

## ASX Announcement

1 April 2026

### Kanyika Niobium Project Bankable Feasibility Study Confirms Strong Project Economics

**Globe Metals & Mining Limited** (ASX: GBE) (**Globe or Company**) is pleased to announce the results of the Bankable Feasibility Study (**BFS**) for the Kanyika Niobium (**Kanyika or the Project**) in Malawi. This BFS updates and builds on the feasibility study in 2021 <sup>1</sup> and is supported by a full technical report which is available as an appendix to this announcement.

#### Key Highlights

**Financial and operating metrics (on a 100% basis and are stated in real 1 January 2026 terms):**

- Post-Tax Net Present Value (**NPV**)<sup>8</sup> (real) of US\$1,025M (A\$1,464M)
- Post-Tax IRR of 48%
- Average annual EBITDA of US\$205M (A\$293M)
- Pre-tax NPV<sup>8</sup> (real) of US\$1,524M (A\$2,177M)
- Life of Mine (**LOM**): 24 years with first production of niobium oxide expected early 2028
- Large scale project generating net sales revenue over LOM of US\$6,983M (A\$9,975M)
- Gross margin over LOM of US\$5,057M (A\$7,225M) equating to a 72% gross margin
- Average annual net operating cost (after tantalum by product credit) of US\$14.26/kg Nb<sub>2</sub>O<sub>5</sub> - in the lowest cost quartile due to the low strip ratio, 80% Nb<sub>2</sub>O<sub>5</sub> recoveries in the concentrator and use of solar power and battery storage (**BESS**)
- Initial phase capital cost of US\$139M (A\$199M), comprising capex for the mine and refinery of US\$82M, Solar PV and BESS of US\$28M, EPCM & Owner's cost of US\$15M and contingency of US\$14M

<sup>1</sup> Refer ASX Announcement dated 19 August 2021 entitled Kanyika Project Feasibility.

### Resources and reserves:

- Ore Reserve (BFS): 33.8 Mt at 3,050 ppm Nb<sub>2</sub>O<sub>5</sub> and 142 ppm Ta<sub>2</sub>O<sub>5</sub>, supports a mine life of 24 years
- 2018 Mineral Resource Estimate (MRE) <sup>2</sup> (JORC Code guidelines (2012) compliant): 68.3 million tonnes of mineralisation with a grade of 2,830 ppm Nb<sub>2</sub>O<sub>5</sub> and 135 ppm Ta<sub>2</sub>O<sub>5</sub>

### Project development strategy:

- Phased development to reduce upfront capital and execution risk:
  - Initial phase: targeted production ~1,502 tpa of Nb<sub>2</sub>O<sub>5</sub> (plus ~65 tpa Ta<sub>2</sub>O<sub>5</sub>)
    - Equivalent to ~500kt of ore mined and processed per annum ~33% of full run of mine (**ROM**) capacity
  - Expansion to full scale: targeted production ~3,477 tpa Nb<sub>2</sub>O<sub>5</sub> (plus ~ 156 tpa Ta<sub>2</sub>O<sub>5</sub>), subject to market conditions
    - Equivalent to ~1,500kt of ore mined and processed per annum ~100% of full run of mine (ROM) capacity
  - Objectives are to minimise upfront capital, accelerate first production, de-risk technically, operationally and commercially, and generate early cash flow

### Strategic and technical strengths:

- A potential globally significant primary niobium and tantalum oxide producer, targeting critical minerals markets across AI, aerospace, defence, superconductors, and advanced manufacturing.
- Fully integrated, on-site mine-to-refinery configuration producing high-purity niobium and tantalum oxide products.
- Provides a conflict-free, traceable and diversified supply source outside Brazil.
- Completed technical programme including extensive metallurgical testwork and engineering optimisation underpinning a robust and optimised processing flowsheet, top-quartile recoveries, materially de-risking execution.

### Charles Altshuler, Interim CEO & CFO of Globe Metals & Mining, said:

*“The BFS confirms Kanyika as a globally significant, long-life niobium project with compelling economics, low operating costs and a clear, staged development pathway. With a post-tax NPV of over US\$1 billion, a 48% IRR and average net operating costs of approximately US\$14.26/kg Nb<sub>2</sub>O<sub>5</sub>, the Project demonstrates robust economics supplying critical minerals into a marketplace calling for*

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<sup>2</sup> Refer ASX Announcement dated 11 July 2018 entitled Kanyika Niobium Project-Updated JORC Resource Estimate

*increased supply and diversity. Our phased development approach improves capital efficiency and reduces execution risk.*

*Importantly, Kanyika represents one of the few near-term opportunities to establish a new, large-scale source of niobium supply outside Brazil. As demand continues to grow across aerospace, defence, data centres, AI and advanced manufacturing, we are seeing increasing strategic interest in securing long-term, conflict-free supply.*

*Our focus is now firmly on execution, progressing funding, offtake and EPCM arrangements toward a Final Investment Decision, while advancing early works and procurement to enable construction. We believe the Project is well positioned to transition into development and deliver long-term value for shareholders.”*

#### **Targeted next steps and timetable:**

- Calendar Q2 2026: Continue project evaluation and advance funding, offtake and EPCM negotiations. Complete the remaining BFS finalisation tasks and progress early development works<sup>3</sup>. Complete technical and commercial framework required for development.
- Q3 2026: Target Final Investment Decision (**FID**); execute initial funding and EPCM contracts; commence long-lead procurement, commence relocation of affected households in the initial phase.
- Q4 2026: Mobilise contractors and site teams and commence initial phase site works (site establishment, access roads, camp construction, water supply and temporary power).
- Q1 2027 to Q3 2027: Major construction activities (civil works, structural steel erection, plant installation, tailings storage facility, power infrastructure); pre-strip and initial ore exposure.
- Q4 2027: Mechanical completion of major circuits; commissioning preparations.
- Q1 2028: First production and initial revenues; target positive operating cash flow as initial phase reaches steady state.
- Q2 2028 – 2030: Expansion phase construction to reach full capacity; full-scale operations expected in early 2030 (depending on market conditions)
- Mine life through to 2052, with progressive closure and rehabilitation starting from 2049.

#### **ASX LISTING RULE 5.9.1 REQUIREMENTS**

Key BFS outputs and assumptions are summarised in

- Table 1: NPV, IRR & Payback
- Table 2: Production metrics in the mine & concentrator
- Table 3: Production metrics in the refinery
- Table 4: Operating costs
- Table 5: Capital costs
- Table 6: Revenue & Profit metrics
- Key assumptions list
- Risks associated with the assumptions

<sup>3</sup> Refer ASX Announcement dated 28 January 2026 entitled Construction Commences at Kanyika Niobium Project

Further details are available in the detailed appendix.

| Table 1: NPV, IRR & Payback                                                        |        |       |       |
|------------------------------------------------------------------------------------|--------|-------|-------|
| NPV, IRR & Payback                                                                 | Unit   | US\$  | A\$   |
| Pre-Tax NPV (8%) real                                                              | \$m    | 1,524 | 2,177 |
| Post-Tax NPV (8%) real                                                             | \$m    | 1,025 | 1,464 |
| Post-Tax NPV IRR                                                                   | %      | 48%   | 48%   |
| Payback Period post-tax (from first production for initial and expansion in total) | Months | 43    | 43    |

| Table 2: Production metrics in the mine & concentrator        |        |                    |                          |           |
|---------------------------------------------------------------|--------|--------------------|--------------------------|-----------|
| Production Metrics in the Mine & Concentrator                 | Unit   | LOM Annual Average | 1-5 years annual average | LOM Total |
| Ore processed                                                 | kt     | 1,407              | 1,064                    | 33,761    |
| Strip ratio                                                   | wt: ot | 1.58               | 0.83                     | 1.58      |
| Weighted average Feed grade Nb <sub>2</sub> O <sub>5</sub>    | ppm    | 3,050              | 3,915                    | 3,050     |
| Weighted average Feed grade Ta <sub>2</sub> O <sub>5</sub>    | ppm    | 142                | 182                      | 142       |
| Concentrate produced                                          | tonnes | 13,202             | 12,815                   | 316,865   |
| Concentrate produced contained Nb <sub>2</sub> O <sub>5</sub> | tonnes | 3,432              | 3,332                    | 82,385    |
| Concentrate produced contained Ta <sub>2</sub> O <sub>5</sub> | tonnes | 156                | 151                      | 3,752     |
| Concentrate recovery Nb <sub>2</sub> O <sub>5</sub>           | %      | 80                 | 80                       | 80        |
| Concentrate recovery Ta <sub>2</sub> O <sub>5</sub>           | %      | 78.5               | 78.5                     | 78.5      |
| Concentrate Nb <sub>2</sub> O <sub>5</sub> grade              | %      | 26                 | 26                       | 26        |

**Table 3: Production metrics in the refinery**

| Production Metrics in the Refinery                        | Unit   | LOM Annual Average | 1-5 years annual average | LOM Total |
|-----------------------------------------------------------|--------|--------------------|--------------------------|-----------|
| Concentrate processed                                     | tonnes | 13,202             | 12,815                   | 316,865   |
| Refinery recovery of 99.9% Nb <sub>2</sub> O <sub>5</sub> | %      | 96.5               | 96.5                     | 96.5      |
| Refinery recovery of 99.9% Ta <sub>2</sub> O <sub>5</sub> | %      | 95                 | 95                       | 95        |
| Finished product produced Nb <sub>2</sub> O <sub>5</sub>  | tonnes | 3,312              | 3,206                    | 79,502    |
| Finished product produced Nb <sub>2</sub> O <sub>5</sub>  | tonnes | 149                | 143                      | 3,565     |

**Table 4: Operating costs**

| Operating costs                                  | % of total   | US\$/Kg of Nb <sub>2</sub> O <sub>5</sub> | LOM US\$m    | LOM A\$m     |
|--------------------------------------------------|--------------|-------------------------------------------|--------------|--------------|
| Mine costs                                       | 22.9         | 5.85                                      | 470          | 671          |
| Concentrator costs                               | 44.2         | 11.38                                     | 905          | 1293         |
| Refinery costs                                   | 26.8         | 6.92                                      | 550          | 786          |
| <b>Gross product costs sub-total</b>             | <b>93.9</b>  | <b>24.15</b>                              | <b>1,925</b> | <b>2,750</b> |
| Site Infrastructure and services                 | 0.3          | 0.06                                      | 7            | 9            |
| General and administration                       | 5.8          | 1.46                                      | 120          | 171          |
| <b>Sub-total</b>                                 | <b>100.0</b> | <b>25.67</b>                              | <b>2051</b>  | <b>2931</b>  |
| Ta <sub>2</sub> O <sub>5</sub> by-product credit | (44.6)       | (11.41)                                   | (915)        | (1,308)      |
| <b>Net total costs</b>                           | <b>55.4</b>  | <b>14.26</b>                              | <b>1,136</b> | <b>1623</b>  |

**Table 5: Capital costs**

| Capital costs              | Unit       | Initial US\$ | Expansion US\$ | Total US\$ | LOM A\$    |
|----------------------------|------------|--------------|----------------|------------|------------|
| Mining                     | \$m        | 1            | 3              | 3          | 5          |
| Concentrator & TSF         | \$m        | 34           | 75             | 109        | 156        |
| Refinery                   | \$m        | 20           | 20             | 39         | 56         |
| Infrastructure             | \$m        | 25           | 75             | 100        | 143        |
| Solar PV & Battery system  | \$m        | 28           | 28             | 55         | 79         |
| Environment & resettlement | \$m        | 3            | 2              | 5          | 7          |
| EPCM & Owner's costs       | \$m        | 15           | 22             | 37         | 53         |
| Contingency                | \$m        | 14           | 29             | 43         | 61         |
| <b>Total</b>               | <b>\$m</b> | <b>139</b>   | <b>253</b>     | <b>392</b> | <b>560</b> |

**Table 6: Revenue & Profit metrics**

| Revenue and Profit Metrics                 | Unit | Average Annual US\$ | LOM US\$ | LOM A\$ |
|--------------------------------------------|------|---------------------|----------|---------|
| Gross sales revenue                        | \$m  | 313                 | 7,508    | 10,726  |
| Logistics & marketing commissions          | \$m  | (22)                | (526)    | (751)   |
| Net sales revenue                          | \$m  | 291                 | 6,983    | 9,975   |
| Gross product costs (as per Table 4 above) | \$m  | (80)                | (1,925)  | (2,750) |
| Gross Margin                               | \$m  | 211                 | 5,057    | 7,225   |
| Gross Margin                               | %    | 72%                 | 72%      | 72%     |
| EBITDA                                     | \$m  | 205                 | 4,930    | 7,043   |
| Free cash flow                             | \$m  | 122                 | 2,913    | 4,161   |

## Key assumptions

### Valuation and timing:

- Discounted cash flow (DCF) valuation based on life-of-mine (**LOM**) free cash flows
- Real discount rate of 8% (NPV8 (real))
- All financial estimates are expressed in real terms as of 1 January 2026
- All project financials and sensitivities are reported on a 100% project basis

### Calculations for tables (1,2,3):

- For calculation of the average estimate over the initial phase of mining, a period of 2.5 years has been used.
- For calculation of the average estimate over the initial phase of processing, a period of 2 years has been used.
- For calculation of the average estimate over the expansion phase of mining and processing, a period of 22 years has been used.
- For calculation of the average estimate over the initial and expansion phase of mining and processing i.e. LOM, a period of 24 years has been used.
- For calculation of the average estimate over the first 1-5 years phase of mining and processing, a period of 5 years has been used indicating the start of processing being 1 January 2028 and ending 31 December 2032.

