TECHNOLOGY METALS AUSTRALIA LIMITED

ASX Announcement

31 October 2019

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Directors

Michael Fry:
Chairman

Ian Prentice:
Managing Director

Sonu Cheema:
Director and Company Secretary

Issued Capital

87,554,167 ("TMT") Fully Paid Ordinary Shares

14,888,750 – Quoted Options ("TMTO") exercisable at $0.40 on or before 24 May 2020

20,598,334 – Unquoted Options – various exercise prices and dates

ASX Code: TMT, TMTO

FRA Code: TN6

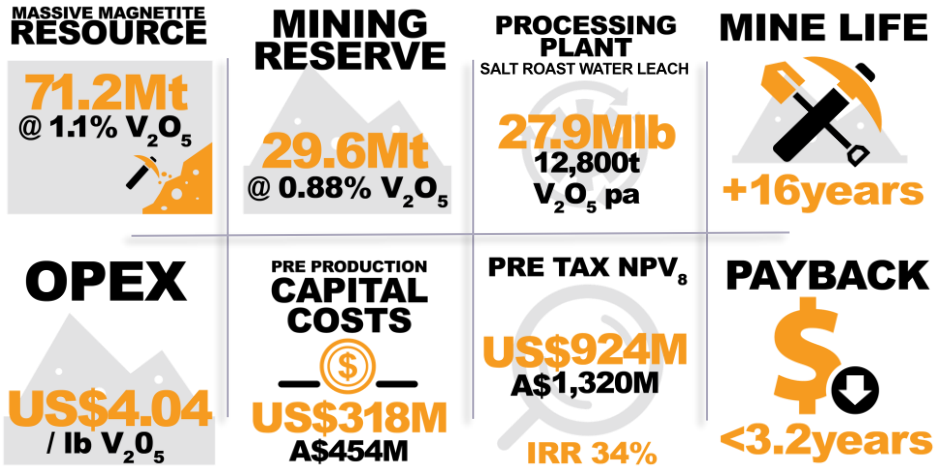
QUARTERLY ACTIVITIES REPORT & APPENDIX 5B

FOR THE QUARTER ENDING 30 SEPTEMBER 2019

The Board of Technology Metals Australia Limited (ASX: **TMT**) ("**Technology Metals**" or the "**Company**") is pleased to provide an update on activities for the quarter ending 30 September 2019.

HIGHLIGHTS

- Delivery of high quality DFS on the Gabanintha Vanadium Project (GVP) confirming it as a **long life, low cost, high value**, relatively low risk and technically strong development opportunity.



AUD/USD 0.70, US$10.88/lb long term V_2O_5 price, estimate confidence level of -5% to +15%

- Offtake MOU executed with Shaanxi Fengyuan Vanadium Technology Development Co Ltd covering 3,000Tpa V_2O_5 of proposed average annual production from GVP, with **5,000Tpa (40%) of production now covered under offtake MOU's**.

- MOU's being actively progressed to **delivery of bindng V_2O_5 offtake agreements**.

- Advanced engagement with potential strategic investors and project funding partners with a shared long term view of the vanadium industry, including corporate presentations in China, Japan, Korea, United Kingdom and Germany.

- The GVP has **progressed to the Due Diligence Stage of NAIF assessment** with regard to the provision of potentially concessional project funding.

- As at the end of September 2019 the Company had cash of $0.47 million. Subsequent to the end of the quarter the Company received an R&D refund of $2.77m. As at 29 October 2019 the Top 20 shareholders held 44.9% of the fully paid ordinary shares.

Chairman, Michael Fry commented: *"The delivery of the outstanding GVP DFS coupled with the execution of the offtake MOU with Fengyuan, supported by the advanced engagement with NAIF places TMT in an enviable position in regard to the development of the large, long life, low cost World class Gabanintha Vanadium Project."*

GABANINTHA VANADIUM PROJECT DEFINITIVE FEASIBILITY STUDY (DFS)

During the September 2019 Quarter the Company and its high quality team of experienced industry expert consultants delivered the DFS on the development of the Gabanintha Vanadium Project ("**GVP" or "Project**")[1]. The DFS was based on the Northern Block of tenements (see Figure 1) which host a Measured and Indicated Mineral Resource of 30.0 Mt at 0.9% V_2O_5 within a GVP global Measured, Indicated and Inferred Mineral Resource of 131 Mt at 0.9% V_2O_5.

The GVP DFS Delivered Robust Project Parameters

- Lowest quartile life of mine cash costs of US$4.04/lb V_2O_5 compare very favourably to global vanadium producers (see Figure 2).
- Industry leading end-to-end vanadium recovery of 77% on fresh massive ore with class leading 71% mass recovery to magnetic concentrate confirmed by pilot scale testwork.
- Critical pilot scale kiln roast test work completed by industry lead kiln supplier, FLSmidth Inc.
- Average annual production of 27.9 Mlb (12,800T) of very high purity V_2O_5 – would establish Gabanintha as the World's largest primary vanadium producer.
- Feed grade of +1.0% V_2O_5 for first 12 years – one of the World's highest grade projects (see Figure 3).
- Conservative +two-year throughput and recovery ramp up assumptions used in financial modelling.
- Proven and Probable Ore Reserve of 29.6 Mt at a diluted grade of 0.88% V_2O_5 represents a very high +98% tonnage conversion from Measured and Indicated Resource (30.0 Mt at 0.9% V_2O_5)
- Outstanding initial life of 16 years with clear scope to extend well beyond 20 years supported by the conversion of the Southern Tenement Mineral Resource (currently 21.5Mt at 0.9% V_2O_5) and the high-grade inferred component of the Northern Block Mineral Resource to the Indicated category

The GVP DFS Delivered Strong Economics

- Life of mine EBITDA estimate of A$4.1 Bn.
- Estimated A$1.09 Bn free cash flow generated in the first six years of operation.
- Pre-tax $NPV_{8\%}$ of US$924m (A$1,320m) and IRR of 34% at average LOM pricing of US$10.88/lb V_2O_5.
- 15-year historical average price of US$8.78/lb* V_2O_5 delivers pre-tax $NPV_{8\%}$ of US$464m (A$663m) and IRR of 21%.
- Pre-production process plant capital of US$318m (A$454m) with 3.2 year payback.

