

MTMP MINE LIFE INCREASED TO 25 YEARS

Maiden Ilmenite Reserve and Production Profile

HIGHLIGHTS

Integration Study delivers a global Murchison Technology Metals Project (MTMP) Ore Reserve of 44.48Mt at 0.89% V₂O₅.

Yarrabubba Ore Reserve has increased by 69% to 15.88Mt at 0.87% V₂O₅ and 10.03% TiO₂.

Increased mine life to 25 years, targeting average production rate of ~12,500 tpa (27.5 Mlbs pa) V₂O₅.

Maiden Yarrabubba ilmenite (TiO₂) Ore Reserve generates 1.13Mt of ilmenite over the life of mine, delivering a material additional revenue stream.

Dual revenue streams from Yarrabubba further de-risks the development of the MTMP.

DCF analysis conducted by Orelogy shows the integrated MTMP meets the investment criteria for TMT to pursue the next stages of project development.

TMT has moved to commercial competitive tendering to update MTMP economic parameters and support development of the financial model and a Development Decision expected by the end of 2022.

5 August 2022

Cautionary Statement

The MTMP Ore Reserve estimate update referred to in this announcement is based upon a JORC Compliant Mineral Resource Estimate (ASX: 110% increase in Yarrabubba Indicated Mineral Resource: 10 November 2021) and is supported by a Class 4 capital cost estimate (capex) with an accuracy range of approximately -15% to +20% based on the accuracy levels as defined by the American Association of Cost Engineers' (AACE) Cost Estimation Classification System (As Applied for the Mining and Mineral Processing Industries).

A conservative approach was adopted for the estimation of capex and opex for the Ore Reserve estimation process given the current mining industry operating environment. TMT and its consultants will optimise costs and operating parameters during the MTMP Implementation Phase, including the commercial competitive tendering process designed to establish actual commercial pricing to support development of the MTMP Bankable Financial Model and be ready to award Contracts.

The capex is a bottom-up estimate, as far as practically possible, that considers escalation of the 2019 DFS capital expenditure estimate and the additional scope to accommodate processing of ilmenite. The commercial competitive tendering process underway as part of the MTMP Implementation Phase will establish actual commercial pricing to support development of the MTMP Bankable Financial Model. The operating cost estimate (opex) was generated utilising the information from the mass balance, direct process engineering input, mining operating costs and the equipment maintenance aligned with the capex equipment. Reagent usage was calculated from pilot/bench-scale testwork and METSIM modelling software. Reagent (including transport) costs were obtained from supplier's budget quotations. The level of effort for each of the line items meets the estimate as defined by the AACE.

The mine schedule developed to support the Ore Reserve estimate is based on Proven and Probable Ore Reserves only for the initial mine life of approximately 22 ½ years (inclusive of 6 months pre-stripping period) with a further 10.5Mt at 0.5% V₂O₅ of Inferred Resources contained within the Ore Reserve pit designs (90% conversion factor) extending the mine life to 25 years. A total of 19% of mineralisation to be mined (by tonnage) consists of Inferred Resources which have a low level of geological confidence and there is no certainty that further 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 at the end of the production schedule has not been included in the economic evaluation and is not anticipated to impact materially on the Project's economic viability.

Cautionary Statement cont'd

The Ore Reserve estimate update and the Mineral Resource Estimate on which it is based have been prepared by Competent Persons with Competent Person' Statements attached.

Key assumptions that the Ore Reserve update 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 3. 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 MTMP 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 this Ore Reserve update 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.

Advanced Australian vanadium developer, Technology Metals Australia Limited (ASX: **TMT**) (**Technology Metals, or the Company**), is pleased to provide the results of the Integration Study (**Study**) for the Murchison Technology Metals Project (**MTMP**), located 50km south of Meekatharra in Western Australia.

The Study has merged the high-grade Yarrabubba deposit into the MTMP mine plan. An updated Yarrabubba Ore Reserve Estimate of 15.88Mt @ 0.87% V₂O₅ and 10.03% TiO₂, a 69% increase on the previous Ore Reserve estimate, has delivered a global MTMP Ore Reserve Estimate of 44.48Mt @ 0.89% V₂O₅. The expanded Yarrabubba Ore Reserve estimate extends the potential MTMP mine life out to 25 years, with the dual revenue streams of vanadium pentoxide and ilmenite further de-risking the development of the MTMP.

The MTMP production profile generated through the Study targets V₂O₅ production of ~12,500 tpa (27.5 Mlbs pa) over the mine life. Ilmenite production is linked to mining of Yarrabubba, with 1.13Mt of production over the mine life, the majority of which occurs within the first 9 years of the operation. Average production for this initial 9-year period is approximately 96,500 tpa, with a peak of around 170,000 tpa.

TZ Minerals International Pty Ltd (**TZMI**) has previously assessed the ilmenite product¹ and potential customers. TZMI has indicated that feedback from potential customers has been positive and based on the indicative product quality, the planned ilmenite product would achieve a price of ~US\$250-270 per tonne FOB in the current spot market.

Managing Director Ian Prentice commented:

"The updated Yarrabubba Ore Reserve has delivered a significant boost to the MTMP with the addition of the maiden ilmenite Ore Reserve estimate and extension of mine life to 25 years. The ilmenite production is expected to deliver a significant revenue stream to the MTMP, particularly in the initial 10 years, further de-risking the development of the project.

The economic evaluation completed as part of the Ore Reserve update indicates that the integrated MTMP meets the investment criteria for TMT to actively pursue the Implementation Phase of the Project. Activities now being advanced, including the commercial tendering process to update the economics of the Project, are expected to optimise the MTMP and lead to a Development Decision, which is expected by the end of 2022."

¹ ASX Announcement 13 April 2021 – Titanium Product Confirmed, Industry Experts Confirm Significant Revenue Scope

INTEGRATION STUDY

In August 2019², the Company released a Definitive Feasibility Study (DFS) for the Gabanintha Vanadium Project, located 20km to the north of Yarrabubba. The DFS was based only on Gabanintha, had a Proven and Probable Ore Reserve of 29.6Mt @ 0.88% V₂O₅ and highlighted a robust project with a 16-year mine life.

Subsequent to the completion of the DFS, the Company recognised the potential significance of the emerging Yarrabubba deposit, located to the south. Drilling and metallurgical testwork confirmed that the Yarrabubba deposit is similar to Gabanintha, with the exception of high levels of recoverable ilmenite. A maiden Yarrabubba Probable Ore Reserve estimate of 9.4Mt at 0.97% V₂O₅ was reported in September 2020³, increasing the global Proven and Probable Ore Reserve estimate to 39Mt at 0.9% V₂O₅.

The Company commenced an Integration Study (Study) in late 2021 to combine the high grade, high quality Yarrabubba deposit with the Gabanintha Vanadium Deposit to form the Murchison Technology Metals Project (MTMP). The higher vanadium in concentrate grades (1.61% V₂O₅), excellent recoveries and the potential for highly sought-after ilmenite by-product revenue from Yarrabubba was expected to materially enhance the economic metrics in the early years of the project, lowering the development risk on the MTMP.

The Study assessed the metallurgical properties of Yarrabubba ore with regards to its suitability to be processed through the Gabanintha process flowsheet, any required modifications and the addition of a simple gravity circuit required to recover ilmenite from the non-magnetic process tailings stream. This work confirmed that ore from Yarrabubba is highly amenable for processing through the original Gabanintha vanadium flowsheet, with the addition of an ilmenite recovery circuit.

Open pit mine modelling and scheduling work has now been completed by independent consultant Orelogy Consulting Pty Ltd (**Orelogy**) across both Gabanintha and Yarrabubba as part of the Study. The work completed was predominantly focused on updating the Yarrabubba Ore Reserve estimate based on the November 2021 Yarrabubba Mineral Resource estimate of 36.6Mt at 0.8% V₂O₅, including an Indicated Mineral Resource Estimate of 20.2Mt at 0.9% V₂O₅.

The updated Yarrabubba Probable Ore Reserve Estimate of 15.88Mt at 0.87% V₂O₅ represents a 69% increase on the previous Ore Reserve Estimate (see Table 1) and included a maiden ilmenite (TiO₂) Ore Reserve estimate of 15.88Mt at 10.03% TiO₂. This delivered an estimated 8.84Mt at 12.35% TiO₂ that reports to the non-magnetic tails stream and is estimated to recover 1,133,000 tonnes of ilmenite product grading at ~47% TiO₂, the majority of which is produced within the first 9 years of the mine life (see Figure 4).

Table 1: Yarrabubba Ore Reserve Ore Reserve (V₂O₅ and Ilmenite Basis)

Class	Ore				Magnetic Conc.		Non-Magnetic Conc.		Rec. V ₂ O ₅	Rec. Ilmenite	Waste	Total
	Mt	V ₂ O ₅ %	TiO ₂ %	Mass Yield	Mt	V ₂ O ₅ %	Mt	TiO ₂ %	M lb	kt	Mt	Mt
Probable	15.88	0.87%	10.03%	44.4%	7.04	1.61%	8.84	12.35%	203	1,133	110.10	125.98

Orelogy re-estimated the Gabanintha Ore Reserve based on updated capex and opex inputs as part of the Integration Study, delivering an updated Global Proven and Probable Ore Reserve estimate for the MTMP of 44.48Mt at 0.89% V₂O₅ (see Table 2). This global ore reserve represents a remarkable 88.6% conversion from the Global Measured and Indicated Mineral Resource estimate for the MTMP.

² ASX Announcement 21 August 2019 – Gabanintha Vanadium Project Definitive Feasibility Study

³ ASX Announcement 16 September 2020 – 32% Increase to GVP Ore Reserve Delivers 22.5 Year Mine Life

Table 2: Update to Global MTMP Ore Reserve Estimate

Deposit	Ex-Pit Ore				Magnetic Conc.		Non-Magnetic Conc.		Rec. V ₂ O ₅	Rec. Ilmenite	Waste	Total
	Mt	V ₂ O ₅ %	TiO ₂ %	Mass Yield	Mt	V ₂ O ₅ %	Mt	TiO ₂ %	M lb	kt	Mt	Mt
Yarrabubba Probable	15.88	0.87%	10.0%	44.4%	7.04	1.61%	8.84	12.35%	202.7	1132.6	110.1	126.0
Yarrabubba Total	15.88	0.87%	10.0%	44.4%	7.04	1.61%	8.84	12.35%	202.7	1132.6	110.1	126.0
Gabarintha Probable	1.12	0.95%		69.8%	0.78	1.30%			18.1		154.5	183.1
Gabarintha Proven	27.48	0.90%		57.1%	15.69	1.31%			369.4			
Gabarintha Total	28.60	0.91%	10.7%	57.6%	16.47	1.31%			387.5	0.0		
Global MTMP Total	44.48	0.89%	10.5%	52.9%	23.52	1.40%	8.84	12.35%	590.3	1132.6	264.6	309.1

Note: Quantities have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding

The Study activities that support this Ore Reserve Update for the Murchison Technology Metals Project (MTMP) are supported by studies and investigations undertaken by the Company, and a number of suitably qualified independent consultants, experts and contracting firms. A FS level standard of confidence was achieved for Gabarintha (the Northern Block of tenements). Yarrabubba (the Southern Tenement) is at a PFS level of confidence.

The mine schedule developed to support the Ore Reserve is based on Proven and Probable Ore Reserves only (i.e 44.48Mt @ 0.89% V₂O₅) and has a total mine life of approx. 22 ½ years inclusive of 6 months pre-stripping period. Details of the schedule are provided in Figure 2 to Figure 4. There is a total of 10.5Mt at 0.5% V₂O₅ of Inferred Resources within the Ore Reserve pit designs which has been included at the end of the mine plan as shown in the figures below at a conversion factor of 90%. Inclusion of the Inferred Resources extends the mine life to 25 years.

The capital cost estimate (capex) for this Ore Reserve Update is an estimate with an accuracy range of approximately -15% to +20% based on a Class 4 capital cost estimate as defined by the American Association of Cost Engineers' (AACE) Cost Estimation Classification System (As Applied for the Mining and Mineral Processing Industries). The capex is a bottom-up estimate, as far as practically possible, that considers escalation of the 2019 DFS capital expenditure estimate and the additional scope to accommodate processing of ilmenite. The commercial competitive tendering process underway as part of the MTMP Implementation Phase will establish actual commercial pricing to support development of the MTMP Bankable Financial Model.

The operating cost estimate (opex) was generated utilising the information from the mass balance, direct process engineering input for heat loading and reagent usage, mining operating costs and the equipment maintenance aligned with the capex equipment. The updated processing operating cost estimate was developed relying on the operating cost estimate for the previous reserve with key updates to reagents, power and manning. Mining costs have been developed on a first principle basis to reflect a mining contractor estimate. It has been developed to a +/-15% level of confidence based on a life of mine schedule developed by Orelogy. It covers all costs associated with mining the deposits. Key cost updates from the previous Ore Reserve are fuel price (\$1.66/l) and bulk explosives (\$1400/t).

As per the previous reserve opex, all significant and measurable items are itemised. However, smaller items are factored as per industry practice. The level of effort for each of the line items meets the estimate as defined by the AACE. Reagent usage was calculated from pilot/bench-scale testwork and METSIM modelling software. Reagent (including transport) costs were obtained from supplier's budget quotations.

Mine scheduling work completed by Orelogy generated a production profile for the MTMP of ~12,500 tpa V_2O_5 over the 22 ½ year Reserve life. This drops to an average of 7,000 tpa for the last 3 years due to the lower yield of the Inferred material and the process hitting the mill feed limit. An annual average ilmenite production of 96,500 tpa is achieved from Year 1 to Year 9, followed by an average of 52,000 tpa from Year 16 to Year 20 (see Figure 4). The dual revenue streams of vanadium pentoxide and ilmenite further de-risks the development of the MTMP.

TZMI has completed a product and customer assessment program for ilmenite from Yarrabubba and feedback from potential Asian customers that confirms the product is suitable for use as a blend feed in their respective sulfate pigment processes. Based on the indicative product quality, TZMI estimates that the planned Yarrabubba ilmenite would achieve a price of US\$310-330 per tonne CIF China (or approximately US\$250-270 per tonne FOB) in the current spot market (See Appendix 2).

The combined annual ilmenite production profile and attractive market fundamentals indicates that ilmenite is likely to have a material impact on the economics of the MTMP.

Table 3: MTMP Ore Reserve Estimate Update – Material Assumptions and Anticipated Outputs

Key Metric	Unit	Value
Targeted Average V_2O_5 Production Rate	Mlb Per Annum	27.5
Expected First Year of Production	Year	2025
Estimated Mine / Processing Life	Years	25
Average Ilmenite Production Rate (first 9 years)	tpa	96,500
Estimated mineralisation to be mined	Mt	44.5
Average Diluted Mining Grade (LOM)	% V_2O_5	0.89
Average Strip Ratio ¹	Waste (t): Ore (t)	5.95: 1
Long Term V_2O_5 Price Forecast ²	US\$/lb	10.50
Long Term Ilmenite Price Forecast ³	US\$/tonne FOB	260
Exchange Rate Assumption	A\$:US\$	0.70
Life-of-Mine Revenue	A\$M	8,812
Total Pre-Production Capex ⁴	A\$M	604
Life-of-Mine Sustaining Capital	A\$M	208
Life-of-Mine Operating Expense	A\$M	4,748
Average Annual EBITDA	A\$M	182

1 – excludes 10.5Mt of Inferred Resources within the Ore Reserve pit designs

2 – reflects long term view on vanadium price and a discount to the average market price over the first half of 2022

3 – ilmenite concentrate price based on prices received from TZMI

4 – pre-Production Capex includes 12% contingency

Oreology conducted discounted cashflow (“DCF”) analysis of the MTMP using the economic assumptions as detailed above, indicating a pre-tax NPV at a discount of 8% (EBITDA basis) of approximately A\$942 million with an internal rate of return of 23%. These results meet the investment criteria for Technology Metals to pursue the next stage of project development.

With the MTMP process flowsheet and this updated Ore Reserve estimate now locked in, and confirmation that ore from Yarrabubba is highly amenable for processing through the original Gabanintha vanadium flowsheet, the Company has commenced a commercial competitive tendering process to establish updated and reliable economic parameters of the Project and form ready-to-award commercial contracts. The Company has already awarded the kiln front end engineering and design (**FEED Services**) contract⁴ to FLSmidth and an early works agreement has been executed with APA Group⁵ for a gas pipeline to the MTMP.

The competitive tender process will provide details of the variances in the capital and operating costs for the Project. Coupled with updated pricing assumptions, the detailed bankable economic parameters of the Project are expected to be announced in the latter part of CY2022, prior to the Company making a Development Decision.

