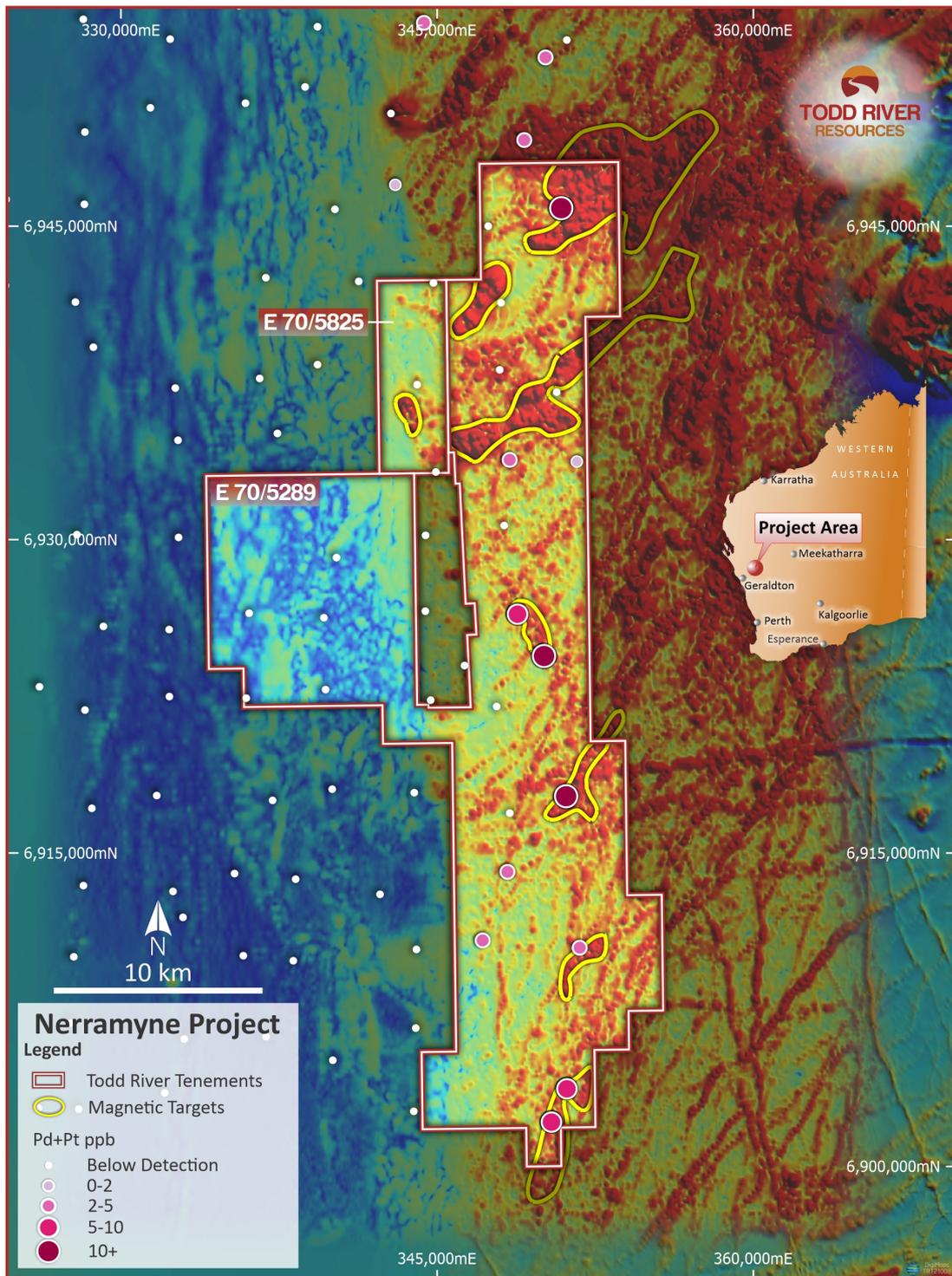


Figure 4 Pt+Pd (ppb) values from GSWA surface sampling over magnetics



## **Exploration Work Program**

The Company has identified at least five magnetic features totalling an area of 40 square kilometres that are interpreted to be mafic/ultramafic intrusive bodies (Figures 3 and 4). Geochemical anomalism in the regional GSWA sampling appears to be associated with these magnetic features, supporting the mafic/ultramafic interpretation.

The Company will take a methodical approach to exploration at Nerramyne and plans to commence field based activities during the September 2021 quarter. Initially a wide spaced geochemical sampling program (either auger or surface lag) over interpreted mafic/ultramafic intrusions will be utilised in order to generate a sub-set of priority targets that will be the subject of more detailed geochemical sampling, geophysics and drilling.

### **Release authorised by:**

**The Board of Todd River Resources**

**Enquiries:** Will Dix + 61 (0) 8 6166 0255

### **About Todd River Resources**

Todd River Resources (ASX: TRT) is an Australian-based resources company that has base and precious metal projects in Western Australia and the Northern Territory.