Cautionary Statement

The DFS referred to in this announcement is based upon a JORC Compliant Mineral Resource Estimate (ASX: Gabanintha Northern Block Resource Upgrade: 29 March 2019) (inclusive of the updated Proven and Probable Ore Reserve referred to in this announcement). Mineralisation to be mined in the DFS schedule includes 2% Inferred Mineral Resources in the first 12 years of production and a total 17% Inferred Mineral Resources over the life of mine. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised. The inclusion of the Inferred Mineral Resources in the production schedule is not anticipated to impact materially on the Project's economic viability. The Ore Reserves and Mineral Resource Estimate underpinning the DFS have been prepared by Competent Persons with Competent Person' Statements attached.

Process and engineering designs for the DFS were developed to support capital and operating estimates to an accuracy of -5% to +15%. Key assumptions that the DFS was based on (including those defined as Material Assumptions under ASX Listing Rule 5.9.1) are outlined in the body of this announcement and Appendix 1. TMT believes the production target, forecast financial information derived from that target and other forward-looking statements included in this announcement are based on reasonable grounds.

Several key steps need to be completed in order to bring Gabanintha into production. Many of these steps are referred to in this announcement. Investors should note that if there are delays associated with completion of those steps, outcomes may not yield the expected results (including the timing and quantum of estimated revenues and cash flows).The economic outcomes associated with the DFS are based on certain assumptions made for commodity prices, exchange rates and other economic variables, which are not within the Company's control and subject to change. Changes in such assumptions may have a material impact on the economic outcomes.

To develop the Project as per the assumptions set out in the DFS will require additional capital. Investors should note that any failure to precure the required additional capital may result in a delay or change in nature and scale of the Project.

1 – Technology Metals Australia – ASX Announcement dated 21 August 2019, Gabanintha Vanadium Project Definitive Feasibility Study

The DFS was completed on behalf of the Company by Wave International ("**Wave**"), an independent resource development / engineering consultant, as the lead process and project development consultant supported by a range of industry leading consultants with considerable expertise in their fields.

- METS Engineering for metallurgical testwork, product assessment and mineral processing;
    - laboratory and bench scale testwork completed at ALS in Perth, and
    - pilot scale kiln roast testwork undertaken by FLSmidth in the USA.
- CSA Global for resource and mining study work, involving the generation of open pit designs, mining and production schedules, mining capital and operating cost estimates, and an updated ore reserve estimate, supported by;
    - Mine Geotech for open pit geotechnical inputs for CSA Global.
- Integrate Sustainability for environmental, heritage, health, safety and statutory approvals advice and assistance, supported by a range of industry specific consultants, including;
    - AQ2 for project water supply and pit dewatering,
    - Hydrologia for surface water assessment, and
    - Biologic Environmental Survey for flora, fauna and subterranean fauna.

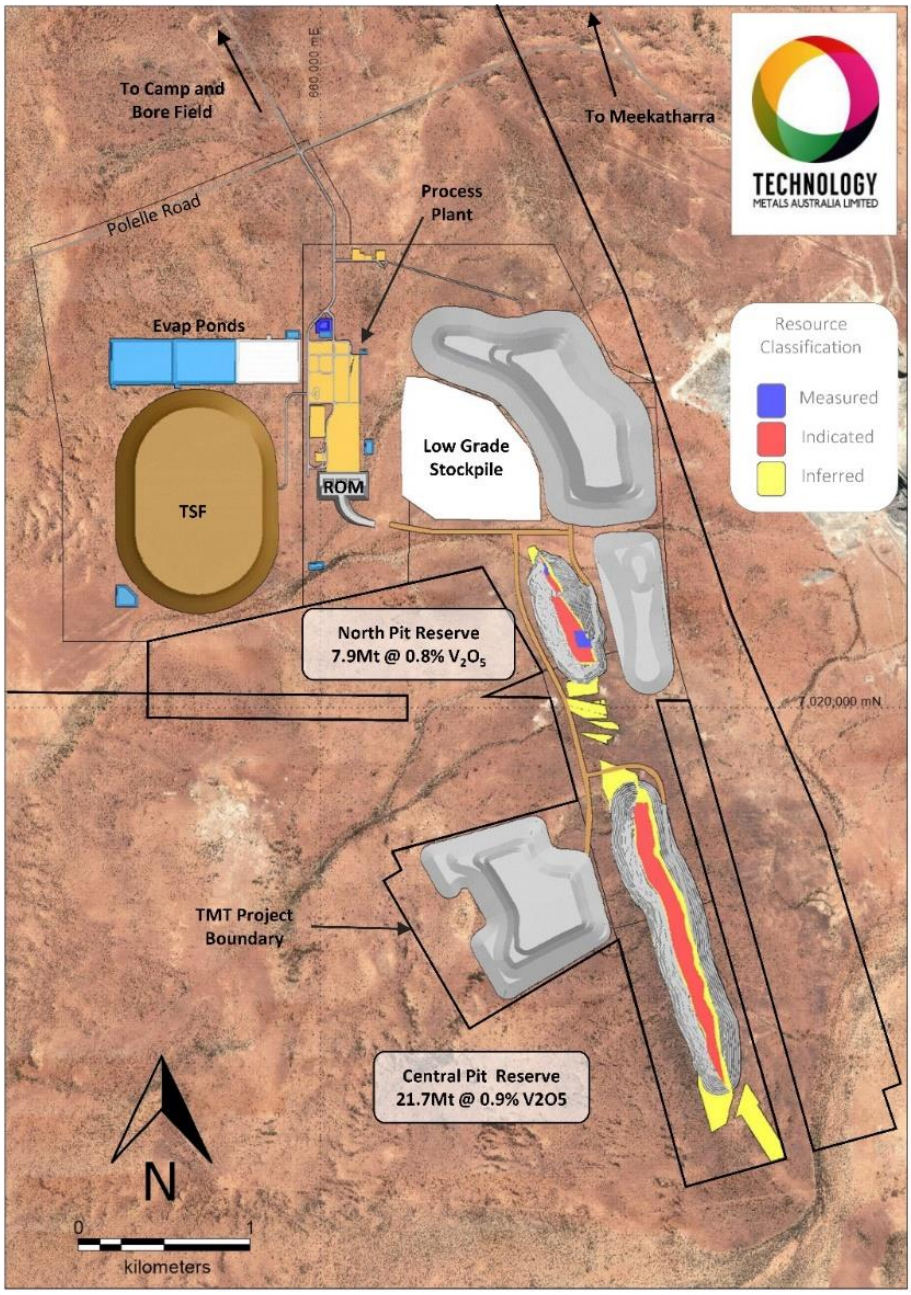


Figure 1: Gabanintha Vanadium Project – Site Layout

The GVP DFS confirms the Project to be a long life, low cost, high value, relatively low risk and technically strong development opportunity. The peak steady state production rate is proposed to be around 30.0 to 31.0 Mlbpa (13,700 to 14,200tpa) which would establish the GVP as the World's largest primary production vanadium producer.

