ASX ANNOUNCEMENT 24 August 2018

NORTHERN TERRITORY PROJECTS IN THE RIGHT VANADIUM NEIGHBOURHOOD

HIGHLIGHTS

- **Vanadium Mining (VanMin), which Hardey is in the process of acquiring, has two assets – Wollagalong and Chisholm – in the Northern Territory (complementing its tenure in Queensland) that are contiguous to TNG Limited's high-quality Mt Peake project which has a JORC (2012) compliant total resource – 160Mt @ 0.28% V_2O_5[1]**
- **Through aeromagnetic imaging, the Hardey geology team has verified that Mt Peake's underlying mineralisation – vanadiferous titano-magnetite (VTM) hosted in layered ultramafics – is similar to anomalies within VanMin's two projects**
- **Specifically, the Anningie Formation that underpins the VTM mineralisation at Mt Peake has been mapped into the adjoining Wollagalong project, representing significant exploration upside**
- **Due diligence includes commencing a review of historic surface sampling results across the two projects, which if aligned with aeromagnetic anomalies, can expedite targeting anomalous vanadium within exposed outcrops**
- **As TNG's analogue VTM mineralisation is relatively shallow, a comprehensive high-level exploration program (comprising drilling, sampling and assaying) can be implemented rapidly across the two projects to facilitate potentially modelling a mineral resource under the JORC (2012) code**