### Currencies and inflation:

- Base currency USD
- Long-term US real inflation assumption: ~2.3%
- USA inflation (1 April 2025 to 1 January 2026): ~1.33% (related to certain capital costs, operating costs and revenue input parameters expressed in 1 April 2025 terms)
- Exchange rates applied in the model:
  - Malawi Kwacha (MWK): ~1740 MWK/USD
  - South African Rand (ZAR): ~18.40 ZAR/USD
  - AUD/USD (Bloomberg 24 March 2026): 0.70

### Resource, reserve and production basis:

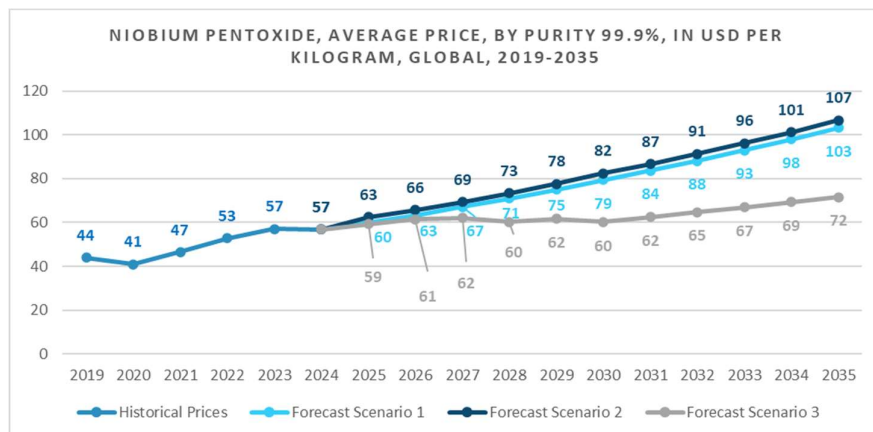
- Valuation and production profile are based exclusively on Ore Reserves reported in the BFS
- Total ore processed over LOM ~33.8 Mt
- Average LOM grades: ~3,050 ppm Nb<sub>2</sub>O<sub>5</sub> (~0.305%) and ~142 ppm Ta<sub>2</sub>O<sub>5</sub> (~0.0142%)

### Recoveries and mass balance:

- Concentrator recoveries: ~80% (Nb) / ~78.5% (Ta)
- Refinery recoveries: ~96.5% (Nb) / ~95% (Ta)
- LOM total oxide production (Refinery product basis): ~79,500t Nb<sub>2</sub>O<sub>5</sub> and ~3,565t Ta<sub>2</sub>O<sub>5</sub>

## Pricing and sales assumptions:

- Pricing assumptions derived from independent third-party forecasts prepared by Mordor Intelligence
- Scenario-based analysis for  $\text{Nb}_2\text{O}_5$  (2025–2035) {Refer graph below}:
  - Scenario 1: Demand-driven growth (US\$55/kg → ~US\$99/kg)
  - Scenario 2: Demand + inflation (US\$58/kg → ~US\$102/kg)
  - Scenario 3: Supply response (US\$54/kg → ~US\$65/kg)



- Adopted pricing assumptions:
  - $\text{Nb}_2\text{O}_5$ : ~US\$78.20/kg (CIF China)
  - $\text{Ta}_2\text{O}_5$ : ~US\$264.58/kg (CIF China)
  - Positioned within central range of forecast scenarios based on scenario 1
  - Considered appropriate for long-term modelling, rather than reliance on short-term spot prices
- Supported by underlying market dynamics:
  - Niobium supply highly concentrated (~90% from Brazil)
  - Western markets (U.S./Europe) fully import-dependent
  - Increasing focus on supply diversification and strategic stockpiling
- Structural demand growth drivers:
  - High-strength low-alloy steel
  - Aerospace superalloys
  - Defence applications
  - Superconductors
  - Advanced electronics
  - Emerging technologies, including AI infrastructure and data centres
- Commercial assumptions:
  - Sales at ~93% of benchmark CIF price (ex-refinery)
  - Payment terms: 80% on shipment, balance within ~60 days
- Pricing held constant in real terms beyond 2035

### Project structure, capacity and operating assumptions:

- Two-entity structure: mining & concentrator (GMMA) and refinery (FMRA) under an Export Processing Zone (EPZ).
- Internal transfer prices are applied between GMMA to FMRA consistent with MDA and EPZ fiscal treatment.
- Phased development capacity assumptions:
  - Initial ~500 ktpa (total ore throughput)
  - Full capacity: ~1.5 Mtpa (total ore throughput)
- ~24-year operating life. The actual life of mine is between 24 and 25 years and will depend on the rate of operations in the final year.

### Fiscal, legal and social assumptions:

- Malawi fiscal regime: ~5% government royalty, 0.45% community royalty, 30% corporate tax, and 15% resource rent tax.
- EPZ tax holiday is 10 years.
- The Malawi Government, upon commencement of operations, will hold a 10% free carried interest in Globe Metals & Mining Africa Limited (**GMMA**), being the mining licence holder, which applies to upstream mining and concentration activities up to the production of concentrate.
- Downstream processing, refining and manufacturing beyond the concentrate stage are undertaken by a separate legal entity, which is co-located at the project site and registered in Malawi, but legally distinct from GMMA and not subject to the Government's free carried interest.

### Sensitivities

- For a range of sensitivities refer to section 1.18 (Financial modelling) in the detailed BFS section attached as an annexure to this announcement.

### Risks associated with the assumptions

This section summarises the key risks identified in the BFS for the Project, covering project implementation, operations, and closure. A structured risk register and evaluation matrix were applied to identify intolerable and undesirable risks following the implementation of mitigation measures.

The risks presented are not exhaustive, and further mitigation measures have been applied as detailed in the comprehensive bankable feasibility study documentation and annexures.

- Operational risk: Successful operation of the project is required; while based on proven components, performance may vary under site-specific conditions.
- Human Capital risk: The Project depends on the availability and retention of qualified personnel; loss of key staff or challenges in recruiting and training a skilled workforce may impact performance and ramp-up.

- Offtake risk: No binding offtake agreements are in place for niobium and tantalum products, which underpin all forecast revenue.
- Financing risk: Significant upfront capital is required with no binding funding agreements currently in place.
- Permitting risk: Approval of updates to existing permits is required; delays or non-approval may impact timelines.
- Market risk: Commodity price volatility may impact revenues, particularly in the absence of fixed-price offtake agreements. The Project may also be affected by broader global geopolitical developments, including escalation of international conflicts, which could impact commodity demand, pricing, supply chains and logistics.
- Cost risk: Operating and capital costs are based on first-principles estimates with limited comparable operations, creating potential variance in actual costs.
- Commodity input risk: The project is exposed to input commodity price fluctuations (e.g. fuel, reagents and energy), which may increase operating and capital costs.
- Foreign exchange risk: Exchange rate movements may impact project costs, revenues and returns.
- Sovereign risk, Fiscal and regulatory risk: The project relies on the EPZ framework and agreed fiscal terms under the MDA; changes to tax legislation, EPZ eligibility, transfer pricing requirements or non-alignment with MDA terms may impact project economics.
- Technical risk: The Project involves technical complexity, a remote location in a developing mining jurisdiction, and sensitivity to energy costs, requiring a well-structured and robust operational approach. It also relies on a highly skilled and trained workforce to manage specialised, automated processing systems involving hazardous reagents, resulting in a lean but technically intensive operating model.
- Infrastructure & Power Risk: Dependence on grid supply (ESCOM) with risk of late delivery or unreliable supply.

### **Kanyika Project Overview**

The Kanyika Niobium Project has been advanced to Bankable Feasibility Study (BFS) level, prepared in accordance with the JORC Code (2012) and supported by independent consultants across mining, metallurgy, infrastructure, environmental and financial disciplines. The study incorporates a fully integrated mine-to-refinery development, with all key technical, operational and economic parameters defined to a level appropriate for project financing assessment.

The BFS referred to in this announcement is based upon the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition ("JORC Code, 2012"). Compliant Mineral Resource estimate, dated 11th July 2018, independently prepared by BMGS Pty Ltd. The Mineral Resource estimate is described in detail in the latest Resource estimate (refer to ASX announcement of 11th July 2018: Kanyika Niobium Project – Updated JORC Resource Estimate).

The Ore Reserve comprised of 15% Proved and 85% Probable Ore Reserves categories, has been used to produce the LOM plan constrained within the optimised mine design and has been independently prepared by the Competent Person at Orelogy.

Mining is based on a conventional open pit operation utilising drill and blast methods, with ore and waste mined using excavator and truck fleets under a contract mining model. Pit optimisation has been undertaken using WHITTLE™ software, incorporating updated geotechnical parameters, operating costs, processing recoveries and pricing assumptions. The selected pit shell balances value maximisation with strip ratio efficiency and supports an approximate 24-year mine life.

The processing flowsheet is based on established and commercially proven technologies, incorporating multi-stage crushing, milling and classification, followed by gravity separation and flotation to produce a pyrochlore concentrate. Downstream refining utilises hydrometallurgical processing (including HF-based leaching and solvent extraction) to produce high-purity niobium pentoxide ( $\text{Nb}_2\text{O}_5$ ) and tantalum pentoxide ( $\text{Ta}_2\text{O}_5$ ). Metallurgical performance is supported by extensive testwork, with concentrator recoveries of approximately 80% for  $\text{Nb}_2\text{O}_5$  and refinery recoveries exceeding 95%, resulting in high overall metal recoveries.

The Project is designed as a vertically integrated operation, maximising value capture and reducing reliance on third-party processors. The flowsheet incorporates standard unit operations with known performance characteristics, reducing technical risk, although the integration of the refining circuit introduces execution complexity which is mitigated through staged development and engineering validation.

Development is structured as a phased approach, with an initial operation of approximately 500 ktpa followed by expansion to approximately 1.5 Mtpa through the addition of parallel crushing, concentrator and refining circuits. This approach reduces upfront capital requirements, improves financing flexibility, and enables operational and metallurgical de-risking prior to full-scale expansion. The expansion is designed to leverage established infrastructure and operational performance from the initial phase.

Capital expenditure estimates have been developed to a Class 3 level of accuracy, based on a combination of supplier quotations, contractor inputs and engineering databases. Cost estimates reflect current market conditions and include mining infrastructure, process plant, tailings storage facilities, water management systems, hybrid power generation (solar, battery and diesel), and supporting site infrastructure. Operating cost estimates incorporate mining, processing, refining and general and administrative costs, and have been benchmarked where possible against comparable operations, noting limited direct comparables for integrated niobium refining.

Infrastructure design addresses key site constraints, including water supply, power availability and logistics. Water supply is based on abstraction from the Milenje River supported by off-river storage and, in the expansion phase, a river diversion and larger storage facility. Power supply is based on a hybrid system combining solar PV, battery storage and diesel generation, with potential future integration into the national grid via the planned 132 kV transmission line. Logistics for reagents and product export are based on established regional transport corridors via road, rail and port (primarily Beira).

The Project's low-cost profile is driven by several complementary factors. The outcropping and shallow orebody enables very low pre-strip and early access to above-average feed grades in the first ~4 years, which improves early cash flow and reduces mining cost intensity. A low life-of-mine

strip ratio of ~1.6:1 with staged open-pit design further minimises waste movement and supports efficient, low unit mining costs. The conventional, proven flowsheet (~80% Nb recovery to ~26% Nb<sub>2</sub>O<sub>5</sub> concentrate) and an on-site refinery (>99.9% Nb<sub>2</sub>O<sub>5</sub> and Ta<sub>2</sub>O<sub>5</sub>) together support strong recovery and premium pricing with limit technical risk. Finally, the use of renewable solar with battery power, backed up by diesel and future 132kV grid connection, couple with secure water via river diversion and storage dam, further underpin the Project's competitive operating cost position.

The Project benefits from an established legal and permitting framework, including a granted Large-Scale Mining Licence and an executed Mining Development Agreement with the Government of Malawi as well as Community Development Agreement. The MDA provides fiscal stability, duty exemptions and defines a 10% free-carried government interest, as well as community development obligations. Environmental and social baseline studies and management plans have been incorporated into the project design as well as multiple ESIA's and approvals.

Key project risks identified in the BFS include funding and financing execution, offtake arrangements, capital cost variability, reagent supply logistics, and integration of refining operations. These risks are partially mitigated through the phased development approach, use of proven processing technologies, contractor-based mining strategy, and ongoing engagement with offtake and financing partners. Market risks associated with niobium pricing and demand concentration are acknowledged, with mitigation strategies including long-term offtake agreements and diversified customer engagement.

The financial evaluation has been prepared using a discounted cash flow methodology, incorporating pricing, cost, recovery and capital assumptions consistent with current market conditions. The Project demonstrates strong economic fundamentals, rapid payback and robust sensitivity outcomes, supporting its suitability for project financing, subject to completion of binding funding and offtake arrangements.

Overall, the BFS supports the technical feasibility and economic viability of the Kanyika Niobium Project, with a clearly defined development pathway, acceptable technical risk profile, and a phased execution strategy aligned with financing requirements.

### Evolution of feasibility studies

The March 2026 Bankable Feasibility Study ("BFS") reflects a material advancement of the Kanyika Niobium Project since completion of the 2021 Feasibility Study ("DFS"). The BFS incorporates additional metallurgical testwork, engineering optimisation, cost updates and execution planning, resulting in a more capital-efficient, lower-risk and more executable development pathway.

### Phased Development Strategy

A key change in the BFS is the transition from a single-stage, 1.5 Mtpa development to a phased development approach. The initial phase of 0.5Mtpa is designed at a smaller scale, followed by a subsequent expansion to full capacity.

This approach materially reduces upfront capital requirements, improves overall project financeability and aligns with current investor and lender preferences for staged capital deployment.

It also enables earlier generation of operating cash flow, which may support partial funding of expansion from internal cash flows rather than relying solely on external capital.

From a financing perspective, early cash flow generation is expected to enhance lender confidence and support access to more favourable funding terms, including improved debt capacity and lower cost of capital.