Metallurgical and pilot scale testwork during the DFS has shown that the GVP ore is suited to processing via the salt roast / water leach process flow sheet similar to what is currently operating at Largo Resources' Maracas Menchen vanadium mine in Brazil. Testwork has also confirmed the ability to produce a high purity (>99%) V_2O_5 product which may be amenable for the premium vanadium market.

Life of mine cash operating costs (C1) are estimated at a highly competitive, lowest quartile US$4.04/lb V_2O_5 with all in costs (AIC) including start up and sustaining capital of US$5.75/lb V_2O_5. Figure 2 highlights the competitive advantage that these low cash operating costs provide relative to the global vanadium industry (black dots represent existing V_2O_5 producers) and provides confidence that the GVP will be sustained through vanadium price cycles.

TMT's operating costs do not incorporate any revenue benefits that may be generated from by-product credits, such as base metal production.

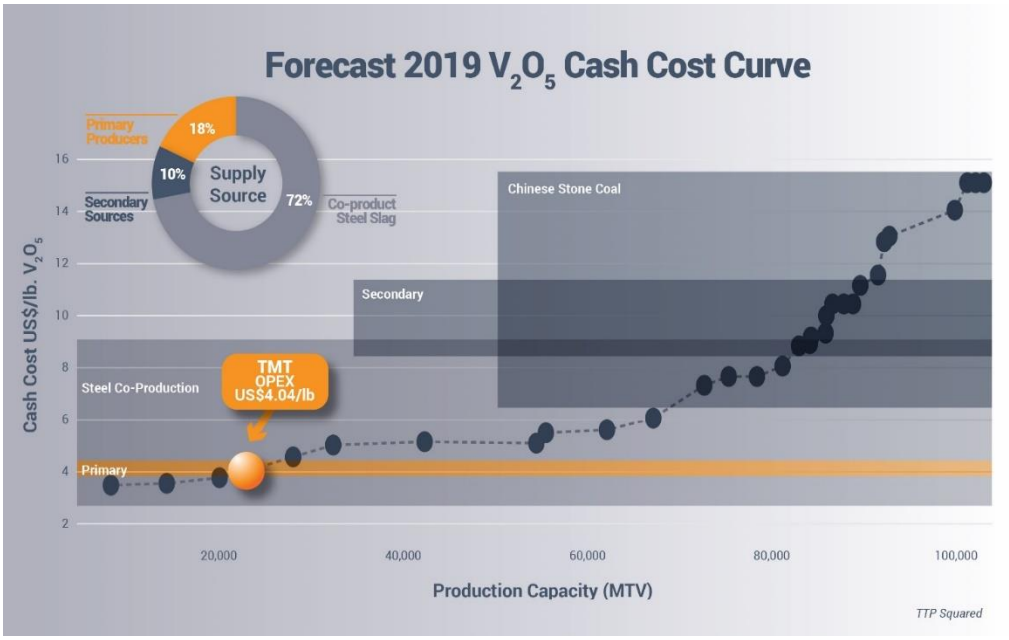


Figure 2: Vanadium Pentoxide Industry Cash Cost Curve (2019)

Metallurgical test work completed as part of the DFS highlights the industry leading vanadium recoveries of the massive magnetite hosted mineralisation at GVP, with an end-to-end recovery of 77% for the undiluted massive fresh ore, which forms the majority of process plant feed for the first 12 years of the proposed operation. The massive transitional ore, which has been used as the basis of design for the processing plant and represents about 50% of plant feed for the first three years, after which it rapidly reduces to less than 5% of feed, has an end-to-end recovery of 55%.

The high recoveries at GVP are driven by the unique geological attributes of the ore body:

1. Coarse grain size of the high-grade massive magnetite ore allows efficient liberation of deleterious minerals during the beneficiation stage at a coarse grind size, allowing more cost effective magnetic beneficiation and processing through the salt roast stage;
2. Very shallow oxidation of the ore body enabling excellent recoveries from fresh ore early in the mine life – limited losses at the beneficiation stage distinguishes GVP from most existing operations and other potential development projects; and
3. Excellent continuity of the high-grade massive magnetite ore, which also demonstrates outstanding consistency of width and grade, providing for simple and low cost mining.

The DFS mining and production schedule is based on the updated Ore Reserve of 29.6 Mt at a mined (diluted) grade of 0.88% V_2O_5 from the Measured and Indicated Mineral Resource of 30.0 Mt at 0.9% V_2O_5 located within the Northern Block of tenements. This updated Ore Reserve represents a very high +98% tonnage conversion from Measured and Indicated Resource to Proven and Probable Reserve.

Table 1: Gabanintha DFS – Material Physical Assumptions and Anticipated Outputs

PRODUCTION

Key Metric	Unit	DFS
Average V_2O_5 Production Rate	Mlb Per Annum	**27.9**
Targeted Production Commencement	Year	**2022**
Estimated Mine / Processing Life	Years	**+16**
Life of Mine Production	Mlb V_2O_5	**447.1**
Processing Rate – ROM (Yrs 1 – 12)	Mtpa	**1.7 - 2.3**
Estimated mineralisation to be mined	Mt	**35.7**
Average LOM Strip Ratio		**4.3**
Average Diluted Mining Grade (LOM)	% V_2O_5	**0.83**
Average Plant Feed Grade (Yrs 1 -12)	% V_2O_5	**1.04**
Average Yield to Mag Con (Yrs 1 – 12)[1]	%	**71**
Average V Recovery (Yrs 1 – 12)[1]	%	**70**

1 – Includes two year ramp up period, and blended transitional / partly oxidised feed in the early years

The mineralisation to be mined in the DFS schedule is 35.7 Mt at 0.83% V_2O_5 (see Table 1) with the inclusion of 2% Inferred Mineral Resources in the first 12 years of production and a total 17% Inferred Mineral Resources over the life of mine (see Figure 3). The average plant feed grade for the first 12 years of the operation is a very high 1.04% V_2O_5 (see Figure 3).

