ASX ANNOUNCEMENT 19 July 2018

MOVING TO ESTABLISH VANADIUM FOOTPRINT IN AUSTRALIA

HIGHLIGHTS

- **Following the proposed acquisition of Nelly Vanadium Mine (NVM) in Argentina[1], HDY has agreed to acquire six highly-prospective vanadium projects close to proven resources in Queensland and Northern Territory**
  - **Four prospects in west Queensland near to Intermin Resources' (ASX: IRC) globally significant Richmond project (inferred mineral resource 2,579Mt @ 0.32% V_2O_5, cut-off grade of 0.29% V_2O_5)[2]**
  - **Two Northern Territory projects contiguous to TNG Ltd's (TNG) Mt Peake project (total mineral resource – 160Mt @ 0.28% V_20_5 cut-off grade of 0.10% V_2O_5)[3]**
- **Critically, all six projects are in well-known mining districts with supportive infrastructure, ready access to ports and skilled labour pools**
- **With NVM[1] and the six projects in Australia, the HDY Board believes it can rapidly build a strong scalable global platform to meet growing demand for vanadium**
- **Moving forward, the Board intends to place a greater emphasis on developing the vanadium assets to facilitate HDY evolving into an emerging supplier to the renewable energy sector**
- **Shareholders will be informed of due diligence findings on the six Australian projects as they materialise**

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Hardey Resources Executive Chairman, Terence Clee commented: *"The Board has taken the decision to evolve Hardey Resources into an emerging vanadium supplier to the renewable energy sector, which explains the move to acquire these six highly prospective projects across Queensland and Northern Territory. The new projects will complement the Nelly Vanadium Mine in Argentina and deliver Hardey Resources a solid, yet geographically diversified, platform to develop moving forward."*

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Hardey Resources Limited (ASX: HDY) ("HDY" or "the Company") is pleased to announce that it has entered into a share sale agreement with the major shareholders of Vanadium Mining Pty Ltd (VanMin). Under the terms of this agreement, HDY has been granted a 40-day option to acquire 100% of the issued capital of VanMin, which is a mineral explorer that owns six highly prospective vanadium projects in Queensland and the Northern Territory.

The key terms of the VanMin acquisition are detailed in Appendix A to this announcement.

OVERVIEW

VanMin was established with the principal objective of acquiring vanadium projects in Queensland and the Northern Territory.

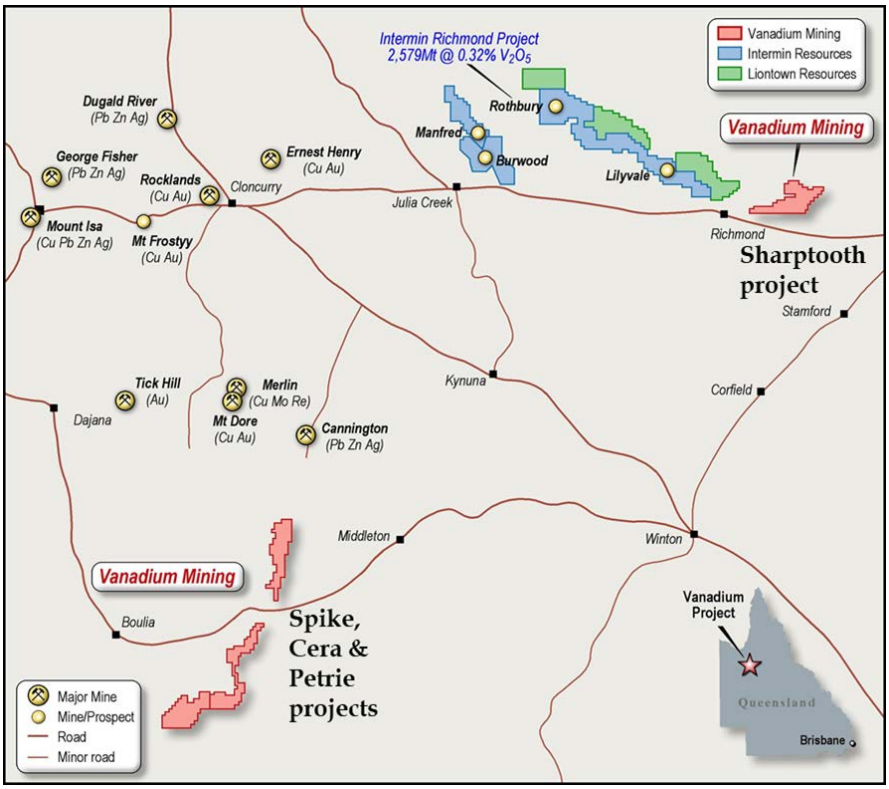
Currently, VanMin has seven shareholders holding 55,900,200 fully paid ordinary shares on issue. HDY has paid VanMin $75,000 in consideration for the grant of an option to acquire 100% of the issued capital in VanMin, exercisable at any time within 40 days following the date of the agreement. During this time, HDY will undertake due diligence in relation to VanMin and six projects in Queensland and the Northern Territory. If the option is exercised, at settlement of the acquisition HDY will issue 550,000,000 fully paid ordinary shares and 550,000,000 listed options (exercisable at $0.02 on or before 30 April 2020) (ASX: HDYOC) to VanMin shareholders.

The HDY shares to be issued at settlement to VanMin shareholders, as consideration for the VanMin acquisition, will account for circa 20.76% of HDY's expanded issued capital. In addition, HDY will pay a 3% net smelter return royalty to VanMin's founding shareholders for all minerals produced from the six projects.