The phased approach also supports a more controlled execution strategy in Malawi, allowing the Company to progressively establish operational capability and manage infrastructure, logistics and regulatory factors prior to full-scale expansion. In addition, it enables market validation through staged product introduction into a relatively small and specialised niobium oxide market.

### **Early Contractor Involvement (ECI)**

The BFS incorporates an ECI process, which has materially strengthened cost accuracy and project execution planning.

The Company executed a binding Pre-Development Collaboration Agreement <sup>4</sup> with Sinomine International (Zambia) Engineering Company Limited, a subsidiary of Sinomine Resource Group Co., Ltd. Sinomine Zambia, which is currently constructing the Kitumba Copper Mine in Zambia, brings recent and relevant construction experience in Southern Africa. The Company will actively work alongside Sinomine on early works, engineering inputs and procurement strategy, leveraging its technical capability and regional experience, supported by the broader group's net asset base of approximately US\$1.7 billion.

Capital and operating cost estimates have been validated using current supplier pricing, while equipment selection, construction methodology and project scheduling have been refined. The ECI process has also provided improved visibility on procurement strategies, logistics and long-lead items.

Importantly, early contractor engagement is expected to support continuity into execution and reduce the risk of cost overruns, scope changes and delays.

### **Key Technical Updates**

The 2026 BFS includes a number of material technical and design improvements relative to the 2021 DFS:

- On-site refinery: Transition from an off-site refinery concept to a fully integrated on-site refinery at Kanyika, eliminating concentrate transport requirements and capturing full value chain margins.
- Power supply: Adoption of a hybrid power solution (solar PV, battery storage and diesel backup), reducing reliance on grid infrastructure and improving energy security, with grid connection retained as a future option.

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<sup>4</sup> Refer ASX Announcement dated 28 January 2026 entitled *Construction Commences at Kanyika Niobium Project*

- Concentrator optimisation: Replacement of the SAG mill with a lower-energy comminution circuit (EDS impactor, ball mill and VSM regrind), resulting in improved recovery (~80% vs ~75%), higher concentrate grade (~26% vs ~25%) and reduced energy and reagent consumption.
- Refinery simplification: Implementation of a simplified sequential solvent extraction flowsheet, reducing reagent consumption, equipment footprint and improving operability.
- Uranium recovery (optional): Introduction of a potential by-product recovery circuit, enabling recovery of up to ~200,000 lb/year U<sub>3</sub>O<sub>8</sub>, subject to further evaluation, with appropriate radiation management controls and being able to obtain an operating permit from the Malawi Nuclear authorities.
- Tailings management: Retention of a conventional slurry TSF base case, with a PFS-level dry co-disposal alternative to reduce water use, footprint and closure liability. Co -disposal with waste rock has higher structural integrity and better protection against NORM radiation.

## Market

Since 2021<sup>5</sup>, demand for niobium and tantalum has strengthened, driven by AI infrastructure, advanced manufacturing, aerospace and defence applications, alongside increasing geopolitical focus on secure supply chains. Niobium is primarily used in high-strength steels and superalloys, with additional applications in advanced technologies, while demand remains concentrated in Asia-Pacific.

Global supply is highly concentrated, with the majority sourced from Brazil, alongside smaller contributions from Canada and Africa, including the DRC. Processing and downstream markets are dominated by China, while the United States and allied countries are increasingly seeking to diversify supply chains away from concentrated and higher-risk jurisdictions.

The intersection of East–West strategic competition, defence demand, and emerging government-led stockpiling initiatives is reinforcing niobium’s strategic importance. These dynamics are supporting increased investment flows into secure, non-concentrated supply sources and may provide additional long-term support to pricing, financing availability and market development for high-purity niobium oxide.

## Other Updates

The BFS also incorporates a revised mine planning, updated capital and operating costs based on current pricing, refreshed environmental and social baseline studies, and expanded radiation management frameworks. The study integrates metallurgical testwork completed between 2022 and 2025, including bulk sample processing and flowsheet optimisation.

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<sup>5</sup> Global Tantalum & Niobium report (2019-2035) independently prepared by Mordor Intelligence

| Comparison of 2021 DFS vs 2026 BFS <sup>6</sup> | Unit    | 2021                      | 2026                                                                             |
|-------------------------------------------------|---------|---------------------------|----------------------------------------------------------------------------------|
| Pre-Tax NPV (8%) real                           | US\$m   | 1,009                     | 1,524                                                                            |
| Recovery of Niobium                             | %       | 75%                       | 80%                                                                              |
| Scale                                           |         | Full scale from inception | Initial production 1/3 scale of full scale expanding to full scale after 2 years |
| Refinery location                               |         | Offsite                   | Onsite                                                                           |
| EBITDA LOM                                      | US\$m   | 3,740                     | 4,930                                                                            |
| Niobium selling price                           | US\$/kg | 55                        | 78                                                                               |
| Tantalum selling price                          | US\$/kg | 410                       | 265                                                                              |

### Pathway to financing

The Project is positioned to deliver a conflict-free and diversified source of supply outside of Brazil, within a market that remains highly concentrated. A key differentiator of the Project is its fully vertically integrated design, incorporating mining, concentration and on-site production of high-purity niobium oxide. This integrated approach is expected to enhance margins, reduce third-party dependency and strengthen the Project's overall financeability.

The Project is supported by strong underlying market fundamentals, including growing demand for niobium across AI, data centres, aerospace, defence, superconductors and advanced manufacturing applications, together with its classification as a critical mineral by major economies. Combined with its advanced stage of development, granted mining licence and feasibility-level engineering, the Project is considered attractive to a range of funding counterparties.

In parallel with completion of the BFS and to achieve the range of outcomes indicated in the BFS, debt and equity funding will be required. The Company estimates that a total of US\$139m in the initial phase in funding will be required. Expansion to full scale requiring US\$253m is driven by market conditions.

The Company has made substantial progress in establishing a credible and diversified funding pathway. This includes the completion of an A\$8.67 million equity placement <sup>7</sup>, access to an At-the-Market (ATM) <sup>8</sup> equity facility of up to A\$20 million and in-the-money options with the potential to

<sup>6</sup> Only significant differences between the 2021 and 2026 feasibility study are presented

<sup>7</sup> Refer ASX Announcement dated 7 October 2025 entitled Two-Tranche Private Placement for \$8.67 million.

<sup>8</sup> Refer ASX Announcement dated 4 June 2024 entitled Globe enters At-the-Market equity facility

provide approximately A\$13 million <sup>9</sup> in additional equity funding. The Company has also progressed non-binding funding proposals, including a Letter of Intent <sup>10</sup> for a US\$15 million senior debt facility and a non-binding term sheet for a US\$10 million convertible funding instrument <sup>11</sup> together with ongoing discussions with additional funding providers, including commercial banks, development finance institutions, commodity traders, larger mining companies and strategic investors.

The company has also signed three non-binding offtake agreements with Affilips N.V <sup>12</sup>, Neo Performance Materials Inc. <sup>13</sup>, and Myst Trading Pte Ltd <sup>14</sup>.

A number of these funding arrangements remain non-binding and they are subject to conditions precedent that are typical for a project financing of this nature. These include, among other things, completion and acceptance of the BFS, finalisation of detailed engineering and early works, satisfactory technical, financial and legal due diligence, internal credit and investment committee approvals, execution of definitive financing and security documentation, and receipt of required regulatory and third-party approvals. Such conditions are standard for projects at this stage of development and do not represent unusual or project-specific impediments.

Notwithstanding that these conditions remain to be satisfied, the Board considers that funding risk is mitigated by the diversity of funding sources available, the advanced stage of the Project, the strength of the underlying economics and the strategic importance of niobium within global supply chains. Accordingly, the Company considers that there are reasonable grounds to expect that the Project can be financed and developed in accordance with the assumptions set out in the BFS, and that this provides an appropriate and reasonable basis for the forward-looking statements included in this announcement.

The Board and management bring extensive global connections and experience in project development, with a strong track record in capital raising, investment structuring and accessing international funding markets. Collectively, the Directors and management have been involved in securing funding for resource and infrastructure projects across multiple jurisdictions, providing the Company with access to a broad network of institutional investors, private capital and strategic partners to support the development of the Kanyika Project.

- Alice Wong (Non-Executive Chair): Extensive investment banking experience (Morgan Stanley, ABN AMRO Rothschild, BNP Paribas) with a strong track record in capital raising, structuring and accessing Asian institutional investors.
- Bo Tan (Non-Executive Director): Deep cross-border investment and capital structuring experience (Bohai, Lehman, Macquarie), with direct financial support and strategic backing provided to the Company over the past four years.

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<sup>9</sup> Refer ASX Announcement dated 9 December 2025 entitled *Settlement of Tranche 2 of Placement*.

<sup>10</sup> Refer ASX Announcement dated 25 July 2024 entitled *Globe enters LOI with Ecobank Malawi for US\$15 million loan*.

<sup>11</sup> Refer ASX Announcement dated 4 December 2024 entitled *Globe signs pre-development funding Term Sheet for Kanyika*.

<sup>12</sup> Refer ASX Announcement dated 2 September 2024 entitled *Globe announces offtake LOI for Kanyika Phase 1 production*

<sup>13</sup> Refer ASX Announcement dated 7 April 2025 entitled *Non-Binding MOU for up to 100% of phase 1 production*.

<sup>14</sup> Refer ASX Announcement dated 10 March 2025 entitled *Globe signs second offtake agreement for Kanyika Project*.

- Ricky Lau (Non-Executive Director): Managing Partner of Crane Capital with significant private equity and fund management experience, including capital deployment and investor network access across Asia.
- Michael Barrett (Non-Executive Director): Former Rio Tinto CFO (US energy) with experience overseeing large-scale project funding, capital allocation and financial governance in global mining operations.
- Michael Choi (Non-Executive Director): Former Assistant Minister for Mines and Energy in Queensland with experience in project development, government engagement and facilitating resource sector investment and approvals.
- Charles Altshuler (Interim CEO & CFO) has over 15 years of experience in mining finance, project evaluation and development across major international resource companies and emerging mining projects, including Anglo American plc, Glencore plc and Globe Metals & Mining Limited. His background includes financial modelling, feasibility assessment, capital allocation and funding structuring across multiple commodities and jurisdictions, including Africa.

The outcomes of the BFS are based on a range of material assumptions regarding modifying factors, as outlined in this announcement. Among these material assumptions are the Company's prospects of securing further debt and equity funding. Investors should note that there is no certainty that the Company will be able to raise the required amount of funding when needed, and that access to such funding may be subject to conditions that may or may not be within the Company's control. It is also possible that such funding may only be available on terms that may be dilutive to, restrictive of, or otherwise adverse to the value of the Company's shares. The Company may also pursue alternative value realisation strategies, such as a sale, partial sale or joint venture of the Project, which could materially reduce the Company's proportionate ownership of the Project. While the Company considers all material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the outcomes indicated by the BFS will be achieved.

### **Competent person statement- Exploration results and targets**

The information in this announcement that relates to Exploration Results and Exploration Targets is based on, and fairly represents, information and supporting documentation prepared for the ASX announcement dated 19 August 2021 entitled "Kanyika Project Feasibility Study." This document contains the full JORC Table 1 disclosure.

The Company is not aware of any new information or data that materially affects the information included in the original market announcement. The form and context in which the Competent Person's findings are presented have not been materially modified from the original announcement.

This statement above is validated by the processing of the data collected and observations from site visits by David R Young and the various validation methods followed over the 2 years association with GMM has provided sufficient absorption of the corporate memory to allow this author to function as the Competent Person (CP) for a review of the existing Mineral Resource Statement by Stephens and Bewsher dated July 2018 of the Kanyika Project. David R Young has worked continuously as an economic geologist for 51 years. Mr Young has worked across a range of

mineral deposit types, including gold, PGE and rare earth projects, covering exploration, resource estimation and mine development.

He holds a BSc (Hons) in Geology from London University and is registered as an Earth Scientist with the South African Council for Natural Scientific Professions. He is a Fellow (Chartered) of the Geological Society of Southern Africa, a Fellow of the Southern African Institute of Mining and Metallurgy, and a Fellow of the Australasian Institute of Mining and Metallurgy.

#### **Competent person statement- Mineral Resource Estimation**

The information in this announcement that relates to Mineral Resource Estimation is based on, and fairly represents, information and supporting documentation prepared for the ASX announcement dated 19 August 2021 entitled “Kanyika Project Feasibility Study.” This document contains the full JORC Table 1 disclosure.

The Company is not aware of any new information or data that materially affects the information included in the original market announcement. The form and context in which the Competent Person’s findings are presented have not been materially modified from the original announcement.

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#### **Competent person statement- Metallurgical Results**

The information in this report to which this statement is attached that relates to Metallurgy for the definition of Mineral Resources is based on information compiled by Mr Jan Eklund, a Competent Person who is a Member of ‘The South African Institute of Mining and Metallurgy’ Mr Eklund is an independent metallurgical consultant. Mr Eklund is a registered professional engineer with ECSA has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Eklund consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

#### **Competent person statement- Ore Reserves**

The information in the report to which this statement is attached that relates Ore Reserves is based on information compiled by Mr Ryan Locke, a Competent Person who is a Member of ‘The Australasian Institute of Mining and Metallurgy’ and an employee of Oreology Consulting. He has

sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking, to qualify as a Competent Person as defined in the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves' of December 2012 ("JORC Code") as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia. Mr Locke consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

### Forward looking statements

Some of the statements contained in this announcement are forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning estimates of tonnages, grades, expected costs, capital requirements, production targets, development timelines and statements relating to the continued advancement of Globe Metals & Mining Limited's projects, including the Kanyika Niobium Project, and other statements that are not historical facts.

When used in this report, and on other published information of Globe Metals & Mining Limited, words such as "aim", "anticipate", "believe", "could", "estimate", "expect", "intend", "may", "plan", "potential", "should" and similar expressions are forward-looking statements.