- **If shallow VTM mineralisation is confirmed, then open pit mining methods can potentially be utilised to rapidly exploit high grade VTM ore**
- **Overall, the geological review on VanMin's six assets points towards them all being highly prospective for vanadium mineralisation**

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Hardey Resources Executive Chairman, Terence Clee commented: "Undoubtedly, the two Northern Territory projects are in the right neighbourhood, given the proximity to TNG's high-calibre Mt Peake VTM operation. The aeromagnetic and soil sampling evidence is quite compelling that both projects are highly prospective for vanadium mineralisation. Taking a holistic view, the Board is delighted the due diligence to date on Vanadium Mining's six assets across Queensland and the Northern Territory is heading in the right direction."

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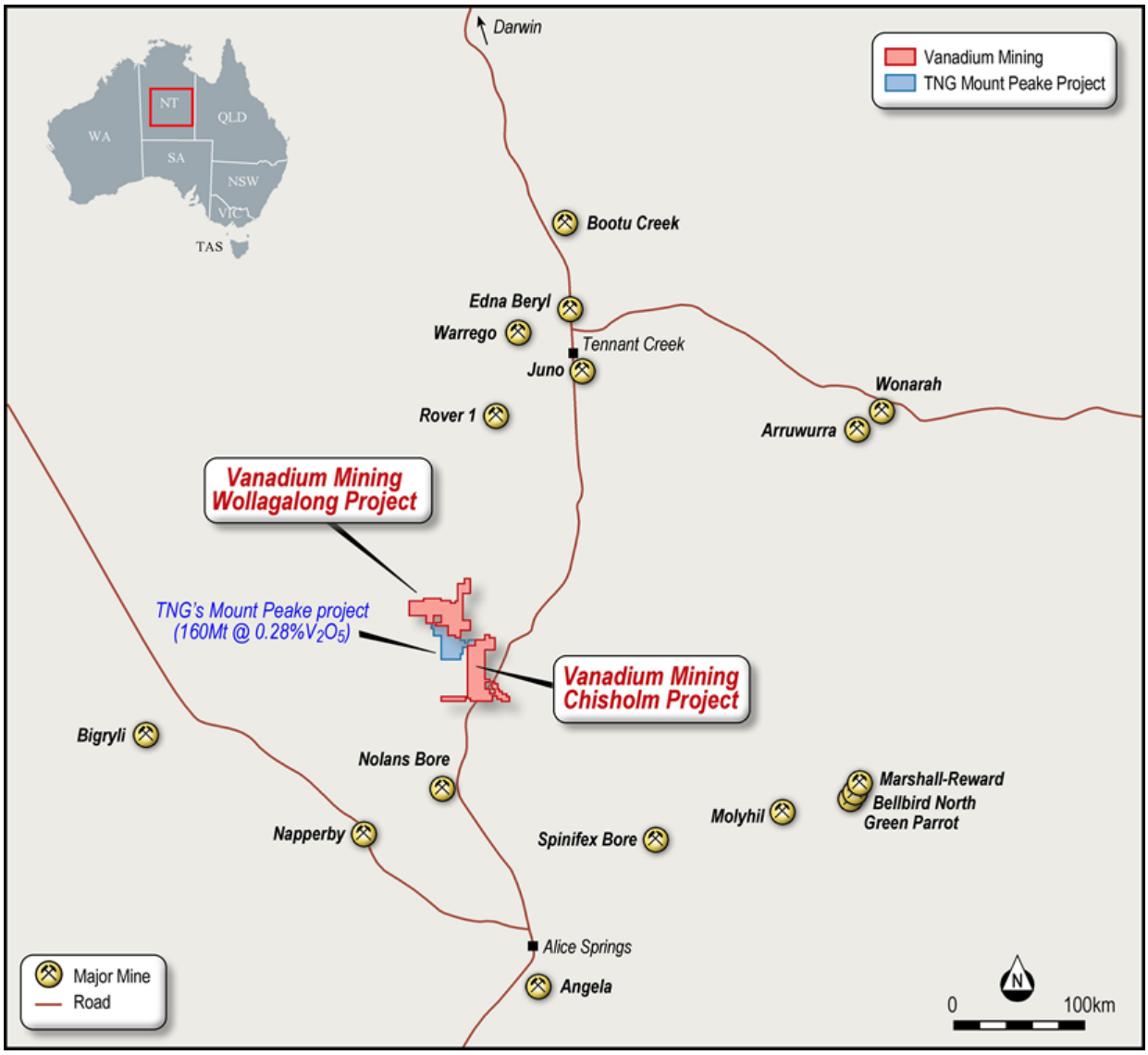
Hardey Resources Limited (ASX: HDY) ("Hardey" or "the Company") is pleased to present the geology team's preliminary due diligence findings on two highly prospective vanadium projects in the Northern Territory, part of a package of six projects the Company has agreed to acquire from privately owned Vanadium Mining Pty Ltd (VanMin).