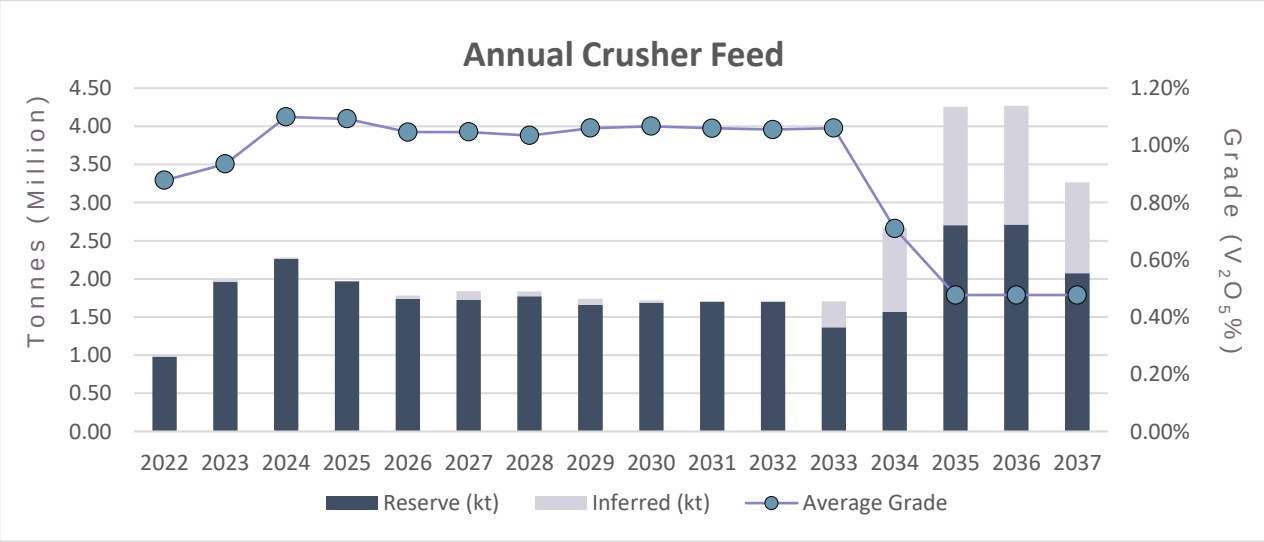


Figure 3: Annual Crusher Feed Grade and Tonnage plus Distribution of Inferred Mineral Resources (Process feed post 2033 sourced from low grade stockpiles built up over LOM)

Please note that there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised. The inclusion of the Inferred Mineral Resources in the production schedule is not anticipated to impact materially on the project economic viability. The mine plan revolves around the development of two open pits mined in three stages; the North Pit and the Central Pit.

The DFS mining and production schedule supports an initial 16 year mine life, with clear scope based on the Project resource base (Measured, Indicated and Inferred Mineral Resource of 131 Mt at 0.9% V_2O_5) to extend the mine life well beyond 20 years. This is supported by the conversion of the high-grade Inferred category component of the Northern Block Mineral Resources to the Indicated category along strike and down dip from the current mine plan. Figure 4 shows the Northern Block of Tenements resource categories and the DFS open pit designs, highlighting that the Indicated resource is limited by drill hole density along strike to the north and south of the Central Pit and by a lack of drilling at depth. The DFS open pit designs are generally limited by the depth and strike extent of the Indicated resource, with scope to extend the open pit designs with expansion of the Indicated resource.

There is also opportunity to convert some of the Southern Tenement Mineral Resource (21.5Mt at 0.9% V_2O_5) to the Indicated category to provide additional high-grade Ore Reserves. This expected expansion of the high grade Indicated category resource would be expected to extend the processing period of high-grade reserves well beyond year 12, thereby deferring the processing of lower grade stockpiles, and delivering a mine life well beyond 20 years.

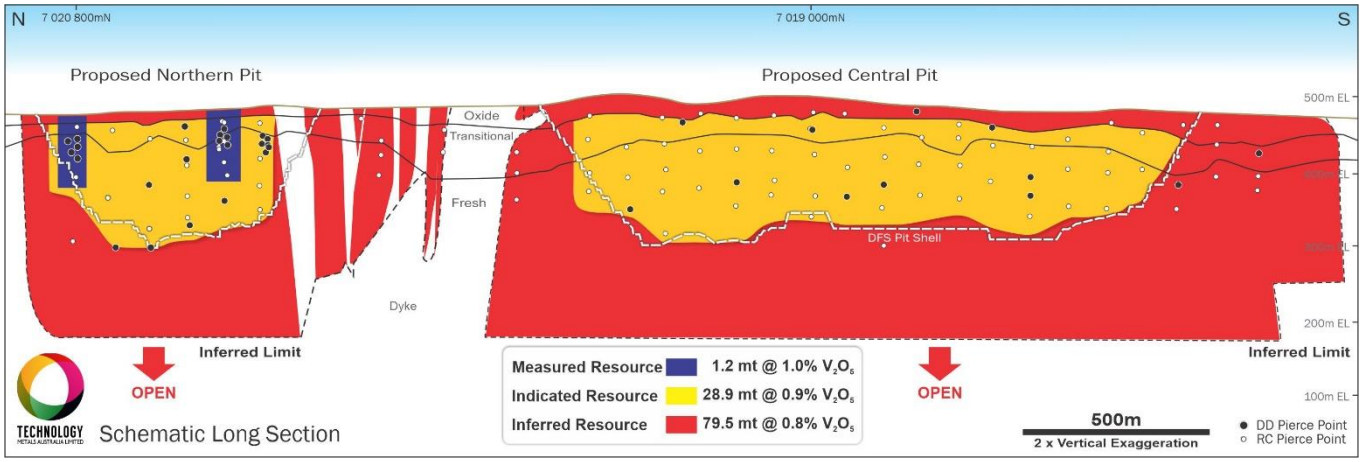


Figure 4: GVP Northern Block of Tenements – Resource Categories Relative to DFS Open Pit Designs

The GVP DFS provides an anticipated pre-tax net present value at a real 8% discount rate ($NPV_{8\%}$) in the region of $1,320 million over a projected +16 year mine life, with an IRR of 34%, based on a forecast life of mine average V_2O_5 prices of US$10.88/lb (see Table 2). This delivers a rapid capital payback of around three years, inclusive of the application of a conservative ramp up period based on achieving overall plant design capacity of 85% after two years, with the final 15% realised in the third year, and vanadium recovery increasing to full design recovery by the beginning of the third year.