Queensland projects

VanMin owns four projects in the Mount Isa region of western Queensland – Sharptooth, Spike, Cera and Petrie. These projects are located in an area that favours shallow surface mining for large tonnages of low-grade vanadium mineralisation (Figure 1).

FIGURE 1: SHARPTOOTH, SPIKE, CERA AND PETRIE PROJECTS

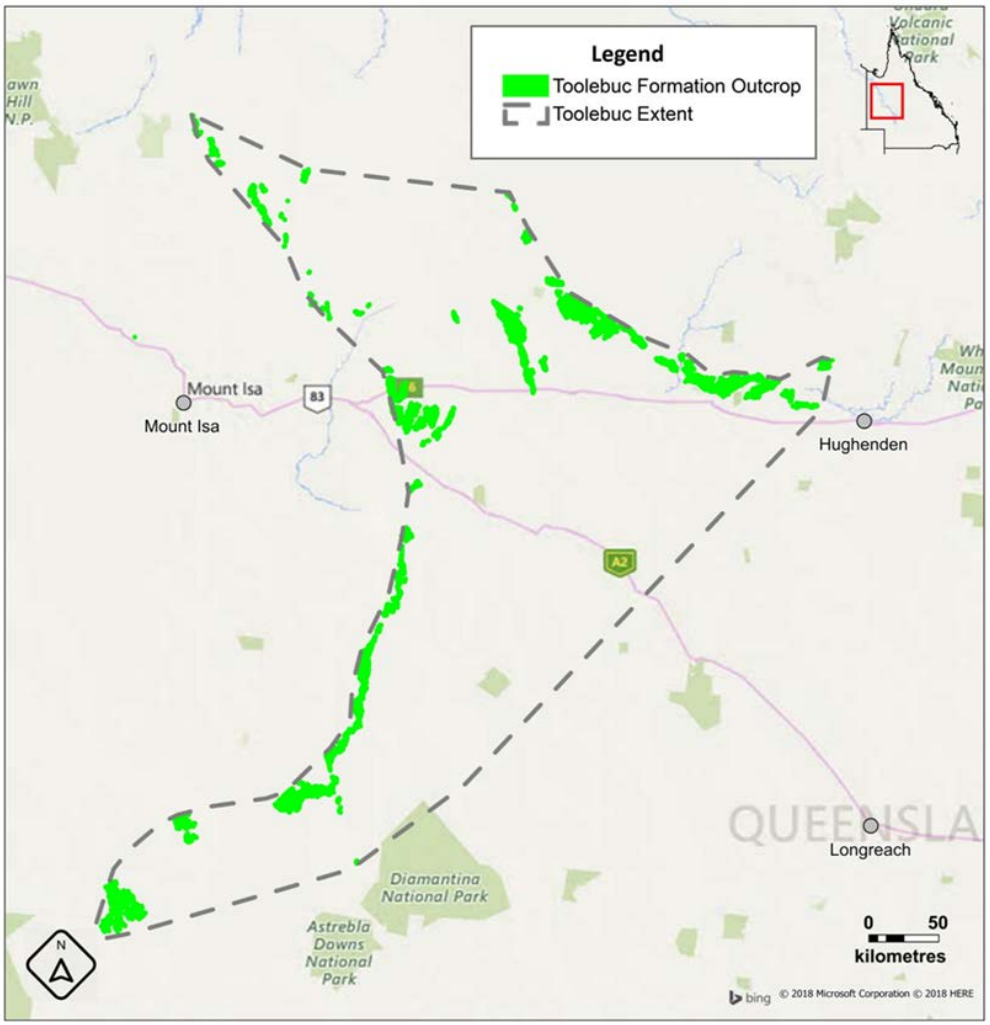


Source: VanMin geology team

Notably, these four highly prospective areas are near to IRC's globally significant Richmond project (inferred mineral resource 2,579Mt @ 0.32% V_2O_5 cut-off grade of 0.29% V_2O_5)[2] and ground held by Liontown Resources (LTR). Of note, LTR's tenure contains historic vanadium resources, but they do not comply with the JORC (2012) code[4].

Within the Mt Isa region, the Toolebuc Formation is increasingly recognised for elevated vanadium potential (Figure 2). Furthermore, areas known for the prevalence of oil shale usually have occurrences of vanadium and uranium mineralisation. This combination of mineralisation is typically found within the Toolebuc Formation and is consistent with the underlying geology apparent at IRC and LTR's respective projects.