THE RIGHT VANADIUM NEIGHOURHOOD

VanMin's Northern Territory assets are located adjacent to TNG's advanced Mt Peake VTM project. A key positive with Mt Peake is the underlying mineralisation, which comprises a high-grade form of VTM associated with ore bodies that can be selectively mined utilising open pit methods. This delivers considerable comparative advantages in being able to tailor economically efficient mining operations.

Relative to Mt Peake, which is ~190km north of Alice Springs, the Wollagalong project is 6km north while the Chisholm prospect 13km east (Figure 1). Both VanMin's projects are contiguous to the Mt Peake tenure, forming the north and east boundaries.

FIGURE 1: LOCATION OF THE WOLLAGALONG AND CHISHOLM PROJECTS



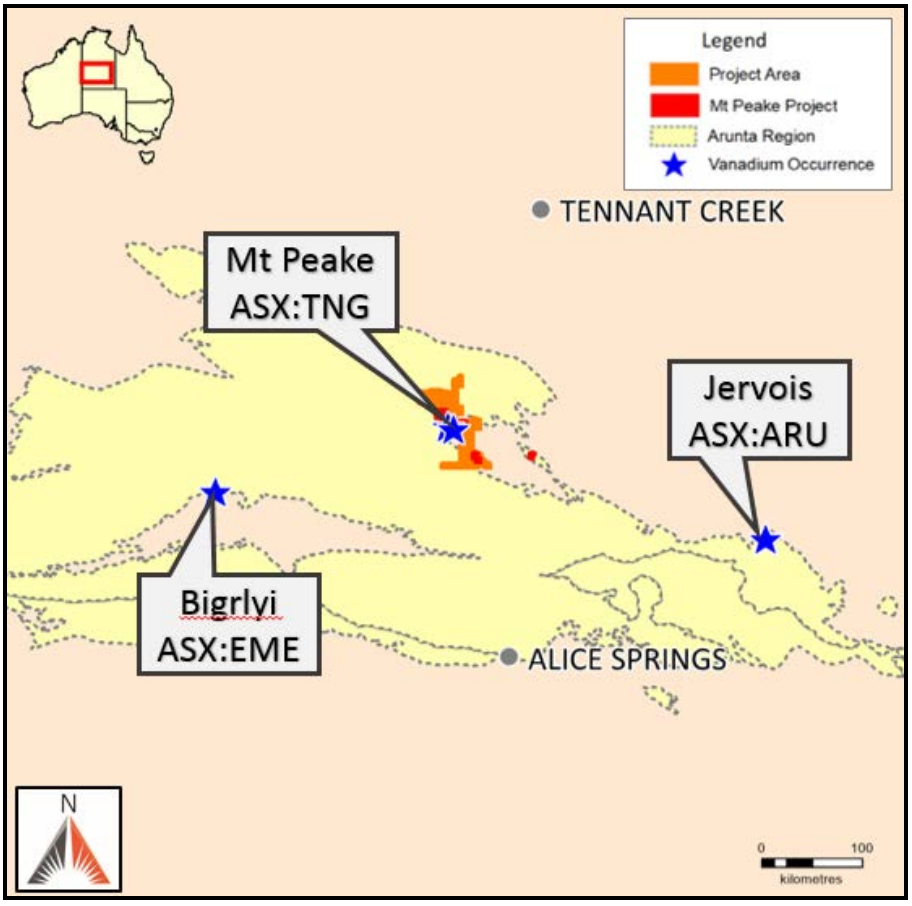
Source: HDY geology team

Geological overview

The largest vanadium resources in the Northern Territory are associated with mafic-hosted vanadium magnetite deposits in the Arunta Region's Aileron Geological Province. These mafic-hosted VTM deposits (which is the type targeted within the Wollagalong and Chisholm projects) have only recently been identified in the Jervois area (Arafura Resources, 2017) and at the Mt Peake project (TNG, 2011).

Implicitly, this means that due to the Wollagalong and Chisholm projects' proximity to Mt Peake (which has a JORC [2012] code reported total mineral resource – 160Mt @ 0.28% V_2O_5, 5% TiO_2 and 22% Fe, cut-off grade 0.1% V_2O_5)[1], there is clearly significant exploration upside to uncover additional vanadium mineralisation (Figure 2). The probability would appear to be higher for the Wollagalong project given the surface exposures of the Anningie Formation, which underpins the VTM economic mineralisation at Mt Peake, has been mapped within its boundaries.[3]

FIGURE 2: THE ARUNTA REGION RELATIVE TO THE WOLLAGALONG AND CHISHOLM PROJECTS



Source: HDY geology team

As an aside, the Jervois vanadium deposit forms part of a joint venture (now known as Bonya JV) between Arafura Resources Limited and Thor Mining Limited. A drill intersection, which returned 49m @ 0.96% V_2O_5, 8.55% TiO_2 and 34.5% Fe (over 0-49m depth range)[2], further highlights the vanadium potential within the region.

