



TECHNOLOGY
METALS AUSTRALIA LIMITED

ASX Announcement

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Directors

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Issued Capital

67,543,334 ("TMT") Fully Paid Ordinary Shares

20,000,000 Fully Paid Ordinary Shares classified as restricted securities

6,133,333 – Quoted Options ("TMT0") exercisable at \$0.40 on or before 24 May 2020

20,623,334 – Unquoted Options – various exercise prices and dates

ASX Code: TMT, TMT0

FRA Code: TN6



GABANINTHA NORTHERN BLOCK RESOURCE UPGRADE

HIGHLIGHTS

- **MEASURED AND INDICATED MINERAL RESOURCE ESTIMATE INCREASED BY 39% TO 30.1MT AT 0.93% V₂O₅ (JUNE 2018 PFS HAD 13 YR MINE LIFE ON 21.6MT INDICATED RESOURCE).**
- **GLOBAL HIGH GRADE MINERAL RESOURCE ESTIMATE INCREASED BY 29% TO AN OUTSTANDING 71.2MT AT 1.1% V₂O₅.**
- **MAIDEN BASE METAL RESOURCE ESTIMATE DEFINED ASSOCIATED WITH FRESH MASSIVE MAGNETITE ZONE.**
- **DETAILED HIGH QUALITY DEFINITIVE FEASIBILITY STUDY ON TRACK DUE FOR DELIVERY IN MID 2019 BASED ON UPDATED MEASURED AND INDICATED RESOURCE ESTIMATE.**

BACKGROUND

Technology Metals Australia Limited (ASX: **TMT**) ("**Technology Metals**" or the "**Company**") is pleased to announce results for the update of the Northern Block Mineral Resource ("**Northern Block Resource**") estimate and the resulting Global Mineral Resource ("**Global Resource**") estimate, reported in accordance with the JORC Code 2012, for the Gabanintha Vanadium Project ("**Project**").

Resource estimation completed by independent geological consultants CSA Global was based on data from the Company's 2017 and 2018 reverse circulation (RC) and diamond drilling programs. The 2018 resource infill and extension drilling program consisted of 45 holes for 6,730m across the Northern Block of tenements and the Southern Tenement, with a particular focus on expanding the Indicated Mineral Resource estimate in the Northern Block of tenements. Data from the bulk sample diamond drilling in the North Pit area (21 PQ diamond drill holes for 1,483.4m) has also been used in the resource estimation.

The updated Northern Block Mineral Resource estimate includes a Measured and Indicated Mineral Resource of **30.0 Mt at 0.9% V₂O₅ and 11.0% TiO₂** Incorporating the maiden Measured Mineral Resource estimate in the North Pit area.

The Global Resource estimate for the Project of 131 Mt at 0.9% V₂O₅ and 10.1% TiO₂ includes an outstanding **high grade component of 71.2 Mt at 1.1% V₂O₅ and 12.7% TiO₂** contained within the highly continuous and consistently mineralised massive magnetite zone (see Figure 1).

Managing Director Ian Prentice commented: "The significant increase to the Indicated Resource, a key component to support a material extension to the Project mine life, and the substantial increase to the high grade portion of the Resource, provides an indication of the potential very long tenor of this high quality globally significant vanadium Project".

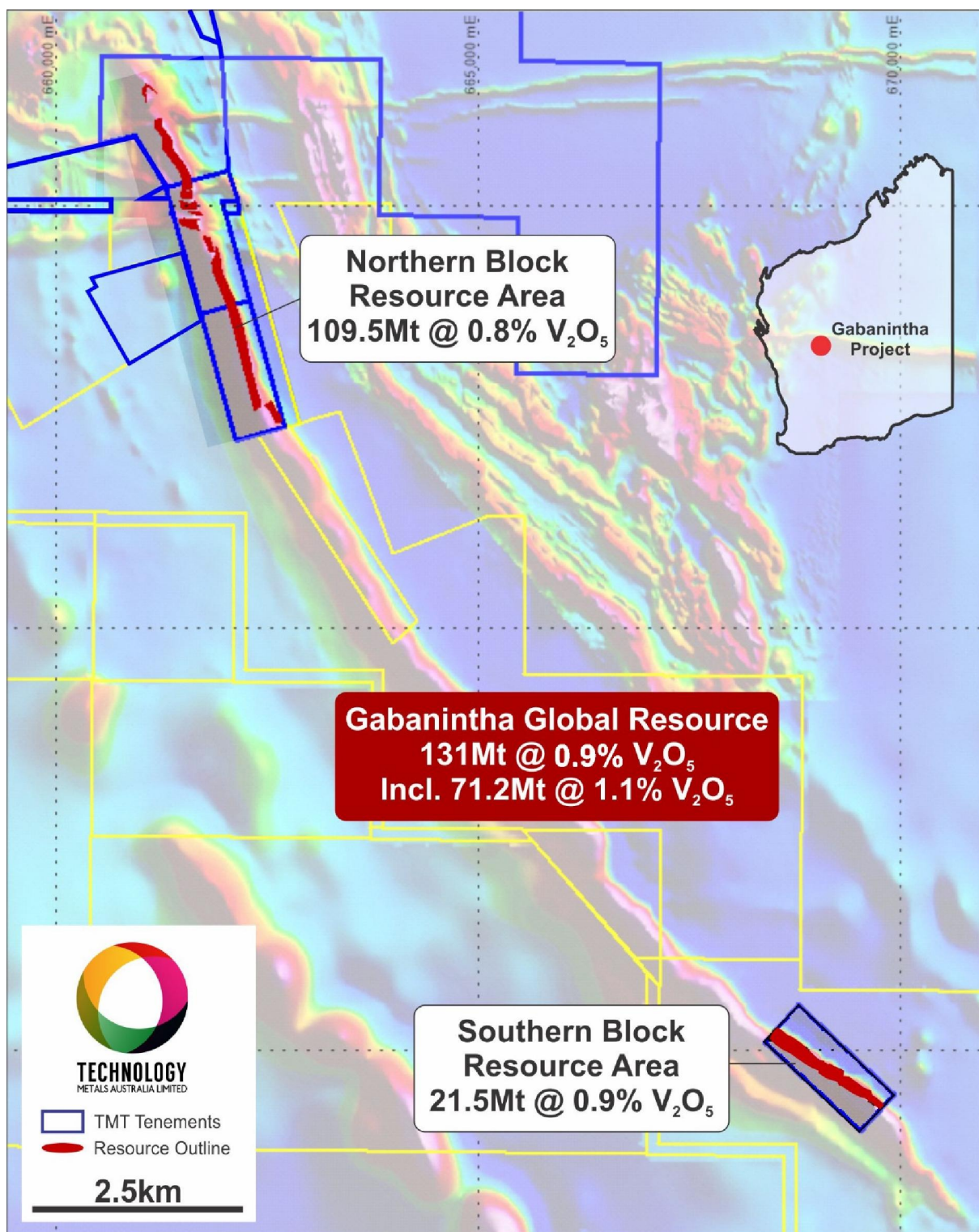


Figure 1: Gabanintha Vanadium Project – Location Diagram

NORTHERN BLOCK MINERAL RESOURCE ESTIMATE UPDATE

The updated Mineral Resource estimate for the Northern Block of tenements at the Gabanintha Vanadium Project ("Project") has been reported in accordance with the JORC Code 2012 by CSA Global and incorporated 108 RC holes (for 11,598 m) and 59 PQ and HQ diamond holes (for 6,869 m) completed in the Company's 2017 and 2018 drilling programs.

Drilling was completed on section lines nominally 100 m apart over an approximately 2.3 km strike length of the North Pit and Central Pit areas, with the remainder of the Northern Block mineralised strike length drilled on section lines nominally 200 m apart. Resource holes were drilled at 60° to the east, spaced nominally 40 m to 50 m apart on section lines, with depths ranging from 28 m to 276.4 m.

A total of 10 PQ and HQ resource infill and extension diamond drill holes plus 21 PQ bulk sample collection diamond drill holes have been completed in the North Pit area and a total of 14 PQ and HQ resource infill and extension diamond drill holes completed in the Central Pit area. Additional diamond drilling has been completed for geotechnical purposes, in to both the footwall and hanging wall areas of both proposed open pit areas. Extended diamond tails were also drilled into the footwall off many of the resource holes for geotechnical data collection.

The modelled mineralisation has been defined based on the RC and diamond drilling data, surface mapping and magnetic modelling. Mineralisation has been divided in to the high grade massive magnetite zone and disseminated and/or banded magnetite zones in the hanging wall and foot wall of the massive magnetite. The high grade massive magnetite zone was constrained geologically and by using a nominal 0.9% V₂O₅ lower cut-off grade, while the banded and disseminated magnetite zones were constrained using a nominal 0.4% V₂O₅ lower cut-off grade.

The Mineral Resource was estimated using the ordinary kriging ("OK") estimation method and was quoted for mineralisation within the defined zones above a 0.4% V₂O₅ lower cut-off grade. An inverse distance squared estimation was also completed using the same search parameters as the OK estimation as a validation check estimate.

The updated Northern Block Resource (see Table 1) consists of 109.5 Mt at 0.8% V₂O₅ and 10.1% TiO₂ and includes a Measured and Indicated Resource portion of 30.0 Mt at 0.9% V₂O₅ and 11.0% TiO₂ representing a 39% increase on the previously reported North Block Indicated Resource estimate. This includes the Company's maiden Measured Resource estimate of 1.2Mt at 1.0% V₂O₅ and 11.4% TiO₂.

Table 1: Mineral Resource estimate for the Gabanintha Vanadium Project Northern Block as at 27 March 2019

| Classification | Material | Tonnage (Mt) | V2O5% | Fe% | Al2O3% | SiO2% | TiO2% | LOI% | P% | S% |
|--|-------------------------------|--------------|------------|-------------|------------|-------------|-------------|------------|-------------|------------|
| Measured | Massive Magnetite | 1.2 | 1.0 | 44.7 | 6.2 | 10.4 | 11.4 | 0.0 | 0.01 | 0.2 |
| Indicated | Massive Magnetite | 18.5 | 1.1 | 49.1 | 5.2 | 5.8 | 12.9 | -0.1 | 0.01 | 0.2 |
| | Disseminated Magnetite | 10.3 | 0.6 | 28.6 | 13.1 | 25.5 | 7.5 | 3.0 | 0.03 | 0.2 |
| | Combined Total | 28.9 | 0.9 | 41.8 | 8.0 | 12.9 | 10.9 | 1.0 | 0.02 | 0.2 |
| Inferred | Massive Magnetite | 41 | 1.1 | 47.7 | 5.5 | 7.1 | 12.6 | 0.3 | 0.01 | 0.2 |
| | Disseminated Magnetite | 38.5 | 0.5 | 27.1 | 12.7 | 27.4 | 6.9 | 3.3 | 0.03 | 0.2 |
| | Combined Total | 79.5 | 0.8 | 37.7 | 9.0 | 17.0 | 9.8 | 1.7 | 0.02 | 0.2 |
| Measured + Indicated + Inferred | Combined Total | 109.5 | 0.8 | 38.9 | 8.7 | 15.8 | 10.1 | 1.5 | 0.02 | 0.2 |

** Note: The Mineral Resource was estimated within constraining wireframe solids using a nominal 0.9% V2O5 lower cut-off grade for the basal massive magnetite zone and using a nominal 0.4% V2O5 lower cut-off grade for the banded and disseminated mineralisation zones. The Mineral Resource is quoted from all classified blocks within these wireframe solids above a lower cut-off grade of 0.4% V2O5. Differences may occur due to rounding*

CSA Global has combined the updated Mineral Resource estimate for the Northern Block with the previously reported Southern Tenement Inferred Mineral Resource estimate¹ (21.5 Mt at 0.9% V₂O₅ and 10.1% TiO₂) to produce a Global Mineral Resource estimate for the Project (see Table 2). The Global resource consists of 131.0 Mt at 0.9% V₂O₅ and 10.1% TiO₂ and contains an outstanding high grade component of 71.2 Mt at 1.1% V₂O₅ and 12.7% TiO₂.