Pre-production process plant capital costs are estimated at $454 million, inclusive of detailed design engineering work (FEED study), early works ordering of long lead time items, process plant construction, supporting infrastructure, EPCM, owners' costs, purchase of initial reagents, consumables and spare parts, commissioning and contingency.

Pre-production mining capital is estimated at $16 million, predominantly consisting of mining contractor mobilisation and establishment costs. There is also a working capital component required up to and during the commissioning and the initial ramp up phase prior to generation of positive cashflow. Stage 2 deferred capital expenditure of $64 million, which is designed to provide benefits to reagent consumption and vanadium recovery, is proposed once the project is in positive cashflow.

Table 2: Gabanintha DFS – Material Financial Assumptions and Anticipated Outputs

Key Metric	Unit	DFS
Long Term Commodity Price Forecast[1]	US$/lb V_2O_5	**10.88**
Exchange Rate Assumption	A$: US$	**0.70**
Total Revenue	A$m	**7,019**
Total EBITDA	A$m	**4,063**
Average Annual EBITDA (Steady State)	A$m	**268**
Total Pre-Production Process Plant Capex[2]	A$m	**454**
Total Stage 2 / Deferred Capex[3]	A$m	**64**
Total Operating Expenditure	A$m	**2,957**
Average Operating Costs	US$/lb V_2O_5	**4.04**
Average All in Sustaining Costs	US$/lb V_2O_5	**5.75**
Discount Rate Assumption	%	**8**
Net Present Value 8% Discount Rate (pre-tax)	A$m	**1,320**
Internal Rate of Return (pre-tax)	%	**34.2**
Net Present Value 8% Discount Rate (post-tax)	A$m	**870**
Internal Rate of Return (post-tax)	%	**27.3**
Anticipated Payback on Capital	Years	**3.2**

1 – US$10.59/lb V_2O_5 from 2028

2 – Includes A$49.5m contingency, A$64.9m EPCM, $13.9m owners and indirect costs. Does not include $16.0m mining pre-production capital.

3 – includes crystallisation and ion exchange plants to reduce reagent (salt) consumption and increase recovery

The DFS indicates that the GVP generates significant levels of annual cashflow at the forecast vanadium pricing, with approximately $1.04 billion of free cash flow generated over the first six years of the operation. Table 3 shows project metrics at a range of vanadium price assumptions, including the June 2018 PFS price assumptions and a flat US$8.78/lb V_2O_5. The flat pricing scenario reflects the average historical price of V_2O_5 over the past 15 years (April 2004 to March 2019) (source: TTP Squared) and approximates current V_2O_5 market prices.

Table 3: Gabanintha DFS – Financial Metrics at Various Commodity Price Assumptions

V_2O_5 Pricing Scenarios	Unit	Flat[1] US$8.78/lb	DFS US$10.88/lb	PFS[2] US$12.82/lb
Total Revenue	A$m	5,665	**7,019**	8,270
Total EBITDA	A$m	2,776	**4,063**	5,250
$NPV_{8\%}$ After Tax	A$m	409	**870**	1,246
IRR After Tax	%	17.1	**27.3**	32.4
$NPV_{8\%}$ Before Tax	A$m	663	**1,320**	1,860
IRR Before Tax	%	21.0	**34.2**	40.2
Free Cash – Year 1 - 6	A$m	629	**1,044**	1,347

1 – Historical 15 year mean vanadium pentoxide price from April 2004 to March 2019 (source: TTP Squared)

2 – PFS pricing averages US$12.82 over the operating life (as per ASX release 21 June 2018)

Gas Supply

The DFS proposes to use natural gas as the heating energy used in the roasting kiln and other parts of the process circuit and for electricity generation.

TMT has entered into a Memorandum of Understanding (**MOU**) with DDG Operations Pty Limited (DDG), part of the Australian Gas Infrastructure Group (AGIG), to co-operate in the joint conduct of investigations (FEED study) in relation to the construction of a natural gas pipeline from the AGIG owned and operated Dampier Bunbury Natural gas Pipeline. The MOU contemplates TMT becoming a Foundation Customer for the new pipeline, with DDG to fund, build, own and operate the pipeline in return for TMT entering into an annual take or pay tariff over a period to be agreed between the parties.

AGIG provided DFS pricing for the BOO supply of gas infrastructure to the site.

Water Supply

A water source to satisfy processing, potable supply and dust-suppression requirements has been identified within a paleochannel located to the north west of the processing facility covered by Miscellaneous Licence L51/102 (see Figure 5). Groundwater quality in the area is classified as fresh to brackish. The bore water as indicatively tested indicates a low salinity and low particulate composition which is to the benefit of the Project. The water supply, storage and distribution will generally consist of the borefield, remote borefield storage tank and pumps, raw water storage at the village, raw water and process water storage at the processing facility, as well as raw water storage at the mining services area.

The water drilling completed during the June quarter, focused on the inferred deepest parts of the paleochannel along the full strike of the system, delivered a deep and shallow monitoring bores and a production bore. During the September quarter the bores were airlift-developed and the production bores were subject to test pumping. Data from this work has been compiled and used by the Company's consultants AQ2 to develop a hydrogeological understanding of the borefield area.

Groundwater in the vicinity of the mining areas is relatively shallow (ranging between 450 and 485mRL) with relatively high estimated permeability for deeper fractured basement. Although the permeability of this unit is relatively high, the fractures have been found to occur at discrete intervals, thereby resulting in a low overall transmissivity. Dewatering bores will be established on the perimeter of the designed open pits, but due to the low overall transmissivity, it is proposed that most of the dewatering will be managed by the use of in-pit sumps to collect both groundwater in flows as well as any rainfall flows in to the open pits.

Construction water is expected to be sourced from initial open pit dewatering and/or refurbishment of existing fractured rock production bores in the immediate vicinity of the process facility.

ENVIRONMENTAL APPROVALS

As previously reported, the Company self-referred the proposed Project development to the WA Environmental Protection Authority (EPA). As a result of the self referral the EPA determined that the Project will undergo a formal environmental impact assessment with no public comment period. The EPA has prepared an Environmental Scoping Document (ESD), with input from other key decision making agencies, setting out the key environmental factors to be addressed and any required further work (including studies and investigations) that need to be carried out in support of the Environmental Review Document. The Company expects to be in receipt of the ESD in the current quarter.