FIGURE 2: TOOLEBUC FORMATION IN MT ISA REGION

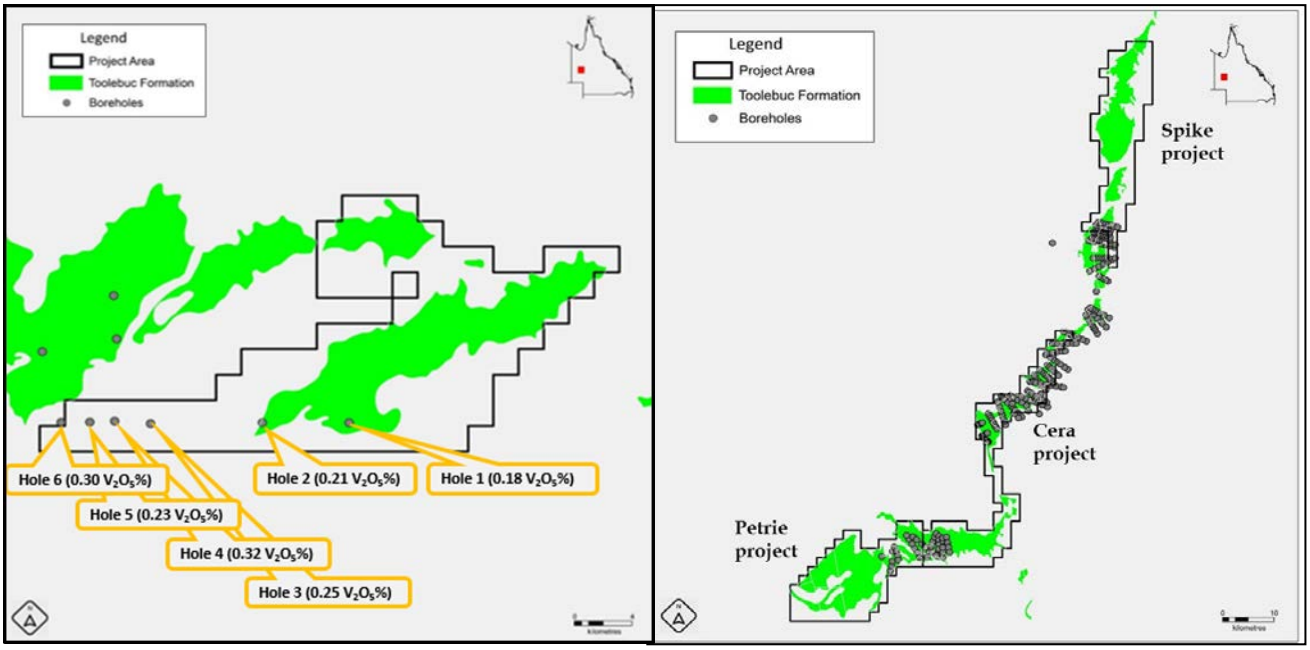


Source: VanMin geology team[2]

Across VanMin's four Queensland projects, there is clear evidence of elevated vanadium levels in historic boreholes drilled within the Toolebuc Formation (Figure 3). Further, numerous historic reports and research confirm that VanMin's four projects, and the greater region, are generally prospective for vanadium mineralisation.

Based on this legacy work, primary and secondary targets that align with the Toolebuc Formation outcropping have been selected for follow-up fieldwork to confirm the potential for vanadium mineralisation.

FIGURE 3: TOOLEBUC FORMATION WITHIN VANMIN'S PROJECTS



Notes: 1) refer to Figure 4 for Intercept length and grade presented in Figure 3; and 2) refer to Appendix B Table 1 for additional grades, intersection lengths and hole-name for the V_2O_5 values presented in Figure 3 and Figure 4.

Source: VanMin geology team.

FIGURE 4: TOOLEBUC FORMATION SHARPTOOTH V_2O_5 GRADE AND INTERCEPTS[5] FROM FIGURE 3

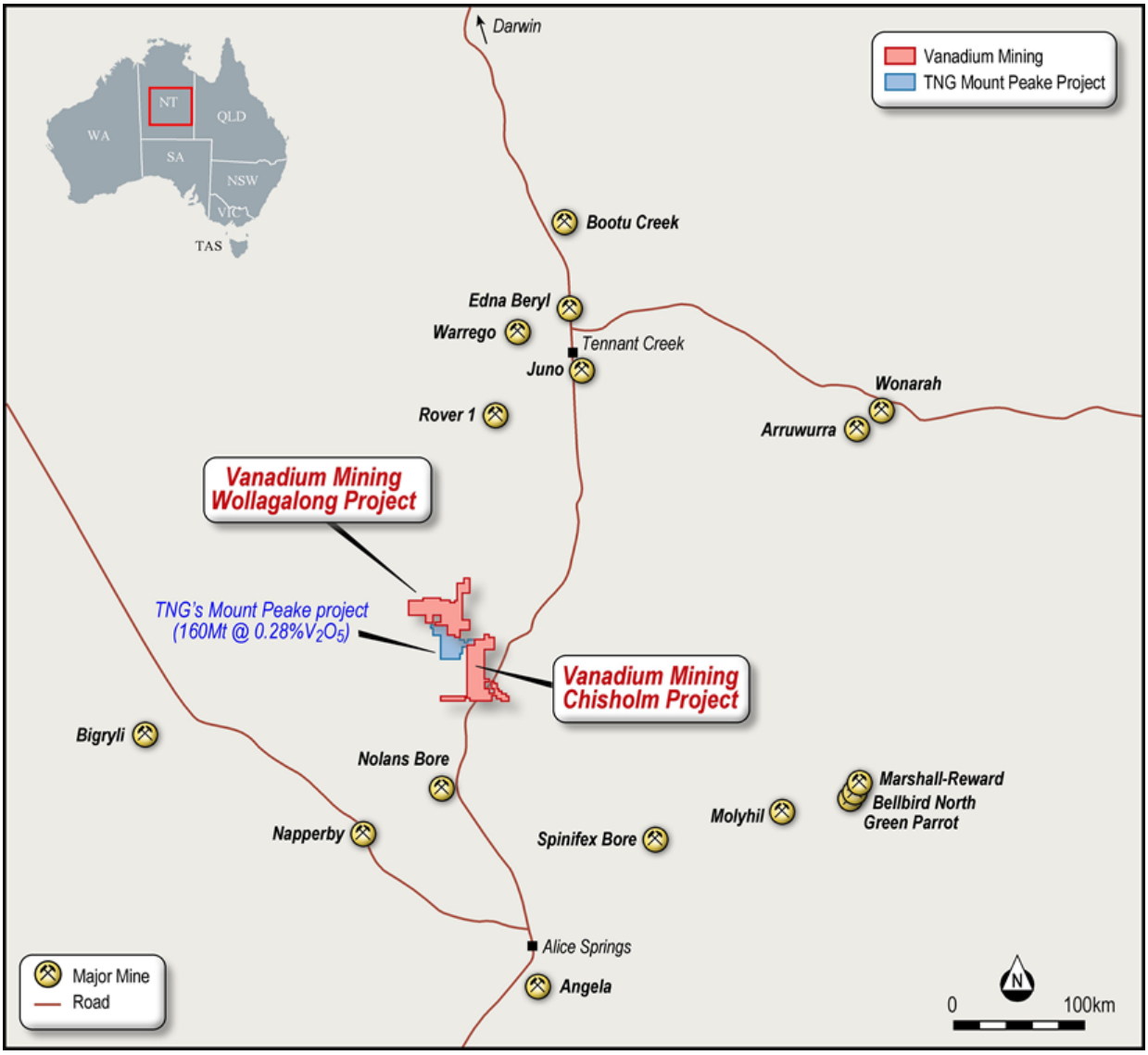
Borehole Identifier	Depth From (m)	Sample Length (m)	Assay Grade V (%)	Converted to V_2O_5 (%)
1	15	1	0.10	0.18
2	13	1	0.12	0.21
3	32	1	0.14	0.25
4	41	1	0.18	0.32
5	57	1	0.13	0.23
6	52	1	0.17	0.30