Although Globe Metals & Mining Limited believes that the expectations reflected in these forward-looking statements are reasonable, such statements involve known and unknown risks, uncertainties and other factors, and no assurance can be given that actual results will be consistent with these forward-looking statements.

Various factors could cause actual results to differ materially from these forward-looking statements, including but not limited to technical, geological, metallurgical or mechanical issues, variations in niobium or tantalum prices, changes in market conditions, funding availability, regulatory approvals, operating conditions, and other risks that may affect the development of the Company's projects. The forward-looking statements are based on information available to the Company as at the date of this announcement. Except as required by law or regulation (including the ASX Listing Rules), none of the Company, its representatives or advisers undertakes any obligation to provide any additional or updated information whether as a result of a change in expectations or assumptions, new information, future events or results or otherwise.

Globe is pleased to report this summary of the BFS in a fair and balanced manner and believes that it has reasonable grounds for making the forward-looking statements in this announcement, including with respect to any mining of mineralised material, modifying factors, production targets and operating cost estimates.

This announcement has been compiled by Globe Metals & Mining Limited from information provided by the various contributors to the study and supporting materials.

### ASX Chapter 5 Compliance and Cautionary Statement

The overall production targets and forecast financial information, derived from the production target referred to in this announcement is based on the BFS.

*The BFS referred to in this announcement is based upon the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition ("JORC Code, 2012").*

*Compliant Mineral Resource estimate, dated 11th July 2018, independently prepared by BMGS Pty Ltd. The Mineral Resource estimate is described in detail in the latest Resource estimate (refer to ASX announcement of 11th July 2018: Kanyika Niobium Project – Updated JORC Resource Estimate).*<sup>15</sup>

*The Ore Reserve comprised of 15% Proved and 85% Probable Ore Reserves categories, has been used to produce the LOM plan constrained within the optimised mine design and has been independently prepared by the Competent Person at Orelogy. The production targets are based on 33.8mt derived from the proved and probable ore reserves as explained above.*

The Company has concluded that it has a reasonable basis for providing the forward-looking statements and forecast financial information included in this announcement.

All material assumptions, including modifying factors, processing recoveries, pricing, capital and operating cost estimates, and development timelines are disclosed within the BFS. Not all these assumptions are within the Company's control and are subject to change from time to time. Changes in such assumptions may have a material impact on economic outcomes.

#### **ASX Listing Rule 5.16 and 5.17 requirements**

The material assumptions on which the production target for the Project and the forecast financial information derived therefrom are based are detailed in the appendix.

The production target is based on Probable and Proven Ore Reserves that have been prepared by Competent Persons in accordance with the requirements of the JORC Code (2012).

Mineral Resources and Ore Reserves reported within and in-line with requirements of ASX Listing Rule 5.9.1 in the annexure.

**This announcement was authorised for release by the Interim CEO & CFO, Charles Altshuler**

For further information, please contact:

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Interim CEO & CFO

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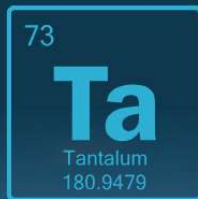
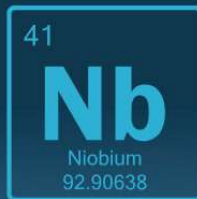
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<sup>15</sup> Refer ASX Announcement dated 11 July 2018 entitled Kanyika Niobium Project-Updated JORC Resource Estimate



**Globe**  
— Metals & Mining

# Bankable Feasibility Study



March 2026

Globe Metals & Mining Limited  
(ASX: GBE)

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## FORWARD LOOKING STATEMENTS

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Globe Metals & Mining Limited is pleased to report this summary of the Bankable Feasibility Study (BFS) in a fair and balanced manner and believes that it has reasonable grounds for making the forward-looking statements in this announcement, including with respect to any mining of mineralised material, modifying factors, production targets and operating cost estimates.

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## RISKS

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- Operational risk: Successful operation of the project is required; while based on proven components, performance may vary under site-specific conditions.
- Human Capital risk: The Project depends on the availability and retention of qualified personnel; loss of key staff or challenges in recruiting and training a skilled workforce may impact performance and ramp-up.
- Offtake risk: No binding offtake agreements are in place for niobium and tantalum products, which underpin all forecast revenue.
- Financing risk: Significant upfront capital is required with no binding funding agreements currently in place.
- Permitting risk: Approval of updates to existing permits is required; delays or non-approval may impact timelines.
- Market risk: Commodity price volatility may impact revenues, particularly in the absence of fixed-price offtake agreements. The Project may also be affected by broader global geopolitical developments, including escalation of international conflicts, which could impact commodity demand, pricing, supply chains and logistics.
- Cost risk: Operating and capital costs are based on first-principles estimates with limited comparable operations, creating potential variance in actual costs.

- **Commodity input risk:** The project is exposed to input commodity price fluctuations (e.g. fuel, reagents and energy), which may increase operating and capital costs.
- **Foreign exchange risk:** Exchange rate movements may impact project costs, revenues and returns.
- **Sovereign risk, Fiscal and regulatory risk:** The project relies on the EPZ framework and agreed fiscal terms under the MDA; changes to tax legislation, EPZ eligibility, transfer pricing requirements or non-alignment with MDA terms may impact project economics.
- **Technical risk:** The Project involves technical complexity, a remote location in a developing mining jurisdiction, and sensitivity to energy costs, requiring a well-structured and robust operational approach. It also relies on a highly skilled and trained workforce to manage specialised, automated processing systems involving hazardous reagents, resulting in a lean but technically intensive operating model.
- **Infrastructure & Power Risk:** Dependence on grid supply (ESCOM) with risk of late delivery or unreliable supply.

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# VOLUME 1: EXECUTIVE SUMMARY

## GLOBE METALS AND MINING LIMITED & GLOBE METALS AND MINING (AFRICA) LIMITED

*This section of the Bankable Feasibility Study (Report) has been prepared by Globe Metals & Mining and is based on assumptions as identified throughout the text and upon information and data supplied by others. The Report is to be read in the context of the methodology, procedures and techniques used, assumptions, and the circumstances and constraints under which the Report was written. The Report is to be read as a whole, and sections or parts thereof should therefore not be read or relied upon out of context. The Company has, in preparing the Report, followed methodology and procedures, and exercised due care consistent with the intended level of accuracy, using its professional judgment and reasonable care. However, no warranty should be implied as to the accuracy of estimates or other values and all estimates and other values are only valid as at the date of the Report and will vary thereafter. Parts of the Report have been prepared or arranged by Globe Metals & Mining or third-party contributors, as detailed in the document. Circumstance always change and the Company is not in a position to, and does not, verify the accuracy or completeness of, or adopt as its own, the information and data supplied by others and disclaims all liability, damages or loss with respect to such information and data. In respect of all parts of the Report, whether or not prepared by the Company no express or implied representation or warranty is made by the Company or by any person acting for and/or on behalf of the Company to any third party that the contents of the Report are verified, accurate, suitably qualified, reasonable or free from errors, omissions or other defects of any kind or nature. Third parties who rely upon the Report do so at their own risk and the Company disclaims all liability, damages or loss with respect to such reliance. Under no circumstance should any third parties reference in respect of the publication, reference, quoting or distribution of the Report or any of its contents to and reliance thereon by any third party. This disclaimer must accompany every copy of this Report, which is an integral document and must be read in its entirety.*

Some of the statements contained in this announcement are forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning estimates of tonnages, grades, expected costs, capital requirements, production targets, development timelines and statements relating to the continued advancement of Globe Metals & Mining Limited's projects, including the Kanyika Niobium Project, and other statements that are not historical facts.

When used in this report, and on other published information of Globe Metals & Mining Limited, words such as "aim", "anticipate", "believe", "could", "estimate", "expect", "intend", "may", "plan", "potential", "should" and similar expressions are forward-looking statements.

Although Globe Metals & Mining Limited believes that the expectations reflected in these forward-looking statements are reasonable, such statements involve known and unknown risks, uncertainties and other factors, and no assurance can be given that actual results will be consistent with these forward-looking statements.

Various factors could cause actual results to differ materially from these forward-looking statements, including but not limited to technical, geological, metallurgical or mechanical issues, variations in niobium or tantalum prices, changes in market conditions, funding availability, regulatory approvals, operating conditions, and other risks that may affect the development of the Company's projects. The forward-looking statements are based on information available to the Company as at the date of this announcement. Except as required by law or regulation (including the ASX Listing Rules), none of the Company, its representatives or advisers undertakes any obligation to provide any additional or updated information whether as a result of a change in expectations or assumptions, new information, future events or results or otherwise.

Globe Metals & Mining Limited is pleased to report this summary of the Bankable Feasibility Study (BFS) in a fair and balanced manner and believes that it has reasonable grounds for making the forward-looking statements in this announcement, including with respect to any mining of mineralised material, modifying factors, production targets and operating cost estimates.

This announcement has been compiled by Globe Metals & Mining Limited from information provided by the various contributors to the study and supporting materials.

The overall production targets and forecast financial information, derived from the production target referred to in this announcement is based on the BFS.

The BFS referred to in this announcement is based upon the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition ("JORC Code, 2012"). Compliant Mineral Resource estimate, dated 11th July 2018, independently prepared by BMGS Pty Ltd. The Mineral Resource estimate is described in detail in the latest Resource estimate (refer to ASX announcement of 11th July 2018: Kanyika Niobium Project – Updated JORC Resource Estimate).<sup>2</sup>

The Ore Reserve comprised of 15% Proved and 85% Probable Ore Reserves categories, has been used to produce the LOM plan constrained within the optimised mine design and has been independently prepared by the Competent Person at Orelogy. The production targets are based on 33.8mt derived from the proved and probable ore reserves as explained above.

The Company has concluded that it has a reasonable basis for providing the forward-looking statements and forecast financial information included in this announcement.

All material assumptions, including modifying factors, processing recoveries, pricing, capital and operating cost estimates, and development timelines are disclosed within the BFS. Not all these assumptions are within the Company's control and are subject to change from time to time. Changes in such assumptions may have a material impact on economic outcomes.

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<sup>2</sup> Refer ASX Announcement dated 11 July 2018 entitled Kanyika Niobium Project-Updated JORC Resource Estimate

## VOLUME 1 : EXECUTIVE SUMMARY

### 1.1 Corporate Overview

#### 1.1.1 Relevant Information Regarding BFS Preparation

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The successful result of this BFS and GMMA's board approval will lead to the development of the Project in two phases, once finance as defined by the BFS has been raised.

The BFS has fully covered the requirements of the mine/concentrator/refinery site which comprises the Kanyika Niobium Project.

The BFS referred to in this announcement is based upon the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition ("JORC Code, 2012"). Compliant Mineral Resource estimate, dated 11th July 2018, independently prepared by BMGS Pty Ltd. The Mineral Resource estimate is described in detail in the latest Resource estimate (refer to ASX announcement of 11th July 2018: Kanyika Niobium Project – Updated JORC Resource Estimate).

The Ore Reserve comprised of 15% Proved and 85% Probable Ore Reserves categories, has been used to produce the LOM plan constrained within the optimised mine design and has been independently prepared by the Competent Person at Orelogy.

The Class 3 capex and opex estimates used in the BFS were all obtained by the respective engineering firms from independently derived quotations in today's market for the major cost items.

The economic assessment used in BFS was prepared by MS Golding and Associates (UK) Ltd. The economic assessment meets the requirements of a BFS in its level of accuracy of the input parameters and may be considered as the most accurate representation of the value of the Kanyika Niobium Project based upon information available between April 20125 and January 2026. All financial estimates are expressed in real terms as of 1 January 2026

The pricing of the >99.9% Nb<sub>2</sub>O<sub>5</sub> and 99.9% Ta<sub>2</sub>O<sub>5</sub> has been estimated by GMMA taking cognisance of independent market research by Mordor Intelligence.

All units used in the BFS are metric. All costs, revenues and the financial model parameters are reported in US\$. For the purposes of the BFS costing, which was predominantly undertaken in ZAR, the currency conversion rate used is 1.00 US\$ : 18.40 ZAR (@ 1 March 2025 exchange rate ZAR18.09:US\$1). The discount rate of 8% was selected by GMMA on the basis of other projects of a similar nature located across the African continent, advanced stage of the study and on other competitive peer critical metals companies at the same study level.

This BFS Report contains forward-looking statements based on the estimates made by its independent consultants and engineering firms. The statements are subject to a number of known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those anticipated in the forward-looking statements. Factors that could cause such differences include changes in world niobium markets, equity markets, costs and supply of materials relevant to the project, and changes to regulations affecting them. Although GMMA believes the expectations reflected in these forward-looking statements to be reasonable, GMMA does not guarantee future results, levels of activity, performance or achievements.

The Project is positioned to deliver a conflict-free and diversified source of supply outside of Brazil, within a market that remains highly concentrated. A key differentiator of the Project is its fully vertically integrated design, incorporating mining, concentration and on-site production of high-purity niobium

oxide. This integrated approach is expected to enhance margins, reduce third-party dependency and strengthen the Project's overall financeability.

The Project is supported by strong underlying market fundamentals, including growing demand for niobium across AI, aerospace, defence, superconductors and advanced manufacturing applications, together with its classification as a critical mineral by major economies. Combined with its advanced stage of development, granted mining licence and feasibility-level engineering, the Project is considered attractive to a range of funding counterparties.

In parallel with completion of the BFS and to achieve the range of outcomes indicated in the BFS, debt and equity funding will be required. The Company estimates that a total of US\$139m in the initial phase in funding will be required. Expansion to full scale requiring US\$253m is driven by project de-risking and financing optimisation.