⁴ ASX Announcement 28 April 2022 – Kiln FEED award launches Implementation Phase

⁵ ASX Announcement 8 June 2022 – Gas pipeline early works agreement executed with APA

Figure 1: MTMP Location Plan Showing Ore Reserves

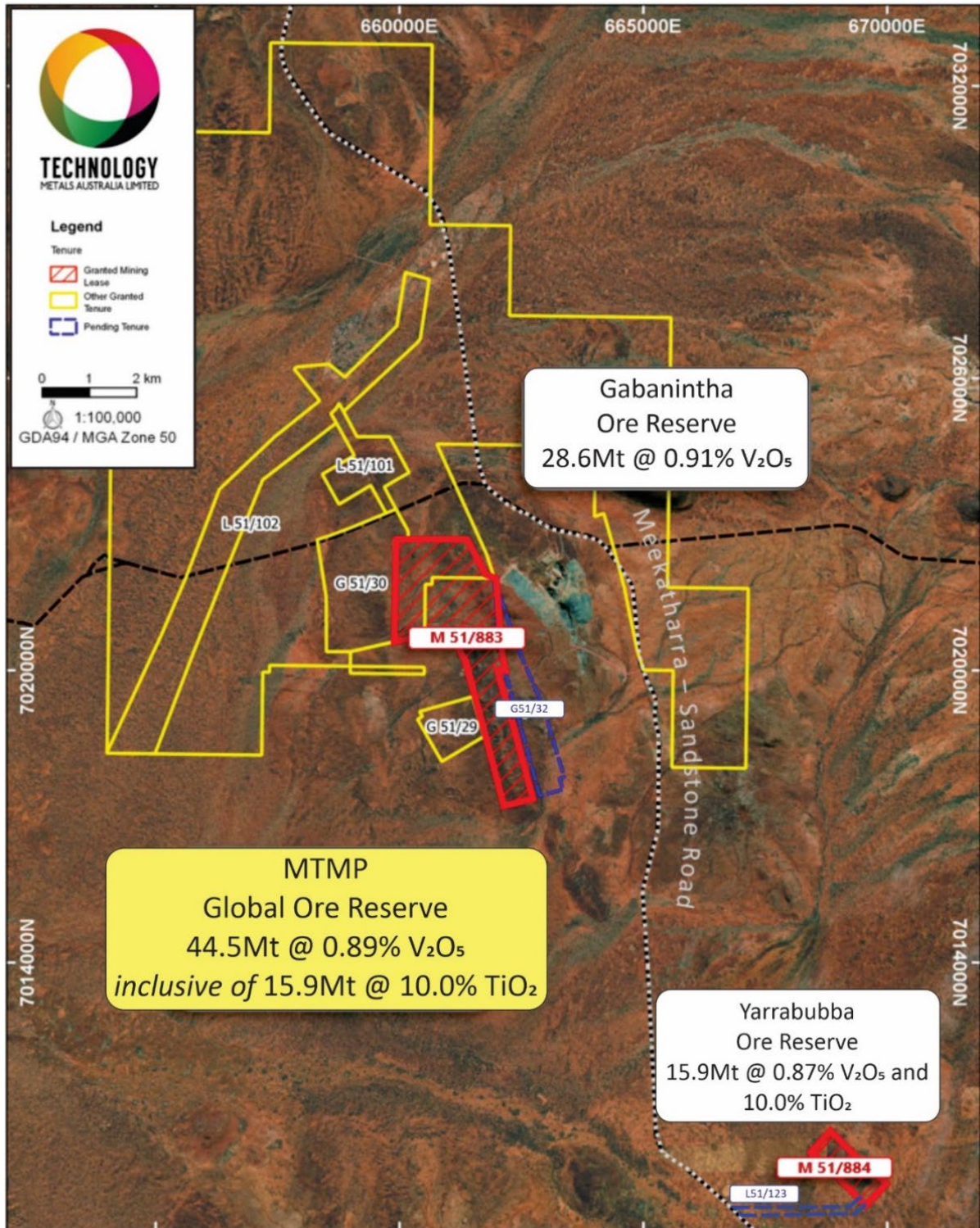


Figure 2: MTMP Updated Mine Production Schedule – Total Material Mined by Deposit

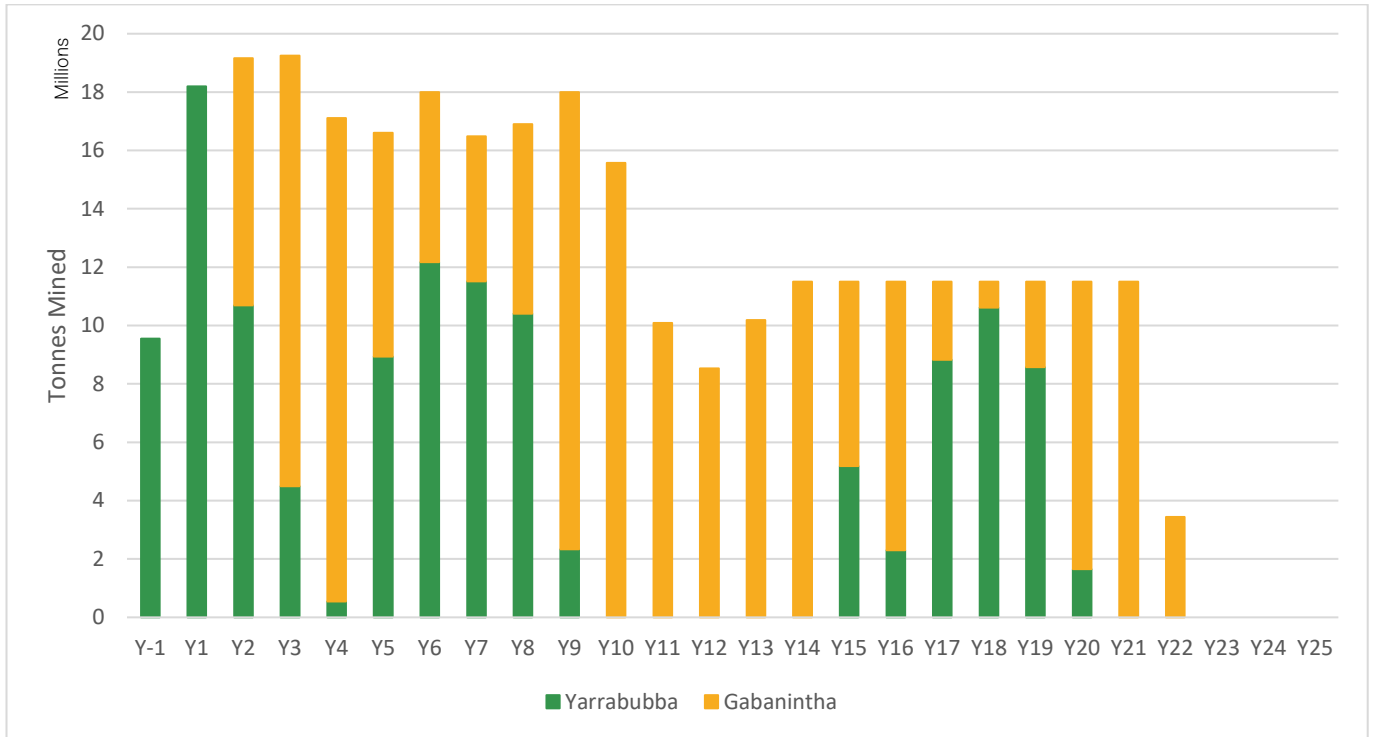


Figure 3: MTMP Updated Mine Production Schedule – Ore Feed by Direct and Stockpile Reclaim

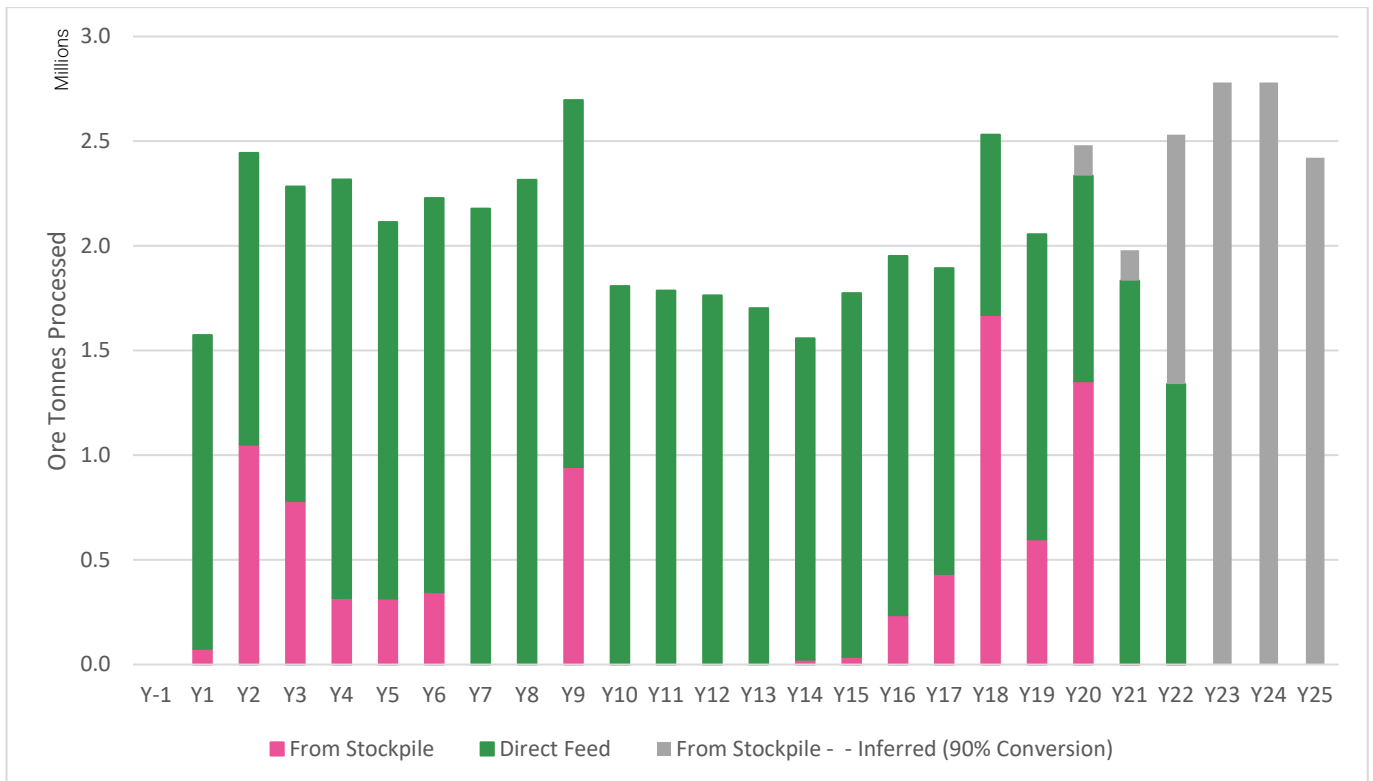
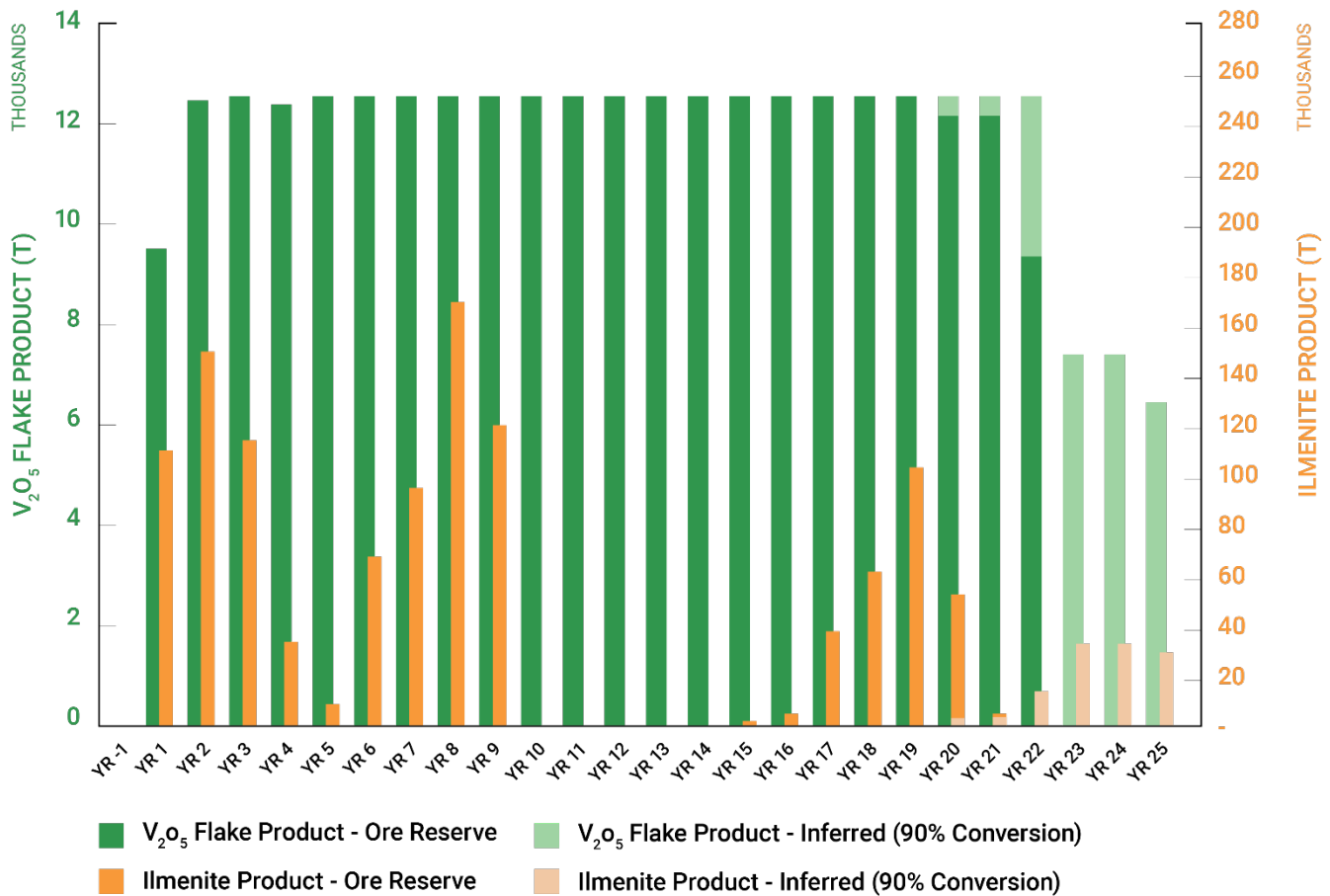


Figure 4: MTMP Updated Mine Production Schedule – V₂O₅ Flake and Ilmenite Product



MINERAL RESOURCE ESTIMATE

In November 2021⁶, Technology Metals announced a Global Resource for the MTMP based on a Mineral Resource estimate for the Gabanintha Northern Block of tenements (now Mining Lease M51/883)⁷ and an updated Mineral Resource⁶ for the Yarrabubba deposit on the Southern Tenement M51/884. Both Mineral Resource estimates were reported by Employees of CSA Global in accordance with the JORC (2012) Guidelines.

Appendix 1 shows the combined Mineral Resource estimate and breakdown for the two deposits.

ORE RESERVE ESTIMATE

The following description of the Ore Reserve estimation process is based on the requirements of the Australian Securities Exchange (ASX) Chapter 5, Paragraph 5.9 Requirements applicable to reports of Ore Reserves for material mining projects, sub-paragraph 5.9.1 relating to the components of a market announcement.

⁶ ASX Announcement 10 November 2021 – 110% increase in Yarrabubba Indicated Mineral Resource

⁷ ASX Announcement 29 March 2019 – Gabanintha Northern Block Resource Upgrade

(a) Material Assumptions and Outcomes from the Feasibility Study Update activities and Optimisation Study, including Economic Assumptions

The Feasibility Study Update activities that support this Ore Reserve Update for the Murchison Technology Metals Project (MTMP) is supported by studies and investigations undertaken by the Company, and a number of suitably qualified independent consultants, experts and contracting firms as part of the Integration Study. A FS level standard of confidence was achieved for the Gabanintha (Northern Block of tenements). Yarrabubba (the Southern Tenement) is at a PFS level of confidence. It should be noted that while the capital cost estimate was developed to a +20% / -15% level of confidence, this is prior to the inclusion of contingency allowances which bring the estimate back to within the +15% bandwidth associated with an FS.

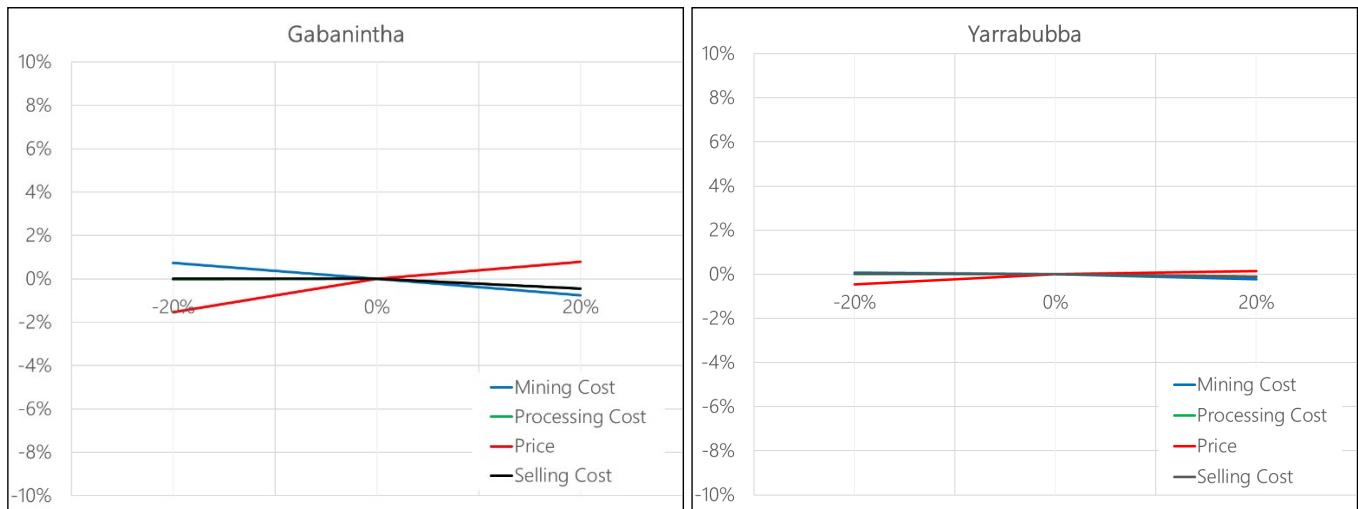
The Study was completed in July 2022 under the direction of Technology Metals. Updates to the processing flow sheet and associated capital and operating costs have been undertaken by Technology Metals in conjunction with independent consultant Wave International. The mining component of the Study, and associated Ore Reserves, have been undertaken by independent mining consultant Orelogy Consulting Pty Ltd. The Study targets a production rate of 12.5 ktpa of V₂O₅ product and the Ore Reserve maintains this over a 22 ½ year life of mine (LOM).