Table 2: Global Mineral Resource estimate for the Gabarinita Vanadium Project as at 27th March 2019

| Material Type | Classification | Tonnage (Mt) | V ₂ O ₅ % | Fe% | Al ₂ O ₃ % | SiO ₂ % | TiO ₂ % | LOI% | P% | S% |
|---------------------------------|--|--------------|---------------------------------|-------------|----------------------------------|--------------------|--------------------|-------------|--------------|------------|
| Massive Magnetite | Measured (North) | 1.2 | 1.0 | 44.7 | 6.2 | 10.4 | 11.4 | 0.0 | 0.009 | 0.2 |
| | Indicated (North) | 18.5 | 1.1 | 49.1 | 5.2 | 5.8 | 12.9 | -0.1 | 0.007 | 0.2 |
| | Inferred (North) | 41 | 1.1 | 47.7 | 5.6 | 7.1 | 12.6 | 0.3 | 0.008 | 0.2 |
| | Inferred (South) | 10.4 | 1.1 | 49.1 | 4.9 | 5.9 | 12.6 | -0.4 | 0.004 | 0.3 |
| | Total Inferred | 51.5 | 1.1 | 48.0 | 5.5 | 6.9 | 12.6 | 0.1 | 0.007 | 0.2 |
| | Massive Global | 71.2 | 1.1 | 48.2 | 5.4 | 6.7 | 12.7 | 0.1 | 0.007 | 0.2 |
| Disseminated / Banded Magnetite | Indicated (North) | 10.3 | 0.6 | 28.6 | 13.1 | 25.5 | 7.5 | 3.0 | 0.030 | 0.2 |
| | Inferred (North) | 38.5 | 0.5 | 27.1 | 12.7 | 27.4 | 6.9 | 3.3 | 0.027 | 0.2 |
| | Inferred (South) | 11.1 | 0.6 | 30.2 | 11.9 | 23.4 | 7.7 | 2.4 | 0.012 | 0.4 |
| | Total Inferred | 49.6 | 0.6 | 27.8 | 12.5 | 26.5 | 7.1 | 3.1 | 0.024 | 0.2 |
| | Diss / Band Global | 59.9 | 0.6 | 27.9 | 12.6 | 26.4 | 7.2 | 3.1 | 0.025 | 0.2 |
| Combined | Measured + Indicated + Inferred | 131 | 0.9 | 39.0 | 8.7 | 15.7 | 10.1 | 1.4 | 0.015 | 0.2 |

** Note: The Mineral Resource was estimated within constraining wireframe solids using a nominal 0.9% V2O5 lower cut-off grade for the basal massive magnetite zone and using a nominal 0.4% V2O5 lower cut-off grade for the banded and disseminated mineralisation zones. The Mineral Resource is quoted from all classified blocks within these wireframe solids above a lower cut-off grade of 0.4% V2O5. Differences may occur due to rounding*

GEOLOGICAL CONTROLS

The high grade massive magnetite zone dips to the west (250°) at an average of 60°, has a true thickness ranging from 7 m to 25 m, and has been modelled over a strike length of about 4.6 km. The zone has been cross cut and slightly offset or displaced by interpreted faults, dykes and felsic porphyries (see Figure 2).

The disseminated / banded mineralisation consists of up to six (6) separate layers with a cumulative true thickness of up to 45 m in the south and centre of the deposit, reducing to about 25 m in the northern third of the deposit. These layers are divided in to up to five (5) in the hanging wall above the massive magnetite zone and one (1) foot wall layer.

The schematic cross section in Figure 3 shows the high grade basal massive magnetite zone (red) overlain by a series of medium grade hanging wall disseminated / banded lodes (yellow, green, pale blue, dark blue and magenta) and overlying one (1) medium grade foot wall disseminated / banded lode (orange).

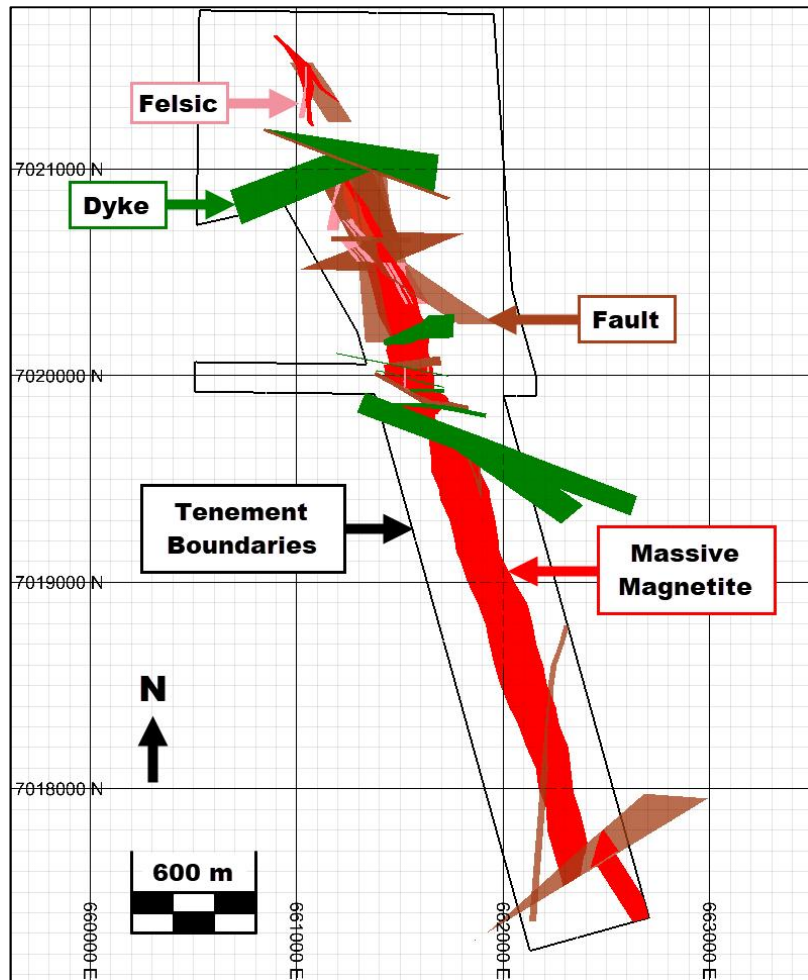


Figure 2: Plan View of the Gabanintha North Block interpreted massive magnetite mineralisation extents and interpreted faults, dykes and felsic intrusives.

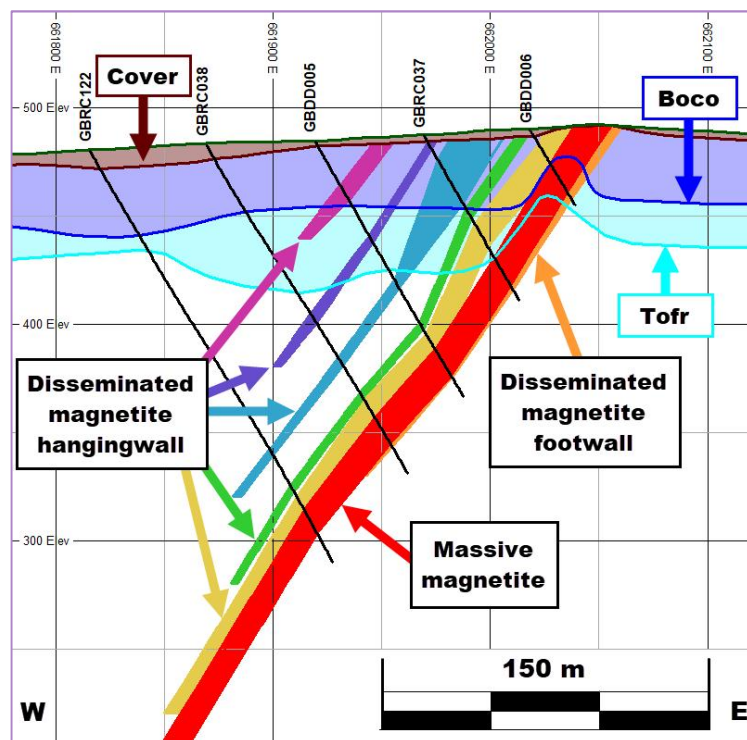


Figure 3: Schematic East-West Cross Section on 7,019,000N

The long section of the Northern Block of tenements high grade basal massive magnetite zone (see Figure 4) shows the spatial distribution of the resource classification zones for each of the North Pit and Central Pit areas, highlighting the maiden Measured Mineral Resource estimate in the North Pit area, the extent of the expanded Indicated Mineral Resource estimate and the Inferred Mineral Resource estimate. The trace of the Pre-Feasibility study open pit designs is also shown on the long section, providing an indication of the extent of the updated Indicated Mineral Resource estimate beyond these initial pit designs.

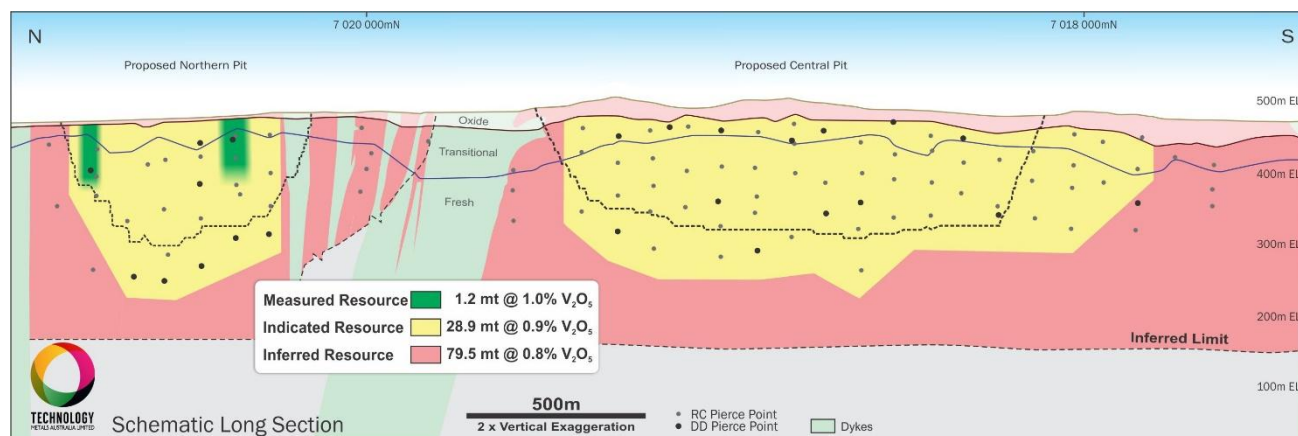


Figure 4: Schematic Long Section – Northern Block – Massive Magnetite Horizon

Figure 4 also shows the oxidation profile along the strike of the high grade basal massive magnetite zone in the Northern Block of tenements, with the base of complete oxidation (BOCO) and top of fresh (TOFR) highlighted. This confirms the very shallow oxidation profile previously identified in the North Pit area. The shallow oxidation profile has positive implications for access to higher yielding massive transitional and fresh material very early in the mining schedule, which is expected to be a significant economic contributor for the development of the Project. Table 3 provides a break down of the Mineral Resource estimate based on oxidation state, confirming that the Northern Block Mineral Resource estimate contains very little low yielding oxide ore.

Table 3: Mineral Resource estimate for the Gabanintha Vanadium Project Northern Block as at 27 March 2019 reported by oxidation state

| Oxidation State | Million tonnes | V2O5% | Fe% | Al2O3% | SiO2% | TiO2% | LOI% | P% | S% |
|-----------------|----------------|-------|------|--------|-------|-------|------|------|------|
| Oxide | 3.8 | 1.1 | 44.3 | 7.2 | 9.0 | 12.9 | 3.2 | 0.01 | 0.02 |
| Transitional | 15.3 | 0.7 | 33.1 | 11.5 | 21.0 | 9.1 | 5.1 | 0.02 | 0.03 |
| Fresh | 90.4 | 0.9 | 39.6 | 8.3 | 15.2 | 10.2 | 0.8 | 0.02 | 0.23 |
| | 109.5 | 0.8 | 38.9 | 8.7 | 15.8 | 10.1 | 1.5 | 0.02 | 0.20 |

Density measurements taken from the diamond drill holes completed on the Northern Block of tenements consisted of 177 calliper measurements and 267 weight in air, weight in water method measurements on full core segments during the logging of the core in the field, for a total of 352 samples. A total of 92 samples were tested with both methods which confirmed a very strong correlation between the two methods.

The density measurements were domained based on the modelled weathering state surfaces and mineralisation type within the resource and applied to those domains within the model (see Table 4).

Core samples were selected for density measurements based on visual assessment to ensure sufficient samples from all domains prior to assay and zone domaining.