Source: VanMin geology team.

Northern Territory projects

VanMin's two projects in the Northern Territory – Wollagalong and Chisholm – are contiguous with TNG's Mt Peake project (Figure 5), which has a total resource at 160Mt @ 0.28% V_2O_5 cut-off grade of 0.29% V_2O_5.[3] TNG's project is the most advanced in the region as a Definitive Feasibility Study has already been completed, while TNG has also signed a binding life-of-mine offtake and technology transfer agreement with Korea's Woojin Metals.[3]

FIGURE 5: WOLLAGALONG AND CHISHOLM PROJECTS



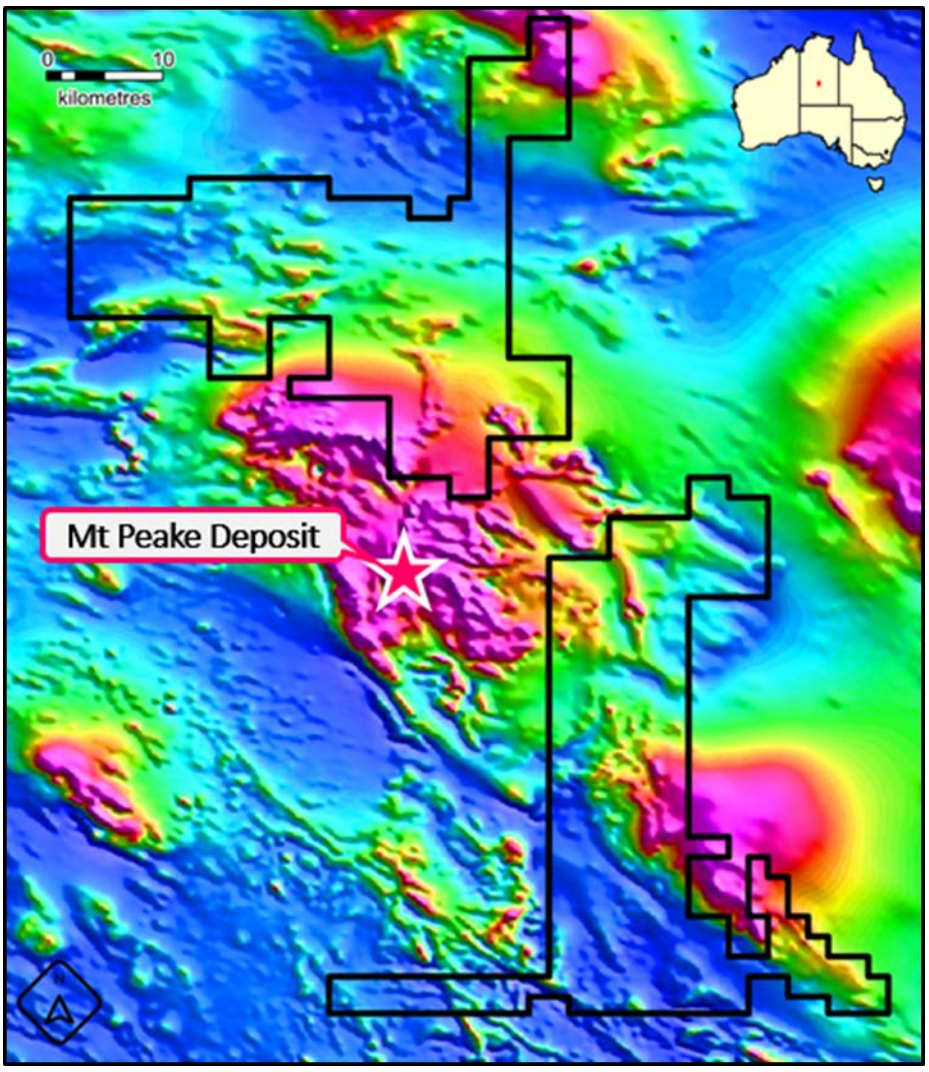
Source: VanMin geology team

Both VanMin projects are in a region with higher grade mineralisation that is associated with ore bodies with the potential to be selectively mined by open pit methods. Moreover, Wollagalong and Chisholm cover the highly prospective Arunta Orogen, which hosts TNG's Mt Peake vanadium deposit.