The Company has made substantial progress in establishing a credible and diversified funding pathway. This includes the completion of an A\$8.67 million equity placement <sup>3</sup>, access to an At-the-Market (ATM) <sup>4</sup> equity facility of up to A\$20 million and in-the-money options with the potential to provide approximately A\$13 million <sup>5</sup> in additional equity funding. The Company has also progressed non-binding funding proposals, including a Letter of Intent <sup>6</sup> for a US\$15 million senior debt facility and a non-binding term sheet for a US\$10 million convertible funding instrument <sup>7</sup> together with ongoing discussions with additional funding providers, including commercial banks, development finance institutions, commodity traders, larger mining companies and strategic investors.

The company has also signed three non-binding offtake agreements with Affilips N.V. <sup>8</sup>, Neo Performance Materials Inc. <sup>9</sup>, and Myst Trading Pte Ltd <sup>10</sup>.

While a number of these funding arrangements remain non-binding, they are subject to conditions precedent that are typical for project financing of this nature. These include, among other things, completion and acceptance of the BFS, finalisation of detailed engineering and early works, satisfactory technical, financial and legal due diligence, internal credit and investment committee approvals, execution of definitive financing and security documentation, and receipt of required regulatory and third-party approvals. Such conditions are standard for projects at this stage of development and do not represent unusual or project-specific impediments.

Notwithstanding that these conditions remain to be satisfied, the Board considers that funding risk is mitigated by the diversity of funding sources available, the advanced stage of the Project, the strength of the underlying economics and the strategic importance of niobium within global supply chains. Accordingly, the Company considers that there are reasonable grounds to expect that the Project can

<sup>3</sup> Refer ASX Announcement dated 7 October 2025 entitled *Two-Tranche Private Placement for \$8.67 million*.

<sup>4</sup> Refer ASX Announcement dated 4 June 2024 entitled *Globe enters At-the-Market equity facility*

<sup>5</sup> Refer ASX Announcement dated 9 December 2025 entitled *Settlement of Tranche 2 of Placement*.

<sup>6</sup> Refer ASX Announcement dated 25 July 2024 entitled *Globe enters LOI with Ecobank Malawi for US\$15 million loan*.

<sup>7</sup> Refer ASX Announcement dated 4 December 2024 entitled *Globe signs pre-development funding Term Sheet for Kanyika*.

<sup>8</sup> Refer ASX Announcement dated 2 September 2024 entitled *Globe announces offtake LOI for Kanyika Phase 1 production*

<sup>9</sup> Refer ASX Announcement dated 7 April 2025 entitled *Non-Binding MOU for up to 100% of phase 1 production*.

<sup>10</sup> Refer ASX Announcement dated 10 March 2025 entitled *Globe signs second offtake agreement for Kanyika Project*.

be financed and developed in accordance with the assumptions set out in the BFS, and that this provides an appropriate and reasonable basis for the forward-looking statements included in this announcement. The Board and management bring extensive global connections and experience in project development, with a strong track record in capital raising, investment structuring and accessing international funding markets. Collectively, the Directors and management have been involved in securing funding for resource and infrastructure projects across multiple jurisdictions, providing the Company with access to a broad network of institutional investors, private capital and strategic partners to support the development of the Kanyika Project.

- Alice Wong (Chair): Extensive investment banking experience (Morgan Stanley, ABN AMRO Rothschild, BNP Paribas) with a strong track record in capital raising, structuring and accessing Asian institutional investors.
- Bo Tan (Non-Executive Director): Deep cross-border investment and capital structuring experience (Bohai, Lehman, Macquarie), with direct financial support and strategic backing provided to the Company over the past four years.
- Ricky Lau (Non-Executive Director): Managing Partner of Crane Capital with significant private equity and fund management experience, including capital deployment and investor network access across Asia.
- Michael Barrett (Non-Executive Director): Former Rio Tinto CFO (US energy) with experience overseeing large-scale project funding, capital allocation and financial governance in global mining operations.
- Michael Choi (Non-Executive Director): Former Assistant Minister for Mines and Energy with experience in project development, government engagement and facilitating resource sector investment and approvals.
- Charles Altshuler (Interim CEO & CFO) has over 15 years of experience in mining finance, project evaluation and development across major international resource companies and emerging mining projects, including Anglo American plc, Glencore plc and Globe Metals & Mining Limited. His background includes financial modelling, feasibility assessment, capital allocation and funding structuring across multiple commodities and jurisdictions, including Africa.

The outcomes of the BFS are based on a range of material assumptions regarding modifying factors, as outlined in this announcement. Among these material assumptions are the Company's prospects of securing further debt and equity funding. Investors should note that there is no certainty that the Company will be able to raise the required amount of funding when needed, and that access to such funding may be subject to conditions that may or may not be within the Company's control. It is also possible that such funding may only be available on terms that may be dilutive to, restrictive of, or otherwise adverse to the value of the Company's shares. The Company may also pursue alternative value realisation strategies, such as a sale, partial sale or joint venture of the Project, which could materially reduce the Company's proportionate ownership of the Project. While the Company considers all material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the outcomes indicated by the BFS will be achieved.

### 1.1.2 Study Contributors and Site Inspections

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The BFS was prepared by independent consultants and engineering firms as presented in Table 2 which indicates their respective area of responsibility and site inspection dates.

**Table 1-1: Key Contributors And Site Inspections**

| Company                                                 | Area Of Responsibility                                                                                                                                                                                                      | Date/S                   |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| LogiProc (Pty) Limited                                  | BFS study lead and report compilation                                                                                                                                                                                       | Oct 2024 to March 2026   |
| LogiProc (Pty) Limited                                  | Expansion Refinery                                                                                                                                                                                                          | Oct 2024 to March 2026   |
| LogiProc (Pty) Limited                                  | Plant Infrastructure                                                                                                                                                                                                        | Oct 2024 to March 2026   |
| ARPP                                                    | Initial phase Refinery                                                                                                                                                                                                      | Oct 2024 to March 2026   |
| SLR Consulting                                          | Surface water                                                                                                                                                                                                               | Mar 2022                 |
|                                                         | Near surface geotechnical studies                                                                                                                                                                                           |                          |
|                                                         | TSF design                                                                                                                                                                                                                  |                          |
|                                                         | Environmental baseline studies                                                                                                                                                                                              | April 2024 to March 2026 |
| SLR Consulting                                          | PAP Relocation                                                                                                                                                                                                              |                          |
|                                                         | Water permits                                                                                                                                                                                                               |                          |
|                                                         | Mineral Resource estimation                                                                                                                                                                                                 |                          |
| Orelogy                                                 | Open pit optimisation, mine design, scheduling, Ore Reserve estimation, contract mining scoping and adjudication, mining surface infrastructure being roadways, medium & low grade ore stockpiles, ROM pads and waste dump. | Nov 2024 to March 2026   |
|                                                         | Mining costing                                                                                                                                                                                                              |                          |
| David Young                                             | Geological modelling                                                                                                                                                                                                        | Feb 2024 to March 2026   |
| EcoE                                                    | TSF design                                                                                                                                                                                                                  | Oct 2024 to March 2026   |
| SOLO Resources                                          | Concentrator plant Initial and Expansion                                                                                                                                                                                    | Oct 2024 to March 2026   |
| BCQS                                                    | Quantity surveying and contract management                                                                                                                                                                                  | Oct 2024 to March 2025   |
| M Golding & Assoc.<br>(did not conduct an onsite visit) | Economic model                                                                                                                                                                                                              | Jan 2025 to March 2026   |
| Coffey Mining                                           | Mining Geotechnical parameters                                                                                                                                                                                              | Jan 2013                 |

### 1.1.3 Malawi - Economic Environment

Malawi ranks among the world's least developed countries. The economy is predominately agricultural with about 80% of the population living in rural areas. The economy is dependent on foreign aid from the IMF, the World Bank, and individual donor nations. The Government faces many challenges including developing a market economy, improving educational facilities, environmental issues, dealing with the rapidly growing problem in health of the people, and satisfying foreign donors that fiscal discipline is being tightened. Malawi has experienced some setbacks, including a general shortage of foreign exchange, which has damaged its ability to pay for imports, fuel shortages and power shortages that hinder transportation and productivity. Nominal GDP of Malawi is estimated at approximately US\$14bn as of 2025, with GDP growth of around 2.4%. GDP per capita is approximately US\$580. A key structural challenge facing Malawi is its persistent balance of payments deficit, with exports of roughly US\$1.0bn against imports of approximately US\$3.1bn. This imbalance places ongoing pressure on foreign exchange availability, contributing to currency depreciation and elevated inflation. Consumer price inflation reached approximately 28% year-on-year in January 2026. The Malawi Kwacha has depreciated

significantly, weakening from around MWK 730 per US dollar in 2018 to approximately MWK 1,735 per US dollar through most of 2025.

Malawi has bilateral trade agreements with its two major trading partners, South Africa and Zimbabwe, both of which allow duty-free entry of Malawian products into their countries. Road transport is the main method for imports and exports, but high costs restrict the competitiveness of Malawian products. A lack of capital investment restrains the potential of rail and air and access to telecommunications services in terms of telephone, mobile and internet services is limited. In 2025, the rail line between Lilongwe and the Nacala Corridor Line was re-opened allowing for lower cost transport of products, particularly fuel, to reach the capital. As a net oil importer and landlocked country, Malawi is vulnerable to volatility in international oil prices.

Inadequate and intermittent power supply also constrains business and economic growth. The current installed energy and power capacity is 351 megawatts (MW) (mostly hydroelectric) against a demand of 400 MW resulting in an average of 63 power outages per year. The new 50MW interconnector line to Mozambique's Cahora Bassa hydroelectric power station is due to be officially opened in 2026. The World Bank has approved a \$350m grant toward the building of the 358MW Mpatamanga hydroelectric plant. The plant is budgeted to cost \$1.5bn.

The economy is dependent on agriculture with minor contributions from manufacturing with the main export crops being tobacco, legumes and ground nuts, tea and sugar. Traditionally Malawi has been self-sufficient in its staple food, maize, and during the 1980s exported substantial quantities to its drought-stricken neighbours. Agriculture accounts for over 80% of the labour force and represents about 80% of all exports and nearly 90% of the population engages in subsistence farming. Smallholder farmers produce a variety of crops, including maize, beans, rice, cassava, tobacco, and groundnuts. The agricultural sector contributes about 63.7% of total income for the rural population, 65% of manufacturing sector's raw materials, and approximately 87% of total employment.

Malawi's population is estimated to be 21.5 million with a median age ~17.5 to 18 years of age. Birth rates are estimated to be 33 to 34 per thousand people per year. This rate has been slowly declining but is still above the Sub-Saharan level of 32.

Malawi's economy is vulnerable to external shocks such as declining terms of trade and unfavourable weather. Malawi must import all its fuel products that results in high transport costs and constitute a serious impediment to economic development and trade competitiveness. Paucity of skilled labour; difficulty in obtaining expatriate employment permits; bureaucracy; corruption; and inadequate and deteriorating road, electricity, water, and telecommunications infrastructure further hinder economic development in Malawi. However, recent Government initiatives targeting improvements in the road infrastructure, together with private sector participation in power, railroad and telecommunications, have begun to render the investment environment more attractive. There is a current focus on mining and agricultural processing with a task force focussed on speeding up of red tape approvals.

Malawi has undertaken economic structural adjustment programs supported by the World Bank, the International Monetary Fund (IMF), and other donors since 1981. Broad reform objectives include stimulation of private sector activity and participation through the elimination of price controls and industrial licensing, liberalization of trade and foreign exchange, rationalization of taxes, privatization of state-owned enterprises, and civil service reform. Malawi qualifies for Highly Indebted Poor Country (HIPC) debt relief.

### 1.1.4 Corporate Structure

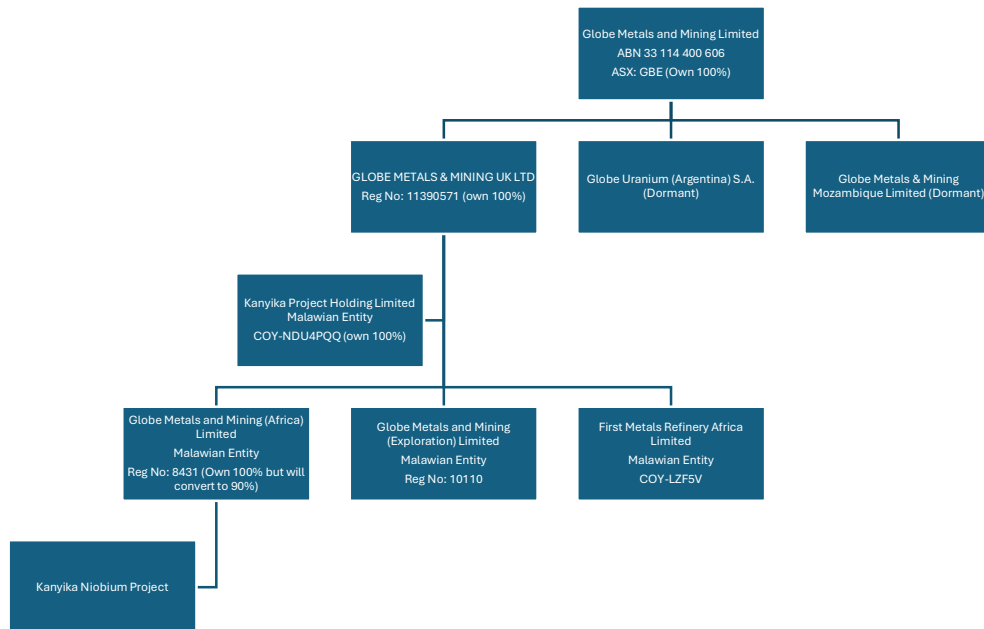
Globe Metals & Mining Limited (ABN 33 114 400 606) is a public company listed on the Securities Exchange (ASX: GBE) which holds a 100% share and control in UK registered, Globe Metals & Mining UK LTD (Registration Number: 11390571).