Table 4: Density values in t/m³ applied to model domains

| Weathering State | Waste | Diss. Mag. HW1 | Diss. Mag. FW | Diss. Mag. HW2 – HW5 | Massive magnetite |
|------------------|-------|----------------|---------------|----------------------|-------------------|
| Cover | 1.92 | | | | |
| Oxide | 1.99 | 2.85 | 2.34 | 2.15 | 3.83 |
| Transition | 2.68 | 3.1 | 3.1 | 3.1 | 4.0 |
| Fresh | 3.12 | 3.99 | 4.14 | 3.27 | 4.36 |

GLOBAL MINERAL RESOURCE UPSIDE POTENTIAL

The updated Global Mineral Resource estimate for the Project of 131.0 Mt at 0.9% V₂O₅ and 10.1% TiO₂ incorporated the previously reported Southern Tenement Inferred Mineral Resource estimate of 21.5 Mt at 0.9% V₂O₅ and 10.1% TiO₂. Infill and extension resource drilling for the Southern Tenement, which consisted of eight (8) RC holes and four (4) diamond drill holes, was completed in the 2018 drilling program. This drilling was designed to infill the majority of the strike length of the mineralisation at the Southern Tenement to 100m line spacing. The results of the RC component of this drilling have been received, however with the Company's focus on the upgrade of the Northern Block Mineral Resource estimate, this data has not yet been incorporated in to an updated Southern Tenement Mineral Resource estimate.

The upgrade of the Southern Tenement Mineral Resource estimate will be completed in due course, which is expected to deliver a maiden Indicated Mineral Resource estimate for this area as well as an expansion of the overall Mineral Resource estimate, extending the Inferred Mineral Resource estimate at depth. This update provides an opportunity to further expand the Global Mineral Resource estimate and the overall quantity of the Projects Measured and Indicated Mineral Resource estimate.

In addition, the high grade basal massive magnetite mineralisation remains open along the full strike length of the North Pit and Central Pit areas of the Northern Block of tenements, providing scope to further expand the Global Mineral Resource estimate.

BASE METALS MINERAL RESOURCE ESTIMATE

As disclosed in December 2018 the Company has identified scope to produce a base metal concentrate from the non-magnetic tailings (tailings) fraction of the vanadium processing circuit (see ASX announcement of 12 December 2018; "Outstanding Gabanintha Metallurgical Results"). Preliminary testwork delivered a concentrate with a combined base metal content of 10 – 15%, containing up to 2.31% cobalt, 4.47% nickel and 9.50% copper. There remains significant scope to optimise the base metal recovery and concentrate grade.

Given that the metallurgical testwork has shown that a portion of the base metal content of the deposit can potentially be recovered it was decided to include the relevant base metals in the updated Gabanintha Mineral Resource Estimate to provide a maiden base metal Mineral Resource Estimate for the Project (see Table 5).

The base metals Mineral Resource estimate is quoted separately from the rest of the Mineral Resource estimate in Table 1 as an Inferred Mineral Resource estimate primarily reflecting a lower confidence level due to the relatively early stage of metallurgical testing for potential beneficiation of these metals. They are also only reported from within the higher confidence (Indicated and Measured) portions of the fresh massive high grade magnetite material (see Figure 5, Cross Section at North Pit area) This material has higher in situ base metal grades than other materials in the deposit and processing of the tailings stream from this material incurs no additional mining and grinding costs.

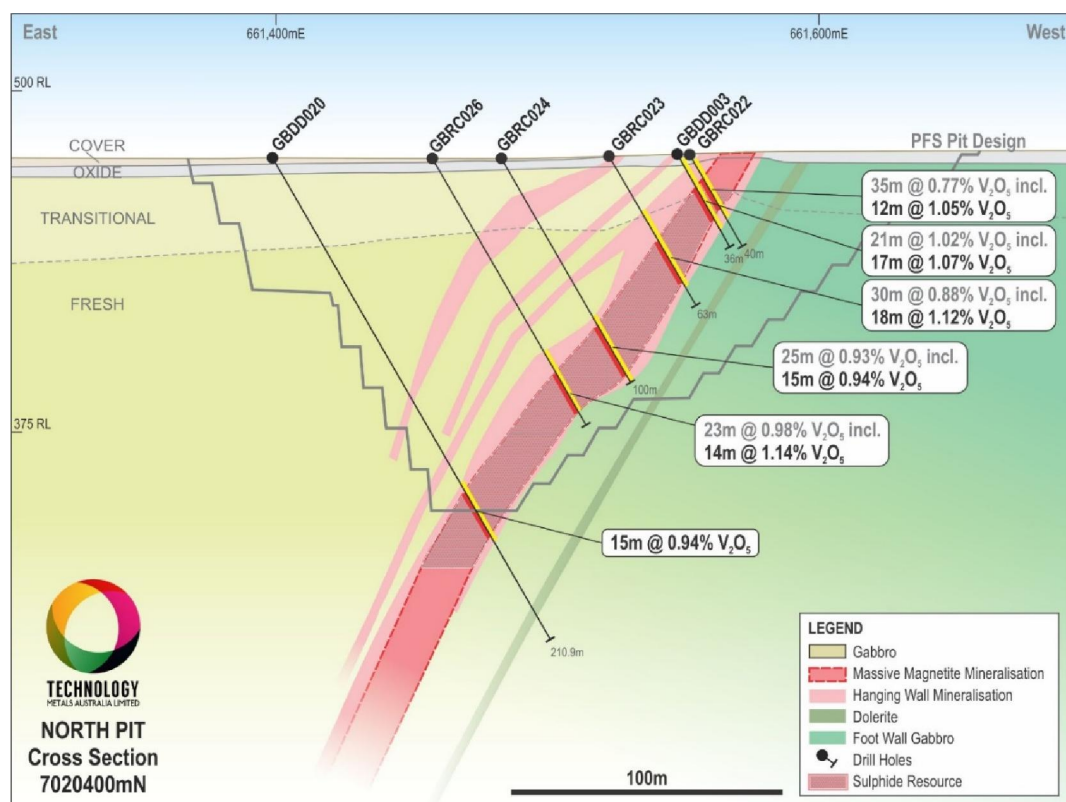


Figure 5: Schematic Cross Section – North Pit – Highlights Base Metal Resource Area

The Company believes that the base metal concentrate has potential to be a contributor in support of the development of the Gabanintha Project, with the maiden base metal Mineral Resource Estimate ensuring more definitive modelling of the grade and distribution of the base metals within the fresh massive magnetite horizon can be completed as part of, and following completion of, the Gabanintha DFS. This work will enable the assessment of the expected timing and volume of base metal concentrate and facilitate discussions with potential customers for this additional product.

Table 5: Mineral Resource estimate of Base Metals at the Gabanintha Vanadium Project Northern Block as at 26 March 2019.

| Classification | Million Tonnes | Co ppm | Ni ppm | Cu ppm |
|----------------|----------------|--------|--------|--------|
| Inferred | 15.7 | 230 | 830 | 200 |

* Note: The Mineral Resources are estimated within the constraining wireframe solids defined using a nominal 0.9% V2O5 lower cut-off grade for the basal massive magnetite unit. The base metal Mineral Resources are reported from within higher confidence zones of the fresh rock portions of the massive magnetite unit. Differences may occur due to rounding.

METALLURGICAL TESTWORK – BULK SAMPLE

The bulk sample collected from the large diameter drilling program completed in September / October 2018, which consisted of 21 PQ diamond drill holes for 1,444m, is being used for a range of metallurgical testing purposes, including an initial scaled up "sighter" testwork run, a larger scale full pilot testwork run as well as providing sample for additional vendor / equipment supplier testwork as required for the final stages of the DFS.

The sample was collected from within the current North Pit region, which has a very shallow oxidation profile, and is considered representative of the expected process plant feed for the initial mine life at Gabanintha. This sample is a blend of transitional basal massive magnetite mineralisation, fresh hanging wall banded mineralisation and a large portion of fresh basal massive magnetite mineralisation. This blend is expected to deliver optimal mass recovery in to a magnetic concentrate and metallurgical recovery of vanadium.

Initial scaled up “sighter” testwork utilised a representative 685kg sub-sample of the bulk sample. This sub-sample was composited, prepared and crushed in the laboratory, with a 300kg split then ground and passed through a triple pass Low Intensity Magnetic Separation (LIMS) to generate a magnetic concentrate. A 156kg magnetic concentrate sample was then processed by a roasting kiln supplier to confirm optimal operating parameters and enable progression of engineering design to meet the required conditions. The calcine product from this roasting sighter testwork is now being processed to deliver additional final vanadium product, which is expected to be available in the near term.

The balance of the bulk sample is now progressing through pilot plant scale crush, grind and magnetic beneficiation (LIMS) to generate a bulk magnetic concentrate for continuous pilot plant scale roasting testwork. It is envisaged that the resultant 8 to 9 tonnes of magnetic concentrate will be shipped to a roasting kiln supplier for continuous batch roasting to confirm the optimal “scaled up” operating parameters and reagent consumption to maximise vanadium recovery in to a soluble form. This work to confirm the scalability of the process circuit, to be completed in the upcoming quarter, is considered a very important component of the DFS and to support ongoing discussions with potential off take partners and financiers.

DEFINITIVE-FEASIBILITY STUDY

Ongoing activities in support of the DFS include:

- Revising the PFS open pit mine designs incorporating updated geotechnical data;
- Updating mine scheduling based on detailed geometallurgical data;
- Provide an updated ore reserve estimate within the expanded global Mineral Resource,
- Processing plant 3D modelling and layout progressing on schedule;
- Major process plant equipment request for quote (RFQ's) packages under final evaluation; and
- Revised capital and operating cost estimates to a DFS level of accuracy and an updated Project financial model.

The updated Gabanintha Project Mineral Resource Estimate plus findings from the geotechnical diamond drilling completed as part of the resource infill and extension program will be incorporated in to the mining studies to be undertaken as part of the DFS. It is expected that the updated mining studies will enable steeper overall pit slope angles than those used in the pre feasibility study open pit designs.

Initial water drilling in support of the DFS has been very successful, with some of the proposed dewatering monitoring bores installed adjacent to the designed open pits and a potential initial process water source identified. Further work to quantify and further define this water source will be completed in the upcoming quarter.

MINERAL RESOURCE ESTIMATE – MATERIAL INFORMATION SUMMARY

Geology and Geological Interpretation

The deposit is located in the north Murchison granite-greenstone terrain of the Archean Yilgarn Craton, and is hosted within mafic, ultramafic, extrusive and volcanoclastic rocks of the Gabanintha formation. The mineralisation is hosted in a differentiated gabbro closely associated with a series of massive to disseminated V-Ti-Fe bands ranging in size from a few metres up to 20–30 m thick. The mineralised units are offset and disrupted by later dolerites, faults and quartz porphyries.

Multi-element analysis of the drill samples at Gabanintha has highlighted the presence of elevated base metal sulphides associated with portions of the fresh vanadium bearing magnetite mineralisation, specifically Co, Ni and Cu sulphides. Metallurgical test work has shown that a portion

of the base metal cobalt (Co), nickel (Ni), copper (Cu) content of the deposit can potentially be recovered.

Mineralisation has been modelled based on surface mapping, total magnetic intensity (TMI) geophysical survey result modelling, and drill hole logging and chemical analysis data. Strike extents are limited by the tenement boundary in the south and extended 50 m along strike of the mapped drilled extents in the north.

Mineralisation interpretations for the massive magnetite layer have been modelled based on the drill hole lithological logging and on a nominal lower cut-off grade of 0.9% V₂O₅. In the hangingwall and footwall of the massive magnetite, mineralised zones containing disseminated and/or banded vanadium bearing magnetite mineralisation (disseminated mineralisation), are modelled based on the lithological logging and on a nominal 0.4% V₂O₅ lower cut-off grade. A minimum downhole continuity length of 3 m was used to select the disseminated/banded intervals.

A number of faults, dykes and felsic porphyries have been interpreted to be younger than, and hence limit, offset or displace the mineralised zones. A surface colluvium layer is interpreted to blanket the mineralisation, and while it may be mineralised in part, is currently interpreted to deplete the interpreted mineralisation lenses pending further investigation.

Due to the offsetting caused by the interpreted faults and dykes, the massive magnetite layer interpretation consists of 12 individual wireframes. These strike approximately 160° to 340°, dipping on average approximately 60° towards 250°, with a modelled strike extent of approximately 4.6 km. The massive magnetite unit has a true thickness varying between approximately 7 m in the north to 25 m in the south and centre, with a nominal average true thickness of 12 m.