Having an experienced management team and strong funding position, Todd River is well placed to pursue base and precious metal opportunities across its extensive exploration portfolio that includes the Berkshire Valley and Petermann Range Projects.

The Company also has resources at both its Mt Hardy and Manbarrum Projects and a number of exciting early stage nickel-copper-PGE exploration projects in Western Australia.

### **Forward Looking Statements**

This announcement includes forward-looking statements. These statements relate to the Company's expectations, beliefs, intentions or strategies regarding the future. These statements can be identified by the use of words like "will", "progress", "anticipate", "intend", "expect", "may", "seek", "towards", "enable" and similar words or expressions containing same.

The forward-looking statements reflect the Company's views and assumptions with respect to future events as of the date of this announcement and are subject to a variety of unpredictable risks, uncertainties, and other unknowns. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, many of which are beyond our ability to control or predict. Given these uncertainties, no one should place undue reliance on any forward looking statements attributable to the Company, or any of its affiliates or persons acting on its behalf. The Company does not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Neither the Company nor any other person, gives any representation, warranty, assurance, nor will guarantee that the occurrence of the events expressed or implied in any forward-looking statement will actually occur. To the maximum extent permitted by law, the Company and each of its advisors, affiliates, related bodies corporate, directors, officers, partners, employees and agents disclaim any



responsibility for the accuracy or completeness of any forward-looking statements whether as a result of new information, future events or results or otherwise.

**Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by William Dix, who is a full time employee of Todd River Resources. Mr Dix is a member of the Australian Institute of Mining and Metallurgy. Mr Dix has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Dix consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The following Tables are provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.



## Appendix C - JORC Table One – Compilation of historical data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<p>Nature and quality of sampling (eg 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.</p> <p>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p> <p>Aspects of the determination of mineralisation that are Material to the Public Report.</p>	<p>Work completed by the Geological Survey of Western Australia as part of their regional regolith sampling program which aimed to sample regolith from sites representative of the 4 x 4Km sampling polygon of interest</p> <p>The preferred sampling medium is active stream sediment sampled from lower order streams draining the sample polygon</p>
Drilling techniques	<p>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</p>	No Drilling has been completed on the tenement
Drill sample recovery	<p>Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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.</p>	No Drilling has been completed on the tenement
Logging	<p>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.</p> <p>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</p> <p>The total length and percentage of the relevant intersections logged.</p>	Surface samples are allocated a description of either stream, sheetwash, soil or lake sediment
Sub-sampling techniques and sample preparation	<p>If core, whether cut or sawn and whether quarter, half or all core taken.</p> <p>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</p> <p>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</p> <p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p> <p>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.</p> <p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<p>Samples were sieved on site to -6mm where possible and then passed through graduated rings in a sieve pan to collect a final 2kg sample which was then assayed</p> <p>A 3kg “archive sample” was kept</p>
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and	No information is available



	<p>whether the technique is considered partial or total.</p> <p>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.</p> <p>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</p>	
Verification of sampling and assaying	<p>The verification of significant intersections by either independent or alternative company personnel.</p> <p>The use of twinned holes.</p> <p>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</p> <p>Discuss any adjustment to assay data.</p>	No information available
Locations of data points	<p>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.</p> <p>Specification of the grid system used.</p> <p>Quality and adequacy of topographic control.</p>	Information such as the unique GSWA sample number, the site number, a map sheet identifier and the geologists initials were all recorded
Data spacing and distribution	<p>Data spacing for reporting of Exploration Results.</p> <p>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.</p> <p>Whether sample compositing has been applied.</p>	Not Relevant
Orientation of data in relation to geological structure	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <p>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.</p>	No information available
Sample security	<p>The measures taken to ensure sample security.</p>	No Information available
Audits or reviews	<p>The results of any audits or reviews of sampling techniques and data.</p>	No sampling audits have been conducted



## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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. 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.	The Nerramyne Project is located on tenement E 70/5289 (Moore River Metals Pty Ltd) which is recently granted, and E 70/5825 (Moore River Metals Pty Ltd) which is in application. All tenements are in good standing and are not subject to any joint ventures
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	All significant previous work is outlined in WAMEX open file reports.  TRT has accessed and reviewed all of this work and compiled our own database on the project from the available open file data. The WAMEX reports used for the purpose of this work include:  The documents appear correct and the geo-spatial data recorded matches with images produced when verified independently
Geology	Deposit type, geological setting and style of mineralisation.	Not relevant
Drill hole Information	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 collar</li> <li>○ Elevation of RL (Reduced Level – elevation above sea level in metres) of the drill collar</li> <li>○ Dip and azimuth of the hole</li> <li>○ Down hole length and interception depth</li> <li>○ Hole length</li> </ul>	No Drilling has been completed on the tenement
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	From reading the open file reports, no aggregation or averaging was conducted on the data reported here.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	Not Relevant
Diagrams	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.	Historic sample locations shown on Figure 3 and 4
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low	Historic Reporting only



	and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
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 substantial new information is available other than that reported above.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Additional geochemical sampling followed by drilling should it be warranted will be completed over the project