The Study schedule is based only on the Global MTMP Proven and Probable Ore Reserve of 44.5Mt @ 0.89% V₂O₅ after allowances for cut-off grades, mine dilution and mining recovery. This Ore Reserve includes the Yarrabubba Ore Reserve which comprises 15.9Mt @ 0.87% V₂O₅ and 10.03% TiO₂, which produces both a V₂O₅ flake and TiO₂ ilmenite product. The pit designs developed for Gabanintha and Yarrabubba contain approximately 6.98Mt and 3.54 Mt of diluted Inferred Resources respectively which pass the cut-off criteria for ore. Including the Inferred Resources within the pit designs at the tail end of the Ore Reserve life, at a 90% conversion rate, increases the mine life to 25 years, but with a lower product rate of 7 ktpa of V₂O₅ product due to the lower mass yield of this material

The LOM schedule developed for the Study commences in Yarrabubba due to the significant additional value of the ilmenite product stream. However, the constrained nature of the Yarrabubba tenement requires mine waste rock to be stockpiled in ex-pit dumps and then rehandled back into the completed pit before mining can progress. As a result, the three Yarrabubba pit stages are not mined continuously but in three campaigns over the life of mine.

A pit optimisation study was conducted utilising the Whittle™ software tool. A V₂O₅ product selling price of A\$10.50/lb was used, which reflects the Company's long-term view on vanadium price and a discount to the average market price over the first half of 2022 (US\$10.85/lb, with a range from US\$8.75 to USD\$12.25; source FerroAlloyNet). An ilmenite concentrate price of US\$260/t was used, based on prices received from TZ Minerals International (see Appendix 2). Pit sensitivity analysis indicated the pit shell inventory was extremely robust to any changes in either price or costs. The shells selected as the basis of the Ore Reserve excluded Inferred resource in accordance with the JORC guidelines. As the discounted cashflow (DCF) generated by the optimisation was relatively flat from the Best Case to Worst Case Whittle™ scenarios, the revenue factor 1 shell was selected to form the basis of the pit designs and associated Ore Reserve, as the Technology Metals guidance was to maximise conversion of resource to reserve.

Figure 5: Optimisation Sensitivity – Ore Tonnes



The Study and associated discounted cashflow (DCF) analysis was conducted on the following basis:

- Mining cost estimate developed from first principles by independent mining estimation group IQE Pty Ltd. This included detailed haulage analysis for both Gabanintha and Yarrabubba including the rehandle requirements for Yarrabubba waste rock. This includes allowance for road train haulage of ore from Yarrabubba to the process plant at Gabanintha.
- Processing capital and operating cost updated by Technology Metals, including allowance for components associated with ilmenite production.
- General and administrative costs updated by Technology Metals.
- Transport of V₂O₅ product to Fremantle port
- Transport of ilmenite product to Geraldton port
- Assumption on product price as stated above.

A combined MTMP schedule was developed utilising the Maptek Evolution software tool, which attempted to balance the requirement for material movement, waste backfill requirements, plant feed and V₂O₅ flake production over the life of the mine. The outcome of the Study demonstrates that the MTMP currently meets the investment criteria of Technology Metals to progress the Project to the next stage of development (refer to (g) Estimating methodology).

The KOP Ventures Pty Ltd, a wholly owned subsidiary of Technology Metals, is the owner of all tenements associated with the Project.

(b) Criteria Used for Classification, including Classification of Mineral Resources on which Ore Reserves are Based and Confidence in Modifying Factors

The Mineral Resource estimates for the Gabanintha Northern Block deposit and Yarrabubba Southern Tenement deposit have been classified using guiding principles contained in the JORC Code (2012 Edition). Please see the ASX Announcement 10 November 2021 for details relating to the Mineral Resource estimate, and the JORC Table 1, Sections 1, 2 and 3 included below.

The Mineral Resource estimates for the Gabanintha Northern Block deposit and Yarrabubba Southern Tenement deposit have been classified using guiding principles contained in the JORC Code (2012 Edition). Please see the ASX Announcement 10 November 2021 for details relating to the Mineral Resource estimate, and JORC Table 1, Sections 1, 2 and 3 included below.

In the Competent Person's opinion, mineralised material that has been classified as Measured is sufficiently informed by adequately detailed and reliable geological and sampling data, including surface mapping, geophysical modelling, drillhole sample assay results, drillhole logging and density measurements, to confirm geological and grade continuity between data points. Mineralised material classified as Indicated is sufficiently informed by geological and sampling data to assume geological and grade continuity between data points. The remaining mineralised material that has been classified as Inferred was considered by the Competent Person to be informed by more limited geological and sampling data sufficient to imply but not verify geological and grade continuity between data points.

The Ore Reserves have been classified according to the underlying classification of the Mineral Resource and the status of the Modifying Factors. The status of the Modifying Factors is considered sufficient to support the classification of Proved Ore Reserves when based upon Measured Mineral Resources and Probable Ore Reserves when based upon Indicated Mineral Resources, subject to allowance for mining dilution and ore loss. The financial outcomes of the Study indicate that the MTMP is robust in terms of operating costs, recoveries, and product pricing. It is most sensitive to changes in commodity prices and metallurgical recovery as these directly impact revenue.

(c) Mining Method Selection and Other Mining Assumptions, including Mine Recovery Factors and Mining Dilution Factors

Open cut mining using a typical conventional truck and excavator approach has been selected for the MTMP. The open pit mining equipment selected during this study is matched to the proposed scale and selectivity of this operation.

Detailed pit designs have been prepared based on the results of the pit shell optimisations and incorporating appropriate wall angles, geotechnical berms, minimum mining widths, and access ramps for the equipment selected. The optimisation results show flat cash curves, which is a good indication that the optimisation is Mineral Resource constrained, which in turn suggests that the economic open pit may get larger if the confidence in the Mineral Resource at depth and/or along strike is improved. In the case of Yarrabubba the pit design is fundamentally constrained by the tenement boundary and does increase laterally and to depth if this constraint is removed.

Mining dilution has been applied using an in-house Oreology script that swaps proportions of material along an identified ore boundary, effectively replicating an edge dilution approach. The edge of the orebodies were identified on the basis of the mineralisation lithologies, effectively being the massive magnetite zone and the banded/disseminated zones. The script was run in two passes firstly diluting the massive zone with adjacent disseminated material and / or barren waste material. The second pass then diluted the banded/disseminated zones with adjacent barren waste, accounting for the mixing already applied from the massive zone as part of the first pass. This advantage of this approach is that it is run on a block by block basis in the model and account for the grade of the material along the identified edge. Hence the grade of massive material will be diluted down with adjacent zones, but the grades of banded/disseminated zones can be diluted up by the high-grade massive zone. The geometry utilised replicated a 1m zone of mixing along the boundary, with 0.5 m of material swapped between the adjacent zone. The resulting global dilution and ore loss generated were approximately 12% ore loss and 9% dilution for Gabanintha, and 23% ore loss and 14% dilution for Yarrabubba.

(d) Final Pit Designs

Geotechnical parameters used in the Northern Block mining study have been based on estimates following analysis of 6,507 m of diamond drill logging and relevant reverse circulation (RC) drill data. Geotechnical parameters used in the Southern Tenement mining study have been based on estimates following analysis of 610 m of diamond drill logging and relevant RC drill data. The geotechnical analysis comprised the consideration of geotechnical domains, weathering profiles, factor of safety, probability of failure, geological structure, wedge and planar failure modes. Further geotechnical analysis is required before the final pit design. The available geotechnical information and subsequent design criteria used for this estimate are considered to be within a reasonable range for an open pit of these dimensions and location.

Within the Study, pit designs have been prepared for the Gabanintha and Yarrabubba Pits with geotechnical parameters as provided by MineGeoTech.

Ramps have been designed on the basis of a fleet of 100t rigid body dump trucks with the following parameters:

- Dual lane ramp– 26m width / 10% maximum gradient
- Single lane ramp– 17m width / 12.5% maximum gradient
- Ex-pit road– 28m width

The ramp widths include allowances for pit side safety bunds and wall side drains. Ex-pit roads account for safety bunds on both sides. Single lane designs include allowances for passing bays as required. All pits and stages have independent ramps, with no requirements for cross pit haulage from stage to stage. Pits have been designed to have a minimum mining width of 25 m. There are minimal locations where this limit is a constraint.

All pits are within reasonable distance from the existing tenement boundaries. The Yarrabubba pit gets closest to the tenement, at 30m in some locations. However, these areas will be backfilled within 3 years of being mined and all of the Yarrabubba pit will be backfilled at mine closure so there will be no permanent mined out void at this location.

Figure 6, Figure 7 and Figure 8 are views of the final pit designs for the Gabanintha North Pit, Gabanintha Central Pit and Yarrabubba Main Pit, respectively.

The North Pit will extract resources between the surface and the base of the open pit at the 295 mRL, a depth of 180 m. Access is via a dual-lane spiral ramp starting in the footwall, with one pass through the hanging wall and foot wall before becoming a single lane ramp at the 330 mRL.

The base of the Central Pit is at the 300 mRL, a depth of 185 m. Access to the full pit depth is via a footwall ramp. The ramp is dual lane from the surface to the 340 mRL and located on the footwall. At the 340 mRL the ramp becomes single lane to the final pit depth. A second hanging wall ramp is utilised the access Stage 2, and progresses from surface to the base of the Stage 1 design at the 400 mRL.

The Southern Pit will extract resources between the surface and the base of the open pit at the 280 mRL, a depth of 185 m. Access to the pit is complex as the three mining stages require independent access as progressive backfilling preclude the use of shared ramps. Predominantly dual lane access is utilised, with single-lane ramps being utilised for the base of the pits. Single-lane ramps are used in the bottom 15 vertical m and 25 vertical m of Stage 1 and Stage 2 respectively. Stage 3, being the deepest stage, requires 60 vertical m of single lane access at the base of the pit, and subsequently includes areas for passing at 40m and 30 m vertically from the base of the pit.

The designed overall wall angle and inter-ramp slope angles for all quadrants of the three pits are within the preliminary geotechnical recommendations.

Waste rock dumps have been designed within the tenement boundaries and with the concave final rehabilitated slope angles recommended by Integrate Sustainability Pty Ltd (ISPL) being:

0–20 vertical metres – 10°

20–30 vertical metres – 15°

30m+ vertical metres – 18°

Figure 6: Gabanintha North Pit final design

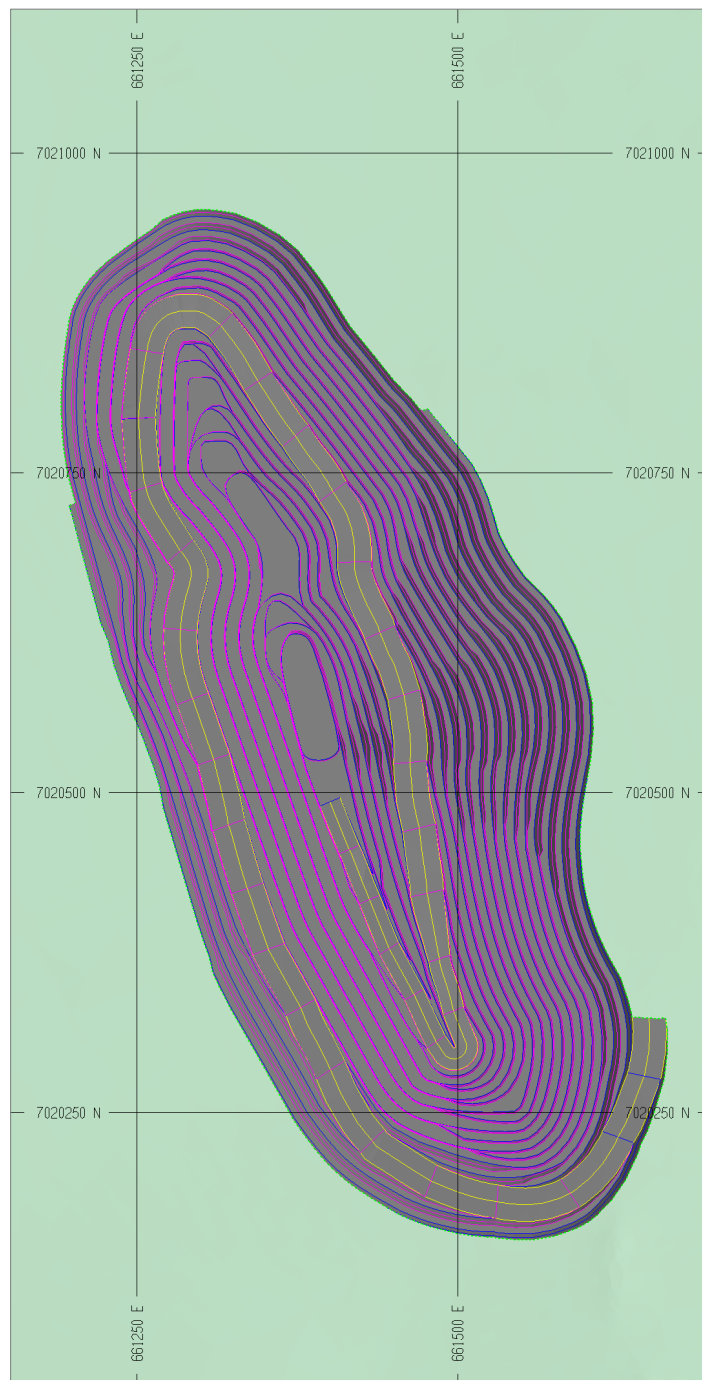


Figure 7: Gabanintha Central Pit final design

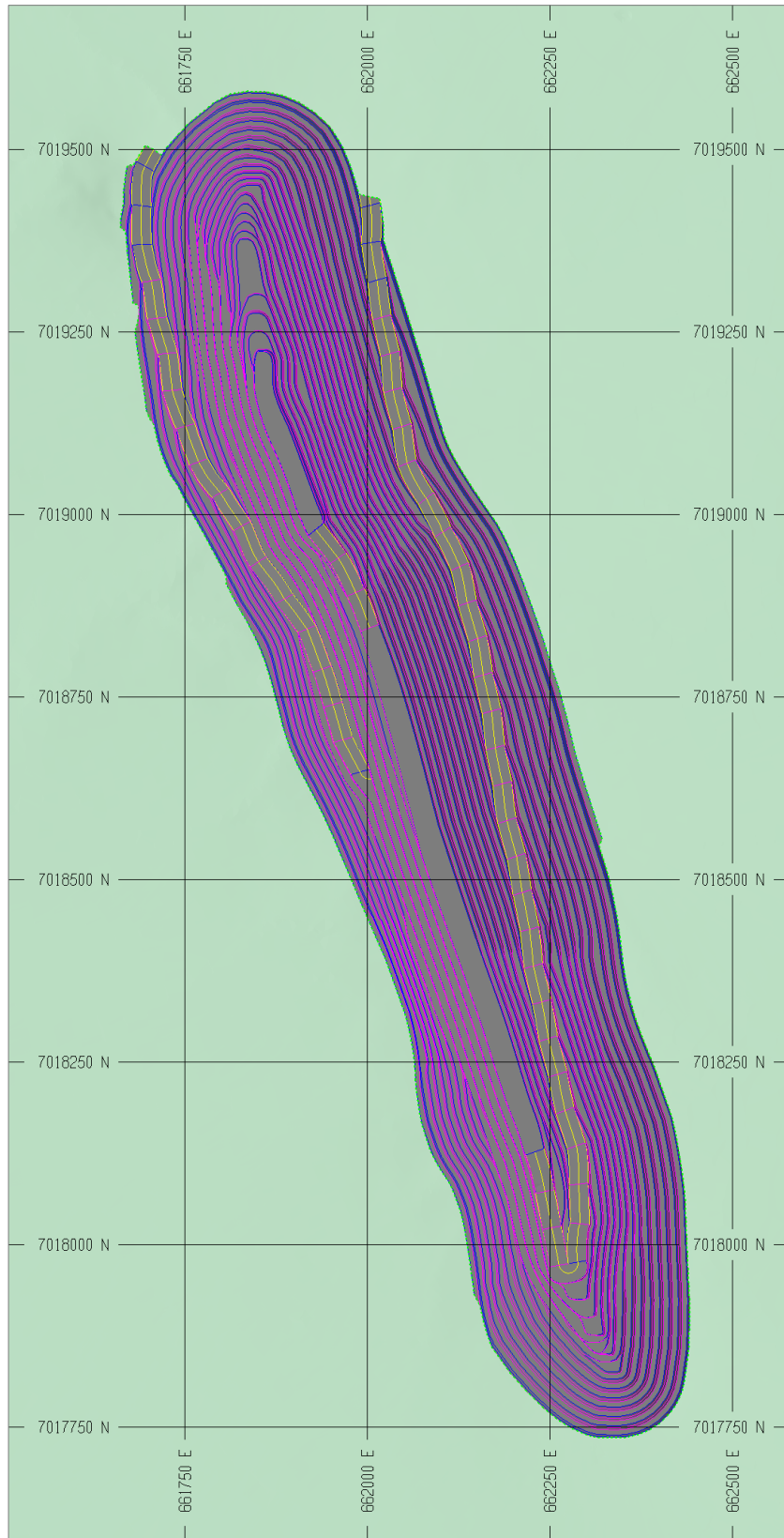


Figure 8: Yarrabubba Main Pit final design

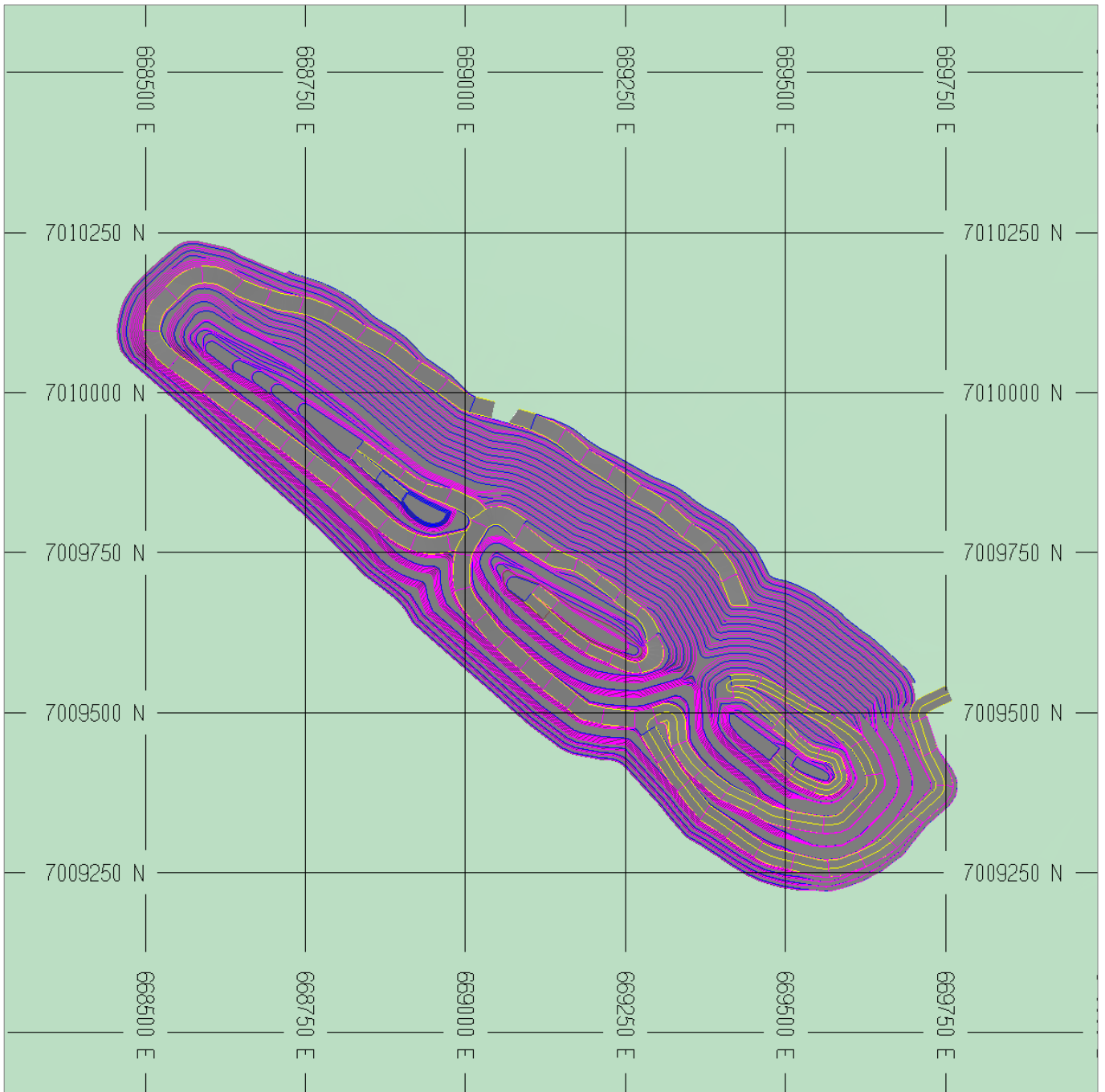


Figure 9: Gabanintha Waste Dump Layout (Construction)

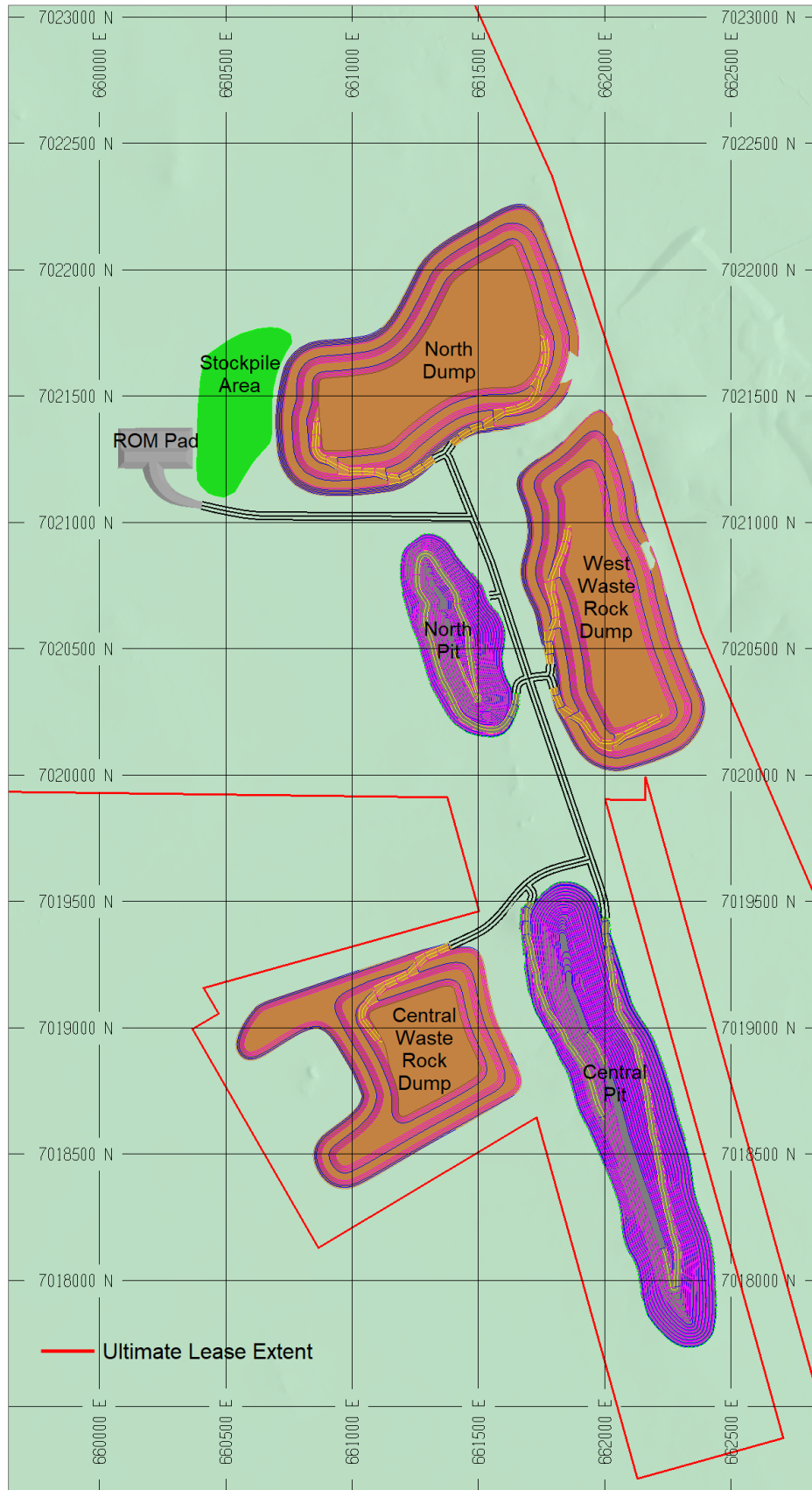


Figure 10: Gabanintha Final Landform

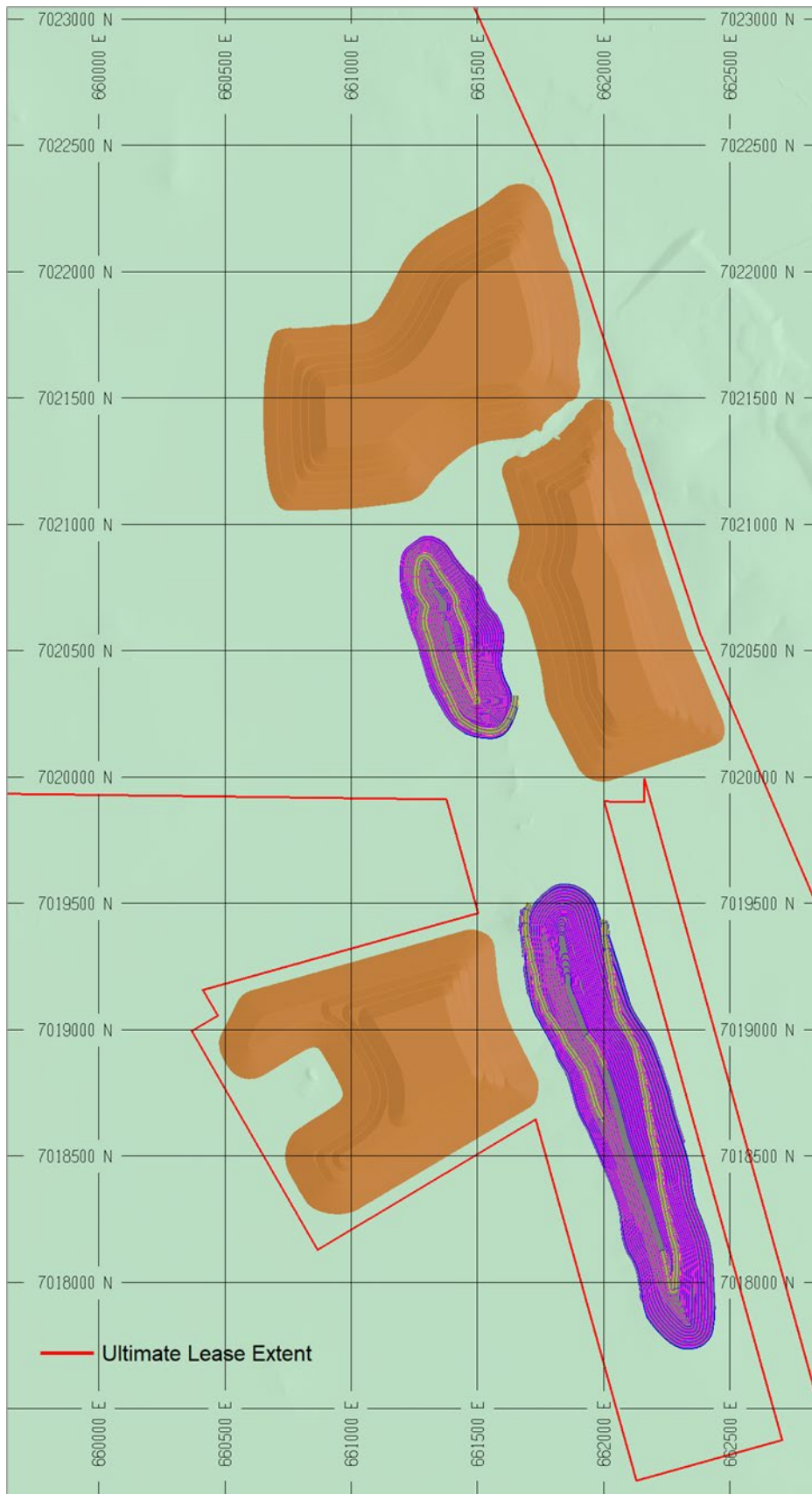
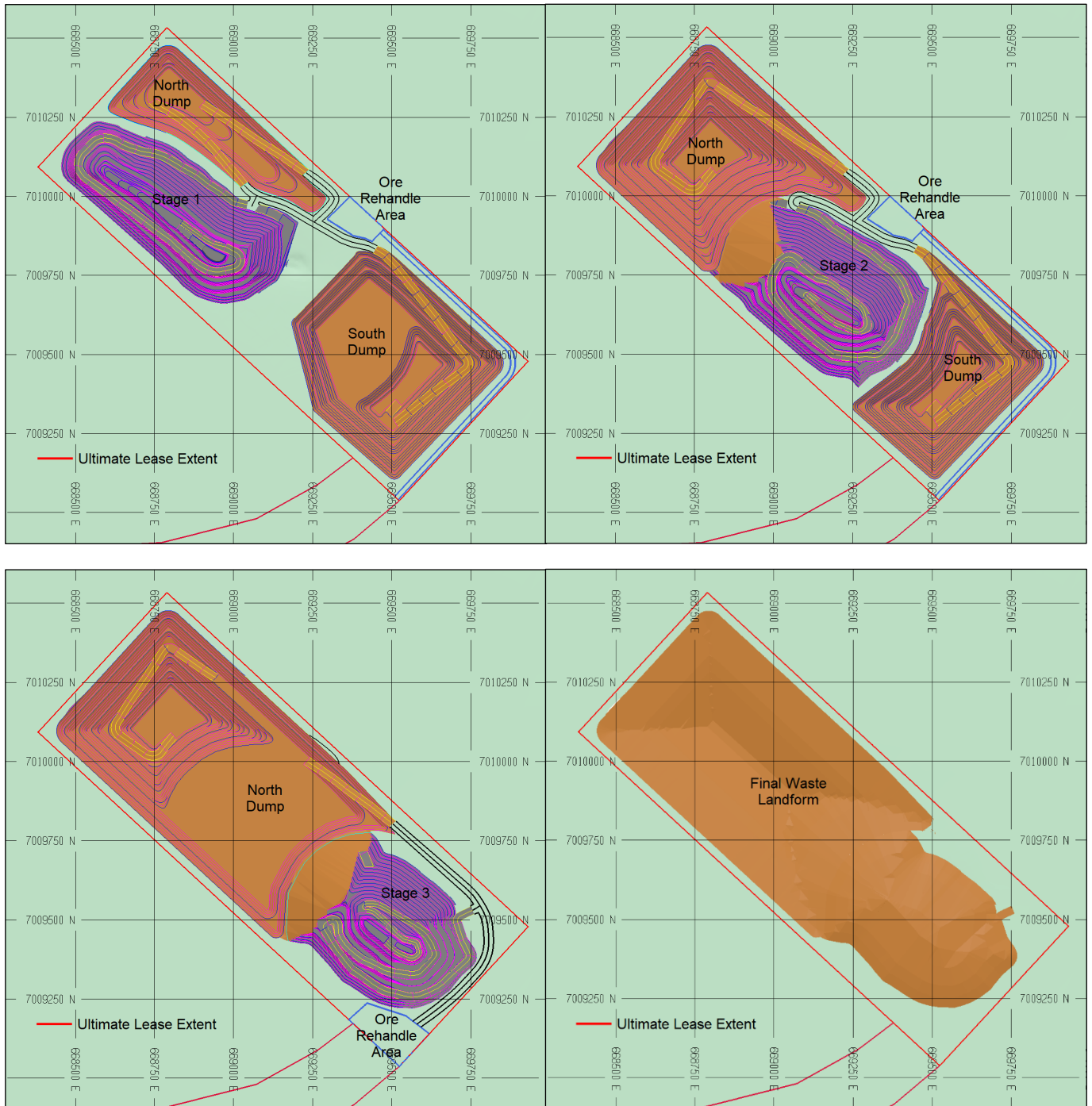


Figure 11: Yarrabubba Staged Backfill and Waste Dump Layout (Construction and Final Landform)



Waste rock dump footprint area within the existing Southern Tenement is limited. The Yarrabubba pit design and waste dump staging sequence has been designed and scheduled to facilitate backfilling from the northern end of the main pit and progressing south. This allows all mine waste rock to be contained and stored within the existing tenement boundary. However, it requires significant rehandling of waste rock dumps to in-pit backfill over the mine life. The pit designs include insitu embankments that are left behind at the northern end of each stage to act as retention bunds for the backfill and ensure safe working conditions at the base of the pits.

Technology Metals is investigating opportunities to facilitate a larger waste rock dump footprint. In the event that a larger waste rock dump footprint cannot be achieved, the pit in-pit backfill required to achieve the Ore Reserve has demonstrated the opportunity to achieve a maximum open pit depth of 185m. Development of any potential economic Measured and Indicated Resource at depth would be considered as a potential underground development.

(e) Processing Recovery Method Selected and Other Processing Assumptions, including Recovery Factors Applied and Allowances Made for Deleterious Elements

With the exception of the Ilmenite circuit to treat the non-magnetics, the flowsheet and associated process recoveries for the V_2O_5 product are in line with the previous DFS and associated Ore Reserves (refer to ASX Announcement 16 September 2020⁸).

The ilmenite circuit consists of a cyclone deslime, spirals circuit, sulfide flotation and wet magnetic separation to produce an Ilmenite product grading between 46 and 47.5% TiO_2 . The flotation circuit removes sulfides that are concentrated along with Ilmenite to the gravity concentrate while the wet magnetic separation removes mineral phases with a greater magnetic susceptibility than Ilmenite - generally lower titanium, higher iron phases.

Figure 12 shows that flowsheet that will be utilised for the MTMP and is what the Company is using in its commercial competitive tender process.

Metallurgical testing has shown the key difference between Gabanintha and Yarrabubba material - that Yarrabubba has been altered by a geological process allowing for the rejection of a significant portion of the titanium across wet Low Intensity Magnetic Separator (**LIMS**) in the form of ilmenite to the non-magnetic tails stream.