The disseminated mineralisation is interpreted to consist of up to six separate lenses, with up to five lenses seen in the hangingwall above the massive magnetite layer, and one footwall lens. The hangingwall disseminated mineralisation lenses have a cumulative true thickness of the order of 45 m in the south and centre of the modelled area. This then reduces to a cumulative true thickness of approximately 25 m in the northern third of the Project, with a minimum of approximately 8 m in the folded zone at the extreme northern end of the deposit. Due to the displacement caused by the interpreted faulting and dykes, a total of 36 separate wireframes have been developed to represent the disseminated mineralisation lenses.

The base of complete oxidation (BOCO) and top of fresh rock (TOFR) weathering zone boundary surfaces, representing the interpreted boundaries between the fully oxidised, transitional and fresh rock weathering states, have been defined based on the lithological and geochemical data.

Sampling and Sub-sampling

Diamond drilling was generally sampled at 1 m intervals, with some sub-sampling to 0.5 m or greater (but less than 1 m) for metallurgical purposes. Half core samples were cut using a diamond rock saw and submitted for assay. The exception are the one in 20 samples submitted as quarter core duplicates.

1 m samples from RC drilling using a face sampling hammer were cone split off the rig cyclone, with sample weights between 2 and 3 kg collected. Duplicate samples were collected for every metre sample. One duplicate was submitted for analysis for every 20 m down hole.

Drilling Technique

RC drilling was completed on the Project during February 2017 by drilling contractor Strike Drilling using a LC36 RC drill rig with a diameter of 5.5" using a face sampling hammer. Documentation is available that describes data collection procedures for the RC drilling programme.

RC drilling on the Project was completed during July and August 2017 by drilling contractor Easternwell Drilling using a SDR06 RC drill rig with a diameter of 5.5" using a face sampling hammer. Documentation is available that describes data collection procedures for the RC drilling programme.

Diamond drilling on the project was completed during July and August 2017 by drilling contractor MT Magnet Drilling using HQ3 triple tube (for oxide) and HQ2 double tube (below oxide weathering surface). Diamond core was drilled and oriented using a reflex ACT III tool and holes were surveyed using a Reflex Gyroscope.

RC drilling was completed on the Project during August and September 2018 by drilling contractor Strike Drilling using a LC36 RC drill rig with a diameter of 5.5" using a face sampling hammer. Documentation is available that describes data collection procedures for the RC drilling programme.

Diamond drilling on the project was completed between August and October 2018 by drilling contractor DDH1 Drilling using PQ3 / HQ3 triple tube (for oxide) and HQ2 double tube (below oxide weathering surface) and PQ3 double tube for bulk sample collection. Diamond core was drilled and oriented using a reflex ACT III tool and holes were surveyed using a Reflex Gyroscope.

Classification Criteria

The Mineral Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC 2012 Table 1.

The Mineral Resource estimate for the Project are classified as Measured, Indicated and Inferred.

The Measured portion of the Mineral Resources are considered by the Competent Person to have detailed and reliable, geological and sampling evidence, which were sufficient to confirm geological and grade continuity. Analytical result data spacing, confidence in the geological and grade continuity of the interpreted mineralisation zones, geophysical modelling evidence, surface geological mapping and geostatistical measures of estimation reliability were considered when determining the model volumes classified as Measured.

The Indicated portion of the Mineral Resources are considered by the Competent Person to have adequately detailed and reliable, geological and sampling evidence, which are sufficient to assume geological and mineralisation continuity. Analytical result data spacing, confidence in the geological and grade continuity of the interpreted mineralisation zones, geophysical modelling evidence, surface geological mapping and geostatistical measures of estimation reliability have all been considered when determining the model volumes classified as Indicated.

The Inferred portion of the Mineral Resources are considered by the Competent Person to have more limited geological and sampling evidence, which are sufficient to imply but not verify geological and mineralisation continuity. Roughly 35% of the Inferred material may be considered to be extrapolated.

Drill holes are nominally spaced 40 m to 50 m apart on section lines nominally 100 m or 200 m apart. The drill holes are drilled at approximately 60 degrees dip towards the east to intersect the mineralised zones at a high angle.

Sampling Analysis Method

Intertek Genalysis laboratory in Perth pulverised the samples and fused them with a lithium borate flux to cast into disks for analysis of a 21-element suite by x-ray fluorescence (XRF) spectrometry (Method code FB1/XRF77). Loss on ignition (LOI) was determined by Thermal Gravimetric Analyser at 1000°C (Method code /TGA).

Estimation Methodology

Statistical analysis was completed using GeoAccess Pro and Supervisor software. The coefficient of variation (COV), histograms and probability plots were reviewed for all estimated elements. This was completed for the 1 m down hole composited drill hole analytical result data from massive magnetite mineralisation and each disseminated magnetite mineralisation domain for each weathering state separately, to understand the distribution of grades, and assess the requirement for top cuts for each estimation domain. Some weathering state domains were combined due to lack of data to inform a robust estimate, with the oxide and transitional zones of the massive magnetite combined due to insufficient oxide data amongst others. Top cutting was deemed necessary where the COV was high (>1.0) and where individual high-grade samples were deemed to potentially result in biased grade estimate results. A visual inspection in Datamine of any potential clustering of very high-grade sample data was also carried out prior to selecting a top-cut value. This analysis showed that grade capping top cuts should be applied to prevent estimation bias due to outlier grade values for alumina, silica, loss on ignition, sulphur, phosphorous cobalt, copper and nickel in some domains.

Variography was completed for V_2O_5 from the massive magnetite unit using Supervisor software, with the variogram parameters obtained applied to all other estimated elements. Quantitative kriging neighbourhood analysis was then undertaken to assess the effect of changing key kriging neighbourhood parameters on block grade estimates. Kriging efficiency and slope of regression were determined for a range of block sizes, minimum/maximum samples, search dimensions and discretisation grids. Search ellipse parameters were selected based on the results. A three-pass search ellipse strategy was adopted whereby search ellipses were progressively increased if search criteria could not select sufficient data for the block estimate. Grade estimation was completed at the parent cell scale in Datamine Studio RM software using the ordinary kriging estimation method.

Cut-off Grade

The Mineral Resource is reported above a lower cut-off grade of 0.4% V_2O_5 . The adopted cut-off grade is considered reasonable for Mineral Resources which are likely to be extracted by open pit methods.

Mining and Metallurgical Methods

Mining

It has been assumed that these deposits will be amenable to open cut mining methods and are economic to exploit to the depths currently modelled using the cut-off grade applied. No assumptions regarding minimum mining widths and dilution have been made.

Metallurgy

Metallurgical amenability has been assessed based on results from TMT's ongoing detailed metallurgical testwork program from its Northern Tenement Block.

The work conducted since the previous Northern Block Mineral Resource estimate release (TMT: ASX announcement March 7th, 2018) has consisted of:

- Comminution testwork on a number of sections of full core sampled from the August-November 2018 drilling program;
- Davis tube recovery (DTR) test work on composites from 2017 drilling program samples;
- Magnetic beneficiation testwork, and
- Preparation of magnetic concentrate for kiln vendor testwork.

The magnetic beneficiation testwork consisted of low intensity magnetic separation (LIMS) on two composite samples (massive fresh and massive transitional – the significant ore types) at five nominal

grind sizes of P80 passing 150, 250, 500, 750 and 1000 microns undertaken by a triple pass methodology at 1200 Gauss.

The results for the fresh massive material showed that grades of 1.25% to 1.34% V_2O_5 reported to a magnetic concentrate across the grind size range, with iron grades ranging between 55.3% and 58.1%. The massive fresh material showed a mass recovery ranging from 75.4% to 79.9% reporting to the magnetic concentrate, with vanadium recoveries ranging from 95.3% to 96.2%.

The results for the massive transitional material showed that grades of 1.27% to 1.32% V_2O_5 reported to a magnetic concentrate across the grind size range, with iron grades ranging between 54.5% and 56.2%. The massive transition material showed a mass recovery ranging from 58.1% to 66.2% reporting to the magnetic concentrate, with vanadium recoveries ranging from 67.6% to 74.0%.

There was a very high rejection of gangue minerals from both of the composites, with SiO_2 grades in the magnetic concentrates ranging from 0.8% to 2.9% in the massive fresh and 0.9% to 1.6% in the massive transitional, and Al_2O_3 ranging from 3.0% to 3.7% in the massive fresh and from 3.0% to 3.4% in the massive transitional.

DTR testwork has given average head grades, concentrate grades, recoveries and mass yields across the Proposed North Pit and Central Pit as shown in Table 6.

Table 6: DTR Testwork results

| Ore Type | Massive | | | Disseminated / Banded | | |
|--|---------|-------|-------|-----------------------|-------|-------|
| Oxidation type | Oxide | Trans | Fresh | Oxide | Trans | Fresh |
| Head grade V_2O_5 % | 1.11 | 1.15 | 1.08 | 0.55 | 0.55 | 0.52 |
| DTR Magnetic Weight Recovery (Yield) % | 59.5 | 61 | 78 | 8 | 16.4 | 35.6 |
| DTR grade V_2O_5 % | 1.34 | 1.35 | 1.32 | 1.28 | 1.28 | 1.14 |
| DTR V_2O_5 Recovery % (Magnetic con) | 72.9 | 73.2 | 95.1 | 37.7 | 53.4 | 76 |

Selected samples from the bulk sample drilling conducted in October 2018 were sent to Perth for generation of magnetic concentrate for preliminary kiln vendor testing. The samples were selected to be representative across the anticipated first 2 years of production with a head grade of approximately 1.01% V_2O_5 . These samples were crushed and milled to a P80 of 250 microns before being subject to triple pass LIMS.

The results indicate that 95.3% of the vanadium was recovered into a concentrate with a grade of 1.34% V_2O_5 and a mass recovery of 72.0%. There was high gangue rejection with a SiO_2 grade of 1.56% and Al_2O_3 grade of 3.28%.

The sample is currently undergoing a bulk leach process in which the leach liquor generated will be used for optimisation of the downstream processes and generation of product samples. Previous work has shown the ability to undertake the necessary downstream process in order to produce V_2O_5 flake grading at 99.53% purity with a recovery of greater than 98% from solution (TMT: ASX announcement September 12th 2018).

Based on the DTR results, kiln vendor roast work and leaching and assumed recoveries for downstream processes the following recovery factors have been estimated for each composite type:

- Massive fresh – 74.5%
- Massive transitional – 57.3%
- Massive oxide – 57.1%
- Disseminated/Banded fresh – 59.5%
- Disseminated/Banded transitional – 41.8%

- Disseminated/Banded oxide – 29.5%.

Further beneficiation work is underway on the remaining samples from the bulk drilling program to produce a bulk sample for additional kiln vendor testing.

Multi-element analysis of the drill samples at Gabanintha has highlighted the presence of elevated base metal sulphides associated with portions of the fresh vanadium bearing magnetite mineralisation; specifically, cobalt, nickel and copper sulphides.

Analysis indicates that the majority of the base metal sulphides report to the non-magnetic fraction from the LIMS process designed to beneficiate the vanadium mineralisation in to a magnetic concentrate.

A number of representative samples of the non-magnetic fraction from the LIMS have been subjected to a range of bench scale flotation tests to investigate how this material may respond to conventional base metal flotation. The testwork program consisted of bulk rougher flotation to confirm the amenity of the material to flotation, followed by cleaner flotation trials of the rougher concentrate to optimise grade of the combined base metals.

The representative sample subjected to the bulk rougher flotation tests, the non-magnetic fraction from the LIMS, represented 25.6% of the overall LIMS feed. The overall LIMS feed graded 0.026% Co, 0.116% Ni and 0.03% Cu. The non-magnetic fraction upgraded the base metal content to 0.062% Co, 0.21% Ni and 0.093% Cu. Bench scale testing concentrate grades ranged up to 1.84% Co (at up to 76.9% recovery), up to 3.14% Ni (at up to 56.2% recovery) and 4.77% Cu (at up to 94.84% recovery). These concentrates represented mass pulls between 4.1% and 12.5% of the non-magnetic fraction feed material.

The bulk rougher float test utilised a 13.5 kg sample of the non-magnetic fraction from the LIMS, with three concentrates collected at varying time intervals through the flotation process (Figure 1). Each of the concentrates were dried and assayed prior to being recombined for cleaner flotation testwork. The recombined concentrate contained 1.11% Co (at 66.96% recovery), 2.39% Ni (at 40.24% recovery) and 2.51% Cu (at 94.84% recovery). The combined concentrate represented a mass pull of 3.5% of the non-magnetic fraction feed material and represents 0.9% of the overall LIMS feed.

The recombined bulk rougher concentrate was then subjected to cleaner flotation tests that generated base metal cleaner concentrates with combined base metal content between 10 and 15%, containing up to 2.31% Co, 4.47% Ni and 9.50% Cu.