Assessing geophysics, the aeromagnetic image (Figure 6) identifies two phases of potential mineralisation, with East-West & North-South trending structures visible and intersecting within the project areas. Moreover, both VanMin's projects have similar geological and magnetic features to TNG's declared resource for vanadium, titanium and iron. Further, they are highly probable to be gabbro-hosted magnetite deposits which underlie the Mt Peake deposit's V-Fe-Ti mineral resources.

Leveraging the similarities with the Mt Peake deposit provides clear primary and secondary target areas for follow-up fieldwork to assess the potential for vanadium mineralisation.

FIGURE 6: AEROMAGNETIC IMAGE HIGHLIGHTS MINERALISATION



Source: VanMin geology team

Global demand drivers

Over the past two to three years, the twin effects of global supply bottlenecks and rising demand have underpinned a significant increase in the vanadium price (Figure 7).

FIGURE 7: VANADIUM PENTOXIDE PRICE CHART

Source: Bloomberg

On the supply side, China, which supplies around 50% of global vanadium[3], is using more of its output internally following new rules to double reinforcing bar requirements in concrete structures (post-recent earthquakes). Concurrently, it has shuttered polluting mines, reducing its output moderately and propelling a search for new vanadium supply chains that includes Australia and Argentina.

Traditionally the steel industry consumes around 90% of global vanadium, but at the margin demand from the renewable battery sector is starting to take-off.

Specifically, demand for scalable energy storage is accelerating, reflecting wider renewable energy adaption. Within this product group, Vanadium Redox Batteries (VRBs) are an emerging solution end-users are starting to accept.

Some key positive attributes for VRBs[1] include:

- Scalability and suitable for grid connection;
- 20-yr lifespan and instant energy release;
- Excellent charge retention / discharge; and
- Using only one element in electrolyte form: V_2O_5

Arguably, if this transformation progresses then it will propel vanadium towards energy commodity status.

Extraordinary General Meeting

HDY will shortly commence preparation of a notice of meeting to convene a general meeting of shareholders to seek shareholder approvals required to give effect to the VanMin acquisition, including for the issue of the consideration shares and options.

Pro-forma capital structure

A pro forma capital structure for HDY upon completion of the VanMin acquisition is set out below:

	Shares	Options
Current	1,361,815,830	861,810,924[1]
Consideration – Nelly Vanadium P/L	737,500,000	737,500,000[2]
Consideration – Vanadium Mining P/L	550,000,000	550,000,000[2]
Total	**2,649,315,830**	**2,149,310,924**

Notes:

1. The terms of the current options on issue are as follows:
   a. 812,884,346 listed options exercisable at $0.02 on or before 30 April 2020 (ASX: HDYOC);
   b. 45,525,000 options exercisable at $0.06 on or before 19 August 2020; and
   c. 3,401,578 options exercisable at $0.044 on or before 1 October 2020.
2. Consideration options are listed options exercisable at $0.02 on or before 30 April 2020 (ASX: HDYOC).

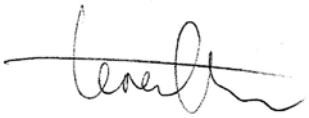
Indicative timetable*

An indicative timetable for the VanMin acquisition is set out below:

Event	Date
Execution of acquisition agreement	19 July 2018
Dispatch of notice of meeting seeking shareholder approvals for the VanMin acquisition	30 July 2018
General meeting to approve the VanMin acquisition	31 August 2018
Settlement of the acquisition	7 September 2018

* The above dates are indicative only and may change without notice.

For and on behalf of the Board



Terence Clee
Executive Chairman

COMPETENT PERSON'S STATEMENT:

The information in this report that relates to Geological Interpretation, Historical Exploration Results, or Historical 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.

REFERENCES:

1) HDY ASX Release 3 July 2018
2) IRC ASX Release 20 March 2018
3) TNG ASX Release 20 November 2017 & TNG ASX Release 26 March 2013
4) LTR ASX Release 28 November 2017
5) Table 1 Information – refer to Appendix B

APPENDIX A: SUMMARISED KEY TERMS OF PROPOSED ACQUISITION

HDY and VanMin have entered into a binding Heads of Agreement (HOA), with the key terms as follows:

Grant of option

- HDY has an exclusive 40-day option to acquire 100% of the fully paid ordinary shares in the capital of VanMin which comes into effect from the date the HOA is executed;
- In consideration for the Option, HDY has paid NVPL an option fee of $75,000; and
- The option can be exercised any time up to expiry.

Due Diligence and exclusivity

- During the option period, HDY will undertake thorough due diligence across all key legal, financial, technical and geological issues relating to VanMin and six projects in Queensland and Northern Territory.

Conditions precedent

Completion of the acquisition is conditional upon the satisfaction (or waiver by HDY) of the following:

- All shareholders in VanMin agreeing to transfer their shares to the Company;
- Finalising due diligence by HDY on VanMin's business, assets and operations;
- Securing all necessary regulatory approvals to complete the acquisition; and
- Obtaining shareholder approval for all key aspects of the transaction.