The DFS, and work completed during the PFS, has incorporated a range of environmental surveys across the Project area in support of the environmental approvals framework. Surveys completed include flora and vegetation, terrestrial fauna, short-range endemic invertebrate, subterranean fauna, surface and groundwater assessments and social surrounds assessment. Subsequent to the end of the quarter the Company's environmental consultants, Biologic Environmental Survey, conducted follow up fauna and flora and vegetation surveys to complete the seasonal coverage of the Project development envelope. Reports and data from this work will be incorporated into the Project Environmental review Document.

The Company will continue with its planned environmental activities aimed at ensuring the work completed addresses the identified key environmental factors in a timely fashion to support the targeted lodgement of the Project's Environmental Impact Document.

MARKETING ACTIVITIES

During the quarter the Company attended the Noosa Mining & Exploration Conference on 17th to 19th July 2019, where the Managing Director, Ian Prentice, delivered a presentation entitled "Leading the Charge in the Vanadium Industry; Gabanintha Vanadium Project". Subsequent to the end of the quarter the Company attended the 97th Vanitec Meeting in London, which was attended by all of the main vanadium industry participants, providing valuable insight in to the development of the vanadium industry.

In September and early October 2019, the Company conducted a series of meetings with potential strategic investors, project funding partners and offtake partners in China, Japan and South Korea, including further meetings with CNMC (Ningxia) Orient Group Co., Ltd. (CNMNC) and its associated companies. The Company is actively progressing its relationship with CNMNC in regard to conversion of the 2,000Tpa offtake MOU into a binding offtake Agreement. The discussions have been progressing extremely well, with both parties committed to delivering a mutually beneficial outcome reflecting the terms agreed in the MOU. As such the parties have mutually agreed to extend the term of the MOU through until 30 November 2019 to enable the orderly progression through to a binding offtake Agreement.

Discussions with other parties visited have been very encouraging, with the Company entering into an MOU with Shaanxi Fengyuan Vanadium Technology Development Co., Ltd. ("Fengyuan") establishing a framework for a binding offtake agreement covering 3,000Tpa. Fengyuan is ranked amongst the top three (3) vanadium nitrogen alloy (VN) producers in China, with a production capacity of 10,000 tonnes of VN per annum, requiring approximately 14,300 tonnes per annum of V_2O_5 feedstock. TMT and Fengyuan have agreed to use their best endeavours to convert the MOU into a definitive and binding offtake agreement, with the MoU effective until 31 December 2019 unless the parties mutually agree to formally terminate or extend. The MOU provides for take-or-pay over volumes of product and a floor-ceiling price structure to ensure a degree of certainty of pricing for both parties.

TMT now has 40% (5,000Tpa) of proposed average production from the GVP under offtake MOU's that are progressing to binding offtake agreements.

The Company continues to actively pursue partnerships with groups with a shared long term view of the vanadium industry and capacity to participate at a meaningful level in the Project.

Subsequent to the end of the quarter the Company announced that it has progressed its engagement with the Northern Australia Infrastructure Facility ("NAIF") from strategic assessment of the GVP through to the Due Diligence Stage of the NAIF assessment process. NAIF is a A$5 billion facility set up as an initiative of the Australian Federal Government to provide loans, which may be on concessional terms, to support and encourage infrastructure development in northern Australia. The Company has been engaged in discussions with NAIF for some time as it progressed the GVP through the DFS and provided NAIF an Information Memorandum in support of the assessment process.

Technology Metals will continue to work closely with NAIF during the Due Diligence Stage and to develop a formal Investment Proposal, which is a precondition for the NAIF Board to make an Investment Decision. At this stage, NAIF has not made a decision to offer a loan or provide financial assistance of any sort and there is no certainty that an agreement will be reached between the parties.

Vanadium's strategic importance to the Australian economy has been recognised with its inclusion on the Australian Government's list of critical minerals in Australia. The GVP, a long-life strategic project for northern Australia, will be the largest single primary vanadium producer in the World and includes construction of a gas pipeline (by a third party), processing plant, power plant, and accommodation infrastructure.

Engagement with NAIF forms part of the Company's strategic approach in securing the funding required to progress the development of the GVP. The Company and its financial advisers are executing a process of evaluating various financing strategies and engagement with prospective strategic investors, with the funding mix expected to consist of some or all of debt, JV interest, direct project investment and/or equity.

TMT and its advisors have had initial discussions with potential strategic investors and financiers with these discussions strongly supported by the delivery of the technically and financially robust GVP DFS. There is scope for a range of JV opportunities on the Project, through engineering / EPC, build own operate transfer, plant and equipment procurement packages, etc that are being vigorously pursued by the Company and its advisers.

FUTURE WORK

The Company's activities following the delivery of the GVP DFS are focused on the continued engagement with offtake partners, industry participants and prospective project funding partners, the progression of environmental activities in support of completion and lodgement of the first draft of the Environmental Review document and discussions with the Yugunga-Nya Claimant Group and its representatives to progress a suitable Mining agreement and the timely grant of the GVP Mining Leases.

It is envisaged that additional water definition and evaluation work will be required to finalise the location of the initial production bores and to provide input for the first draft of the Environmental Review document. There will also be early engagement with suppliers of long lead processing plant equipment, including the kiln, to ensure a timely progression of the development of the GVP.

TMT expects the FEED study on the GVP will commence following further progression of the environmental activities in support of the statutory approvals process.

VANADIUM MARKET COMMENTARY

Vanadium prices remained relatively stable during the quarter, down from the unsustainable highs seen during the December 2018 quarter, albeit that there has been a larger decline in European prices driven by specific macro economic events. Prices are now at levels that are supportive of continued growth in consumption.

There has been a notable increase of intensity of use of vanadium in the Chinese steel Industry, driven by the gradual managed implementation of the revised Chinese rebar standards. A majority of this increased vanadium consumption in the Chinese steel industry has come in the form of vanadium nitrogen alloys, at the expense of ferro vanadium, which is consistent with the discussions the Company has had with its two offtake partners, CNMNC and Fengyuan, two of Chinas largest vanadium nitrogen alloy producers.