Significant scope for optimisation of Co and Ni recovery at the rougher flotation stage has been identified, including an initial desliming stage to remove fine gangue mineral particles prior to flotation. If successful in rejection of a significant portion of the silica, alumina and magnesium gangue, this step may enable generation of a cleaner concentrate with 15–20% combined base metal grades. In addition, the final cleaner flotation concentrates contain significant proportions of pyrite, which if rejected could elevate combined base metal grades in concentrate to in excess of 20%.

Test work will continue to take place on available non-magnetic fraction from the LIMS with a view to optimise processing and maximise base metal recoveries and combined grades in concentrate.

Based on the results of the metallurgical testing completed to date, the Competent Person considers it is reasonable to assume the deposits are amenable to metallurgical treatment using conventional processing methods.

ABOUT VANADIUM

Vanadium is a hard, silvery grey, ductile and malleable speciality metal with a resistance to corrosion, good structural strength and stability against alkalis, acids and salt water. The elemental metal is rarely found in nature. The main use of vanadium is in the steel industry where it is primarily used in metal alloys such as rebar and structural steel, high speed tools, titanium alloys and aircraft. The addition of a small amount of vanadium can increase steel strength by up to 100% and reduces weight by up to 30%. Vanadium high-carbon steel alloys contain in the order of 0.15 to 0.25% vanadium while high-speed tool steels, used in surgical instruments and speciality tools, contain in the range of 1 to 5% vanadium content. Global economic growth and increased intensity of use of vanadium in steel in developing countries will drive near term growth in vanadium demand.

An emerging and likely very significant use for vanadium is the rapidly developing energy storage (battery) sector with the expanding use and increasing penetration of the vanadium redox batteries ("**VRB's**"). VRB's are a rechargeable flow battery that uses vanadium in different oxidation states to store energy, using the unique ability of vanadium to exist in solution in four different oxidation states. VRB's provide an efficient storage and re-supply solution for renewable energy – being able to time-shift large amounts of previously generated energy for later use – ideally suited to micro-grid to large scale energy storage solutions (grid stabilisation). Some of the unique advantages of VRB's are:

- a lifespan of 20 years with very high cycle life (up to 20,000 cycles) and no capacity loss,
- rapid recharge and discharge,
- easily scalable into large MW applications,
- excellent long term charge retention,
- improved safety (non-flammable) compared to Li-ion batteries, and
- can discharge to 100% with no damage.

Global economic growth and increased intensity of use of vanadium in steel in developing countries will drive near term growth in vanadium demand.

The global vanadium market has been operating in a deficit position for the past five years (source: TTP Squared Inc), with a reported deficit of ~2,600 tonnes V metal in 2017. Vanadium Inventories are reported to have been fully depleted in 2017 (source: TTP Squared Inc). Significant production declines in China and Russia have exacerbated this situation, with further production curtailment occurring in China as a result of mine closures resulting from environmental restrictions and the banning of the import of vanadium slag. Chinese domestic consumption, driven by increasing intensity of use in steel (in particular in rebar) have impacted on Chinese exports ability to fill the global supply gap.

The increasing demand and limited supply side reaction is forecast to result in a global deficit of ~21,300t V (~37,900t V₂O₅) in 2025 (Source: TTP Squared) assuming full resumption of Chinese Stone Coal production.

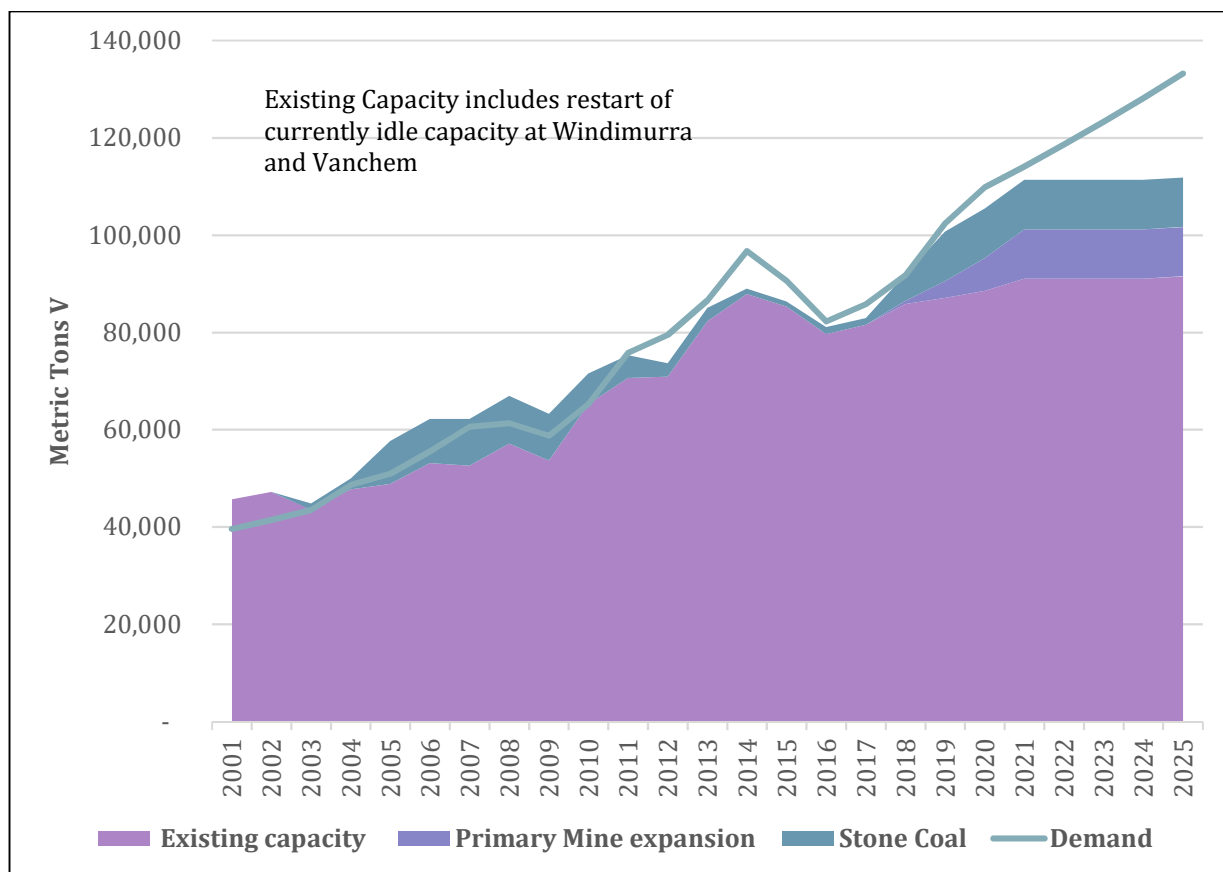


Figure 6: Vanadium Supply and Demand; source TTP Squared

The tightening supplies of vanadium are resulting in a global shortage, with prices appreciating dramatically since mid 2017. The vanadium pentoxide price increased to in excess of US\$30/lb V_2O_5 in late 2018, from a low of less than US\$4/lb V_2O_5 in early 2017, before seasonal factors in the Chinese market saw prices return to around US\$16.50/lb V_2O_5 in early 2019.

For, and on behalf of, the Board of the Company,

Ian Prentice
Managing Director
Technology Metals Australia Limited

- ENDS -

About Technology Metals Australia Limited

Technology Metals Australia Limited (ASX: TMT) was incorporated on 20 May 2016 for the primary purpose of identifying exploration projects in Australia and overseas with the aim of discovering commercially significant mineral deposits. The Company's primary exploration focus is on the Gabanintha Vanadium Project located 40 km south east of Meekatharra in the mid-west region of Western Australia with the aim to develop this project to potentially supply high-quality V₂O₅ flake product to both the steel market and the emerging vanadium redox battery (VRB) market.

The Project consists of seven granted tenements (and two Mining Lease applications). Vanadium mineralisation is hosted by a north west – south east trending layered mafic igneous unit with a distinct magnetic signature. Mineralisation at Gabanintha is similar to the Windimurra Vanadium Deposit, located 270km to the south, and the Barrambie Vanadium-Titanium Deposit, located 155km to the south east. The key difference between Gabanintha and these deposits is the consistent presence of the high grade massive vanadium – titanium – magnetite basal unit, which results in an overall higher grade for the Gabanintha Vanadium Project.

Data from the Company's 2017 and 2018 drilling programs including 111 RC holes and 53 HQ and PQ diamond holes at the Northern Block and 23 RC holes (for 2,232 m) at the Southern Tenement) has been used by independent geological consultants CSA Global to generate a global Inferred and Indicated Mineral Resource estimate, reported in accordance with the JORC Code 2012 edition, for the Project. The Resource estimate confirms the position of the Gabanintha Vanadium Project as one of the highest grade vanadium projects in the world.

Table 7: Global Mineral Resource estimate for the Gabanintha Vanadium Project as at 27 March 2019

| Material Type | Classification | Tonnage (Mt) | V ₂ O ₅ % | Fe% | Al ₂ O ₃ % | SiO ₂ % | TiO ₂ % | LOI % | P% | S% |
|---------------------------------|---------------------------|--------------|---------------------------------|-------------|----------------------------------|--------------------|--------------------|-------------|--------------|------------|
| Massive Magnetite | Measured (North) | 1.2 | 1.0 | 44.7 | 6.2 | 10.4 | 11.4 | 0.0 | 0.009 | 0.2 |
| | Indicated (North) | 18.5 | 1.1 | 49.1 | 5.2 | 5.8 | 12.9 | -0.1 | 0.007 | 0.2 |
| | Inferred (North) | 41.0 | 1.1 | 47.7 | 5.6 | 7.1 | 12.6 | 0.3 | 0.008 | 0.2 |
| | Inferred (South) | 10.4 | 1.1 | 49.1 | 4.9 | 5.9 | 12.6 | -0.4 | 0.004 | 0.3 |
| | Total Inferred | 51.5 | 1.1 | 48.0 | 5.5 | 6.9 | 12.6 | 0.1 | 0.007 | 0.2 |
| | Massive Global | 71.2 | 1.1 | 48.2 | 5.4 | 6.7 | 12.7 | 0.1 | 0.007 | 0.2 |
| Disseminated / Banded Magnetite | Indicated (North) | 10.3 | 0.6 | 28.6 | 13.1 | 25.5 | 7.5 | 3.0 | 0.030 | 0.2 |
| | Inferred (North) | 38.5 | 0.5 | 27.1 | 12.7 | 27.4 | 6.9 | 3.3 | 0.027 | 0.2 |
| | Inferred (South) | 11.1 | 0.6 | 30.2 | 11.9 | 23.4 | 7.7 | 2.4 | 0.012 | 0.4 |
| | Total Inferred | 49.6 | 0.6 | 27.8 | 12.5 | 26.5 | 7.1 | 3.1 | 0.024 | 0.2 |
| | Diss / Band Global | 59.9 | 0.6 | 27.9 | 12.6 | 26.4 | 7.2 | 3.1 | 0.025 | 0.2 |
| Combined | Global Combined | 131 | 0.9 | 39.0 | 8.7 | 15.7 | 10.1 | 1.4 | 0.015 | 0.2 |

Data from the Global Mineral Resource and the recently completed PFS on the Gabanintha Vanadium Project were used by independent consultants CSA Global to generate a maiden Probable Ore Reserve estimate based on the Indicated Mineral Resource of 21.6 Mt at 0.9% V₂O₅ located within the Northern Block of tenements at Gabanintha.

Table 8: Ore Reserve Estimate as at 31 May 2018

| Reserve Category | Tonnes (Mt) | Grade V ₂ O ₅ % | Contained V ₂ O ₅ Tonnes (Mt) |
|------------------|-------------|---------------------------------------|---|
| Proven | - | - | - |
| Probable | 16.7 | 0.96 | 0.16 |
| Total | 16.7 | 0.96 | 0.16 |

- Includes allowance for mining recovery (95%) and mining dilution (10% at 0.0 %V₂O₅)
- Rounding errors may occur

| Capital Structure | |
|--|---------|
| Tradeable Fully Paid Ordinary Shares | 67.543m |
| Escrowed Fully paid Ordinary Shares ¹ | 20.00m |
| Fully Paid Ordinary Shares on Issue | 87.543m |
| Unquoted Options (\$0.25 – 31/12/19 expiry) | 14.59m |
| Unquoted Options (\$0.35 – 12/01/21 expiry) | 2.75m |
| Quoted Options (\$0.40 – 24/05/20 expiry) | 6.133m |
| Unquoted Options (\$0.40 – 24/05/20 expiry) | 3.258m |

¹ – 20 million fully paid ordinary shares subject to voluntary escrow until 30 June 2019.