⁸ ASX Announcement 16 September 2020 – 32% Increase to GVP Ore Reserve Delivers 22.5 Year Mine Life

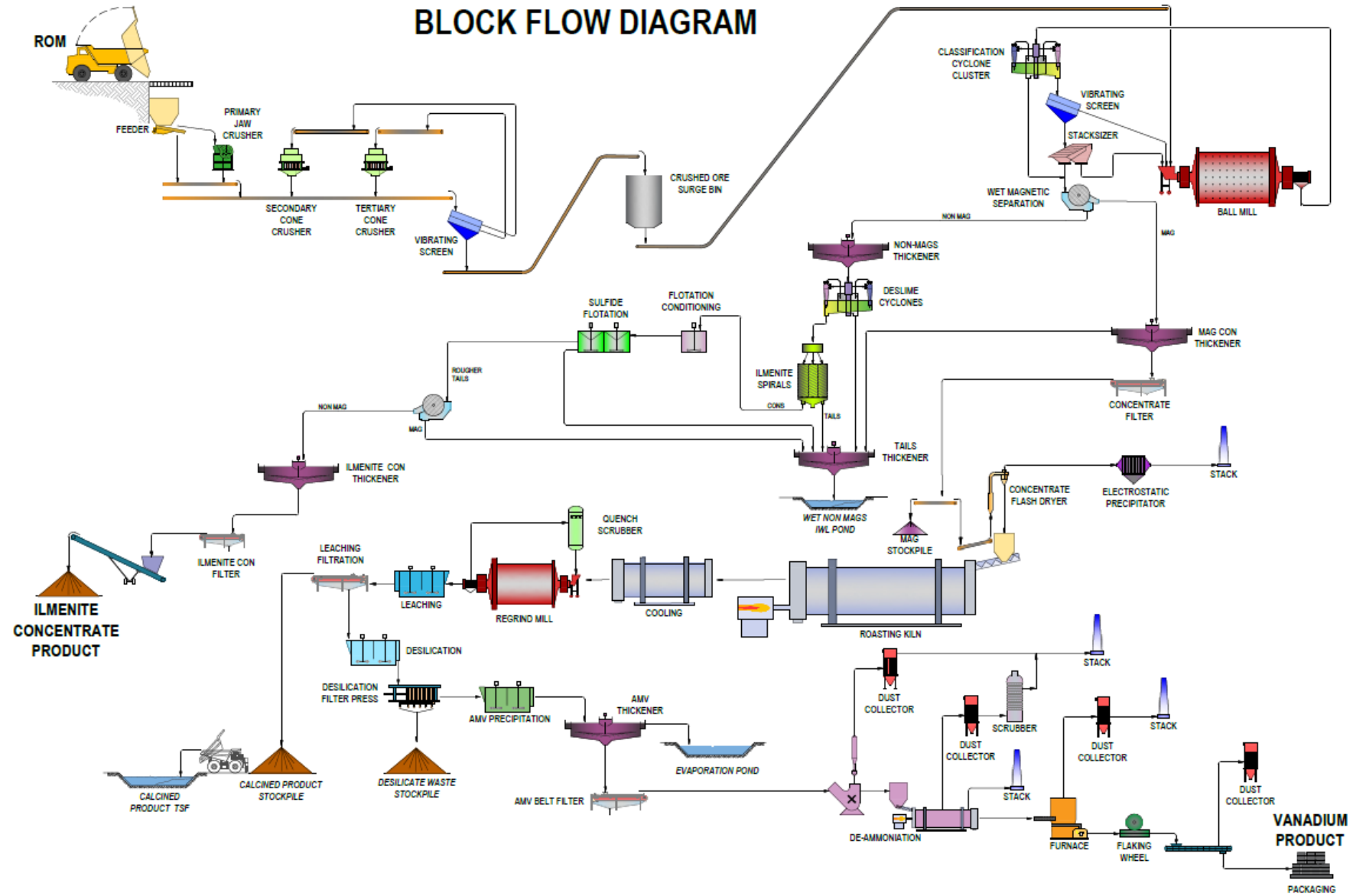


Figure 12: Simplified Flowsheet for the Murchison Technology Metals Project

The amount of titanium rejection varies through the deposit depending on the extent of alteration but ranges from 40-75%, with an average of approximately 60% compared to the typical 10-15% from Gabanintha. This Ilmenite has been demonstrated to be recoverable through standard gravity beneficiation techniques (Shaking Table and Heavy Liquid Separation (**HLS**)) to yield an Ilmenite concentrate grading between 46 and 47.5% TiO₂ and extremely low levels of Uranium and Thorium (<0.001%).

Vanadium extractability has been confirmed from Yarrabubba magnetic concentrates at a P₈₀ of 150 µm by batch kiln testing undertaken at FLSmidth's facilities⁹. This work demonstrated peak vanadium solubilisations of up to 97.1% with an average vanadium solubilisation achieved of 90%, exceeding the levels established during the 2019 Gabanintha DFS and associated pilot testing.

(f) Basis of Cut-Off Grade Applied

The cut-off between ore and waste has been determined by net value per block. A total block revenue is estimated for each block within the block model, accounting for revenue from both V₂O₅ flake recovered and ilmenite concentrate produced. Total block costs are estimated for all operating costs to the point of sale including processing, product haulage, crusher feed, general and administration, ore differential, sustaining capital, selling costs, and grade control costs. The net value per block equates to total block revenue minus the total block costs. Any block returning a positive net value has been defined as "ore" for the purposes of pit design and production scheduling.

(g) Estimating methodology

The modifying factors used to estimate the Gabanintha Ore Reserve are informed and bound by the findings of the Study.

Whittle™ pit optimisation software has been used to identify the preferred pit geometry on which the pit design was based for the recovery of transitional and fresh Measured and Indicated Mineral Resources. The mine design and subsequent mining and production schedule is based on the specific cut-off values and production criteria of the planned operation accounting for mine ore loss and dilution.

Capital (inclusive of contingency) and operating costs estimated to a FS level of confidence for the Gabanintha Northern Block and a PFS level of confidence for the Yarrabubba Southern Tenement. The revenue assumptions are based on flat vanadium pentoxide price of US\$10.50/lb, which reflects the Company's long-term view on vanadium price and a discount to the average market price over the first half of 2022 (US\$10.85/lb, with a range from US\$8.75 to US\$12.25; source FerroAlloyNet). An ilmenite concentrate price of US\$260/t was used, based on prices received from TZ Minerals International (see Appendix 2). The exchange rate has been modelled at a flat rate of A\$1.00 = US\$0.70.

The project value estimate for the MTMP generated as part of the Study indicates a pre-tax NPV at a discount of 8% (EBITDA basis) of approximately A\$942 million with an internal rate of return of 23%. These results meet the investment criteria for Technology Metals to pursue the next stage of project development.

The sensitivity analysis completed in the Study indicates that the Project results remain favourable when the key project costs (i.e. mining, processing, product) are individually flexed to plus and minus 10% of the average values. As with most mining feasibilities, the Project is sensitive to price variations, with a 10% increase in price (i.e., US\$11.55/lb V₂O₅ and US\$286/t ilmenite) increasing NPV to A\$1,295M and a 10% drop in price (i.e., US\$9.45/lb V₂O₅ and US\$234/t ilmenite) reducing NPV to A\$589M.

⁹ ASX Announcement 21 April 2022 – Outstanding results from MTMP Roast-Leach Testwork

(h) Material Modifying Factors, including Status of Environmental Approvals, Mining Tenements and Approvals, Other Government Factors and Infrastructure Requirements for Selected Mining Method and Transport to Market

(i) Permits and Approvals

Several regulatory approvals will be required to gain access, develop, operate, and close the Project. These approvals are established under but not limited to the following:

- The Mining Act 1978 (WA)
- Mining Regulations 1981 (WA)
- Environmental Protection Act 1986 (WA) (EP Act)
- Rights in Water and Irrigation Act 1914
- Minerals safety regulations
- Health and Safety regulations.

Numerous secondary approvals for various aspects of the Project are also required. Technology Metals is progressing necessary material approvals to ensure they are obtained to allow the Project to proceed as planned.

The tenements within the Project are held by KOP Ventures Pty Ltd, a 100% owned subsidiary of Technology Metals and its wholly owned subsidiary, Gabanintha Pty Ltd. There are no vendor royalties or other encumbrances over the tenements.

Technology Metals has applied for a mining tenement, two general purpose leases and two miscellaneous licences. Technology Metals' tenements have either all been granted or are currently being progressed with the expectation that these will be granted. below details tenement status as at 28 July 2022 for the Project.

Table 4: Tenure status

Tenement	Interest acquired or disposed of
E51/1510	Live
E51/1818	Live
E51/2056	Pending
G51/29	Live
G51/30	Live
G51/31	Live
G51/32	Pending
L51/101	Live
L51/102	Live
L51/117	Live
L51/121	Live
L51/123	Pending
M51/883	Live
M51/884	Live
P51/2930	Live
P51/3140	Live

(ii) *Physical Environment*

The soils across the region have been mapped at a regional scale and described as mainly shallow, sandy and infertile underlain by red-brown siliceous hardpan. The characteristic of the soils within the Project area influence surface runoff, dust management and mine closure success.

ISPL undertook a baseline soil and landform assessment of the main operational areas, to provide information on the soil properties, soil resources and their relationships to landforms within the Project area.

The land surface within the vicinity of the Project is dominated by rocky outcrops and ridges which comprise the orebody. The areas surrounding these outcrops are relatively flat interspersed with narrow drainage lines and floodplain depressions.

The Project is located within the Yalgar River sub-catchment of the Murchison River surface water catchment area. All drainage from the sub-catchment flows towards Lake Annean, west of the Project site and an unnamed lake located to the south. These lakes are likely to hold significant amounts of water only after periods of heavy rain.

A surface water assessment undertaken by Hydrologia (2019) determined that the Project area interacts with three main catchments. Surface drainage from the broader catchment contributing the overall site surface water flows, most coming from the northeast towards the southwest, with discrete drainage lines tending to form in hillier areas but then dissipate in the alluvial valleys.

Water courses through the Gabanintha mining area have been identified and surveyed. The pits have minimal impact on these water courses and the ex-pit infrastructure (dumps and stockpiles) have been sited outside of the water courses. Yarrabubba water courses have not been surveyed, however the constrained nature of this lease will not result in disturbance to any significant water courses. The impacted Gabanintha watercourses will be re-established as part of the final mine closure plan.

(iii) *Biological Environment*

Between 2018 and 2020 a series of on ground Flora and Vegetation surveys have been undertaken across the Project Area. During these survey's no commonwealth or state listed threatened flora taxa were recorded (Biologic, 2021a; ISPL 2021). Six priority listed taxa were identified during the survey from within and adjacent to the Project:

- Hibiscus krichauffianus
- Ptilotus lazaridis
- Ptilotus luteolus
- Tribulus adelacanthus
- Acacia speckii
- Dodonaea amplisemina.

Biologic Environmental Survey (Biologic, 2021b; ISPL, 2021) were commissioned to undertake a series of Terrestrial Fauna Surveys across the Project Area. These surveys recorded over 90 fauna taxa, comprising 17 mammal species (including four non-native species), 52 bird species, 26 reptile species and one amphibian species. Prior to the field survey, 33 potentially occurring conservation significant taxa were identified; from the fieldwork, only two were recorded, the Long-tailed Dunnart (P4) and the Peregrine Falcon (SP), and one, the West Coast Slider (P4), has the potential to occur. The Project activities will interact with Long-tailed Dunnart which is associated with Rocky Outcrops habitat which is associated with the mining areas and the West Coast Slider Calcrete habitat which is in the Water Supply Area (Biologic 2021b).

Detailed subterranean fauna surveys have been completed across the Project area by Biologic Environmental Survey and Bennelongia Environmental Consultants. These surveys found that the Yarrabubba site and the Mining area at Gabanintha have depauperate to low Subterranean fauna communities, while the Gabanintha Water Supply area was found to be more prospective for Stygofauna. The region surrounding the Project is known for a number of Subterranean Fauna Priority Ecological Communities; the surveys undertaken have found that non occur within the Gabanintha Site, while the Yarrabubba site is within the buffer zone for two subterranean fauna Priority Ecological Communities (PECs); the Yarrabubba West calcrete groundwater assemblage and the Nowthanna calcrete groundwater assemblage. The accrual PEC areas are not directly impacted by the Yarrabubba activities, and indirect impact can be managed.

(iv) Social Environment

The Project is located on Polelle and Yarrabubba pastoral stations, with the homestead of Polelle being 7 km east of M51/883 and Yarrabubba homestead 14 km southeast of M51/884. A portion of M51/883 is on Common Reserve 10597 with other reserves associated with the historical townships of Gabanintha and Polelle.

The Murchison Technology Metals Project is located within the traditional lands of the Yugunga-Nya People. The claim was registered in 1999 with the Native Title Tribunal (WC1999/046; WCD2021/008), and a consent determination was achieved in November 2021 through the Federal Court (WAD29/2019). The KOP Ventures Pty Ltd has a Heritage Agreement with the Yugunga-Nya People, which was signed in 2018 and outlines the process for commissioning heritage surveys, survey methodologies and how heritage information will be protected. Since the consent determination, Yugunga-Nya PBC was formed to act on behalf of the Yugunga-Nya People to safeguard heritage and to negotiate Future Act activities. Work has commenced between Yugunga-Nya PBC and the KOP Ventures to establish a Mining Agreement and finalise an Aboriginal Cultural Heritage Management Plan that aligns with the new WA Aboriginal Cultural Heritage Act 2021.

(v) Air Quality and Noise

The closest communities to the Project are Meekatharra (40 km) and Cue (90 km) with the closest noise sensitive receptors being the homestead associated with the Polelle and Yarrabubba Pastoral Stations.

Table 5 outlines the key air pollutants for each aspect of the Project.

Table 5: Key air pollutants

Key pollutants	Mining	Crushing	Roasting	De-ammoniation	Calcining	Packaging	Material handling	Power generation
Oxides of nitrogen			✓	✓	✓			✓
PM-10	✓	✓					✓	
PM2.5	✓	✓					✓	
Ammonia				✓				
V ₂ O ₅					✓	✓		
SO ₂			✓					

Environmental Technologies and Analytics, who undertook the Air Emissions Assessment, concluded that the emissions of trace metals from the Project are not considered to have significant environmental impact as the Project is remote and there are no sensitive receptors nearby.

Leading industry dust management practices and control measures will be implemented to mitigate dust impacts, including minimising the area of disturbance as far as practicable, regular watering of haul roads, stockpiles and other exposed areas susceptible to windblown dust, applying vehicle speed limits to reduce wheel-generated dust, and progressive rehabilitation of disturbed areas where possible. Various controls will also be incorporated into the processing plant to minimise the potential for fugitive dust emissions, including use of water sprays for moisture control, tarpaulins and semi-enclosed storage sheds as appropriate. Emission controls (e.g. wet scrubber) will be incorporated into the plant design to minimise the emissions from the de-ammoniation process, where significant atmospheric emissions are generated (Environmental Technologies & Analytics, 2021).

(vi) *Project Services and Infrastructure*

The support infrastructure includes:

- Water supply, treatment and reticulation
- Site preparation, bulk earthworks and drainage
- Fuel supply, storage and distribution facilities for diesel fuel and natural gas
- Power generation and distribution
- Civil and earthworks including bulk earthworks, hydrology/drainage and roads
- Plant buildings and structures including reagent and explosive storage
- Accommodation facilities and structures for operational personnel.

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.

A site raw water pond shall serve as reserve capacity for the site.

A single reverse osmosis plant shall be located next to the village to produce potable water for the village and processing plant.

Fuel for the Project will be a combination of:

- Natural gas supplied by a natural gas pipeline
- Trucked diesel fuel.

The main electrical power for the Project will be provided from a standalone power station, generating power requirements for the main process plant and non-process infrastructure.

(vii) *Tailings Management*

The complexity of the Murchison Technology Metals Project in terms of tailings streams, physical and chemical properties, quantities, physical location, topographic and hydrological features, and the hazards associated with potential failure, has necessitated the development of an integrated waste storage facility. The integrated waste storage facility stores both wet and dry tailings. A wet cell stores tailings from the ilmenite recovery circuit tailings pumped as a slurry to the cell. The dry cell stores calcine product, desilicate tailings, and crystalline salt harvested from the crystallisation cells.

(i) Project Funding

TMT is a small market capitalisation company and does not currently have the financial capacity to internally fund 100% of the development of the MTMP. External funding in the form of a mix of debt, JV interest, direct project investment and/or equity will be required. The Company believes there is a reasonable basis to assume the necessary funding for the Project can be obtained as and when required, however the normal risks for the raising of capital will apply to the Company, such as the state of the equity capital and debt markets, the status of approvals required to advance the Project and commodity prices.

The Company has demonstrated the ability to raise funding for its exploration and development activities, including securing Resource Capital Fund VII L.P. as a cornerstone shareholder. TMT has engaged financial advisers to assist in evaluation of the various financing strategies and to engage with prospective strategic investors, Government supported debt providers and offtake partners. TMT's aim is to maximise the opportunities for funding the development whilst minimising dilution for existing shareholders, albeit that shareholders should be aware that further equity funding may be required to continue to progress the development.

TMT and its advisors have had initial discussions with Government supported debt providers, potential strategic investors, financiers and offtake partners in regard to progressing funding opportunities. There is scope for a range of funding alternatives on the Project that have been identified and will be vigorously pursued by the Company and its advisers.

The robust outlook for the vanadium market, combined with the additional revenue stream of ilmenite from Yarrabubba, and a high level of interest in the MTMP, the application of vanadium in long duration stationary storage applications and general interest in the Company's activities, supports TMT's view that there is a reasonable basis that the MTMP can be successfully funded.

It is however possible that the Company could pursue other strategies to realise the value of the MTMP apart from conventional financing, such as joint venture of the project or partial sale.

AUTHORISED FOR RELEASE ON THE ASX BY THE COMPANY'S BOARD OF DIRECTORS

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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.

About Technology Metals Australia

Technology Metals Australia Limited (ASX: TMT) is an ASX-listed company focused on the exploration and development of its flagship, 100 per cent owned Murchison Technology Metals Project (**MTMP**) located 40km southeast of Meekatharra in the mid-west region of Western Australia. The MTMP is one of the highest-grade vanadium projects in the world and will have lowest quartile operating costs once developed.

The Company has finalised an Integration Study for the MTMP, bringing in high-grade ore from the satellite Yarrabubba deposit into the central processing hub at Gabanintha. The Integration Study completion has facilitated the progression of the Implementation Phase of the MTMP leading to a Decision to Develop expected in late 2022.

Competent Person's Statement

The information in this report that relates to Exploration Results are based on information compiled by Mr John McDougall. Mr McDougall is the Company's Exploration Manager and a member of the Australian Institute of Geoscientists. Mr McDougall 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 McDougall 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 Aaron Meakin. Mr Aaron Meakin is a Principal Consultant of CSA Global Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr Aaron Meakin 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 Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Aaron Meakin consent to the disclosure of the information in this announcement in the form and context in which it appears.