Outlook

Vanadium consumption, particularly in the Chinese steel industry, is expected to remain strong supported by the ongoing managed implementation of the revised rebar standards and the stabilised vanadium price. Global vanadium production is expected to continue to lag consumption, partly driven by the removal of some of the higher cost producers that had been reliant on the unsustainably high vanadium prices seen in late 2018.

The current vanadium pricing is seeing the re-emergence of a range of vanadium redox flow battery (VRFB) projects that had been delayed / impacted by the unsustainably high vanadium prices of late 2018. The re-emergence of this sector of consumption is important for the continued growth of vanadium demand in the medium to long term and will be reliant on the vanadium price remaining in a more sustainable price range.

These market fundamentals are expected to see a gradual improvement in vanadium prices, which are expected to remain in a more sustainable price range that supports consumption growth and the development of high quality green fields projects such as GVP.

TENEMENTS

During the quarter General Purpose Lease 51/29 and Miscellaneous Licence 51/102 were granted (see table 4 and Figure 5). Competing application P51/3141 was withdrawn, leaving Prospecting Licence P51/3140, located to the east of the North Pit, as the only compliant application for this area. P51/3140 is expected to provide additional area for supporting infrastructure to the east of the North Pit. Additional tenure in in the Northern Block of Tenements that remains subject to grant is General Purpose Lease 51/30 and Mining Lease 51/883.

The Company continued with efforts to engage with representatives of the native title claimant group in the Project area to progress the process of grant of its two Mining Lease applications; M51/883 over the Northern Block of Tenements and M51/884 over the Southern Tenement.

LOCATION	TENEMENT	INTEREST ACQUIRED OR DISPOSED OF DURING THE QUARTER	ECONOMIC INTEREST
Gabanintha Project (WA)	E51/1510-I	Nil	100%
Gabanintha Project (WA)	E51/1818	Nil	100%
Gabanintha Project (WA)	L51/101	Nil	100%
Gabanintha Project (WA)	P51/2785-I	Nil	100%
Gabanintha Project (WA)	P51/2930	Nil	100%
Gabanintha Project (WA)	P51/2942	Nil	100%
Gabanintha Project (WA)	P51/2943	Nil	100%
Gabanintha Project (WA)	P51/2944	Nil	100%
Gabanintha Project (WA)	G51/29	Nil - Granted	100%
Gabanintha Project (WA)	G51/30	Nil - Application	100%
Gabanintha Project (WA)	L51/102	Nil - Granted	100%
Gabanintha Project (WA)	M51/883	Nil - Application	100%
Gabanintha Project (WA)	M51/884	Nil - Application	100%
Gabanintha Project (WA)	P51/3140	Nil - Application	100%

Table 4: Tenement Status as at 30 September 2019

CORPORATE

As at 29 October 2019 the Top 20 shareholders held 44.9% of the fully paid ordinary shares and the Company had cash of $0.47 million as at 30 September 2019. Subsequent to the end of the quarter the Company received $2.77 million from the Australian Federal Government's Research and Development (R&D) Tax Incentive Scheme for the 2018/19 tax year. Proceeds from the R&D refund have been used to repay the drawn amount ($1.42 million) of the R&D rebate finance facility provided by Radium Capital, with the balance to be applied to progressing environmental and permitting activities supporting the development of GVP as well as continue to advance discussions with potential strategic investors, project funding parties and offtake partners.

Project specific announcements lodged on the ASX during the September 2019 quarter were:

- TMT Investor Presentation – Noosa Mining & Exploration Investor Conference, 17 July 2019;
- Gabanintha Vanadium Project Definitive Feasibility Study, 21 August 2019;
- TMT Investor Presentation, 26 August 2019

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 flow batteries ("**VRFB's**"). VRFB'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. VRFB'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 VRFB'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.

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

Ian Prentice
Executive 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 has been 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 V_2O_5 flake product to both the steel market and the emerging vanadium redox battery (VRB) market.

The Project consists of nine granted tenements and four applications (including two Mining Leases) divided between the Northern Block of Tenements (11 tenements) and the Southern Tenement (2 tenements). 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.