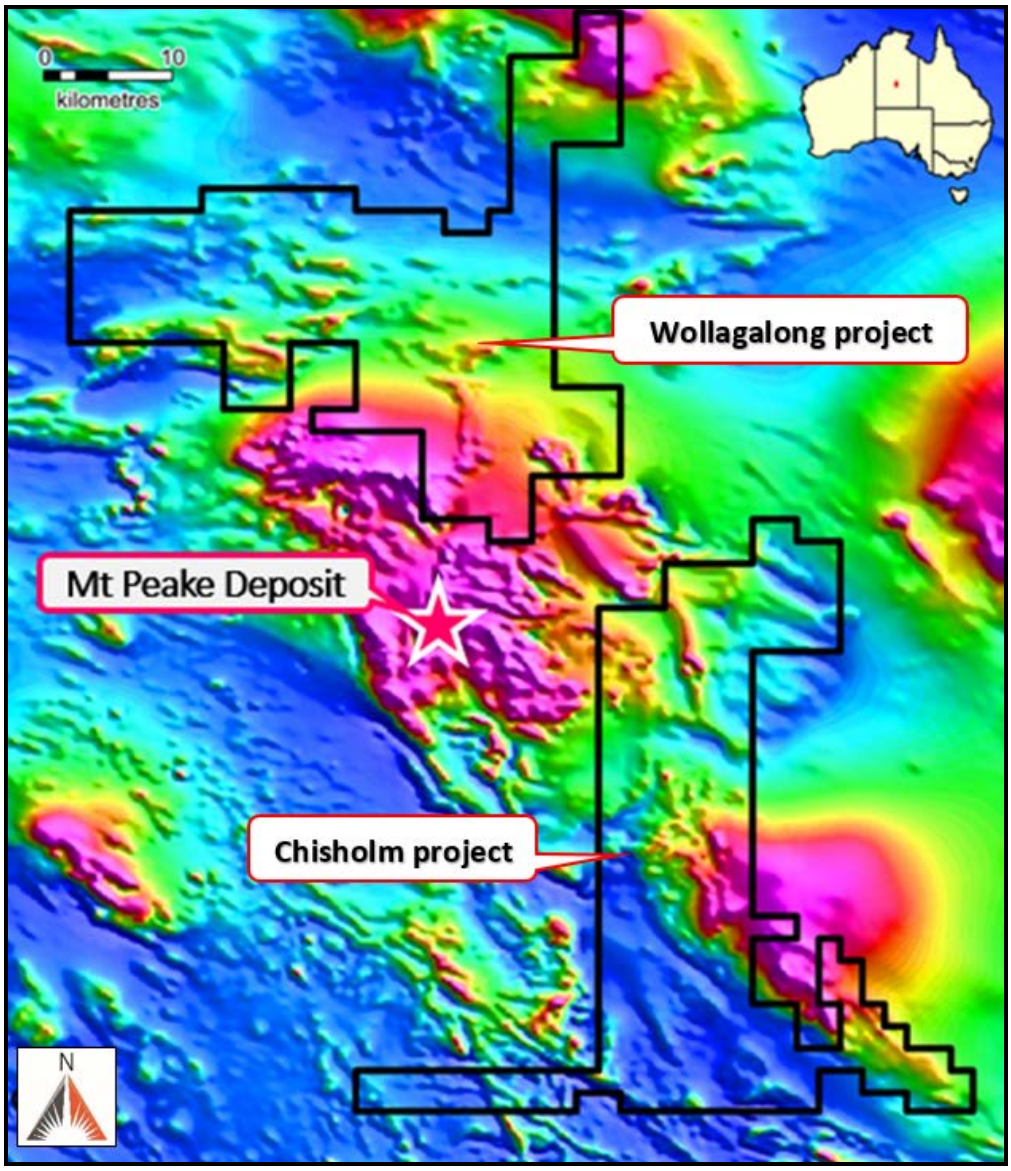
The second known style of vanadium mineralisation in the Northern Territory is associated with sandstone-hosted uranium deposits. The largest known resource is at the Bigrlyi uranium prospect, which has a total mineral resource of 7.46Mt at 0.13% U_3O_8 and 0.12% V_2O_5 cut-off grade 500ppm U_3O_8 (reported under the JORC [2004] code).[4]

Aerial geophysics

In Australia, VTM deposits are typically formed on cratons of Archean to Proterozoic age and are closely associated with large igneous provinces, which is the focus when undertaking exploration activities. Further, mafic to ultramafic complexes that host VTM deposits are generally apparent as strong clearly defined anomalies from aeromagnetic surveys, even if no exposure occurs at surface. Aeromagnetic surveys confirm that Wollagalong and Chisholm have highly magnetic anomalies within their boundaries.

Assessing the geophysics, the aeromagnetic image (Figure 3) identifies two phases of potential mineralisation with east-west and north-south trending structures visible and intersecting within the project areas. Importantly, VanMin's projects have similar geological and magnetic features to the Mt Peake deposit. Further, they are highly probable to be gabbro-hosted magnetite deposits, the same as those that underlie Mt Peake's VTM mineral resource.