Globe Metals & Mining UK LTD holds a 100% share and control in the following sub entities:

- Globe Metals and Mining (Africa) Limited
  - Malawian Entity, Registration Number: 8431
  - Currently fully owned (100%), but ownership will convert to 90% due to a 10% free carry by the Malawi Government on this entity.
  - Key Project: Kanyika Niobium Project and hold the mining license.
- Globe Metals and Mining (Exploration) Limited
  - Malawian Entity, Registration Number: 10110 was the entity in which the exploration was performed.
- First Metals Refinery Africa Limited
  - Malawian Entity, COY-LZF5V will hold the refinery.

The organizational structure is as follows:

**Figure 1-1: Globe Organizational Structure**



### 1.1.5 Kanyika Project Site Locality and Access

Kanyika is in the Mzimba District in the Northern Region of Malawi, approximately 55 km north east of the town of Kasungu and 190 km by road from the Malawian capital of Lilongwe. The KNP site falls within the area of Traditional Authority (TA) Mabulabo and is located proximal to a three-tier boundary separating the TA's of Mabulabo and Simlemba; the boundary between the districts of Mzimba and

Kasungu; and the frontier between the Northern and Central Regions of Malawi. The administrative centre for the Northern Region is Mzuzu with Lilongwe being the administrative centre for the Central Region.

### 1.1.6 Legal Tenure

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#### 1.1.6.1 Mining Right

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Globe Metals & Mining (Africa) Limited (GMMA) is the holder of Large-Scale Mining Licence No. LML0216/21, issued on 13 August 2021, which is valid until 12 August 2046. The licence is extendable in accordance with the Mines and Minerals Act 2019 (specifically the provisions relating to renewal/extension of mining licences), allowing for extensions aligned with any increase in the life of mine.

The mining licence therefore provides long-term tenure aligned with the life of the resource, with the ability to renew for successive periods (typically up to 15 years), ensuring continuity of operations subject to standard regulatory and compliance requirements

GMMA currently pays the Malawi Government an Annual Ground Rent Fee.

The land is currently recognized as communal land. The Government of Malawi will engage with the Project Affected Persons and they will be relocated. Globe will be responsible for the payment of any and all payments connected with that relocation that are required both by Malawian law and the company's commitments to the community.

#### 1.1.6.2 Mine Development Agreement (MDA)

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On 27th March 2023 GMMA signed a Mining Development Agreement with the Government of Malawi. This is a legally binding contract between the Government of Malawi and GMMA and outlines the terms and conditions under which the Kanyika project will be developed, operated, and regulated within the country.

In particular

- The Malawi Government is to receive, at no cost, a non-diluting 10% equity interest in the project, with an option to acquire up to a further 10% equity interest (Equity Option) upon completion of construction, commissioning, and start-up of operations, subject to approval by the Project Lender. The Equity Option is a fully contributory interest and may be diluted if the Government does not meet any future equity funding requirements.
- This interest applies to the mining entity only (GMMA), being the holder of the mining licence, and is limited to upstream mining and concentration activities up to the production of concentrate. It does not extend to downstream processing, refining, or any value-added products beyond the concentrate stage, which are undertaken in a separate manufacturing entity that is co-located at site but legally distinct.
- GMMA will enjoy the benefits of a stable tax regime for up to 10 years, thereafter defaulting to the applicable laws at that period.
- GMMA will be exempt from vat, import duty and import excise on the import of mining capital goods, consumables and services for the life of the mine

#### 1.1.6.3 Refinery Export Processing Zone (EPZ)

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First Metals Refinery Africa Limited (FMRA), a wholly-owned subsidiary of Globe Metals & Mining (UK) Limited, will operate the refinery at the Kanyika mine site. FMRA has applied for an EPZ license and anticipate that this license will provide FMRA with, inter alia, the following benefits

- Corporate Tax Exemption: Companies with EPZ status enjoy a zero corporate tax rate on export earnings for the first 10 years.
- Customs Duty & VAT Exemptions: No import duties, value-added tax (VAT), or excise taxes on raw materials, capital goods, and equipment used in production.
- Withholding Tax Waiver: Exemption from withholding tax on dividends, royalties, and interest for foreign investors.
- Full Repatriation of Profits: Companies can freely remit 100% of profits, capital, and dividends to their home countries without restrictions.
- No Exchange Controls: Businesses can operate foreign currency accounts and transact freely in international markets.
- This relate to the refinery entity only.

#### 1.1.6.4 Community Development Agreement (CDA)

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As required by Malawi mining legislation, GMMA is obliged to remit 0.45% of turnover of GMMA only (mining company), to the 'qualified communities' every year. These communities are defined as those people who live within 20kms. of the boundary of the mining lease, and in August 2024 GMMA signed a CDA with representatives of those qualified communities (7 in total).

The key provision of the CDA is that the parties agree on the formation of the Kanyika Mine Development Trust to manage the equitable flow of the funds from GMMA to the community. In particular

- There will be 7 Trustees, of whom 4 will be nominated by Globe and 3 by the communities
- The Trust will establish an office to manage all interactions with the various communities
- Funds will annually be allocated to projects so identified
- The allocation of funds will be assessed and approved by a Project Evaluation sub-committee consisting of the 3 Trustees nominated by the communities

#### 1.1.7 Regional Infrastructure

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The project is in a subsistence farming area with only a limestone mine and cement plant 30km to the south east. Regional infrastructure is thus undeveloped for a mining and process operation and will have to be established as required. Further mining infrastructure support would have to come from Lilongwe and Southern Africa.

#### 1.1.8 Project Roll Out

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Expansion development strategy adopted:

- Initial project: Developed at an approximately 30–35% of full capacity scale, delivering approximately 1,300 tpa of Nb<sub>2</sub>O<sub>5</sub> (plus ~50 tpa Ta<sub>2</sub>O<sub>5</sub>), to minimise upfront capital, accelerate first production, and generate early cash flow. This phase enables the Company to de-risk the project technically, operationally and commercially, while establishing product qualification and market presence.

- Expansion: Expansion to full scale (targeting approximately 3,000 tpa  $\text{Nb}_2\text{O}_5$ ) is driven by project de-risking and financing optimisation, rather than power availability.

Initially a 500 ktpa plant will be built that will include a 130 tph, three stage crushing circuit with intermediate coarse stockpile and bin storage of -2mm crushed ROM. A single stage concentrator comprising ball mill, classification, gravity separation, targeted secondary milling, zircon flotation and pyrochlore flotation will be provided. Tailings will be wet stored in a tailings storage facility. As the early head grade of ROM is significantly higher than the life of mine (LoM) average, a 1 ton/hour concentrate feed refinery has been included.

Within two years, the project will be expanded by the addition of a second 130 tph crushing circuit plus two more concentrator lines and a second refinery. This added capacity will raise the plant throughput to 1.5Mtpa.

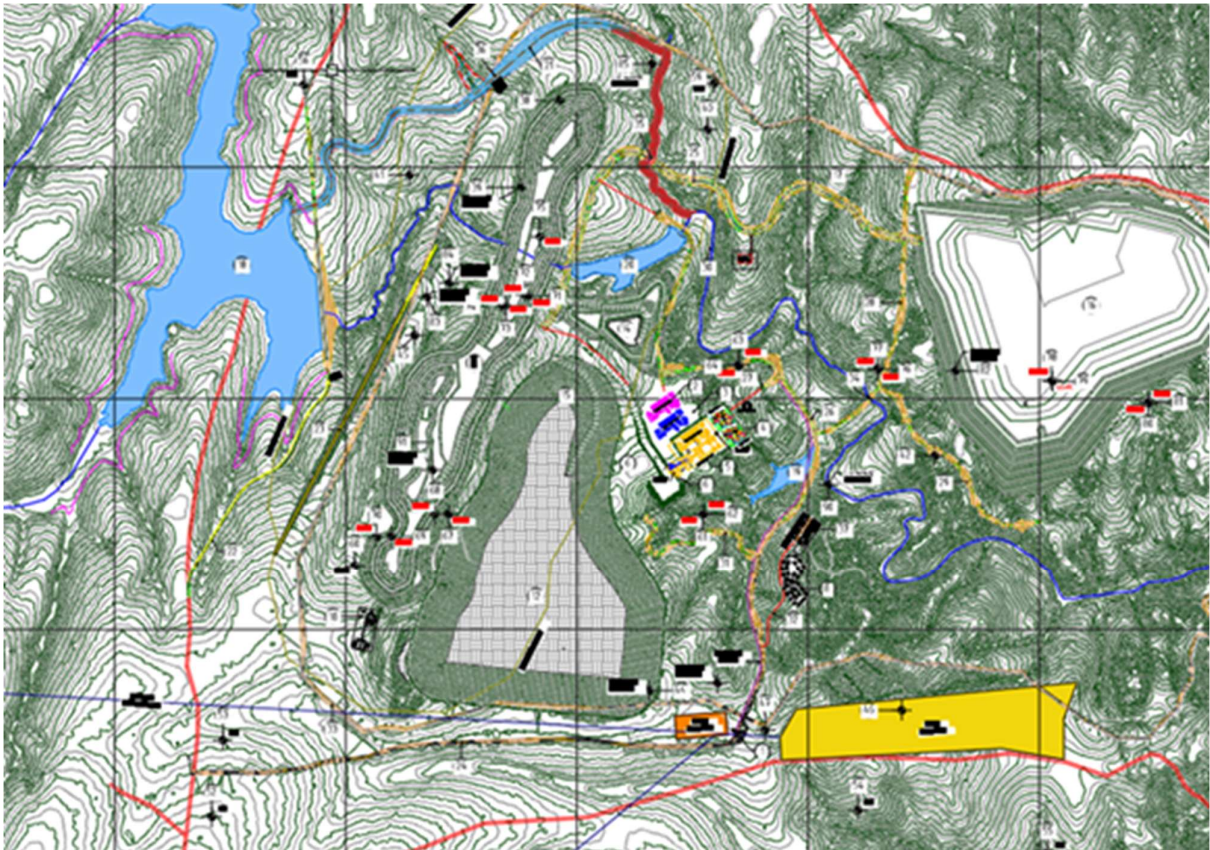
### 1.1.9 Project Infrastructure

Several studies were completed during previous studies to prepare an optimum general arrangement of the initial and expanded developments, with the following development criteria were used to establish the layout.

- Mining of the open pit will be conventional shovel truck operation comprising drill, blast, load and haul of both the ore and waste rock material. Appropriate ancillary equipment will provide dozing, grading and dust allaying functions.
- Hauling distances have been minimised by designing the ramp systems to exit on the east, closer to the plant, ore stockpiles and waste rock dump.
- A blasting safety zone of minimum 500 metres will be demarked.
- The Milenje River passes through the northern portion of the ore body.
- The KNP is a net water consumer. Hydrogeological and hydrological investigations have indicated groundwater resources in the granite host rock are not sufficient, and surface water storage is necessary. In the initial phase, water will be pumped from the Milenje River during the wet season into an off-river reservoir. During the expansion to full scale, an integrated river diversion and water storage facility will be constructed to the west of the pit on the confluence of the Milenje and Chimwa Rivers. Water will be directed around the pit in a diversion channel to re-join the existing river channel downstream.
- Topography around the target mineralisation is generally undulating. Ground conditions are generally favourable with up to 10-20 metre of competent clay-materials over bedrock.
- Villagers currently living in the area will be part of a relocation campaign.
- The site layout was optimised to minimise civil works and maximise utilisation of natural materials and topography for the main project structures, including:
  - Tailings Storage Facility
  - Process plant
  - Pollution containment structures.
- The prevailing wind is dominantly easterly. To mitigate impact to the communities along Entandweni – Kanyika village axis, all development has been kept to the East of the pit thus allowing maximum buffer zones for abatement issues.

- Sterilisation drilling to the east of the open pit did not identify economic mineralisation of any type, the Kanyika mineralisation is open at the north end, although steeply dipping, and the south end.
- Existing infrastructure located on the mine site is minimal and has been related to previous exploration and bulk sampling activities. Infrastructure to support the Kanyika Niobium Project to be constructed at the mine site will include the concentrator plant, refinery plant, mining support infrastructure including workshops and stores, an auxiliary laboratory, administration offices and accommodation camps. The proposed site plans for the fully expanded plant are presented in Figure 1-2.

**Figure 1-2: General Arrangement Of The Kanyika Niobium Project**



#### 1.1.10 Workshops, Stores and Offices

Permanent offices and administration facilities will be constructed as part of the mine and process plant site development and the costs of these have been included in the capex costs.

Workshops, stores and offices relating to the operations will be constructed at the mine site. The main training facility and main laboratory will also be constructed there, with the laboratory servicing the process plants and environmental, geological and grade control, metallurgical accounting, and sales and marketing samples.

#### 1.1.11 Water

The source of the water is the Milenje River. This river averages some 36 Mm<sup>3</sup>/year. The river dries up at the end of in the dry season requiring water storage for plant operations. The basis of the water

balances for the initial and expanded plant is based on wet tailings. Dry stacking the tailings will reduce the amount of water required for both phases. Internally, water is recycled within the plant as far as feasible. There are certain operations that require high quality water that simply cannot be substituted. Excess water will be used for dust control where thickener overflow quality is acceptable.

Initially, an off-river reservoir is planned that will be filled by pumping water to the reservoir and from there to the plant. The approximate volume of the reservoir is 150 000 m<sup>3</sup>. This dam will become a pollution control dam when the fresh water dam. It is included to prevent silt from reaching the Milenje. The orebody crosses the Milenje River. To mine it without sterilizing ore in the river bed requires that the river be diverted. An upstream dam is planned for the plant expansion to contain some 2 Mm<sup>3</sup> of water with a diversion delivering diverting water to an existing gully downstream of the orebody.

### 1.1.12 Power

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Power supply from Escom is inconsistent with the nearest access point some 47km away. A power island power will be constructed with a mixture of solar PV, batteries and diesel generators – see Section 1.9.9 for detail.