The information that relates to Ore Reserves is based on information compiled by Mr Ross Cheyne of Orelogy who takes overall responsibility for the Report as Competent Person. Mr Cheyne 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, Ross Cheyne 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 Murchison Technology Metals project is based on and fairly represents, information and supporting documentation compiled by Mr Brett Morgan, a full-time employee of Technology Metals Australia. Mr Morgan is a Member 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, Brett Morgan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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 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. 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 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.

APPENDIX 1: MTMP GLOBAL MINERAL RESOURCE ESTIMATE

Material Type	Classification	Mt	V ₂ O ₅ %	Fe %	Al ₂ O ₃ %	SiO ₂ %	TiO ₂ %	LOI %	P %	S %
Massive Magnetite	Total Measured (Nth)	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
	Indicated (South)	12	1.1	48.2	5.4	7.4	12.5	1.8	0.01	0.3
	Total Indicated	30.6	1.1	48.8	5.3	6.4	12.7	0.6	0.008	0.2
	Inferred (North)	41	1.1	47.7	5.6	7.1	12.6	0.3	0.008	0.2
	Inferred (South)	7	1.1	47.4	5.7	8.3	12.3	2.1	0.01	0.3
	Total Inferred	48.1	1.1	47.7	5.6	7.3	12.6	0.5	0.008	0.2
	Massive Global	79.8	1.1	48.1	5.5	7.0	12.6	0.6	0.008	0.2
Disseminated / Banded Magnetite	Indicated (North)	10.3	0.6	28.6	13.1	25.5	7.5	3	0.03	0.2
	Indicated (South)	8.1	0.6	28.5	12	25.2	7.3	2.4	0.018	0.2
	Total Indicated	18.4	0.6	28.6	12.6	25.4	7.4	2.7	0.025	0.2
	Inferred (North)	38.5	0.5	27.1	12.7	27.4	6.9	3.3	0.027	0.2
	Inferred (South)	9.4	0.5	26.6	13.3	27.1	6.9	2.4	0.014	0.3
	Total Inferred	47.9	0.5	27.0	12.8	27.4	6.9	3.1	0.025	0.2
	Diss / Band Global	66.3	0.5	27.4	12.8	26.8	7.0	3.0	0.025	0.2
Combined Material Types	Global Resource	146.2	0.8	38.7	8.8	16	10.1	1.7	0.016	0.2

Notes: The Mineral Resource was estimated within constraining wireframe solids using a nominal 0.9% V₂O₅ lower cut-off grade for the massive magnetite zone and using a nominal 0.4% V₂O₅ lower cut-off grade for the banded and disseminated magnetite 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.

APPENDIX 2: TZMI MEMORANDUM, 25 JULY 2022, YARRABUBBA PLANNED ILMENITE QUALITY



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25 July 2022

Ref: TZMI22-5419

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YARRABUBBA PLANNED ILMENITE QUALITY

TZMI has reviewed the feedback from potential customers (sulfate pigment producers) in Asia who have tested samples of the Yarrabubba ilmenite. The general feedback on the Yarrabubba ilmenite has been positive and all customers have confirmed the ability to use the Yarrabubba ilmenite as a blend feed in their respective sulfate pigment processes.

The TiO_2 content in the Yarrabubba ilmenite is in line with the Chinese Panzhihua ilmenite from Sichuan Province and all impurities appear to be within acceptable thresholds, except for the elevated V_2O_5 and Cr_2O_3 content, which could result in discoloration of the final pigment product. That being said, this is not seen as a major concern for the sulfate pigment producers who have tested the samples given that the Yarrabubba ilmenite will be considered as a blend feed.

Notwithstanding the elevated V_2O_5 and Cr_2O_3 issue, there are some attractive attributes of the planned Yarrabubba ilmenite which are deemed favourable by sulfate pigment producers:

- The TiO_2 content in the ilmenite is in line with Chinese hard rock ilmenite from Sichuan Province, which is widely used for sulfate pigment production in China, albeit that it is on the low side compared to typical Australian and African sulfate ilmenite products;
- The iron ratio should provide good reactivity in the digestion process in sulfate pigment manufacture. The exceptionally low Fe_2O_3 content provides a good blend solution for sulfate pigment producers to offset other less favourable ilmenite species with elevated Fe_2O_3 content;
- The SiO_2 level at 0.3-0.5% is acceptable and is well below that of other hard rock ilmenite available in the market;
- The low U+Th content is attractive and favourable to sulfate pigment producers who operate in jurisdictions with strict waste disposal limits.

Market conditions for ilmenite have remained strong with ongoing upward pricing momentum since early-2020. Current ilmenite prices are at a 10-year high, with domestic Chinese ilmenite at RMB2,100-2,200 (equivalent to US\$310–330 based on current exchange

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rate) per tonne ex-works, exclusive of VAT, while imported sulfate ilmenite is trading above the US\$400 per tonne CIF level.

Based on the indicative product quality, TZMI estimates that the planned Yarrabubba ilmenite would achieve a price of US\$310-330 per tonne CIF China (or approximately US\$250-270 per tonne FOB) in the current spot market.

Yours sincerely

TZ Minerals International Pty Ltd



GALVIN LIM

Principal Consultant

Appendix 3: - JORC (2012) Table 1.

Section 1: Sampling Techniques and Data

Criteria	Commentary
<p>Sampling techniques</p>	<ul style="list-style-type: none"> • Diamond drilling was undertaken on PQ size using triple tube drilling in the oxidised rock and conventional double tube in fresh rock to ensure maximum recovery and representivity. • Core loss was typically <0.2 m in completely oxidised samples runs of 1.5 m and >98% core recovery was achieved in fresh rock. • Sampling was completed using a diamond saw with half core being sampled to the base of partial oxidation (maximum 18 m) and quarter core being the primary sample for fresh rock. • One primary sample was selected for assay from each metre, with every 20th sample having a duplicate quarter core. • Except where geotechnical samples were taken, core was sampled on a 1 m or 0.5 m basis. Geotechnical samples were re-inserted into the assay stream as whole crushed core. • Sampling was completed using a diamond saw with half core being sampled to the base of partial oxidation (max 18m) and quarter core being the primary sample for fresh rock except in metallurgically sampled PQ holes where 1/6th core was used. • 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 20 cm basis by a KT-10 Plus magnetic susceptibility meter. • Reverse circulation (RC) drilling was sampled on a 1 m basis. Each metre drilled was cone split off the rig cyclone, with two 2–3 kg subsamples collected for each metre. • One primary subsample was selected for assay from each metre. • Secondary subsamples were submitted for analysis for every 20th sample, thereby duplicating the primary subsample. • RC drillholes were analysed for magnetic susceptibility by either a KT-9 or KT-10 magnetic susceptibility meter on a 1 m basis. • All Samples are analysed by x-ray fluorescence (XRF) spectrometry following digestion and Fused Disk preparation. • Blanks and certified reference materials (CRMs) were inserted at a rate of 1:50 and 1:20 samples, respectively. CRMs were produced from mineralised material sourced from the Technology Metals Australia Limited (Technology Metals) Gabanintha deposit and certified by a commercial CRM vendor. • Diamond drilling occurred in three programs. First in August-September 2017 with 13 Drillholes, September-October 2018 for 44 Diamond Drillholes, November 2020 to January 2021 for 23 drillholes, sampling was undertaken by diamond saw onsite in September 2017 for the Gabanintha based program; October-November 2018 for Gabanintha and late in 2019 for, Yarrabubba and 2021 and assay was conducted on delivered core sample in early to mid-2021. A total of 80 diamond holes for are used in the Mineral Resource estimates. • RC drilling was complete during four different programs: March 2017, July 2017, September 2018, and June 2021 with sampling and assay occurring as soon as practical thereafter. A total of 159 RC holes are used in the Mineral resource

	<p>estimate. Where possible, diamond drillholes were probed via downhole Televiwer probe and selected drillholes probed with downhole magnetic susceptibility sonde.</p> <ul style="list-style-type: none"> • QEMSCAN was used to confirm that vanadium is hosted within titanomagnetite minerals within the host gabbro.
Drilling techniques	<ul style="list-style-type: none"> • PQ2/3 sized drill core was selected for future metallurgical reasons. • RC drilling completed with 143 mm face-sampling hammer. • Diamond holes were surveyed by Axis system north-seeking gyro and core was oriented by Reflex ACT 111 tool.
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 one in three holes, a spring gauge was used to ensure the cone split remained within the 2–3 kg range. • Poor sample recovery or quality (wet, etc) was recorded in logging sheets; however, significant wet sample was limited to one RC hole. • Weights of primary and secondary subsamples were compared to check variability. • There does not appear to be any relationship between recovery and grade in the “massive” mineralisation. • Yarrabubba Core recovery exceeded 96.8% below the base of complete oxidation and 99.6% in fresh rock. Recovery at Gabanintha 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. • All diamond core and chip trays have been photographed to a high resolution for electronic storage, for diamond holes this occurred prior to sampling. • Where possible, diamond drillholes and selected RC drillholes were probed via downhole Televiwer probe and selected drillholes probed with downhole magnetic susceptibility sonde. • Geotechnical logging was undertaken on all diamond holes. Geotechnical studies are underway to optimise wall angles on proposed pits.
Subsampling techniques and sample preparation	<ul style="list-style-type: none"> • Core was sampled on ¼ or ½ basis by diamond saw. Some sections of whole core were selected for geotechnical or metallurgical sampling and are noted as such in the database. • All chips and core have been qualitatively geologically logged to a minimum interval length and precision sufficient for calculation of a mineral resource, for RC chips this is at a consistent 1m interval with representative chips collected in sample trays and photographed. • All core holes have been logged by an independent geotechnical consultant. • Remaining drill core is stored on site and at the commercial laboratory with intervals and hole identifiers. • Duplicate sampling was undertaken at a rate of 1 per 20 samples to monitor repeatability of all sampling. • Core was duplicate sampled by assaying a second ¼ in the fresh zone or a 1/2 core leaving no sample in the oxide zone • 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.

	<ul style="list-style-type: none"> • Davis Tube Recovery (DTR) tests were completed on selected 2m composites of mineralised intervals defined by assay data and coded to geological unit and weathering code for Gabanintha. The weight recoveries are interpolated for all units. • DTR's for Yarrabubba were continuously samples on a 4m downhole basis below the base of complete oxidation, originally 376 composites were run at 75 micron for Fe optimised recovery and then 371 of these were run at 150 micron for maximum ilmenite recovery with kiln property handling suitable for the Gabanintha plant for V2O5 recovery.
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 into disks and analysed by XRF spectrometry – method FB1/XRF77. In addition, loss on ignition (LOI) was completed by gravimetric analysis. • This is considered to approximate a total analysis method. • DTR was performed via compositing coarse and selected pulverised sample rejects, by a commercial laboratory. All comparisons of DTR are done on P80 250 micron target sizing for Gabanintha and a 150 micron target sizing for Yarrabubba and laser sizing was done as a check. • Field duplicates (at least 1 duplicate sample for every 20 samples analysed), laboratory check samples, blanks (1:50) and commercial reference materials (1:20) are considered to be suitable quality control procedures. • Quality control procedures demonstrate acceptable levels of accuracy and precision have been achieved. CRMs 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.
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 quality assurance/quality control (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 for Reporting of Exploration Results. • The estimation of significant intersections has been verified by alternate company personnel. • There were no adjustments to assay data. • Four 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 50 cm 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 handheld global positioning system (GPS). • Final hole collar positions were surveyed using differential RTK GPS with an accuracy of ± 5 cm horizontally and ± 10 cm vertically.

	<ul style="list-style-type: none"> • Downhole deflections were measured using an Axis CHAMP north-seeking gyroscope every 30 m downhole and near the collar. • Downhole magnetic susceptibility and Televue data was captured on a <1 cm accuracy downhole.
Data spacing and distribution	<ul style="list-style-type: none"> • The drill data is on nominal 100m line spacing with holes located approximately every 40-50m along the drill lines. • Detailed airborne magnetic modelling 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 and structural interpretation where offset is noted in surface mapping. • Data is considered appropriate for use in estimating a Mineral Resource. • No sample compositing is used in primary assay except for DTR 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 0.85 X the true thickness, except in geotechnical holes GBDD035, 036, 037; GBDD043; GBDD044 and GBDD045. Drill deviations were not noticeably higher through the mineralised zone • 21 vertical PQ diamond holes associated with metallurgical kiln property sampling for Gabanintha (GBSD series holes) approximate 2.5x true widths and have not been reported as the true width is influenced by very low angle intersections and are potentially misleading.
Sample security	<ul style="list-style-type: none"> • RC samples were collected in poly-weave bags, sealed securely and transported by Technology Metals personnel until handover to a commercial transport company, which delivered the samples by road transport to the laboratory. • Drill core samples for geotechnical rock property testing were transported to the commercial laboratory as whole core by registered consignment and sequential sample numbers were assigned and sample bags presented to the geotechnical lab for submission as discrete crushed samples to the commercial assay laboratory. All remaining core from the current program was labelled with non-degrading metal tags. • For RC holes transport was completed within one week and sample reconciliation and crushing at the lab occurred within 14 days of receipt. The diamond drilling commercial transport was tracked and after a holding period at the laboratory the samples were reconciled against the sample list on the submissions provided after the 2019 sampling program.
Audits or reviews	<ul style="list-style-type: none"> • A representative from the independent geological consultants, CSA Global Pty Ltd (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 >20 years' 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 Technology Metals.

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 Mining Leases M51/883 and M51/884. The tenements for the global Mineral Resource estimate 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"> RC 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 Licence 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. Mineralisation is in the form of vanadiferous magnetite in massive and disseminated bands
Drillhole information	<ul style="list-style-type: none"> See attached Appendix 1 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, 31 August 2017, 14 September 2017, 18th October 2017, 7th December 2017, 5 October 2018, 8 November 2018, 20 December 2018 and 30 January 2019, 30 April 2020, 1 July 2020, 16 September 2021.
Data aggregation methods	<ul style="list-style-type: none"> Not relevant. Exploration results are not being reported. Mineral Resources are being disclosed
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> Down hole lengths of mineralisation are reported in previous announcements but not relevant here as Exploration results are not being reported. Mineral Resources are being disclosed
Diagrams	<ul style="list-style-type: none"> Maps showing drill hole locations and Cross sections showing the relationship between mineralisation and geology have been included in previous announcements, these are not relevant here as Exploration results are not being reported. Mineral Resources are being disclosed
Balanced reporting	<ul style="list-style-type: none"> Exploration results are not being reported. Mineral Resources are being reported for the purpose of underpinning a reserve update
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

	<ul style="list-style-type: none"> • Bulk density measurements using a mixture of calliper and immersion methods have been completed on diamond core samples of fresh, transitional and oxidised material from the Southern tenement. These have been supplemented by, and compared to 654 measurements taken from the Northern tenement core. A reasonable number of samples have been measured by both methods to ensure there is no significant bias when using data obtained by either of the two methods to estimate the various material type densities. • Metallurgical test work and bulk sampling results indicate amenability of both Gabanintha and Yarrabubba magnetite concentrates to conventional roast leach processing (Refer ASX releases: 4th April 2018, 31st May 2018, 19th June 2019 and 21st April 2022) and DTR has been found to be a suitable proxy for Low Intensity Magnetic Separation. • A grind liberation program has been completed on representative composites from Yarrabubba mineralisation indicating that a grind of P80 150 µm optimises ilmenite recovery and does not detrimentally impact the vanadium circuit performance. • Low values of deleterious elements (As, Mo , Cr) are associated with mineralisation • Groundwater quality for potential water supply is suitable for use in mine planning and processing, with elevated salinity at Yarrabubba in connection with the large channelised sheetwash catchment in adjacent tenements.
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. It is expected LIMS testwork and QEMSCAN Mineralogy will be undertaken on half core samples recently delivered to an independent metallurgical laboratory. • Diamond drilling has also been used to gather geotechnical data relevant to open pit mine design parameters. • The strike length of the outcropping mineralisation has been drill tested with outcrop receding under cover in adjacent tenements to the northwest and southeast. More high yielding fresh vanadiferous titaniferous magnetite may be present down dip in the structurally deformed and thickened apparent footwall in the vicinity of GBDD034. • Processing water is being sourced from a paleochannel to the northwest of M51/883 where four (4) successful production bores have been cased for assessment of groundwater impacts. • A program is scheduled to comprehensively assess the variability of the Yarrabubba deposit and its performance through the anticipated process which is underway • A pilot program is anticipated to be commenced to confirm the design of the ilmenite recovery circuit of the non-magnetics. • EPA approvals are expected to be finalised in Q3 2022.

Section 3: Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	<ul style="list-style-type: none"> • Drilling data is stored in a DataShed database system which is an industry best practice 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.

	<ul style="list-style-type: none"> Validation of the data import include checks for overlapping intervals, missing survey data, missing assay data, missing lithological data, and missing collars.
<p>Site visits</p>	<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 handheld 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 handheld GPS confirming their stated survey locations.
<p>Geological interpretation</p>	<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, interpreted from the drill hole and magnetic data and surface mapping, have been modelled for both Gabanintha and Yarrabubba deposits. These features displace the mineralisation as shown in the diagrams in the body of this report. In the hanging wall and footwall of the massive magnetite zone, the mineralised units are defined at a nominal 0.4% V₂O₅ lower cut-off 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. Drill sample logging and analysis demonstrates consistent zones of more disseminated magnetite mineralisation, containing centimeter to decimeter scale magnetite bands, existing in the hanging wall and foot wall of the massive unit along strike and on section. Drill hole logging at Gabanintha has shown some narrow quartz porphyry units and pegmatites at Yarrabubba have also been modelled as dilution, cutting through the mineralisation on some sections. 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. Weathering surfaces for the recovery of ilmenite at Yarrabubba have been conservatively set at 5m RL below TOFR 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 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. The extents of the modelled mineralisation zones are constrained by the available drill and geophysical data, with strike extent limited by tenement boundaries. 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, density and geological continuity is reflected in the Mineral Resource classification.