Forward-Looking Statements

This document includes forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Technology Metal Australia Limited's planned exploration programs, corporate activities and any, and all, statements that are not historical facts. When used in this document, words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should" and similar expressions are forward-looking statements. Technology Metal Australia Limited believes that it has a reasonable basis for its forward-looking statements; however, forward-looking statements involve risks and uncertainties and no assurance can be given that actual future results will be consistent with these forward-looking statements. All figures presented in this document are unaudited and this document does not contain any forecasts of profitability or loss.

Competent Persons Statement

The information in this report that relates to Exploration Results are based on information compiled by Mr Ian Prentice. Mr Prentice is a Director of the Company and a member of the Australian Institute of Mining and Metallurgy. Mr Prentice has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which they are 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' ("**JORC Code**"). Mr Prentice consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr Grant Louw. Mr Louw is a Principal Consultant with CSA Global and a Member of the Australian Institute of Geoscientists. Mr Louw has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report 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' ("**JORC Code**"). Mr Louw consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information that relates to Ore Reserves is based on information compiled by Mr Daniel Grosso and reviewed by Mr Karl van Olden, both employees of CSA Global Pty Ltd. Mr van Olden takes overall responsibility for the Report as Competent Person. Mr van Olden is a Fellow of The Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition). The Competent Person, Karl van Olden has reviewed the Ore Reserve statement and given permission for the publication of this information in the form and context within which it appears.

The information in this report that relates to the Processing and Metallurgy for the Gabanintha project is based on and fairly represents, information and supporting documentation compiled by Damian Connelly who is a Fellow of The Australasian Institute of Mining and Metallurgy and a full time employee of METS. Damian Connelly 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' ("**JORC Code**"). Damian Connelly consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

APPENDIX 1: JORC (2012) Table 1.

Section 1 Sampling Techniques and Data

| Criteria | Commentary |
|------------------------------|--|
| Sampling techniques | <ul style="list-style-type: none">Reverse circulation drilling was sampled on a 1m basis. Each metre drilled was cone split off the rig cyclone, with two 2-3kg sub-samples collected for each metre.One primary sub-sample was selected for assay from each metre.Secondary sub-samples were submitted for analysis for every 20th sample, thereby duplicating the primary sub-sample.Reverse circulation drill holes were analysed for magnetic susceptibility by either a KT-9 or KT-10 magnetic susceptibility meter on a 1m basis.Diamond Drilling was undertaken on PQ and HQ size using triple tube drilling in the oxidised rock and conventional double tube in fresh rock to ensure maximum recovery and representivity.Except where geotechnical samples were taken, core was sampled on a 1m or 0.5m basis.Core was cut using diamond blade core saw into quarter (PQ and HQ) or 1/6th slices (PQ in kiln sample only). Duplicate samples were taken from the remaining 3/4 or 5/6th core original samples by a second cut representing equal mass to the original.Samples were taken from the same side of the orientation line throughout each hole. For un-oriented core, samples were selected from a consistent side of the core.Core was measured on a 20cm basis by a KT-10 Plus magnetic susceptibility meter.All Samples are analysed by XRF spectrometry following digestion and Fused Disk preparation.Blanks and Certified Reference Materials (CRM) were inserted at a rate of 1:50 and 1:20 samples, respectively. CRMs were produced from mineralized material sourced from TMT's Gabanintha deposit and certified by a commercial CRM vendor.Where possible, diamond drill holes and selected reverse circulation drill holes were probed via downhole Televiwer probe and selected drill holes probed with down hole magnetic susceptibility sonde.QEM Scan was used to confirm that vanadium is hosted within titanomagnetite minerals within the host gabbro. |
| Drilling techniques | <ul style="list-style-type: none">Reverse circulation drilling completed with 143mm face-sampling hammerPQ2/3 sized drill core was selected for metallurgical reasons and HQ2 core was selected for diamond tails and Geotechnical holes. |
| Drill sample recovery | <ul style="list-style-type: none">Sample recovery was assessed based on the estimated bulk sample collected for each metre. Each bag was not weighed. For 1 in 3 holes a spring gauge was used to ensure the cone split remained within the 2 to 3 Kg range.Poor sample recovery or quality (wet, etc) was recorded in logging sheets.Weights of primary and secondary sub-samples were compared to check variability.There does not appear to be any relationship between recovery and grade in the "massive" mineralisation. |

| Criteria | Commentary |
|---|--|
| | <ul style="list-style-type: none"> Recovery was maximised in diamond drilling by using triple tube in weathered rock. Core recovery was assessed by measuring expected and recovered core and losses were logged where noted. Core recovery exceeded 98%. |
| Logging | <ul style="list-style-type: none"> All chips and core have been qualitatively geologically logged to a minimum interval length and precision sufficient for calculation of a mineral resource. All core holes have been logged by an independent geotechnical consultant. Drill chips for every metre were collected in trays and photographed. All diamond core has been photographed to a high resolution for electronic storage prior to sampling. Where possible, diamond drill holes and selected reverse circulation drill holes were probed via downhole Televiwer probe and selected drill holes probed with down hole magnetic susceptibility sonde. Geotechnical logging was undertaken on all diamond holes within proposed pit boundaries. Geotechnical studies are underway to optimise wall angles on proposed pits |
| Sub-sampling techniques and sample preparation | <ul style="list-style-type: none"> Core was sampled on ¼ basis except metallurgical holes which were sampled by 1/6th slices. Some sections of whole core were selected for geotechnical or metallurgical sampling and are noted as such. Reverse circulation sampling was cone split off the rig to approximate 4-5% of the bulk sample mass (2-3kg). This is considered appropriate to the material being sampled. Duplicate sampling was undertaken at a rate of 1 per 20 samples to monitor recoveries and repeatability of all sampling. RC was sampled by duplicates taken from secondary sub-samples cone split from the rig cyclone. Core was duplicate sampled by assaying a second ¼ (HQ and PQ) or 1/6th of the core (only PQ holes used for metallurgical kiln testing properties). Samples presented to the laboratory were split to <2kg and pulverised to 95% passing 75 microns. 30g of pulverised material was split and presented for assay. Davis Tube Recovery (DTR) tests were completed on selected 4m composites of mineralised intervals defined by assay data |
| Quality of assay data and laboratory tests | <ul style="list-style-type: none"> Pulverised samples from every metre were fused with a lithium borate flux and cast in to disks and analysed by XRF spectrometry – method FB1/XRF77. In addition LOI was completed by Gravimetric analysis. This is considered to approximate a total analysis method. Davis Tube Recovery (DTR) was performed via compositing pulverised sample rejects, by a commercial laboratory. Field duplicates (at least 1 duplicate sample for every 20 samples analysed), laboratory check samples and standards are considered to be suitable quality control procedures. Quality control procedures demonstrate acceptable levels of accuracy and precision have been achieved. CRM materials inserted to the sample stream at the laboratory have performed acceptably, and field duplicate samples have performed well. Batches of samples are periodically sent for check assay by an umpire laboratory. |

| Criteria | Commentary |
|--|--|
| Verification of sampling and assaying | <ul style="list-style-type: none"> • Logging was completed onto paper and transcribed or digitally captured in the field • All logging and sampling information has been captured into a commercially supplied database. • Assay data was supplied in electronic format • Data has been subjected to QAQC cross-checks and verification by company personnel prior to acceptance into the database. • Significant intersections were correlated with mineralised zones as defined from geological logging. • All significant intersections were verified by an independent geologist as well as the Competent Person. • The estimation of significant intersections has been verified by alternate company personnel. • There were no adjustments to assay data. • 2 RC holes have been twinned by diamond holes. |
| Location of data points | <ul style="list-style-type: none"> • The grid system used for collar positions is MGA94 – Zone 50. • A 2017 50cm resolution digital elevation model and high-resolution aerial photogrammetric survey was used for topographic survey control • Planned hole collar positions were located in the field using hand held GPS. • Final hole collar positions were surveyed using differential RTK GPS with an accuracy of $\pm 5\text{cm}$ horizontally and $\pm 10\text{cm}$ vertically. • Down hole deflections were measured using an Axis CHAMP north-seeking gyroscope every 30m down hole and near the collar. • Downhole magnetic susceptibility and Televue data was captured on a $<1\text{cm}$ accuracy down hole |
| Data spacing and distribution | <ul style="list-style-type: none"> • The drill data is on nominal 100m line spacing with holes located every 50m along the drill lines. • Detailed airborne magnetics supports strike and down dip continuity assumptions of the massive magnetite zone which is known to host high grade mineralisation. • This continuity has been additionally supported by drilling data. • Data is considered appropriate for use in estimating a Mineral Resource. • No sample compositing is used in primary assay except for DTR recovery testing |
| Orientation of data in relation to geological structure | <ul style="list-style-type: none"> • The drilling has been completed at an orientation that would have been unlikely to have introduced a sampling bias. The drill holes are drilled orthogonal to the measured strike $\pm 10^\circ$, the apparent thickness is estimated 0.85 X the true thickness, drill deviations were not noticeably higher through the mineralised zone. 21 vertical PQ diamond holes associated with metallurgical kiln property sampling approximate 2.5x true widths |

| Criteria | Commentary |
|--------------------------|---|
| Sample security | <ul style="list-style-type: none"> • RC Samples were collected in polyweave bags, sealed securely and transported by Company personnel until handover to a commercial transport company, which delivered the samples by road transport to the laboratory. • Drill core samples were transported to the commercial laboratory as whole core by registered consignment and tray numbers confirmed by personnel in the laboratory core yard. All core from the current program was labelled with non degrading metal tags. |
| Audits or reviews | <ul style="list-style-type: none"> • A representative from the independent geological consultants, CSA Global, visited the site during the infill and extensional drilling program and reported drilling and sampling procedures and practices to be acceptable. • Apart from umpire assay and use of experienced field geologists (all >20yrs experience) to supervise sampling, no written audits have been completed to date. Data Validation is done by a supervising geologist, database geologist and a Resource consultant all independent and contracted to the company. |

Section 2 Reporting of Exploration Results

| Criteria | Commentary |
|--|---|
| Mineral tenement and land tenure status | <ul style="list-style-type: none"> • The areas drilled are located on current Prospecting Licences 51/2942, 51/2943 and 51/2944 and Exploration Licence 51/1510). • The tenements are granted and held by The KOP Ventures Pty Ltd, a wholly owned subsidiary of Technology Metals Australia Limited. |
| Exploration done by other parties | <ul style="list-style-type: none"> • Reverse circulation drilling was completed in 1998 by Intermin Resources NL under an option agreement on tenements held by Oakland Nominees Pty Ltd – consisting of GRC9801 to GRC9805 (on Prospecting Licences 51/2164) and GRC9815 to GRC9817 (on Prospecting Licence 51/2183). • The areas drilled are located on current Prospecting Licences 51/2943 (GRC9801, GRC9802), 51/2944 (GRC9803, GRC9804, GRC9805) and 51/2942 (GRC9815 to GRC9817) held by The KOP Ventures Pty Ltd, a wholly owned subsidiary of Technology Metals Australia Limited. • Exploration prior to this drilling included geological mapping and limited rock chip sampling completed across a zone of outcropping vanadiferous titanomagnetite layered mafic igneous unit by various parties. |
| Geology | <ul style="list-style-type: none"> • The Gabanintha vanadium deposit is of a layered igneous intrusive type, hosted within a gabbro intrusion assigned to the Archaean Meeline Suite. |
| Drill hole Information | <ul style="list-style-type: none"> • Not relevant. Exploration results are not being reported. Mineral Resources are being disclosed (see Section 3). • All relevant material from previous drilling has been reported to the ASX on the following dates: 9th March 2017, 4th April 2017, 19th April 2017, 31st August 2017, 14th September 2017, 18th October 2017, 7th December 2017, 5 October 2018, 8 November 2018, 20 December 2018 and 30 January 2019. |

| Criteria | Commentary |
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| Data aggregation methods | <ul style="list-style-type: none"> Not relevant. Exploration results are not being reported. Mineral Resources are being disclosed (See Section 3). |
| Relationship between mineralisation widths and intercept lengths | <ul style="list-style-type: none"> Not relevant. Exploration results are not being reported. Mineral Resources are being disclosed (See Section 3). |
| Diagrams | <ul style="list-style-type: none"> Appropriate diagrams contained in the report to which this Table 1 applies. |
| Balanced reporting | <ul style="list-style-type: none"> Not relevant. Exploration results are not being reported. Mineral Resources are being disclosed (See Section 3). |
| Other substantive exploration data | <ul style="list-style-type: none"> Geophysical data in the form of aero magnetic data assists the geological interpretation of the main high magnetite unit and highlights offsets due to faults and or dykes. Historic drilling data is not used due to uncertainty in location and orientation Oxidation state has been modelled based on geological logging and geometallurgical characterisation Bulk density estimates have been completed on diamond core samples of fresh, transitional and oxidised material based on 654 measurements from 45 of 47 holes Bulk density measurements are a mixture of caliper and immersion methods. Metallurgical test work and bulk sampling results indicate amenability of magnetite concentrates to conventional roast leach processing (See ASX Release 12th December 2018 – Outstanding Gabanintha Metallurgical Results) Low values of deleterious elements (As, Mo, Cr) are associated with mineralisation Groundwater quality is suitable for use in mine planning and processing |
| Further work | <ul style="list-style-type: none"> Samples from diamond drilling have been collected to enable further metallurgical testing of the different grades and types of mineralisation encountered in the drilling, including bulk samples for vendor kiln property testwork. Diamond drilling has also been used to gather geotechnical data relevant to open pit mine design parameters. A program of drilling is due to start shortly in the adjacent exploration licence focused on water exploration. |