The parties will use their best efforts to ensure the conditions precedent are satisfied.

Consideration

Upon the exercise of the option and the satisfaction (or waiver) of the conditions precedent, HDY will, as consideration for the acquisition:

- issue 550,000,000 fully paid ordinary shares in the capital of the HDY at a deemed issue price of $0.004;
- issue 550,000,000 listed options to acquire shares in HDY, exercisable at $0.02 on or before 30 April 2020; and
- pay an aggregate 3% net smelter royalty for all minerals produced from the six projects,

to VanMin's founding shareholders.

Settlement

- Settlement of the acquisition will occur five business days after the option is exercised and all conditions precedent have been satisfied.

Warranties

- The parties have both provided warranties that are customary to a transaction of this nature.

Exclusivity

- During the term of the HOA, VanMin will be prohibited from entering into negotiations or taking any action to enter into any transactions with alternative potential purchasers.

Maintaining the status quo

- During the exclusivity period, VanMin agrees not to enter into any material contract or incur any material liability; declare any dividends; or vary its capital structure without HDY's prior written consent.

Otherwise, the Heads of Agreement contains clauses typical for binding agreements of this nature.

APPENDIX B – JORC CODE, 2012 EDITION – TABLE 1 REPORT TEMPLATE

Drilling results summarized in the Table 1 Sections below are associated with the Sharptooth project.

1.1 Section 1 Sampling Techniques and Data

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.*	• Sharptooth project – Central Coast Exploration N.L., from 28 Feb 1980 to 6 Oct 1981, drilled 19 drillholes accumulating to 1,199m of drilling, with a total depth range from 33 to 95m. Sample intervals were obtained on a 1m basis from down hole depths, samples were only taken on an integer depth basis. Limited information had been reported on the drilling process by Central Coast Exploration N.L. in their tenure reporting. • The Competent Person considers that the drilling, sampling, assay results are appropriate for consideration of the mineralisation potential of the project, additional drilling would be required to estimate and report an exploration target or a mineral resource to the JORC (2012) Code. • No drilling or sample results are reported in this announcement for the other 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).*	• Sharptooth project – Percussion Drilling was the drilling method that Central Coast Exploration N.L., limited information had been reported on the drilling process by Central Coast Exploration N.L. in their tenure reporting. • The Competent Person considers that the drilling, sampling, assay results are appropriate for consideration of the mineralisation potential of the project, additional drilling would be required to estimate and report an exploration target or a mineral resource

		to the JORC (2012) Code. • No drilling or sample results are reported in this announcement for the other Vanadium Mining Pty Ltd projects.
Drill sample recovery	• *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.*	• Sharptooth project – Percussion Drilling was the drilling method that Central Coast Exploration N.L., limited information had been reported on the drilling process by Central Coast Exploration N.L. in their tenure reporting. • The Competent Person considers that the drilling, sampling, assay results are appropriate for consideration of the mineralisation potential of the project, additional drilling would be required to estimate and report an exploration target or a mineral resource to the JORC (2012) Code. • No drilling or sample results are reported in this announcement for the other Vanadium Mining Pty Ltd projects.
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.*	• Sharptooth project – Central Coast Exploration N.L. presented the drilling results in a two (2) tenure reports, the lithological logging of the percussion drilling process included a basic lithology description and an observation of the Bitumen content. • The Competent Person considers that the drilling, sampling, assay results are appropriate for consideration of the mineralisation potential of the project, additional drilling would be required to estimate and report an exploration target or a mineral resource to the JORC (2012) Code. • No drilling or sample results are reported in this announcement for the other 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.*	• Sharptooth project – Central Coast Exploration N.L. presented the drilling results in a two (2) tenure reports, limited information had been reported on the drilling process by Central Coast Exploration N.L. in their tenure reporting. • The Competent Person considers that the drilling, sampling, assay results are appropriate for consideration of the mineralisation potential of the project, additional drilling would be required to estimate and report an exploration target or a mineral resource to the JORC (2012) Code. • No drilling or sample results are reported in this announcement for the other 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 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.*	• Sharptooth project – The laboratory assay techniques were completed by Australian Laboratory Services Pty Ltd ("ALS"). • The ALS Oil Shale testing regime included 270 samples tested for 'Oil Yield' (litres/tonne), Oil Specific Gravity, Water Yield (litres/tonne), Gas Loss (kg/tonne), Gas Residue (litres/tonne), to Modified Fisher Method ASTM D 3904. • The ALS testing regime included 270 samples tested for U (%) no identifiable testing method. • The ALS testing ash residue regime included 12 samples tested for Cu (ppm), Pb (ppm), Zn (ppm), Mo (ppm), Ag (ppm), Au (ppb), & U (ppm), with the AAS testing method for Au & Ag. • No drilling or sample results are reported in this announcement for the other Vanadium Mining Pty Ltd projects.
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.*	• Sharptooth project – Central Coast Exploration N.L. presented the drilling results in a two (2) tenure reports, the lithological logging of the percussion drilling process included a basic lithology description and an observation of the Bitumen content. • The Competent Person considers that the drilling, sampling, assay results are appropriate for consideration of the mineralisation potential of the project, additional drilling would be required to estimate and report an exploration target or a mineral resource to the JORC (2012) Code. • No drilling or sample results are reported in this announcement for the other 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.*	• Sharptooth project – Central Coast Exploration N.L., from 28 Feb 1980 to 6 Oct 1981, drilled 19 drillholes accumulating to 1199m of drilling, with a total depth range from 33 to 95m. • No drilling or sample results are reported in this announcement for the other 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.*	• Sharptooth project – Drilling spacing reported in this announcement is indicative of the local geological structures, intercept width and assay grade. • The Competent Person considers that the drilling, sampling, assay results are appropriate for consideration of the mineralisation potential of the project, additional drilling would be required to estimate and report an exploration target or a mineral resource to the JORC (2012) Code. • No drilling or sample results are reported in this announcement for