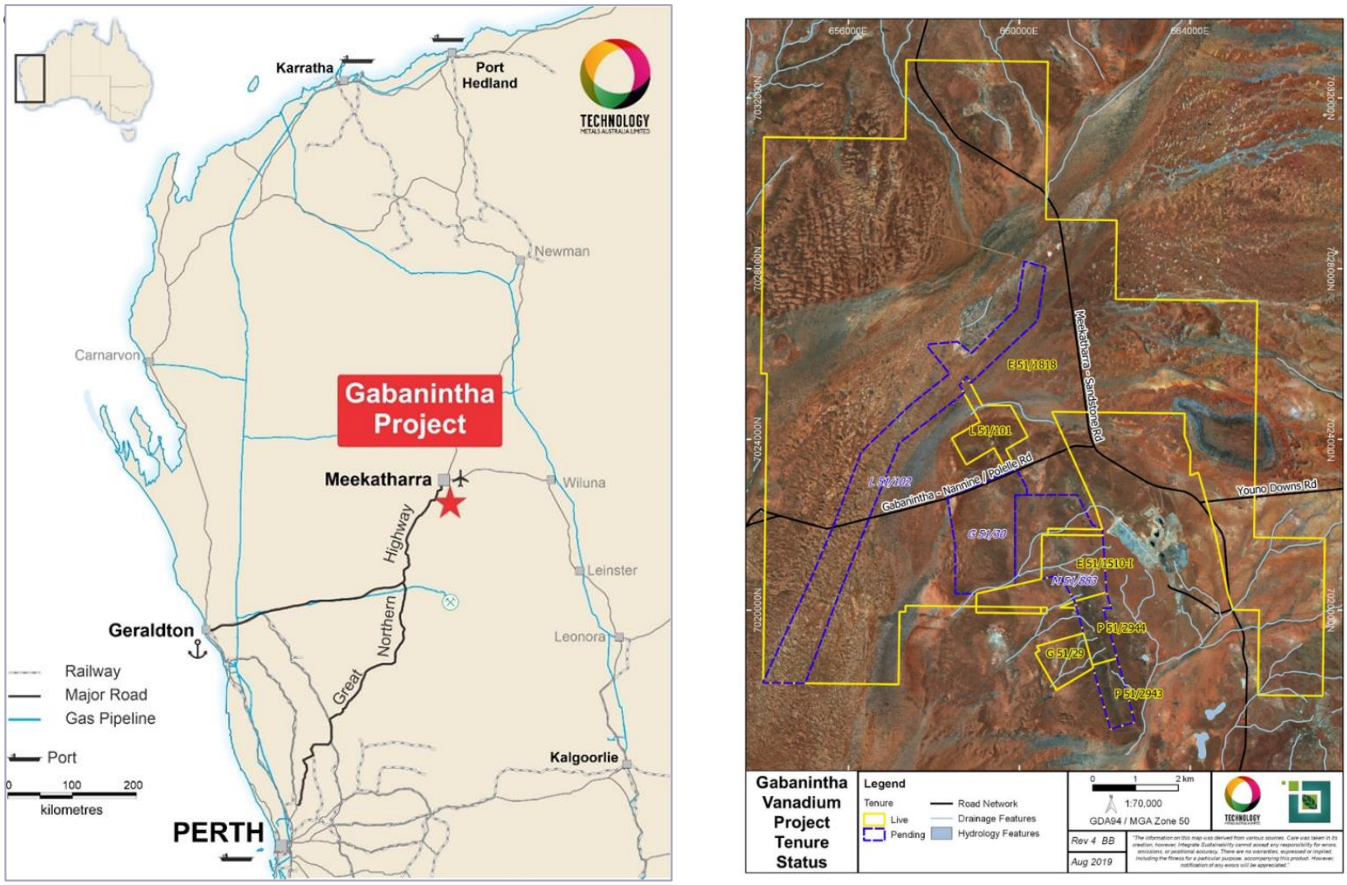


Figure 5: GVP Location and Tenure

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

Material Type	Classification	Tonnage (Mt)	V_2O_5%	Fe%	Al_2O_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*

Data from the global Mineral Resource and the recently completed DFS on the GVP were used by independent consultants CSA Global to generate a Proven and Probable Ore Reserve estimate based on the Measured and Indicated Mineral Resource of 30.1 Mt at 0.9% V_2O_5 located within the Northern Block of tenements at Gabanintha.

Table 6: Ore Reserve Estimate as at 31 May 2018

Reserve Category	Tonnes (Mt)	Grade V_2O_5%	Contained V_2O_5 Tonnes (Mt)
Proven	1.1	0.96	0.01
Probable	28.5	0.88	0.25
Total	29.6	**0.88**	**0.26**

- *Note: Includes allowance for mining recovery (98% for massive magnetite ore and 95% for banded and disseminated ore) and mining dilution applied as a 1 metre dilution skin; resulting in a North Pit dilution for massive magnetite ore of 13% at 0.45% V_2O_5, and North Pit dilution for banded and disseminated ore of 29% at 0.0% V_2O_5; a Central Pit dilution for massive magnetite ore of 10% at 0.46% V_2O_5, and Central Pit dilution for banded and disseminated ore of 20% at 0.0% V_2O_5.)*
- *Rounding errors may occur*

Capital Structure	
Fully Paid Ordinary Shares on Issue	*87.554m*
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)	*14.889m*
Unquoted Options ($0.40 – 24/05/20 expiry)	*3.258m*

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 Managing 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 Mr Brett Morgan and reviewed by Mr Damian Connelly, both employees of METS Engineering Group Pty Ltd. Mr Connelly takes overall responsibility for the Report as Competent Person. Mr Connelly 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 which he is undertaking, to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. The Competent Person, 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.

+Rule 5.5

Appendix 5B

Mining exploration entity and oil and gas exploration entity monthly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Name of entity

Technology Metals Australia Limited

ACN	**Quarter ended ("current quarter")**
612 531 389	30 September 2019

Consolidated statement of cash flows		**Current Quarter (Sept 2019) $A'000**	**Year to date (3 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for:		
	(a) exploration & evaluation	(2,851)	(2,851)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(77)	(77)
	(e) administration and corporate costs	(159)	(159)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	-
1.5	Interest and other costs of finance paid	(1)	(1)
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Other	299	299
1.9	**Net cash from / (used in) operating activities**	**(2,789)**	**(2,789)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-

	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**-**	**-**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of shares	-	-
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	-	-
3.5	Proceeds from borrowings	1,417	1,417
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from / (used in) financing activities**	**1,417**	**1,417**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	1,839	1,839
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,789)	(2,789)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,417	1,417
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**467**	**467**

5.	**Reconciliation of cash and cash equivalents** at the end of the month (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current Quarter $A'000**	**Previous Quarter $A'000**
5.1	Bank balances	467	1,839
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**467**	**1,839**

6.	**Payments to directors of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to these parties included in item 1.2	77
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Payment of director's fees.

7.	**Payments to related entities of the entity and their associates**	**Current quarter $A'000**
7.1	Aggregate amount of payments to these parties included in item 1.2	33
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

The Company engages Cicero Corporate Services Pty Ltd, which Mr Sonu Cheema is a director of, for administrative, rent and company secretarial services.

8.	**Financing facilities available** *Add notes as necessary for an understanding of the position*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
8.1	Loan facilities	-	-
8.2	Credit standby arrangements	1,417	1,417
8.3	Other (please specify)	-	-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after month end, include details of those facilities as well.

During the quarter ending 30 June 2019, the Company secured a credit facility from Radium Capital. The Company is able to draw down on this credit facility in accordance with the Radium Capital processes. As at the 30 September 2019, the Company has drawn down the full $1,417,000 available under the credit facility. As announced on 16 October 2019, TMT received its R&D Refund of $2,769,178 and had completely settled this facility with no further amount outstanding.

9.	**Estimated cash outflows for next quarter**	**$A'000**
9.1	Exploration and evaluation	220
9.2	Development	-
9.3	Production	-
9.4	Staff costs	75
9.5	Administration and corporate costs	150
9.6	Other (provide details if material)	-
9.7	**Total estimated cash outflows**	445

10.	**Changes in tenements (items 2.1(b) and 2.2(b) above)**	**Tenement reference and location**	**Nature of interest**	**Interest at beginning of quarter**	**Interest at end of quarter**
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	-	-	-	-
10.2	Interests in mining tenements and petroleum tenements acquired or increased	G51/29 GVP L51/102 GVP	Direct Direct	0% 0%	100% 100%

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Sign here: ..... Date: 31 October 2019
Director and Company Secretary

Print name: Sonu Cheema

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this monthly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.