### 1.1.13 Logistics

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#### 1.1.13.1 Inbound Logistics

##### 1.1.13.1.1 Reagents and Consumables

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The Kanyika Process Plant will utilise a wide range of reagents and consumables including: oxalic acid, Aero OX-101 (collector), lead nitrate, sodium hexametaphosphate, soda ash, cationic tallow amine acetate (zircon collector) sodium fluoride, pre-gelatinised starch, carboxymethylcellulose, flocculant, 2-octanol, anhydrous hydrofluoric acid, sulphuric acid 98%, anhydrous ammonia, quick lime, limestone, and coal.

A warehouse with dock leveller will be provided at the site within the security perimeter fence. Palletised drums and dry reagents will be offloaded by forklift and stored in the warehouse. From there the forklift will deliver the reagents to the end user. The warehouse will be extended during the expansion of the plant.

##### 1.1.13.1.2 Liquids (excluding ammonia, HF and sulphuric acid)

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Most of the minor liquid reagents will be bought in 200 litre drums. Typically, these will be packed and strapped onto pallets and packed into 20' or 40' shipping containers and delivered to site via truck.

##### 1.1.13.1.3 Bulk Liquid Storage

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Storage for the three bulk liquids will be co-located some 100m to the west of the refinery. Should there be a gas leak, the prevailing wind is from the east taking gas away from the operating plants. Bullets will be the main type of storage tank located under open wall roof to reduce direct sunlight impinging on storage vessels. A pipe bridge connecting bulk liquid storage to the refinery will transfer liquids on demand.

Each commodity will have its own offloading station with dedicated piping infrastructure. Access to liquid bulk storage will be via its own access road to limit road contact with other vehicles on the main site. There will be dedicated offloading teams highly trained to handle the three liquids. Regular drills emulating emergencies will be carried out to enable the crews to spontaneously react to most possible emergencies.

Anhydrous hydrofluoric acid (AHF) will be delivered to site using 20' isotainers that will be circulated between the mine and the supplier. An expression of interest has been received from a supplier in China who will receive and fill empty containers before returning them to the harbour on an FOB basis. The containers will be shipped to Beira and road transported to site.

Sulphuric acid will be delivered by road tanker from Zambia. The Copper Belt is experiencing significant growth including the construction of sulphuric acid plants leading to increased sulphuric acid availability.

Ammonia will be delivered either by 40' isotainer or road tanker and stored in two bullets.

#### *1.1.13.1.4 Dry Reagents*

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Besides coal, all dry reagents come either in bulk bags or 25kg bags palletised in 1 ton lots and shrink wrapped. These will be delivered by truck to site with forklifts used to unload and store. Coal will be delivered by tipping truck and tipped directly into the coal bunker.

#### *1.1.13.1.5 Diesel*

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Globe will enter a supply contract with the two major fuel importers to the country.

#### *1.1.13.2 General Freight – Sea, Rail and Road*

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General freight will be used for most of the consumable supply, initially heavy truck haulage using single articulated trailers from Beira, Mozambique or RSA will be used.

#### *1.1.13.2.1 Outbound Logistics*

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Niobium and tantalum pentoxide products will be packed into drums. All drums will be palletised. Pallets will be delivered to Lilongwe. Niobium will be loaded into 20' containers and delivered by road to Beira for export by ship. Tantalum is expected to be air freighted from Kamuzo International Airport.

*Note: The responsibility for the products stops at the mine gate with logistics handled by the marketing agent.*

### **1.1.14 Surveys**

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Detailed digital terrain mapping coverage is available for both the Mining Right and the Mine site. The Kanyika Niobium Project is using WGS 1984, UTM Zone 35 South for all site and mining surveying.

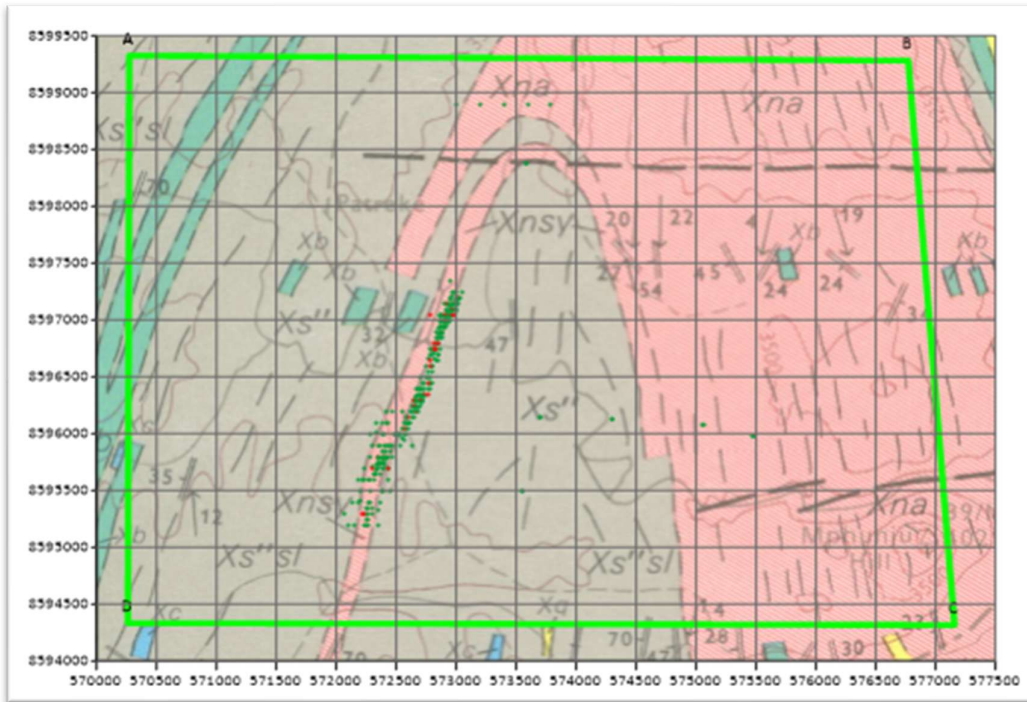
## **1.2 Geology**

### **1.2.1 Geology and Mineralisation**

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Globe applied for Exploration Licence in late 2005 to overlie a uranium anomaly outlined by a 1984-85 United Nations Development Programme regional airborne survey with brief ground truthing by the Geological Survey of Malawi in 1986.. A Large-Scale Mining Licence No. LML0216/21 dated 13 August 2021 was granted to Globe metals and Mining (Africa) Limited with rights to mine and process Pyrochlore Concentrate containing niobium and tantalum and deleterious uranium over an area of 33.42Km<sup>2</sup> for 25 years (Figure1-3).

**Figure1-3: Geological Map, Collars Of The Exploration Drilling And Mining Licence Limits**



Several granitoid bodies of variable size have intruded the basement gneissic metamorphic rocks, as has a mineralised aphyric concordant alkalic nepheline syenitic granitoid (ANSG) body within the Kanyika project. Potential economic mineralisation at Kanyika occurs from surface as disseminated pyrochlore  $[(Na,Ca)_2(Nb,Ta)_2O_6(OH,F)]$  where the Na and/or Ca can be substituted by  $U^{+4}$ , which extends in depth, concentrated in up to four discrete ore zones within this elongate ANSG body. This mineralised intrusive body strikes towards the north of northeast and the mineralised zones dip towards the west at circa  $55^\circ$  (Figure 2). The ANSG is circa 250m wide in the south and bifurcates into two limbs, the western of which only extends some 500m northwards whereas the eastern limb extends for some 1650m northwards with a width of circa 90m (Figure1-3).

### 1.2.2 Exploration

Exploration started soon after the license was granted in March 2006 with percussive reverse circulation (RC – green dots - Figure1-3) and diamond drilling (red dots - Figure1-3) in 2007, 2008, 2009 and 2012. The four drilling campaigns, a mix of reverse circulation percussive (RC) and diamond core drilling, were finalised in 2012. The statistics of this drilling are contained in Table 1-2.

**Table 1-2: Exploration Drilling Statistics**

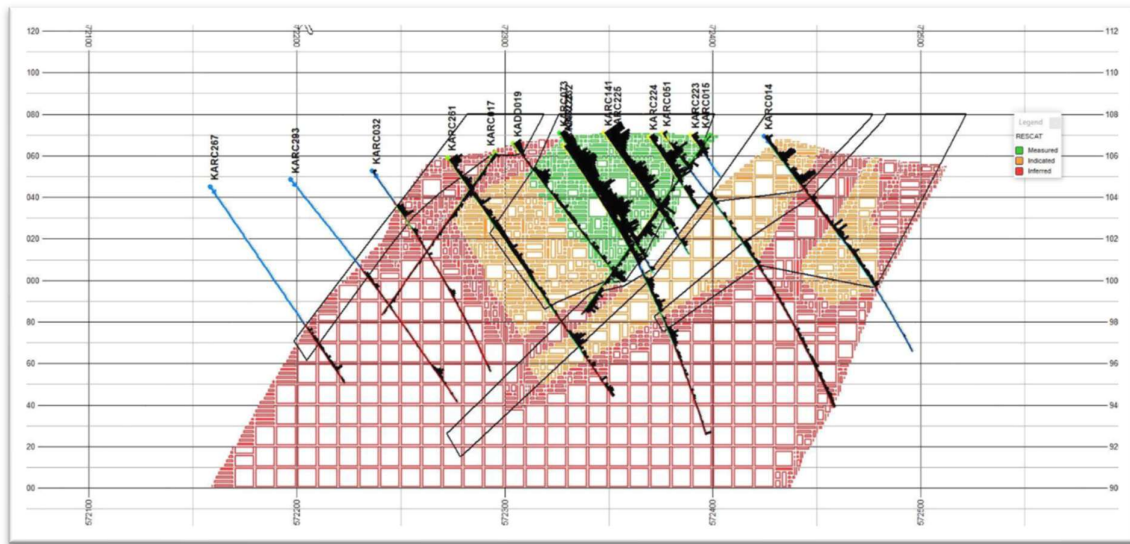
| Year   | RC Drilling |        | Diamond Drilling |        | Total Drilling |        |
|--------|-------------|--------|------------------|--------|----------------|--------|
|        | No Holes    | Metres | No Holes         | Metres | No Holes       | Metres |
| 2007   | 78          | 8756   | 4                | 324    | 82             | 9080   |
| 2008   | 76          | 5398   | 16               | 1755   | 92             | 7153   |
| 2009   | 82          | 5242   | 12               | 905    | 94             | 6147   |
| 2012   | 67          | 9207   | 16               | 2178   | 83             | 11385  |
| Totals | 303         | 28603  | 48               | 5162   | 351            | 33765  |

The total exploration samples analysed for Nb<sub>2</sub>O<sub>5</sub>, Ta<sub>2</sub>O<sub>5</sub> and U<sub>3</sub>O<sub>8</sub> are 23 010 and the analytical assurance and control (certified reference materials and blanks) insertion rate was set at 15% of the exploration samples. The 2007 campaign samples were analysed at the ACME Analytical Laboratories, Vancouver and the 2008/9/12 campaign samples were analysed at the Intertek Genalysis Laboratory Services, Johannesburg and Perth.

### 1.2.3 Geological modelling and results

The final Mineral Resource estimate was completed in December 2012 and restated with nil changes in 2018 by Messrs. A. Stephens and A. Bewsher and Dr. M. Steffens under the 2012 JORC guideline. The estimation was completed in the Datamine software environment by ordinary kriging into parent blocks of size 10m (x) X 25m (y) X 10m (z) for Nb<sub>2</sub>O<sub>5</sub>, Ta<sub>2</sub>O<sub>5</sub>, and U<sub>3</sub>O<sub>8</sub>.

**Figure 1-4: West To East Section Of The Block Model Through The Southern Measured Area**



The Nb<sub>2</sub>O<sub>5</sub> block grades and Mineral Resource classification of the Datamine modelling projected to surface are contained in Figure 1-5 and Figure 1-6 respectively.

**Figure 1-5: Nb<sub>2</sub>O<sub>5</sub> Grades Of The Block Model At Surface**

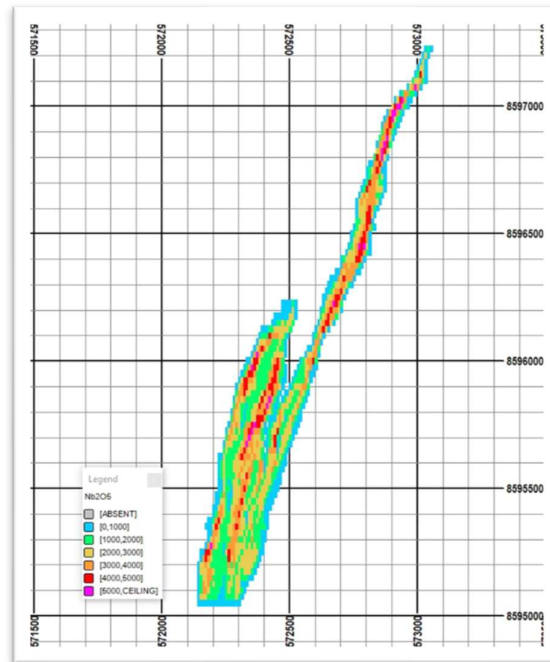
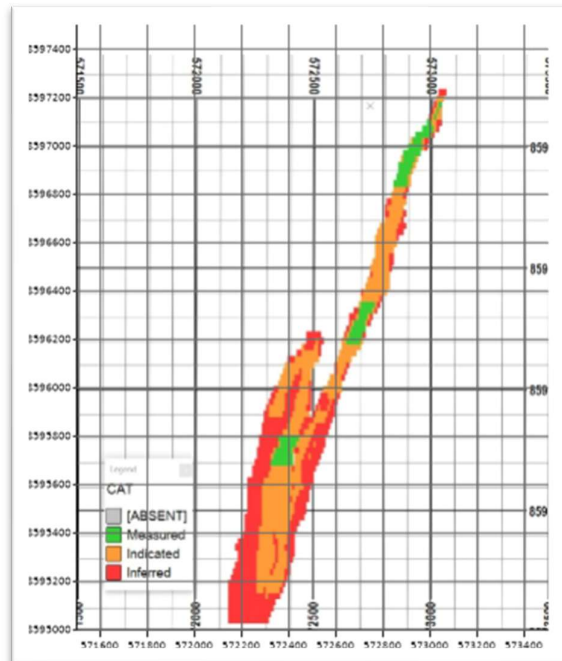


**Figure 1-6: Mineral Resource Classification Of The Block Model At Surface**



Classification was based on the Nb<sub>2</sub>O<sub>5</sub> variable and the data quality but mainly on the drill spacings of 25m x 20m for Measured, 50m x 40m as indicated and 100m spaced drilling and down dip extensions as Inferred.