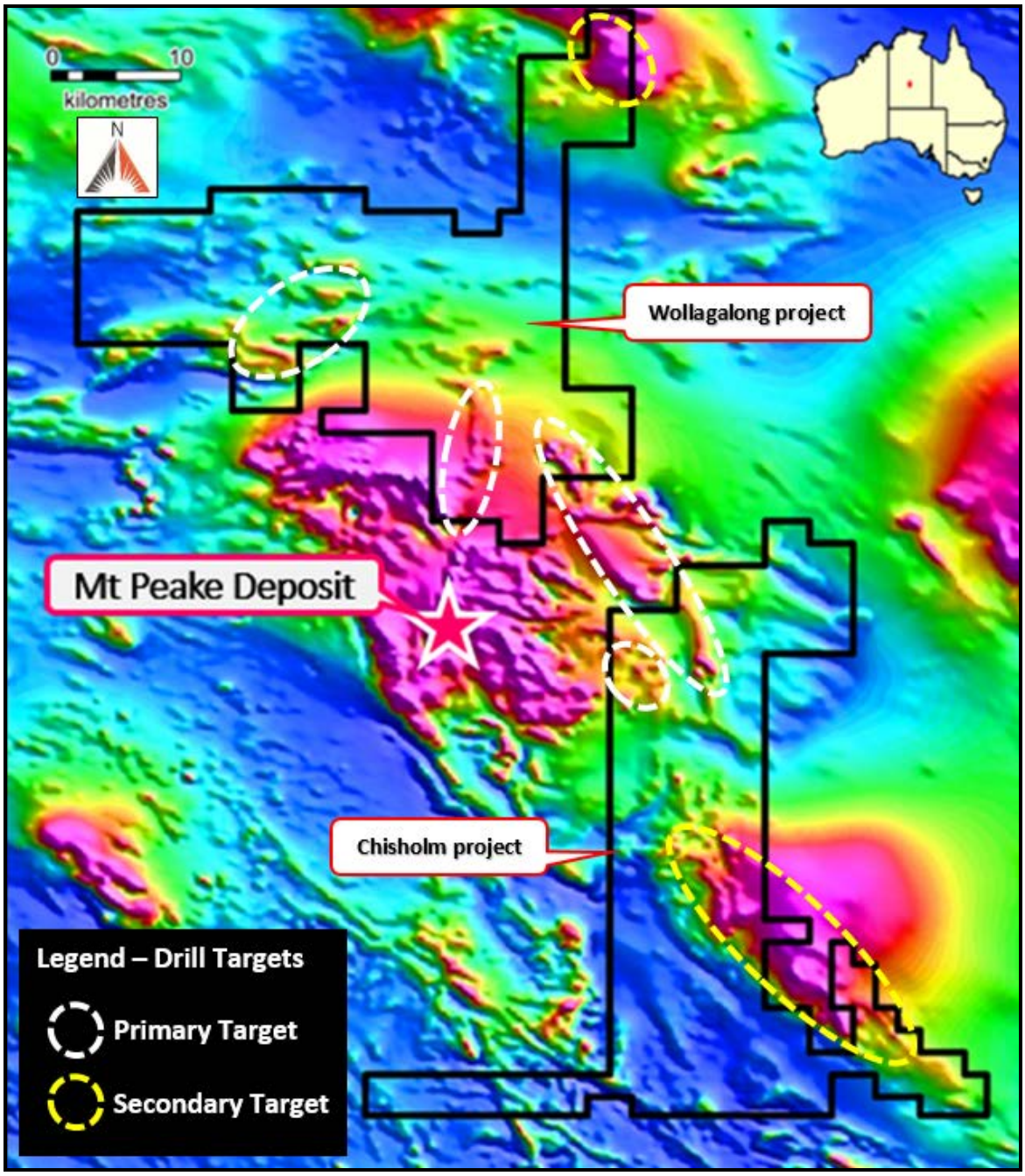
FIGURE 3: AEROMAGNETIC IMAGE HIGHLIGHTS MINERALISATION FOR THE PROJECTS



Source: HDY geology team

As vanadium mineralisation within these systems is relatively shallow, selecting prospective targets for further follow-up within the two projects is straightforward (Figure 4). Moreover, this delivers the opportunity to expedite and de-risk the projects materially with a high-level exploration program that aims to potentially model, estimate, and report a JORC (2012) compliant vanadium mineral resource.

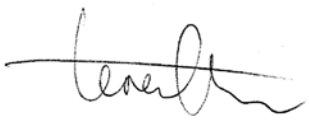
FIGURE 4: POTENTIAL PRIMARY AND SECONDARY TARGETS FOR THE PROJECTS



Source: HDY geology team

Next steps

Complete due diligence reviews for Nelly Vanadium Mine, Argentina and VanMin projects.