		the other 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.*	• Sharptooth project – Drilling occurred perpendicular / vertical into the ground surface, the mineralisation targeted is the Toolebuc Oil Shale that contains Vanadium mineralisation, dipping at approximately 5 degrees from horizontal. • Given the drilling orientation as near perpendicular, with shallow drilling (Total Depth =< 100m), the drilling intercepts approximate true thickness of the vanadium mineralisation in assayed samples that show high grades. The drilling can provide confidence in laterally continuity of the drilling data, based on appropriately determined appropriate drillhole spacing and geological interpretation. • No drilling or sample results are reported in this announcement for the other Vanadium Mining Pty Ltd projects.
Sample security	• *The measures taken to ensure sample security.*	• Sharptooth project – It is assumed that the sample security measures in place at the time of the historical drilling, sampling, and dispatch were assumed to be comparable to the contemporary sample security measures.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of the Central Coast Exploration N.L. sampling techniques and data have taken place. • No drilling or sample results are reported in this announcement for the other Vanadium Mining Pty Ltd projects.

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

1.2 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: 2. 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; 3. Cera Project, QLD, Australia – Tenure Identifier EPM26802 [Exploration Permit Mineral Application], 100 sub-blocks, submitted to the DNRM on the 26 February 2018; 4. Spike Project, QLD, Australia – Tenure Identifier EPM26803 [Exploration Permit Mineral Application], 100 sub-blocks, submitted to the DNRM on the 26 February 2018; 5. Petrie Project, QLD, Australia – Tenure Identifier EPM26804 [Exploration Permit Mineral Application], 100 sub-blocks, submitted to the DNRM on the 26 February 2018; 6. 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; & 7. Chisholm Project, NT, Australia – Tenure Identifier EL31842 [Exploration Licence Application], submitted to the NT DPIR on the 5 March 2018.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The announcement contains the following publicly reported exploration activity: ➢ Sharptooth project – Central Coast Exploration N.L., from 28 Feb 1980 to 6 Oct 1981, held ATP2147M and it covered a similar area to the Sharptooth project. The presented drilling in this announcement being completed by Central Coast Exploration N.L., drilling to intercept oil bearing shale (to estimate contained barrels of oil) and at the same time quantify the vanadium mineralisation. Central Coast Exploration N.L. appeared to primarily be focused on the oil-bearing properties of the Toolebuc Shale, with considerations for mineral impurities and/or byproducts that

		could potentially be produced from extracting the oil from the oil-bearing shales. • 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.*	• Vanadium Mining Pty Ltd is targeting the following styles of mineralisation within its tenure applications: ➢ Queensland projects – Early Cretaceous Toolebuc Shale: this is an oil-bearing shale that contains vanadium mineralisation occurring in the Eromanga Basin and exposed in outcrop throughout Central and Northern Queensland. The Eromanga Basin is a shallow dipping depression where the Toolebuc Shale occurs at the surface. The Toolebuc Shale contains sediment that predominantly consists of black carbonaceous shale, bituminous shale, minor siltstone, with limestone lenses and coquinites (mixed limestone and clays). Clays associated with the Toolebuc Shale are vanadium bearing, associated with pyrite, or are chemically bound to the fresh oil kerogens. • 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*	• Sharptooth project – Central Coast Exploration N.L., from 28 Feb 1980 to 6 Oct 1981, drilled 19 drillholes accumulating to 1199m of drilling, with a total depth range from 33 to 95m. Central Coast Exploration N.L. the drilling collars and additional drilling information presented in the announcement are publicly available via MinesOnlineMaps and QDEX. • No drilling or sample results are reported in this announcement for the other Vanadium Mining Pty Ltd projects.

	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.*	
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.*	• Sharptooth project – Central Coast Exploration N.L. drilling sample results were reported on the historical assay values obtained on the interval sampled and assayed, no data aggregation occurred or had been reported in this announcement. • No drilling or sample results are reported in this announcement for the other Vanadium Mining Pty Ltd projects.
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').*	• Sharptooth project – Drilling occurred perpendicular / vertical into the ground surface, the mineralisation targeted is the Toolebuc Oil Shale that contains Vanadium mineralisation, dipping at approximately 5 degrees from horizontal. • The Competent Person considers that the drilling, sampling, assay results are appropriate for consideration of the mineralisation potential of the project, additional drilling would be required to estimate and report an exploration target or a mineral resource to the JORC (2012) Code. • No drilling or sample results are reported in this announcement for the other 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.*	• Sharptooth project – Central Coast Exploration N.L. Key drilling intercepts are presented in the announcement, in table and map form. Central Coast Exploration N.L. drilling information presented in the announcement are publicly available via MinesOnlineMaps and QDEX. • The Competent Person considers that the drilling, sampling, assay results are appropriate for consideration of the mineralisation potential of the project, additional drilling would be required to estimate and report an exploration target or a mineral resource to

		the JORC (2012) Code. • No drilling or sample results are reported in this announcement for the other 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.*	• Sharptooth project – Central Coast Exploration N.L. Key drilling intercepts are presented in the announcement, in table and map form. Central Coast Exploration N.L. drilling information presented in the announcement are publicly available via MinesOnlineMaps and QDEX. Below are presented assayed samples contiguous to approximately 5m above or below the sampled assays presented in the announcement body.