<p>Dimensions</p>	<ul style="list-style-type: none"> • At Yarrabubba on M51/883 the modelled mineralisation strikes approximately 125° to 305°, dipping on average about 55° towards 215°, with a modelled strike extent of approximately 1.6 km. • The stratiform massive magnetite unit has a true thickness varying between 5 m and 25 m. The interpreted disseminated mineralisation lenses appear to be better developed in the centre and northern half of the modelled area, with cumulative true thickness of the order of 25 m from up to four lenses, reducing to roughly 7 m from two lenses south of the deposit. The massive magnetite outcrops and has been mapped along the strike extent and has been extended to a maximum of approximately 200 m below topographic surface or nominally 70 m down dip of the deepest drill hole intersections. The strike extent is extended to the intersections with the tenement boundary based on the surface mapping and geophysical data extents. In the north this is roughly 30 m along strike and in the south roughly 125 m along strike from the relevant drilling sections. The southernmost lens of the modelled massive magnetite mineralisation has been limited to roughly 160 m below topographic surface, due to increased geological uncertainty. The immediate hanging wall disseminated mineralisation zone above the massive magnetite is modelled to a nominal maximum of 175 m below topographic surface. The remaining hanging wall lenses are successively modelled to nominal maximums below topographic surface of 165 m and 155 m respectively, and the foot wall lens to 165 m. 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. • At Gabanintha on M51/884 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 hanging wall 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.
<p>Estimation and modelling techniques</p>	<p><u>Gabanintha</u></p> <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). 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.
- 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 V_2O_5 and TiO_2 and a strong negative correlation between Fe and Al_2O_3 , SiO_2 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 V_2O_5 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.

Yarrabubba

- 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 V_2O_5 , Fe and contaminant elements, TiO_2 , Al_2O_3 , SiO_2 , P and S, and loss on ignition at $1000^\circ C$ (LOI). Due to the mineralised zones being cut by and / or offset by faults the mineralisation interpretation consists of 11 massive magnetite and 28 disseminated / banded 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 hanging wall 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 combined mineralisation / weathering state domain groupings there were not sufficient samples to complete a robust grade estimation. These weathering state domains were combined to provide sufficient data to inform a robust estimate. The oxide and transitional zones of the massive magnetite and hanging wall disseminated magnetite mineralisation zones were combined and, in the footwall disseminated magnetite domain, all weathering state zones are grouped together. This has resulted in 9 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 SiO_2 in the combined weathered domain, and for SiO_2 , LOI, P, and S in the fresh domain. For the disseminated magnetite domains, P and S required top cutting in various domains. Drill spacing is nominally 40 m to 50m on sections spaced 100 m or 200 m apart. Maximum extrapolation away from data points is up to 170 m downdip on two drill sections with two drill holes and between roughly 65 m and 120 m on remaining sections. 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 250 m along strike, 125 m down dip and 15 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 6 samples per hole, with a minimum of 15 and a maximum of 30 samples are allowed for a block estimate in the first search pass, reducing to a minimum of 12 samples and a maximum 24 samples for the second pass, and reducing to a minimum of 8 samples and a maximum 15 samples for the final pass.
- The IDW check estimate results produced comparable results with a less than 1% difference in global V_2O_5 grade.
- By-product recovery has not been considered for this deposit estimate.
- Potentially deleterious P and S have been estimated
- A volume block model with parent block sizes of 40 m (N) by 40 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 southwest to northeast orientated sections spaced either 100 m or 200 m apart along strike.

	<ul style="list-style-type: none"> • 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 those three grade variables and Al₂O₃, and SiO₂. • 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, 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	<p><u>Gabanintha</u></p> <ul style="list-style-type: none"> • Metallurgical amenability for the Gabanintha deposit has been demonstrated by test work contained in previous resource announcements (26th March 2019). <p><u>Yarrabubba</u></p> <ul style="list-style-type: none"> • Metallurgical amenability for the Yarrabubba deposit has been demonstrated by test work contained in previous resource announcements (26th March 2019 and 10th November 2021) and additional testing undertaken since then including: • Grind Liberation, undertaken on representative composites of the main mineralisation units. This grind liberation work indicated that a P80 of 150 µm was optimal for ilmenite recovery whilst still retaining a relatively coarse grind size for the kiln feed and not detrimentally impacting the performance of this circuit • Davis Tube Recovery (DTR) program targeting P80 150 µm, the selected grind size for Yarrabubba ore processing • Batch kiln testing by FLSmidth, demonstrating +90% vanadium recovery in the roast-leach process from Yarrabubba concentrates (announcement 21st April 2022) • Ilmenite product confirmation work, confirming an ilmenite product is able to be produced from Yarrabubba ore (announcement 13th April 2021) • Additional ilmenite recovery work, demonstrating the production of an ilmenite product through tabling, flotation and wet LIMS. This work produced an ilmenite concentrate grading 47.4% TiO₂

Environmental factors or assumptions	<ul style="list-style-type: none"> Work was finalised by Technology Metals regarding waste disposal options for M51/883 in the Definitive Feasibility Study and a theoretical design for M51/884 is completed. It is modelled for the purposes of the Mineral Resource estimates that 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"> The density measurements available for analysis included 98 samples by calliper method, and 267 samples by weight in air, weight in water method across a range of material types from the drill core. A total of 98 samples have been measured using both methods and show a very good correlation between the two measurement methods with a mean density of 3.35 t/m³ for calliper method versus 3.38 t/m³ for the weight in air weight in water method. For Yarrabubba (M51/883): 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. Some of the combined weathering / mineralisation type domains did not have sufficient data, so the domain results were compared with results from measurements from Gabanintha to determine suitability to use these data where insufficient data is available at Yarrabubba. Fresh massive magnetite has a mean density of 4.40 t/m³ measured in the South compared to 4.36 t/m³ in the North, while fresh disseminated the same mean of 3.80 t/m³ in both areas. The mean density for the various mineralisation domains has been applied in the block model as follows: <ul style="list-style-type: none"> Massive magnetite mineralisation mean density in t/m³: Oxide: 3.83; Transition: 4.0; Fresh: 4.40. Disseminated magnetite mineralisation mean density in t/m³: Hanging wall 1: Oxide: 3.3; Transition: 3.9; Fresh: 4.2. Hanging wall 2: Oxide: 3.25; Transition: 3.39; Fresh: 3.58. Remaining disseminated units: Oxide: 3.06, Transition: 3.36; Fresh 3.38 Waste rock in t/m³: Cover: 1.92; Oxide: 2.52; Transition: 2.96; Fresh: 3.07. For Gabanintha (M51/884): 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. Waste rock in t/m³: Cover: 1.92; Oxide: 2.52; Transition: 2.96; Fresh: 3.07.

<p>Classification</p>	<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 drillhole 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, Section 2 and Section 3 of this table. <p><u>Gabanintha</u></p> <ul style="list-style-type: none"> • 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 hanging wall 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 hanging wall 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. It was assumed that this material is most likely to produce a relatively "clean" tailings stream that is likely to be more amenable to beneficiation of these metals. The classification of the base metals Mineral Resources as Inferred primarily reflects a lower confidence due to the relatively early stage of metallurgical testing for potential beneficiation of these metals into a by-product revenue stream.
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	<p><u>Yarrabubba</u></p> <ul style="list-style-type: none"> • 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 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 along strike and sectional continuity observed in the chemical analysis and drillhole logging data, from the nominal drill section spacing of 100 m, with nominal 50 m on section hole spacing, the geophysical (TMI) modelling continuity and correlation with drill data and the 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 and transitional magnetite oxide material, the volumes of the massive magnetite and the immediate hangingwall disseminated unit not classified as Indicated. This is generally for the extrapolated zones of these units down dip and along strike, or where there appears to be greater structural complexity, and in the areas where possible structural influences on the geological and grade continuity are not well understood at this stage. For all remaining hangingwall disseminated mineralisation lenses and the footwall 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. • Both the Mineral Resources estimates appropriately reflect 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 JORC Code (2012). • 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.

Section 4: Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> <i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i> <i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i> 	<p>In November 2021, Technology Metals announced a Global Resource for the MTMP based on a Mineral Resource estimate for the Gabanintha Northern Block of tenements (now Mining Lease M51/883) and an updated Mineral Resource for the Yarrabubba deposit on the Southern Tenement M51/884. Both Mineral Resource estimates were reported by Employees of CSA Global in accordance with the JORC (2012) Guidelines.</p>
Site visits	<ul style="list-style-type: none"> <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> <i>If no site visits have been undertaken indicate why this is the case.</i> 	<p>A site visit was undertaken by the Competent Person in May 2022. The visit covered the following locations:</p> <ul style="list-style-type: none"> Gabanintha and Yarrabubba mining areas (pits, waste dumps, roads etc) Process plant and stockpiling area TSF Proposed site access roads Heritage sites <p>An inspection of drill core was also undertaken</p>
Study status	<ul style="list-style-type: none"> <i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i> <i>The Code requires that a study to at least PFS level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i> 	<p>The Ore Reserve to which this JORC Statement applies has been developed to a FS level of confidence (+15%/-5%) for the Northern Block (Gabanintha) and a PFS level of confidence (+25%/-15%) for Southern Block (Yarrabubba). The study supporting this Ore Reserve was completed by Technology Metals in July 2022. The study targets a production rate of 12.5 ktpa of V₂O₅ product over a 22 ½ year Life of Mine. The Yarrabubba deposit generates an additional TiO₂ (ilmenite) product. This is treated as a by-product, with the V₂O₅ production being the limiting rate.</p> <p>The work undertaken as part of this study addresses all material Modifying Factors required for the conversion of a Mineral Resource estimate into an Ore Reserve estimate and has shown that the mine plan is technically feasible and economically viable.</p>
Cut-off parameters	<ul style="list-style-type: none"> <i>The basis of the cut-off grade(s) or quality parameters applied.</i> 	<p>The definition of ore is a function of the DTR recovery of the material and the value of both the V₂O₅ and TiO₂ products. These parameters are modelled on a block-by-block basis within the model and therefore the definition of ore is also calculated block by block on a net value per block basis.</p>

		<p>A total block revenue is estimated for each block within the block model, accounting for total V₂O₅ and TiO₂ recovered to a payable product as well as the associated product price. Total operating costs are estimated for the block, including:</p> <ul style="list-style-type: none"> • Additional ore mining costs (i.e. overhaul grade control, crusher feed etc.) • Beneficiation to concentrate • Concentrate haulage • Refining • Product transport to market • General and administration <p>The total block revenue minus the total block costs equates to the net value of the block, with a positive net value defining the block as “ore” for the purposes of Ore Reserve reporting.</p>
<p>Mining factors or assumptions</p>	<ul style="list-style-type: none"> • <i>The method and assumptions used as reported in the PFS or FS to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i> • <i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.</i> • <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> • <i>The mining dilution factors used.</i> • <i>The mining recovery factors used.</i> • <i>Any minimum mining widths used.</i> 	<p>Input parameters for pit optimisations and subsequent financial modelling were:</p> <ul style="list-style-type: none"> • The mineral resource block models detailed in the preceding sections of this table were used as the basis for this Ore Reserve. • Allowances were added for mining ore loss and dilution utilising an Orelogy routine that swaps material along the defined ore / waste boundary based on the geometry of the model, bench heights and equipment sizes. This approach models a locational “edge dilution” approach where the dilution varies in the model block-by-block. For the two resources, the approach generates: <ul style="list-style-type: none"> ○ Gabanintha 12% ore loss / 9% dilution ○ Yarrabubba 23% ore loss / 14% dilution • Updated mining cost estimate for a contract mining approach developed from first principals by independent consultants IQE Pty Ltd. • Updated processing costs and recoveries for the V₂O₅ and TiO₂ product streams developed by TMT. • Mine design wall slope parameters based on recommendations from independent consultants Minegeotech Pty Ltd. <p>All other project modifying factors and costs are described in the Study.</p> <p>The long-term price of V₂O₅ used for optimisation and financial modelling is US\$10.50/lb, which is below the average market price for the first half of 2022 (US\$10.85/lb, with a range from US\$8.75 to USD\$12.25; source FerroAlloyNet).</p> <p>The exchange rate utilised was a flat rate of A\$1.00 = US\$0.70.</p> <p>A minimum mining width of 25 m has been adopted for the mine design.</p>

	<ul style="list-style-type: none"> • <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i> • <i>The infrastructure requirements of the selected mining methods.</i> 	<p>All pit optimisations have been conducted on Measured and Indicated Mineral Resources only. The total content of Inferred Mineral Resources within the pit designs is:</p> <ul style="list-style-type: none"> • Gabanintha – 6.98Mt @ 0.53% V₂O₅ • Yarrabubba – 3.54Mt @ 0.45% V₂O₅ and 5.83% TiO₂ <p>The mine plan developed for the pit designs, and the associated project value, is based on Proven and Probable Ore Reserves only and does not include any of the Inferred Resources as an ore source. The Ore Reserves in this statement have been reported exclusive of any Inferred Mineral Resources.</p>
<p>Metallurgical factors or assumptions</p>	<ul style="list-style-type: none"> • <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i> • <i>Whether the metallurgical process is well-tested technology or novel in nature.</i> • <i>The nature, amount and representativeness of metallurgical testwork undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i> • <i>Any assumptions or allowances made for deleterious elements.</i> • <i>The existence of any bulk sample or pilot-scale testwork and the degree to which such samples are considered representative of the orebody as a whole.</i> • <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i> 	<p>Metallurgical Test work</p> <p>Metallurgical test work to support the reserve of Gabanintha has previously been detailed (announcement 16th September 2020). Additional supporting test work undertaken on Yarrabubba has included:</p> <ul style="list-style-type: none"> • Comminution. Demonstrating that the ore at Yarrabubba is not significantly different and capable of being crushed and milled in the plant designed. • Grind Liberation. Identification of the optimal grind size of P80 150 µm for ilmenite recovery, whilst not detrimentally effecting the vanadium circuit. • DTR targeting P80 150 µm. For utilisation in reserve modelling and mine scheduling. • DTR is interpolated for the Massive Magnetite unit using ordinary kriging and applying an Fe% grade variogram. For hanging wall and footwall units an average DTR recovery of all representative composites within each mineralisation wireframe were applied as fixed recovery factors. While DTR data was interpolated and assigned into the Reserve block model, the November 2021 Mineral Resource has not changed • ‘Preliminary Orebody Blend’ Composite preparation, batch kiln testing and leaching verification yielding results on par or above those targets set during the DFS and associated Gabanintha testing (announcement 21st April 2022). • ‘Preliminary Orebody Blend’ Composite Non-Magnetics Ilmenite Recovery. This work yielded Ilmenite concentrates grading 47.4% to 48.6% TiO₂ with deleterious elements at or below levels previously established (announcement 13th April 2021). <p>Design Basis</p> <p>The plant basis of design was developed using the metallurgical testwork results and utilises the conventional ‘salt roast’ method of vanadium extraction and a supplemented conventional gravity concentration circuit for ilmenite recovery. Process engineers involved with this area of design have experience in vanadium processing operations.</p> <p>The plant basis of design is to produce approximately 12.5 ktpa of V₂O₅ flake from magnetite ore bearing vanadium. The process has been modified by incorporation of the ilmenite recovery circuit and can be broken down into nine stages, summarised as follows:</p>

	<p>1. Crushing and screening. ROM ore is crushed down to an 80% passing size of 8 mm.</p> <p>2. Grinding and wet magnetic separation The -8 mm concentrate is ground down to an 80% passing size of 0.15 mm, followed by wet magnetic separation to remove finely liberated gangue from the vanadium-bearing magnetite.</p> <p>3. Roasting The vanadium-bearing magnetite concentrate is mixed with a sodium-based salt and roasted to convert the V_2O_5 in the ore to water soluble sodium metavanadate.</p> <p>4. Leaching and precipitation The sodium metavanadate is leached out of the roasted product with water followed by re-precipitation of the vanadium in the form of AMV.</p> <p>5. De-ammoniation and calcination The ammonia is removed from the precipitated product to form a V_2O_5 powder. This powder is further melted and cooled down to produce the final V_2O_5 flake product.</p> <p>6. Packaging The final processing stage to package the saleable product to meet the requirements for offtake.</p> <p>7. Gravity concentration – the non-magnetics from step 2 are thickened, deslimed and fed through a conventional spiral circuit to produce a gravity concentrate</p> <p>8. Ilmenite Upgrade The gravity concentrate is put through flotation, to produce a base metal bearing sulfide concentrate and the remaining material is separated by wet magnetic separation to provide final upgrade to the ilmenite concentrate.</p> <p>9. Dewatering and Storage Both the ilmenite concentrate and base metal bearing sulfide concentrate are filtered and stockpiled for transport</p> <p>Both the ‘salt roast’ method of vanadium extraction and gravity concentration by spiral separators for ilmenite recovery are conventional technologies that are applied globally for the recovery of vanadium and ilmenite respectively.</p> <p>Processing Recoveries Applied - Vanadium</p> <p>Processing recoveries for vanadium are based on DTR results estimated within the block model to represent the LIMS process. The following recoveries were applied for the rest of the processing circuit:</p> <ul style="list-style-type: none"> ● 85% Recovery for Roasting/Leaching
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		<ul style="list-style-type: none"> • 99% Recovery for Desilication • 95.7% Recovery of AMV To De-ammoniation • 99% Recovery for Flake Preparation. <p>Test work undertaken on Yarrabubba concentrates dispatched to FLSmidth for batch kiln testing has substantiated the roasting conversion efficiency assumptions and has demonstrated conversion levels exceeding those demonstrated in the pilot testing (announcement 21st April 2022).</p> <p>Processing Recoveries Applied – Titanium</p> <p>Processing recoveries for ilmenite are based on DTR results estimated within the block model to represent the LIMS process with the following titanium recoveries applied to the titanium content of the non-magnetics, by ore type to the ilmenite concentrate:</p> <ul style="list-style-type: none"> • Upper HW: 40% • HW2: 40% • HW1: 42% • MASS: 52% • FW: 35% <p>These recoveries account for losses in deslime, gravity concentration and subsequent processing to generate an ilmenite concentrate of 47.0% TiO₂. A Nil recovery of ilmenite product (TiO₂) has been assigned to all mineralisation above an RL -5m below the top of fresh rock.</p>
<p>Environmental</p>	<ul style="list-style-type: none"> • <i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i> 	<p>Air Quality and Noise</p> <p>Whilst the Project has the potential to generate the following emissions it is unlikely, given the remote location, that these emissions will impact any sensitive receptors. Emission types include:</p> <ul style="list-style-type: none"> • Ammonia (NH₃) • Oxides of nitrogen (NO_x) • Particulates (as PM10 and PM2.5) • Vanadium pentoxide (V₂O₅) • Sulphur dioxide (SO₂). <p>Similarly, noise is unlikely to affect any sensitive receptors, with the closest receptors being the homesteads associated with the Polelle (7 km) and Yarrabubba (14 km) Pastoral Stations.</p> <p>Water courses</p> <p>Water courses through the Gabanintha mining area have been identified and surveyed. The pits have minimal impact on these water courses and the ex-pit infrastructure (dumps and stockpiles) have been sited outside of the water courses. Yarrabubba water courses have not been surveyed.</p>