Terence Clee
Executive Chairman

References

1) TNG ASX Announcement 18 March 2013
2) ARU ASX Announcement 29 July 2010
3) Refer to Table 1 of the current ASX Announcement
4) EME ASX Announcement 28 June 2011

COMPETENT PERSON'S STATEMENT:

The information in this report that relates to Geological Interpretation, Historical Exploration Results, or Mineral Resources is based on information compiled by Nicholas Ryan, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Ryan has been a Member of the Australian Institute of Mining and Metallurgy for 12 years and is a Chartered Professional (Geology). Mr Ryan is employed by Xplore Resources Pty Ltd. Mr Ryan 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 Ryan consents to the inclusion in the report of the matters based on his information and the form and context in which it appears.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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 pulverized to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.

Criteria	JORC Code explanation	Commentary
	• *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.*	
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.

Criteria	JORC Code explanation	Commentary
	make and model, reading times, calibrations factors applied and their derivation, etc. • *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.*	
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Presented geological data is from 2D aeromagnetic geophysical surveys or geological mapping completed by Northern Territory Government or the Federal Government. • No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.

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	• *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.*	• Vanadium Mining Pty Ltd holds 100% of the following mineral tenure applications: 1. Sharptooth Project, Queensland ("QLD"), Australia – Tenure Identifier EPM26801 [Exploration Permit Mineral Application], 100 sub-blocks, submitted to the QLD Department of Natural Resources, Mines, and Energy ("DNRM") on the 23 February 2018; 2. Cera Project, QLD, Australia – Tenure Identifier EPM26802 [Exploration Permit Mineral Application], 100 sub-blocks, submitted to the DNRM on the 26 February 2018; 3. Spike Project, QLD, Australia – Tenure Identifier EPM26803 [Exploration Permit Mineral Application], 100 sub-blocks, submitted to the DNRM on the 26 February 2018; 4. Petrie Project, QLD, Australia – Tenure Identifier EPM26804 [Exploration Permit Mineral Application], 100 sub-blocks, submitted to the DNRM on the 26 February 2018; 5. Wollagalong Project, Northern Territory ("NT"), Australia –Tenure Identifier EL31841 [Exploration Licence Application], submitted to the NT Department of Primary Industries and Resources ("DPIR") on the 5 March 2018; & 6. Chisholm Project, NT, Australia – Tenure Identifier EL31842 [Exploration Licence Application], submitted to the NT DPIR on the 5 March 2018.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects. • The Competent Person anticipates upon the completion of comprehensive Desktop Studies are complete, additional Historical Exploration Activity could be publicly reported.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Northern Territory projects – Titano-magnetite Vanadium (Ti-Fe-V) mineralization associated with the Arunta orogen. The Arunta orogen is overlain by the NT, and the State of Western Australia. The Arunta orogen age range spans the Paleoproterozoic to Ordovician and has been affected by tectonothermal events that extend to the Carboniferous. It is mostly sedimentary in origin but had been extensively affected by felsic and mafic magmatism, mostly in the Paleoproterozoic. The highly magnetic features in the Geophysical Survey Imagery of Total Magnetic Intensity available as features correspond to outcrops of the Anningie member, the same Formation that the Mt Peake project exploits for Ti-Fe-V mineralisation. The magnetic features are interpreted to be gabbro hosted magnetite deposits that are sources of potential Ti-Fe-V mineralisation.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *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.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
Data aggregatio	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.

Criteria	JORC Code explanation	Commentary
n methods	*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.*	
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').*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
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.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
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.*	• No drilling or sample results are reported in this announcement for the Northern Territory Vanadium Mining Pty Ltd projects.
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.*	• The Vanadium Mining Pty Ltd Geology Team sourced the Geophysical Survey Imagery of Total Magnetic Intensity available on the Northern Territory Strike Tenure and Geoscience Information System, hosted by the NT Department of Primary Industries and Resources. Geological maps and structures stated in the Announcement body were from the Northern Territory Strike Tenure and Geoscience Information System.

Criteria	JORC Code explanation	Commentary
Further work	• *The nature and scale of planned further work (e.g. 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.*	• The Northern Territory Vanadium Mining Pty Ltd projects require technical evaluation to prioritize areas within the projects to focus mineral exploration efforts, from historical drilling, sampling and assay in order to systematically explore for vanadium mineralisation.