Section 3 Estimation and Reporting of Mineral Resources

| Criteria | Commentary |
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| Database integrity | <ul style="list-style-type: none"> • Drilling data is stored in a DataShed database system which is an industry best practise relational geological database. Data that has been entered to this database is cross checked by independent geological contracting staff to ensure accuracy. CSA Global has been provided with a number of pdf format assay certificates from the laboratory and completed its own checks, finding that all checked assay data was correctly captured in the relevant database table. • Data used in the Mineral Resource estimate is sourced from a database export. Relevant tables from the database are exported to MS Excel format and converted to csv format for import into Datamine Studio RM software. • Validation of the data import include checks for overlapping intervals, missing survey data, missing assay data, missing lithological data, and missing collars. |
| Site visits | <ul style="list-style-type: none"> • A two-day site visit was completed by a CSA Global staff member in August 2017 while drilling was in progress. The site visit confirmed that industry best practice procedures are in place and being followed, with drilling, sampling and logging practice being observed. Drill collar locations have been captured by hand held GPS confirming their stated survey locations. Mineralisation outcrop extents were followed, with measurements taken confirming the interpreted strike and dip. • A two-day site visit was completed by a CSA Global staff member in October 2018 while drilling was in progress. The site visit confirmed that industry best practice procedures are in place and being followed, with drilling, sampling, density measurement and logging practice being observed. Drill collar locations have been captured by hand held GPS confirming their stated survey locations. |
| Geological interpretation | <ul style="list-style-type: none"> • Based on surface geological and structural mapping, drill hole logging and sample analysis data and geophysical TMI data, the geology and mineral distribution of the massive V-Ti-magnetite zone appears to be relatively consistent through the interpreted strike length of the deposit. Cross-cutting faults and dykes, interpreted from the drill hole and magnetic data and surface mapping have been modelled. These features displace the mineralisation as shown in the diagrams in the body of this report. Drill hole logging has shown some narrow quartz porphyry units which have been modelled, cutting through the mineralisation on some sections. In the hangingwall and footwall of the massive magnetite zone, the mineralised units are defined at a nominal 0.4% V₂O₅ lower cutoff grade and a nominal minimum 3 m downhole continuity. The geological and grade continuity of some of these zones is not as well understood as the massive magnetite unit, however drill sample analysis demonstrates consistent zones of more disseminated (and / or banded) magnetite mineralisation existing in the hanging wall and foot wall of the massive unit along strike and on section. Weathering surfaces for the base of complete oxidation (BOCO) and top of fresh rock (TOFR) have been generated based on a combination of drill hole logging, magnetic susceptibility readings and sample analysis results. A partially mineralised cover sequence is interpreted as depleting the top few metres of the model interpreted based on lithological logging of the drilling. • Surface mapping, drill hole intercept logging, sample analysis results and TMI data have formed the basis of the geological and mineralisation interpretations. Assumptions have been made on the depth and strike extent of the mineralisation based on the drilling and geophysical data, as documented further on in this table. Based on the currently |

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| | <p>available information contained in the drilling data, surface mapping and the geophysical data, the assumption has been made that the hanging wall and foot wall disseminated mineralisation lenses that are in the same stratigraphic position relative to the massive magnetite are related and are grouped together as the same zones for estimation purposes.</p> <ul style="list-style-type: none"> • The extents of the modelled mineralisation zones are constrained by the available drill and geophysical data. Alternative interpretations are not expected to have a significant influence on the global Mineral Resource estimate. • The continuity of the geology and mineralisation can be identified and traced between drill holes by visual, geophysical and geochemical characteristics. In parts of the modelled area, additional data is required to more accurately model the effect of any potential structural or other influences on the modelled mineralised units, Confidence in the grade and geological continuity is reflected in the Mineral Resource classification. |
| Dimensions | <ul style="list-style-type: none"> • The modelled mineralisation strikes approximately 160° to 340°, dipping on average about 60° towards 250°, with a modelled strike extent of approximately 4.6 km. The stratiform massive magnetite unit has a true thickness varying between 7 m and 25 m. The interpreted disseminated mineralisation lenses appear to be better developed in the southern half of the modelled area, with cumulative true thickness of the order of 45 m in the south from up to six lenses, reducing to roughly 25 m in the northern third from four to five lenses and approximately 8 m from one lens in the extreme north of the deposit. The massive magnetite outcrops and has been mapped along the strike extent and has been extended to a maximum of approximately 300 m below topographic surface or nominally 120 m down dip of the deepest drill hole intersections. The strike extent is extended a nominal 200 m, or half the nominal drill section spacing, past the last drilling section in the south to the intersection with the tenement boundary based on the surface mapping and geophysical data extents. In the north the mineralisation is terminated nominally 50 m past drilling based on the surface mapping extents of the outcropping mineralisation. The northern most lens of the modelled massive magnetite mineralisation has the down dip extent limited to a nominal 40 m down dip of drill section data, or 150 m below topographic surface, due to the greater geological uncertainty. The immediate hangingwall disseminated mineralisation zone above the massive magnetite is considered to be the most consistent of the disseminated magnetite zones and is modelled nominally 80 m down dip of the deepest drill intersections or nominally 260 m below topographic surface. The lenses further up in the hanging wall are not as clearly constrained and understood, mostly due to lower drill coverage at depth, and therefore the down dip extent is successively reduced upwards in the sequence as can be seen in the representative cross section in the body of this report. Given the continuity defined over the drilled extents (fence line spacings of mostly 100 m) and being additionally informed by the magnetics (TMI), these extrapolation extents are considered reasonable. |
| Estimation and modelling techniques | <ul style="list-style-type: none"> • The Mineral Resource estimate was completed in Datamine Studio RM software using the ordinary kriging (OK) estimation method, with an inverse distance weighting to the power of two (IDW) estimation method also completed for validation purposes. Estimations were completed for V₂O₅, Fe and contaminant elements, TiO₂, Al₂O₃, SiO₂, P and S, and loss on ignition at 1000°C (LOI). In addition, the base metals Co, Cu and Ni have been modelled and are separately reported |

due to the significant difference in processing for these elements, being they are likely to be beneficiated from the non-magnetic tailings stream and testing the viability of this process step is at a relatively early stage. Due to the mineralised zones being cut by and / or offset by faults and dykes the mineralisation interpretation consists of 12 massive magnetite and 36 disseminated magnetite mineralisation lenses. These are grouped together using a numeric zone code as the massive magnetite lenses, or for the disseminated mineralisation lenses they grouped together based on stratigraphic position in the hangingwall or footwall relative to the massive magnetite. These lens groupings are then further split based on the weathering surface interpretations into oxide, transition and fresh materials. The preliminary statistical analysis completed on the massive magnetite and stratigraphically relative grouped disseminated magnetite domains showed that for the some of the combined mineralisation / weathering state domain groupings there were not sufficient samples to complete a robust grade estimation. As a result, due to insufficient data points for the oxide massive magnetite, the oxide material was combined with transitional to form one estimation domain. Similarly, in the footwall disseminated magnetite domains, the oxide and transition zones are grouped together. All data in the upper most hangingwall disseminated unit is combined into a single domain. This has resulted in 17 separate estimation domains being defined with hard boundaries being used between the defined combined weathering and mineralisation estimation domains. A detailed statistical analysis was completed for each of the defined mineralisation / weathering state estimation domains. This analysis showed that for some grade variables occasional outlier grades existed and, in the CP's opinion, these required balancing cuts to prevent estimation bias associated with outlier values. For the massive magnetite top cuts were applied to Al_2O_3 , P, S and SiO_2 in the combined weathered domain, and for Al_2O_3 , Co, Cu, Ni, P and SiO_2 in the fresh domain as listed in the relevant table in the body of this report. For the disseminated magnetite domains, various elements required top cutting as listed in the relevant table in the body of this report. Drill spacing is nominally 40 m to 50m on sections spaced 100 m or 200 m apart. Maximum extrapolation away from data points is to 200 m in the south and up to 120m down dip. Kriging neighbourhood analysis (KNA) was used in conjunction with the modelled variogram ranges and consideration of the drill coverage to inform the search parameters. Search ellipse extents are set to 275 m along strike, 230 m down dip and 20 m across dip, ensuring that the majority of the block estimates find sufficient data to be completed in the first search volume. The search volume was doubled for the second search pass and increased 20-fold for the third search pass to ensure all block were estimated. A maximum of 8 samples per hole, with a minimum of 15 and a maximum of 36 samples are allowed for a block estimate in the first search pass, reducing to a minimum of 12 samples and a maximum 30 samples for the second pass, and the maximum was then further reduced to maximum 24 samples for the final pass.

- The IDW check estimate results produced comparable results with a less than 0.1% difference in global V_2O_5 grade.
- By-product recovery of the base metals Co, Cu and Ni is considered to be a possible option at this stage. Metallurgical testing has demonstrated that a base metal concentrate with up to 10% to 15% can be produced by flotation methods from the non-magnetic tailing stream produced during beneficiation of the primary commodity – vanadium bearing magnetite. These base metals have therefore been estimated into the block model using the same search and

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| | <p>variogram parameters as used for the other estimated elements.</p> <ul style="list-style-type: none"> • Potentially deleterious P and S have been estimated • A volume block model with parent block sizes of 50 m (N) by 10 m (E) by 5 m (RL) was constructed using Datamine Studio Software. Minimum sub cells down to 2.5 m (N) by 2.5 m (E) by 2.5 m (RL) were allowed for domain volume resolution. Drill spacing is nominally 40 m to 50 m across strike on west to east sections spaced either 100 m or 200 m apart north to south. • No assumptions have been made regarding selective mining units at this stage. • A strong positive correlation exists between Fe and V₂O₅ and TiO₂ and a strong negative correlation between Fe and Al₂O₃, SiO₂ and LOI. • The separate interpreted mineralisation zones domained based on the geological, geochemical and geophysical data, and further domained by weathering state have been separately estimated using hard boundaries between domains. The model is depleted by fault zones, intrusive dykes, cross cutting quartz porphyries and surficial colluvium zones that have been interpreted based on the geological, geochemical and geophysical data. • Block model validation has been completed by statistical comparison of drill sample grades with the OK and IDW check estimate results for each estimation zone. Visual validation of grade trends along the drill sections was completed and trend plots comparing drill sample grades and model grades for northings, eastings and elevation were completed. These checks show reasonable comparison between estimated block grades and drill sample grades, with differences in block model grade compared to the drill sample data for V₂O₅ primarily attributable to volume variance and estimation smoothing effects. • With no mining having taken place there is no reconciliation data available to test the model against. |
| Moisture | <ul style="list-style-type: none"> • Tonnages have been estimated on a dry, in situ, basis. |
| Cut-off parameters | <ul style="list-style-type: none"> • The adopted lower cut-off grade for reporting of 0.4% V₂O₅ is supported by the metallurgical results and conceptual pit optimisation study as being reasonable. |
| Mining factors or assumptions | <ul style="list-style-type: none"> • It has been assumed that these deposits are amenable to open cut mining methods and are economic to exploit to the depths currently modelled using the cut-off grade applied. No assumptions regarding minimum mining widths and dilution have been made. |
| Metallurgical factors or assumptions | <ul style="list-style-type: none"> • Metallurgical amenability has been assessed based on results from TMT's ongoing detailed metallurgical testwork program from its Northern Tenement Block. • The work conducted since the previous Northern Block Mineral Resource estimate release (TMT: ASX announcement March 7, 2018) has consisted of: <ul style="list-style-type: none"> ◦ Comminution testwork on a number of sections of full core sampled from the August-November 2018 drilling program; ◦ DTR testwork on composites from 2017 drilling program samples; ◦ Magnetic beneficiation testwork, and |