	<p>However, the constrained nature of this lease will result in disturbance to any significant water courses. The watercourses will be re-established as part of the final mine closure plan.</p> <p>Flora and Fauna</p> <p>Between 2018 and 2020 a series of on ground Flora and Vegetation surveys have been undertaken across the Project Area. During these survey's no commonwealth or state listed threatened flora taxa were recorded (Biologic, 2021a; ISPL 2021). Six priority listed taxa were identified during the survey from within and adjacent to the Project:</p> <ul style="list-style-type: none"> • Hibiscus krichauffianus • Ptilotus lazaridis • Ptilotus luteolus • Tribulus adelacanthus • Acacia speckii • Dodonaea amplisemina. <p>Biologic Environmental Survey (Biologic, 2021b; ISPL, 2021) were commissioned to undertake a series of Terrestrial Fauna Surveys across the Project Area. These surveys recorded over 90 fauna taxa, comprising 17 mammal species (including four non-native species), 52 bird species, 26 reptile species and one amphibian species. Prior to the field survey, 33 potentially occurring conservation significant taxa were identified; from the fieldwork, only two were recorded, the Long-tailed Dunnart (P4) and the Peregrine Falcon (SP), and one, the West Coast Slider (P4), has the potential to occur. The Project activities will interact with Long-tailed Dunnart which is associated with Rocky Outcrops habitat which is associated with the mining areas and the West Coast Slider Calcrete habitat which is in the Water Supply Area (Biologic 2021b).</p> <p>Detailed subterranean fauna surveys have been completed across the Project area by Biologic Environmental Survey and Bennelongia Environmental Consultants. These surveys found that the Yarrabubba site and the Mining area at Gabanintha have depauperate to low Subterranean fauna communities, while the Gabanintha Water Supply area was found to be more prospective for Stygofauna. The region surrounding the Project is known for a number of Subterranean Fauna Priority Ecological Communities; the surveys undertaken have found that non occur within the Gabanintha Site, while the Yarrabubba site is within the buffer zone for two subterranean fauna Priority Ecological Communities (PECs); the Yarrabubba West calcrete groundwater assemblage and the Nowthanna calcrete groundwater assemblage. The accrual PEC areas are not directly impacted by the Yarrabubba activities, and indirect impact can be managed.</p> <p>Heritage Sites</p> <p>The Murchison Technology Metals Project is located within the traditional lands of the Yugunga-Nya People. The claim was registered in 1999 with the Native Title Tribunal (WC1999/046; WCD2021/008), and a consent determination was achieved in November 2021 through the Federal</p>
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		<p>Court (WAD29/2019). The KOP Ventures Pty Ltd has a Heritage Agreement with the Yugunga-Nya People, which was signed in 2018 and outlines the process for commissioning heritage surveys, survey methodologies and how heritage information will be protected. Since the consent determination, Yugunga-Nya PBC was formed to act on behalf of the Yugunga-Nya People to safeguard heritage and to negotiate Future Act activities. Work has commenced between Yugunga-Nya PBC and the KOP Ventures to establish a Mining Agreement and finalise a Aboriginal Cultural Heritage Management Plan that aligns with the new WA Aboriginal Cultural Heritage Act 2021.</p>
<p>Infrastructure</p>	<ul style="list-style-type: none"> • <i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.</i> 	<p>The Gabanintha Vanadium Project is located 40 km southeast of Meekatharra in the mid-west region of Western Australia. A suitable airfield for fly-in/fly-out labour out of Perth, Western Australia is located at Meekatharra. Intermittent mobile network coverage is available on site, this will be complimented with a communication provider mobile booster station.</p> <p>Project support infrastructure includes:</p> <ul style="list-style-type: none"> • Water supply, treatment and reticulation • Site preparation, bulk earthworks and drainage • Fuel supply, storage and distribution facilities for diesel fuel and natural gas • Power generation and distribution • Civil and earthworks including bulk earthworks, hydrology/drainage and roads • Plant buildings and structures including reagent and explosives storage • Accommodation facilities and structures for operational personnel. <p>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.</p> <p>A site raw water pond shall serve as reserve capacity for the site.</p> <p>Reverse osmosis plants shall be located next to each raw water storage tank at the village and processing plant to enable the required production of potable water to be provided.</p> <p>Fuel for the Project will be a combination of natural gas supplied by a natural gas pipeline and trucked diesel fuel.</p> <p>The main electrical power for the Project will be provided from a standalone power station, generating power requirements for the main process plant and non-process infrastructure.</p> <p>A road train haul road will be required to be constructed to haul ROM from the Southern Tenement to the ROM pad adjacent to the processing facility. The Meekatharra–Sandstone Road can connect the Southern Tenement to the Northern Block of tenements with approximately 8 km of additional haul road construction.</p>

<p>Costs</p>	<ul style="list-style-type: none"> • <i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i> • <i>The methodology used to estimate operating costs.</i> • <i>Allowances made for the content of deleterious elements.</i> • <i>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.</i> • <i>The source of exchange rates used in the study.</i> • <i>Derivation of transportation charges.</i> • <i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i> • <i>The allowances made for royalties payable, both Government and private.</i> 	<p>The capital cost estimate (capex) for this Ore Reserve Update is supported by a Class 4 capital cost estimate with an accuracy range of approximately -15% to +20% based on the accuracy levels as defined by the American Association of Cost Engineers' (AACE) Cost Estimation Classification System (As Applied for the Mining and Mineral Processing Industries).</p> <p>The capital cost estimate (capex) is a bottom-up estimate, as far as practically possible, that considers escalation of the 2019 DFS capital expenditure estimate and the additional scope to accommodate processing of ilmenite.</p> <p>Mining costs have been developed on a first principle basis to reflect a mining contractor estimate. It has been developed to a +/-15% level of confidence based on a life of mine schedule developed by Orelogy. It covers all costs associated with mining the deposits including but not limited to:</p> <ul style="list-style-type: none"> • Site establishment and mobilisation • Clearing, grubbing and roadbuilding • Drill and Blast • Loading, hauling and production support • Ore reclaim from stockpile and at the process plant • Road train haulage of ore from Yarrabubba to process plant at Gabanintha • Rehandle of waste to in-pit dumps • Grade control • Site disestablishment and de-mobilisation • Site closure and rehabilitation <p>Key cost updates from the previous Ore Reserve are a fuel price (\$1.66/l) and bulk explosives (\$1400/t).</p> <p>The updated processing operating cost estimate was developed relying on the operating cost estimate for the previous reserve with key updates to reagents, power and manning.</p> <p>As per the previous reserve operating cost estimate all significant and measurable items are itemised. However, smaller items are factored as per industry practice. The level of effort for each of the line items meets the estimate as defined by the AACE.</p> <p>The opex was generated utilising the information from the mass balance, direct process engineering input for heat loading and reagent usage, mining operating costs and the equipment maintenance aligned with the capex equipment. The organisational chart was developed by Technology Metals and the wages were sought from the Wave database in conjunction with recognised industry sources. The manning, inclusive of mining contractor personnel, was used to derive flights and accommodation costs.</p> <p>An electrical power load list was calculated using equipment size and expected run hours for each piece of equipment to establish power generation requirements for the Project.</p>
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Revenue factors	<ul style="list-style-type: none"> • <i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i> • <i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i> 	<p>The mass yield through the LIMS circuit to the magnetic concentrate is provided by the DTR grade modelled in the Mineral Resource model. The non -magnetic stream from the LIMS equates to the TiO₂ concentrate from the Yarrabubba ore feed.</p> <p>The concentrate grades for V₂O₅ in the magnetic concentrate and TiO₂ in the non-magnetic concentrate are based on the result of the metallurgical testwork and assumed fix grades by deposit and lithology.</p> <p>The final recovery of V₂O₅ in concentrate to V₂O₅ flake assumes a combined recovery of 81.2% up to Year 5 (prior to ion exchange installation) and 84.1% from Year 5.</p> <p>The end-to-end (E2E) recovery of TiO₂ to the saleable ilmenite concentrate is estimated in the Mineral Resource model. The ilmenite concentrate has an assumed TiO₂ grade of 47%</p> <p>Costs applied to the two product streams in the financial model include allowances:</p> <ul style="list-style-type: none"> • Transport of V₂O₅ flake from Gabanintha to Fremantle Port. • Transport of ilmenite concentrate from Yarrabubba to Geraldton Port. <p>Revenue has been derived from the following Free Onboard price:</p> <ul style="list-style-type: none"> • V₂O₅ flake price of US\$10.50/lb, reflecting the long term historical average price, which is below the average market price for the first half of 2022 (US\$10.85/lb, with a range from US\$8.75 to USD\$12.25; source FerroAlloyNet). • Ilmenite concentrate product of 47% TiO₂ at US\$260/t, based on current market pricing from TZ Minerals International (TZMI July 2022) <p>An exchange rate of A\$1.00=US\$0.70 has been applied throughout the financial evaluation of the Project.</p>
Market assessment	<ul style="list-style-type: none"> • <i>The demand, supply and stock situation for the particular commodity, consumption trends and</i> 	<p>Technology Metals' strategy with regard to product marketing is to secure medium to long term offtake agreements over the majority of its forecast vanadium and ilmenite production, aiming to establish a diversified customer base across both geographic location and industry.</p>

	<p><i>factors likely to affect supply and demand into the future.</i></p> <ul style="list-style-type: none"> • <i>A customer and competitor analysis along with the identification of likely market windows for the product.</i> • <i>Price and volume forecasts and the basis for these forecasts.</i> • <i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i> 	<p>Technology Metals has conducted a series of discussions with vanadium market participants and end-users in both the steel industry, the VRFB/electrolyte sector, specialty alloy/chemical industry and metal traders with a view to forming long-term strategic alliances and negotiating formal vanadium offtake arrangements. As part of this process, samples of high purity final V2O5 product have been sent to a number of these parties, confirming the exceptional purity of the MTMP vanadium product and its suitability for the range of end-users.</p> <p>On 27 April 2020, Technology Metals announced a binding offtake agreement with CNMC Ningxia Orient Group Company Ltd, a controlled subsidiary of China Nonferrous Metal Mining (Group) Co. Ltd. The offtake agreement, with agreed key terms including a take-or-pay annual offtake quantity of 2 kt V2O5. Pricing referenced to the published European and Chinese domestic V2O5 price. The offtake term is three years with an option to renew for an additional three years. An extension to the condition's precedent contemplated in the binding offtake was executed on 30 June 2022.</p> <p>Technology Metals announced an MOU for technology sharing and vanadium offtake with LE System Co., Ltd, one of Japan's leading research and development companies for VRFB and a leading supplier of electrolytes to VRFB manufacturers, on 3 March 2021, which was extended and expanded on 23 December 2021 and further extended on 8 July 2022. The MOU contemplates assistance in the development of Technology Metals downstream vanadium electrolyte business as well as the opportunity to supply vanadium for LES System's use in Japan.</p> <p>Ongoing discussions with prospective customers have indicated a high level of interest in securing supply of vanadium from a primary mining source such as MTMP, with security of supply from a stable jurisdiction such as Western Australia a key consideration.</p> <p>Pricing strategy will be determined in conjunction with negotiation of offtake agreements but is expected to use moving average prices over a set contract period based on reference prices.</p> <p>Technology Metals engaged TZ Minerals International Pty Ltd (TZMI) to complete a product and customer assessment program for the MTMP ilmenite product which confirmed the product to be suitable for use as a blend feed in the sulfate pigment process. TZMI confirmed that the ilmenite product is typical of that sourced from hard rock deposits with low level of a range of deleterious elements, particularly U+Th and very low Fe2O3, somewhat offset by elevated Cr2O3 and V2O5 content. Feedback from potential customers has been positive and based on the indicative product quality, the planned ilmenite would achieve a price of ~US\$250-270 per tonne FOB in the current spot market.</p>
<p>Economic</p>	<ul style="list-style-type: none"> • <i>The inputs to the economic analysis to produce the NPV in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i> 	<p>The economic analysis is based on capital and operating cost estimates developed for the Study and cash flows driven by the production schedule and prices detailed above.</p> <p>The cash flow projections include:</p> <ul style="list-style-type: none"> • initial and sustaining capital estimates • mining, processing and concentrate operating cost to product on board • revenue estimates based on concentrate pricing adjusted for fees, charges and royalties

	<ul style="list-style-type: none"> NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<ul style="list-style-type: none"> an 8% discount factor <p>The sensitivity analysis completed in the Study indicates that the Project results remain favourable when the key project costs (i.e. mining, processing, product) are individually flexed to plus and minus 10% of the average values. As with most mining feasibilities, the Project is sensitive to price variations, with a 10% increase in price (i.e., US\$11.55/lb V₂O₅ and US\$286/t ilmenite) increasing NPV to A\$1,316M and a 10% drop in price (i.e., US\$9.45/lb V₂O₅ and US\$234/t ilmenite) reducing NPV to A\$610M.</p>
Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<p>Mining leases were first taken out in the Gabanintha area in 1895 and the town of Gabanintha was gazetted in 1898. Today the region is dominated by pastoral activities and mineral extraction.</p> <p>The Project is located on Polelle and Yarrabubba Pastoral Stations, with the homestead of Polelle being 7 km east of M51/883 and Yarrabubba homestead 14km southeast of M51/884. A portion of M51/883 is on Common Reserve 10597 with other reserves associated with the historical townships of Gabanintha and Polelle.</p> <p>The Murchison Technology Metals Project is located within the traditional lands of the Yugunga-Nya People. The claim was registered in 1999 with the Native Title Tribunal (WC1999/046; WCD2021/008), and a consent determination was achieved in November 2021 through the Federal Court (WAD29/2019). The KOP Ventures Pty Ltd has a Heritage Agreement with the Yugunga-Nya People, which was signed in 2018 and outlines the process for commissioning heritage surveys, survey methodologies and how heritage information will be protected. Since the consent determination, Yugunga-Nya PBC was formed to act on behalf of the Yugunga-Nya People to safeguard heritage and to negotiate Future Act activities. Work has commenced between Yugunga-Nya PBC and the KOP Ventures to establish a Mining Agreement and finalise an Aboriginal Cultural Heritage Management Plan that aligns with the new WA Aboriginal Cultural Heritage Act 2021</p> <p>The site is in a remote region that has hosted multiple mining projects. However, over time the larger project footprint may have a marginal impact on pastoral leases. Technology Metals has established a process of stakeholder engagement and will continue to proactively manage this.</p>
Other	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to 	<p>No material naturally occurring risks have been identified.</p> <p>Technology Metals' tenements have either been granted or are currently being progressed with the expectation that these will be granted.</p> <p>There are no apparent impediments to obtaining all government approvals required for the Gabanintha Vanadium Project.</p>

	<p><i>the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the PFS or FS. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i></p>	
Classification	<ul style="list-style-type: none"> <i>The basis for the classification of the Ore Reserves into varying confidence categories.</i> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> <i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i> 	<p>Proven Ore Reserves were estimated from Measured Resources and Probable Ore Reserves were estimated from Indicated Resources as per the JORC (2012) guidelines.</p> <p>Approximately 2.5% of Ore Reserves have been based on Measured Mineral Resources and reported as Proven Ore Reserve.</p> <p>Mr Ross Cheyne, the Competent Person for this Ore Reserve estimation has reviewed the work undertaken to date and considers that it is sufficiently Approximately detailed and relevant to the deposit to allow those Ore Reserves derived from Indicated Mineral Resources to be classified as Probable, and Ore Reserves derived from Measured to be classified as Proven.</p>
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Ore Reserve estimates.</i> 	<p>The Study has been internally reviewed by Technology Metals. The mine design, scheduling, mining cost model and associated Ore Reserve Estimate has been subject to internal peer review processes by Orelogy. No material flaws have been identified.</p> <p>No independent external audits or reviews have been completed on the Study.</p>
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> <i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed</i> 	<p>This Ore Reserve estimate is supported by the Murchison Technology Metals Project Integration Study work streams completed in July 2022.</p> <p>The Gabanintha Vanadium Project has an internal rate of return and NPV which makes it robust in terms of cost variations. The Project is most sensitive to price variations for the V2O5 product.</p> <p>All estimates are based on local costs in A\$. Standard industry practices have been used in the estimation process.</p> <p>Capital and operating expenditure estimates within the Gabanintha Northern Tenement are considered to be within a -15% /+20% accuracy appropriate to a Feasibility level of accuracy.</p> <p>Capital and operating costs for the Yarrabubba Southern Tenement are considered to be within -25%/+25% and appropriate for a Pre-Feasibility level of accuracy.</p>

	<p><i>appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"> <i>• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> <i>• Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i> <i>• It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<p>There has been no production at the Project to date, so no comprehensive comparison or reconciliation of data has been made.</p>
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