Borehole Identifier	Depth From (m)	Sample Length (m)	Assay Grade V (%)	Converted to V2O5 (%)
1	15	1	0.10	0.18
1	16	1	0.06	0.11
1	17	1	0.03	0.05
1	18	1	0.03	0.05
1	19	1	0.03	0.05
1	20	1	0.03	0.05
2	13	1	0.01	0.02
2	14	1	0.01	0.02
2	15	1	0.07	0.12
2	16	1	0.04	0.07
2	17	1	0.03	0.05
2	18	1	0.03	0.05
2	19	1	0.04	0.07
2	20	1	0.02	0.04
3	28	1	0.04	0.07
3	29	1	0.04	0.07
3	30	1	0.04	0.07
3	31	1	0.04	0.07
3	32	1	0.08	0.14
3	33	1	0.14	0.25
3	34	1	0.13	0.23
3	35	1	0.06	0.11
3	36	1	0.04	0.07

3	37	1	0.03	0.05
3	38	1	0.03	0.05
3	39	1	0.04	0.07
4	34	1	0.02	0.04
4	35	1	0.02	0.04
4	36	1	0.03	0.05
4	37	1	0.04	0.07
4	38	1	0.08	0.14
4	39	1	0.11	0.20
Borehole Identifier	**Depth From (m)**	**Sample Length (m)**	**Assay Grade V (%)**	**Converted to V2O5 (%)**
4	40	1	0.08	0.14
4	41	1	0.18	0.32
4	42	1	0.10	0.18
4	43	1	0.10	0.18
4	44	1	0.07	0.12
4	45	1	0.03	0.05
5	52	1	0.04	0.07
5	53	1	0.04	0.07
5	54	1	0.05	0.09
5	55	1	0.08	0.14
5	56	1	0.10	0.18
5	57	1	0.13	0.23
5	58	1	0.12	0.21
5	59	1	0.11	0.20
5	60	1	0.10	0.18
5	61	1	0.09	0.16
5	62	1	0.07	0.12
5	63	1	0.08	0.14
5	64	1	0.04	0.07
6	38	1	0.02	0.04
6	39	1	0.03	0.05
6	40	1	0.04	0.07
6	41	1	0.07	0.12
6	42	1	0.09	0.16
6	43	1	0.14	0.25

6	44	1	0.13	0.23
6	45	1	0.15	0.27
6	46	1	0.03	0.05
6	47	1	0.04	0.07
6	48	1	0.05	0.09
6	49	1	0.07	0.12
6	50	1	0.11	0.20

Borehole Identifier	Depth From (m)	Sample Length (m)	Assay Grade V (%)	Converted to V2O5 (%)
6	51	1	0.14	0.25
6	52	1	0.17	0.30
6	53	1	0.15	0.27
6	54	1	0.14	0.25
6	55	1	0.01	0.02
6	56	1	0.03	0.05
6	57	1	0.02	0.04
6	58	1	0.02	0.04
6	59	1	0.02	0.04

- No drilling or sample results are reported in this announcement for the other 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 current announcement used two other forms of substantive exploration data: • 1) QLD – the Vanadium Mining Pty Ltd Geology Team generated an interpretation of the outcrop-subcrop zone and extents of Toolebuc formation at the edges of the Eromanga Basin, based on the following datasets: ➢ 1a) Ozimic, S. and Saxby, J.D., 1983. Oil Shale Methodology: An examination of the Toolebuc Formation and the laterally contiguous time equivalent units, Eromanga and Carpentaria Basins. Bureau of Mineral Resources and CSIRO research project; ➢ 1b) Lewis, S.E., Henderson, R.A., Dickens, G.R., Shields, G.A., & Coxhell, S., 2010. The geochemistry of primary and weathered oil shale and coquina across the Julia Creek vanadium deposit (Queensland, Australia). Miner Deposita 45: 599–620; ➢ 1c) Smart, J., Grimes, K.G., Doutch, H.F., & Pinchin, J., 1980. The Mesozoic Carpentaria Basin and the Cainozoic Karumba Basin,

		North Queensland. Bulletin 202, Department of Natural Resources & Energy, Bureau of Mineral Resources, Geology & Geophysics. Australian Government Publishing Service, Canberra; ➢ 1d) Coxhell, S., & Fehlberg, B., 2000. Julia Creek Vanadium and Oil Shale Deposit. AIG Journal – Applied geoscientific research and practice in Australia; & ➢ 1e) MinesOnlineMap information publicly available from the QLD Department of Natural Resources and Mines, and the Geological Survey of Queensland. • 2) NT – the Vanadium Mining Pty Ltd Geology Team sourced the Geophysical Survey Imagery of Total Magnetic Intensity available on the NT Strike Tenure and Geoscience Information System, hosted by the NT Department of Primary Industries and Resources.
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.*	• QLD – within the QLD project areas aerial photo interpretation and field mapping are planned to refine the outcrop-subcrop zone and maximum extent for the Toolebuc Formation identified by the Vanadium Mining Geology Team. Future exploration is then anticipated to be planned down dip of the outcrop-subcrop zone of the Toolebuc Formation. • All Vanadium Mining Pty Ltd projects require technical evaluation to prioritize areas within the projects to focus mineral exploration efforts, in order to systematically explore for vanadium mineralisation.