- Preparation of magnetic concentrate for kiln vendor testwork.
- The magnetic beneficiation testwork consisted of low intensity magnetic separation (LIMS) on the two composite samples (massive fresh and massive transitional (the significant ore types) at five nominal grind sizes of P80 passing 150, 250, 500, 750 and 1000 microns undertaken by a triple pass methodology at 1200 Gauss.
- The results for the fresh massive showed that grades of 1.25% to 1.34% V_2O_5 reported to a magnetic concentrate across the grind size range, with iron grades ranging between 55.3% and 58.1%. The massive fresh material showed a mass recovery ranging from 75.4% to 79.9% reporting to the magnetic concentrate, with vanadium recoveries ranging from 95.3% to 96.2%.
- The results for the transition massive showed that grades of 1.27% to 1.32% V_2O_5 reported to a magnetic concentrate across the grind size range, with iron grades ranging between 54.5% and 56.2%. The massive transition material showed a mass recovery ranging from 58.1% to 66.2% reporting to the magnetic concentrate, with vanadium recoveries ranging from 67.6% to 74.0%.
- There was a very high rejection of gangue minerals from both of the composites, with SiO_2 grades in the magnetic concentrates ranged from 0.8% to 2.9% in the massive fresh and 0.9% to 1.6% in the massive transitional, with Al_2O_3 ranging from 3.0% to 3.7% in the massive fresh and from 3.0% to 3.4% in the massive transitional.
- DTR testwork has given average head grades, concentrate grades, recoveries and mass yields across the Proposed North Pit and Central Pit as shown below.

| Ore Type: | Massive | | | Disseminated / Banded | | |
|--|---------|-------|-------|-----------------------|-------|-------|
| Oxidation type | Oxide | Trans | Fresh | Oxide | Trans | Fresh |
| Head grade V_2O_5 % | 1.11 | 1.15 | 1.08 | 0.55 | 0.55 | 0.52 |
| DTR Magnetic Weight Recovery (Yield) % | 59.5 | 61 | 78 | 8 | 16.4 | 35.6 |
| DTR grade V_2O_5 % | 1.34 | 1.35 | 1.32 | 1.28 | 1.28 | 1.14 |
| DTR V_2O_5 Recovery % (Magnetic con) | 72.9 | 73.2 | 95.1 | 37.7 | 53.4 | 76 |

- Selected samples from the bulk sample drilling conducted in October 2018 were sent to Perth for generation of magnetic concentrate for preliminary kiln vendor testing. The samples were selected to be representative across the anticipated first 2 years of production with a head grade of approximately 1.01% V_2O_5 . These samples were crushed and milled to a P80 of 250 microns before being subject to triple pass LIMS.
- The results indicate that 95.3% of the vanadium was recovered into a concentrate with a grade of 1.34% V_2O_5 and a mass recovery of 72.0%. There was high gangue rejection with a SiO_2 grade of 1.56% and Al_2O_3 grade of 3.28%.
- The sample is currently undergoing a bulk leach process in which the leach liquor generated will be used for optimisation

of the downstream processes and generation of product samples. Previous work has shown the ability to undertake the necessary downstream process in order to produce V₂O₅ flake grading at 99.53% purity with a recovery of greater than 98% from solution (TMT: ASX announcement September 12th 2018).

- Based on the DTR results, kiln vendor roast work and leaching and assumed recoveries for downstream processes the following recovery factors have been estimated for each composite type:
 - Massive fresh – 74.5%
 - Massive transitional – 57.3%
 - Massive oxide – 57.1%
 - Disseminated/Banded fresh – 59.5%
 - Disseminated/Banded transitional – 41.8%
 - Disseminated/Banded oxide – 29.5%.
- Further beneficiation work is underway on the remaining samples from the bulk drilling program to produce a bulk sample for additional kiln vendor testing.
- Multi-element analysis of the drill samples at Gabanintha has highlighted the presence of elevated base metal sulphides associated with portions of the fresh vanadium bearing magnetite mineralisation; specifically, cobalt, nickel and copper sulphides.
- Analysis indicates that the majority of the base metal sulphides report to the non-magnetic fraction from the LIMS process designed to beneficiate the vanadium mineralisation in to a magnetic concentrate.
- A number of representative samples of the non-magnetic fraction from the LIMS have been subjected to a range of bench scale flotation tests to investigate how this material may respond to conventional base metal flotation. The testwork program consisted of bulk rougher flotation to confirm the amenity of the material to flotation, followed by cleaner flotation trials of the rougher concentrate to optimise grade of the combined base metals.
- The representative sample subjected to the bulk rougher flotation tests, the non - magnetic fraction from the LIMS, represented 25.6% of the overall LIMS feed. The overall LIMS feed graded 0.026% Co, 0.116% Ni and 0.03% Cu. The non-magnetic fraction upgraded the base metal content to 0.062% Co, 0.21% Ni and 0.093% Cu. Bench scale testing concentrate grades ranged up to 1.84% Co (at up to 76.9% recovery), up to 3.14% Ni (at up to 56.2% recovery) and 4.77% Cu (at up to 94.84% recovery). These concentrates represented mass pulls between 4.1% and 12.5% of the non - magnetic fraction feed material.
- The bulk rougher float test utilised a 13.5kg sample of the non-magnetic fraction from the LIMS, with three concentrates collected at varying time intervals through the flotation process (Figure 1). Each of the concentrates were dried and assayed prior to being recombined for cleaner flotation testwork. The recombined concentrate contained 1.11% Co (at 66.96% recovery), 2.39% Ni (at 40.24% recovery) and 2.51% Cu (at 94.84% recovery). The combined concentrate represented a mass pull of 3.5% of the non - magnetic fraction feed material and represents 0.9% of the overall LIMS feed.

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| | <ul style="list-style-type: none"> The recombined bulk rougher concentrate was then subjected to cleaner flotation tests that generated base metal cleaner concentrates with combined base metal content between 10 and 15%, containing up to 2.31% Co, 4.47% Ni and 9.50% Cu. Significant scope for optimisation of cobalt and nickel recovery at the rougher flotation stage has been identified, including an initial desliming stage to remove fine gangue mineral particles prior to flotation. If successful in rejection of a significant portion of the silica, alumina and magnesium gangue, this step may enable generation of a cleaner concentrate with 15 – 20% combined base metal grades. In addition, the final cleaner flotation concentrates contain significant proportions of pyrite, which if rejected could elevate combined base metal grades in concentrate to in excess of 20%. Test work will continue on available non- magnetic fraction from the LIMS to optimise the processing and maximise base metal recoveries and combined grades in concentrate. |
| Environmental factors or assumptions | <ul style="list-style-type: none"> No work has been finalised by the company regarding waste disposal options. This work is currently underway as part of the feasibility studies. It is assumed for the purposes of this Mineral Resource estimate that such disposal will not present a significant barrier to exploitation of the deposit, and that any disposal and potential environmental impacts will be correctly managed as required under the regulatory permitting conditions. |
| Bulk density | <ul style="list-style-type: none"> Density measurements by caliper method have been completed for 177 samples, and by weight in air, weight in water method for 267 samples across a range of material types from the drill core in the Northern Tenement Block. A total of 92 samples have been measured using both methods and show a very good correlation between the two measurement methods with a mean density of 3.12 t/m³ for caliper method versus 3.15 t/m³ for the weight in air weight in water method. The density measurement result data has been separated by weathering state into oxide, transition and fresh, and further by mineralisation type into waste, disseminated mineralisation and massive mineralisation. The means of the measured densities from these various domains have been applied to the appropriate domains in the block model as follows: <ul style="list-style-type: none"> Massive magnetite mineralisation mean density in t/m³: <ul style="list-style-type: none"> Oxide: 3.83; Transition: 4.0; Fresh: 4.36 Disseminated magnetite mineralisation mean density in t/m³: <ul style="list-style-type: none"> Hangingwall Layer 1 - Oxide: 2.85; Transition: 3.1; Fresh: 3.99 Hangingwall Layers 2 to 5 Oxide: 2.15; Transition: 3.1; Fresh: 3.27 Footwall Layer 1 Oxide: 2.34; Transition: 3.1; Fresh: 4.14. |
| Classification | <ul style="list-style-type: none"> Classification of the Mineral Resource was carried out taking into account the level of geological understanding of the deposit, quantity, quality and reliability of sampling data assumptions of continuity and drill hole spacing. The Mineral Resource estimate has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table. The Mineral Resource is classified as a Measured Mineral Resource for those volumes where in the Competent Person's opinion there is detailed and reliable, geological and sampling evidence, which are sufficient to confirm geological and |

mineralisation continuity.

- Measured Mineral Resources are reported for portions of the transitional and fresh materials in the massive magnetite unit where in addition to surface mapping, and geophysical TMI modelling, the resource definition drill data results from diamond drill core (HQ) and reverse circulation drilling are supplemented by the geological logging and chemical analysis results (using 1 m sample intervals) obtained from close spaced large diameter diamond drill core (PQ) that was drilled primarily for bulk sample collection purposes. The confidence in grade and geological continuity is highest in these zones and variation from the interpreted geological and the estimated grade continuity is expected to be minimal.
- The Mineral Resource is classified as an Indicated Mineral Resource for those volumes where in the Competent Person's opinion there is adequately detailed and reliable, geological and sampling evidence, which are sufficient to assume geological and mineralisation continuity.
- Indicated Mineral Resources are reported for portions of the transitional and fresh materials in the massive magnetite and the immediate hangingwall disseminated magnetite unit. The confidence in grade and geological continuity is considered to be good for these zones, based on the kriging slope of regression results, the nominal drill section spacing of 100 m spacing, geophysical (TMI) modelling continuity and surface mapping.
- The Mineral Resource is classified as an Inferred Mineral Resource where the model volumes are, in the Competent Person's opinion, considered to have more limited geological and sampling evidence, which are sufficient to imply but not verify geological and mineralisation continuity.
- Inferred Mineral Resources are reported for all massive magnetite oxide material, the volumes of the massive magnetite and its immediate hangingwall disseminated unit not classified as Indicated. This is generally for the extrapolated zones of these units down dip and along strike, or in the central area drilled on 200 m fence line spacing, where there appears to be greater structural complexity, and in the extreme north where possible structural influences on the geological and grade continuity are not well understood at this stage. For all remaining hanging wall disseminated mineralisation lenses and the foot wall unit there is a generally lower confidence in the geological and grade continuity due to along strike and down dip variability seen from the drill analysis result data and hence these zones are also classified as Inferred pending further information being collected.
- Inferred Mineral Resources are reported for base metals only from within the higher confidence Measured and Indicated portion of the unweathered massive magnetite material.
- Multi-element analysis of the drill samples at Gabanintha has highlighted the presence of elevated base metal sulphides associated with portions of the unweathered vanadium bearing magnetite mineralisation, specifically Co, Ni and Cu sulphides. Analysis showed that the majority of the base metal sulphides contained within the V-Ti-Fe magnetite mineralisation report to the non-magnetic (tailings) fraction resulting from the Low Intensity Magnetic Separation (LIMS) process designed to beneficiate the vanadium mineralisation into a magnetic concentrate. The base metal recovery testwork focused on this tailings fraction. The unweathered massive magnetite material has higher in situ base metal grades than other materials in the deposit and processing of the tailings stream from this material incurs no additional

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| | <p>mining and grinding costs.</p> <ul style="list-style-type: none"> • The base metals MRE is classified as Inferred reflecting a lower confidence due to the relatively early stage of metallurgical testing for the potential beneficiation of these metals into a by-product revenue stream. • The Mineral Resource estimate appropriately reflects the view of the Competent Person. |
| Audits or reviews | <ul style="list-style-type: none"> • Internal audits and peer review were completed by CSA Global which verified and considered the technical inputs, methodology, parameters and results of the estimate. No external audits have been undertaken. |
| Discussion of relative accuracy/confidence | <ul style="list-style-type: none"> • The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. • The Mineral Resource statement relates to global estimates of in situ tonnes and grade. • No mining has taken place at this deposit to allow reconciliation with production data. |