**Table 1-3: Mineral Resource Estimate for Kanyika**

| Category                                                                  | Tonnes (Million) | Nb <sub>2</sub> O <sub>5</sub> (ppm) | Ta <sub>2</sub> O <sub>5</sub> (ppm) |
|---------------------------------------------------------------------------|------------------|--------------------------------------|--------------------------------------|
| Measured                                                                  | 5.3              | 3,790                                | 180                                  |
| Indicated                                                                 | 47.0             | 2,860                                | 135                                  |
| Inferred                                                                  | 16.0             | 2,430                                | 120                                  |
| Total                                                                     | 68.3             | 2,830                                | 135                                  |
| # Mineral Resource reported using a 1,500ppm Cut-off grade, unconstrained |                  |                                      |                                      |

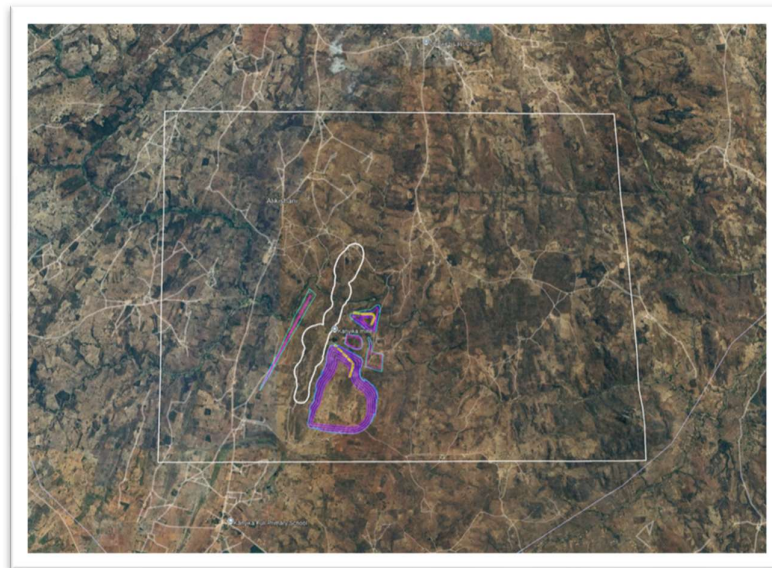
## 1.3 Mining

Note all costs reflected in this section are as of 1 April 2025. The overall financial model has escalated these costs to 1 January 2026 terms.

### 1.3.1 Introduction

Orelogy Consulting Pty Ltd (Orelogy) were engaged by Globe Metals & Mining (GMM) to undertake the mining study for the 2026 Bankable Feasibility Study (BFS) for the Kanyika Niobium Project (KNP) located in Malawi.

**Figure 1-7: Kanyika Lease Area**



Previous studies included:

The 2026 BFS as requested by GMMA includes the following items as outlined below:

- Preparing a Request for Budget Pricing (RFBP) from international mining contractors to undertake the mining contract based on the updated physicals and schedule;

- Recommend a contract mining cost determined from the RFBP submissions to be used in the updated 2026 BFS;
- Conduct a validation pit optimisation to verify the final pit limits from the 2018 DFS remain valid;
- Undertake pit design activities;
- Undertake detailed mine scheduling;
- Development of the mine layout including haul roads, waste dumps and the ROM and low grade stockpiles; and
- Develop the 2026 Ore Reserves statement.

### 1.3.2 Mining Method

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Standard open pit mining methods using 70 t excavators and 41 t articulated dump trucks with a supporting ancillary fleet have been used as the basis to exploit the resource.

### 1.3.3 Mineral Resources

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The topography supplied by Globe is of high quality and has been used to report the resource model and provide the initial surface for waste dump and surface infrastructure layout.

The resource model was built in December 2012 using industry standard techniques by the Quantitative Group (QG) and had been classified to JORC 2004 requirements. The resource model was revalidated in 2018 by BMGS Pty Ltd (BMGS) to ensure it conforms with the JORC 2012 standards Refer to the ASX announcement “Kanyika Niobium Project – Updated JORC Resource Estimate” dated 11<sup>th</sup> July 2018, available on the Globe website.

The resource model comprises 4 separate mineralised zones with a weathering profile comprised of saprolite and saprock overlying fresh rock. Metallurgical tests have been conducted on samples taken from various depths below surface to test the variability of Nb<sub>2</sub>O<sub>5</sub> recovery.

A summary of the resource is provided in Figure 1-8 and Table 1-3.

**Figure 1-8: Mineral Resource Estimate for Kanyika**

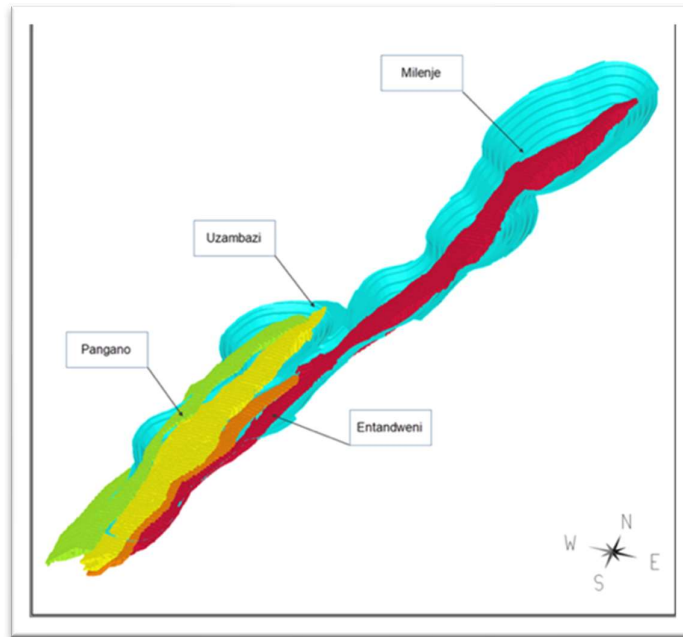


**Table 1-3: Mineral Resource Estimate for Kanyika**

| Category                                                                  | Tonnes (Million) | Nb <sub>2</sub> O <sub>5</sub> (ppm) | Ta <sub>2</sub> O <sub>5</sub> (ppm) |
|---------------------------------------------------------------------------|------------------|--------------------------------------|--------------------------------------|
| Measured                                                                  | 5.3              | 3,790                                | 180                                  |
| Indicated                                                                 | 47.0             | 2,860                                | 135                                  |
| Inferred                                                                  | 16.0             | 2,430                                | 120                                  |
| Total                                                                     | 68.3             | 2,830                                | 135                                  |
| # Mineral Resource reported using a 1,500ppm Cut-off grade, unconstrained |                  |                                      |                                      |
| Measured 8%; Indicated 69%, Inferred 23%.                                 |                  |                                      |                                      |

#### 1.3.4 Pit Optimisation

The first stage of the conversion of a mineral resource into a mineable open pit reserve is the open pit optimisation process. It is at this stage that all the latest physical, technical and economic parameters are applied to the orebody to generate the “ideal” open pit excavation geometry which is based on a range of costs, process recoveries, prices and overall slopes.

If the economics of this “ideal” pit geometry (shell) are favourable, the shell can then be used as a guide in the pit design process (which follows the pit optimisation analysis).

The WHITTLE™ open pit optimisation software tool was utilised by Orelogy to undertake this component of the study. WHITTLE™ is a recognised industry standard pit optimisation package.

Geotechnical conditions have been modelled based on a geotechnical drilling campaign completed during 2012 and summarised by Coffey Mining in early 2013. The results from this work have been used in this mining study and summarised in Table 1-4.

Dilution and ore losses will be minimised by only blasting where necessary, bench mapping, advance grade control RC drilling and sampling and mark-out, use of smaller excavation equipment, reduced flitch height and ore spotting by company geologists. A dilution mixing skin width of 2.0 m was applied to the resource model to establish the diluted reserve model which forms the basis of the study.

**Table 1-4: Geotechnical Parameters**

| Domain                                                                                                                                                                             | Design Sector | Weathering | BFA (°) | BW (m) | BH (m) | IRSA (crest to crest) (°) | IRSH (m) | OSH (m) | OSA (°) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|---------|--------|--------|---------------------------|----------|---------|---------|
| All                                                                                                                                                                                | All           | Oxidised   | 55      | 5      | 10     | 40                        | 20       | 180     | 49      |
|                                                                                                                                                                                    |               | Transition | 60      | 8.5    | 20     | 45                        | 20       |         |         |
| Granitoid                                                                                                                                                                          | North         | Fresh      | 70      | 8.5    | 20     | 51.5                      | 140      |         |         |
|                                                                                                                                                                                    | South         |            |         |        |        |                           |          |         |         |
| Gneiss                                                                                                                                                                             | West          | Fresh      |         |        |        |                           |          |         |         |
|                                                                                                                                                                                    | East1         |            |         |        |        |                           |          |         |         |
|                                                                                                                                                                                    | East2         | Fresh      | 70      | 8.5    | 20     | 51.5                      | 70-120   | -       | -       |
| Abbreviations:                                                                                                                                                                     |               |            |         |        |        |                           |          |         |         |
| BFA - Batter Face Angle; BW – Berm Width; BH – Batter Height; IRSA - Inter-Ramp Slope Angle; IRSH - Inter-Ramp Slope Height; OSH - Overall Slope Height; OSA - Overall Slope Angle |               |            |         |        |        |                           |          |         |         |

Standard pit optimisation techniques have been used to determine the location of the optimal three-dimensional shape of the potential open pit. This is based on a range of costs, process recoveries, and prices as summarised in Table 1-5 to Table 1-6.

**Table 1-5: Price And Selling Assumptions**

| Item                                              | Unit       | Value    |
|---------------------------------------------------|------------|----------|
| Price Assumptions                                 |            |          |
| Base Price Nb <sub>2</sub> O <sub>5</sub>         | USD / kg   | \$58.00  |
| Base Price Ta <sub>2</sub> O <sub>5</sub>         | USD / kg   | \$250.00 |
| Selling Costs                                     |            |          |
| Gov Royalties                                     | % of price | 2.26%    |
| Sales and Marketing                               | % of price | 5%       |
| Total Sell costs - Nb <sub>2</sub> O <sub>5</sub> | USD / kg   | \$4.14   |
| Total Sell costs - Ta <sub>2</sub> O <sub>5</sub> | USD / kg   | \$17.86  |
| Discount Rate                                     | %          | 8%       |

**Table 1-6: Mining Costs**

| Item | Unit | Value |
|------|------|-------|
|------|------|-------|

|                                    |          |                                                 |
|------------------------------------|----------|-------------------------------------------------|
| Load & Haul Costs                  |          | Variable, Coded to Model based on below formula |
| Waste Mining Cost                  | \$ / bcm | Bench RL * -0.01013 + 15.36164                  |
| Ore Mining Cost Above 1060 RL      | \$ / bcm | Bench RL * 0.00962 + -4.84291                   |
| Ore Mining Cost 1060 RL to 1040 RL | \$ / bcm | \$5.37                                          |
| Ore Mining Cost Below 1040 RL      | \$ / bcm | Bench RL * -0.00748 + 13.07459                  |
| Drill and Blast                    |          |                                                 |
| Oxide - Waste                      | \$ / bcm | \$2.01                                          |
| Transitional- Waste                | \$ / bcm | \$2.44                                          |
| Fresh- Waste                       | \$ / bcm | \$4.67 # Includes Presplits                     |
| Oxide - Ore                        | \$ / bcm | \$2.01                                          |
| Transitional- Ore                  | \$ / bcm | \$2.44                                          |
| Fresh- Ore                         | \$ / bcm | \$4.38                                          |
| Grade Control                      | \$ / bcm | \$2.79                                          |
| Ore Rehandle - Long Term Stockpile | \$ / bcm | \$4.48 (Excluded from Optimisation)             |

**Table 1-7: Fixed Time Costs**

| Item                         | Unit     | Value   |
|------------------------------|----------|---------|
| Admin                        | M\$/yr   | \$2.49  |
| Mining Admin (Owners Team)   | M\$/yr   | \$0.87  |
| Process Admin                | M\$/yr   | \$1.98  |
| Maintenance Admin            | M\$/yr   | \$2.16  |
| Environment                  | M\$/yr   | \$0.51  |
| Corporate                    | M\$/yr   | \$5.78  |
| Insurance / Community        | M\$/yr   | \$0.35  |
| Mining Contractor Annual Fee | M\$/yr   | \$2.11  |
| Total Fixed Costs            | M\$/yr   | \$16.25 |
| Process Feed Rate            | Mtpa     | 1.5     |
| Total Fixed Costs            | \$/t ore | \$10.83 |

**Table 1-8: Processing Parameters**

| Item                                                   | Unit       | Value                  |
|--------------------------------------------------------|------------|------------------------|
| Processing Costs                                       |            |                        |
| Concentrator                                           | \$ / t Ore | \$24.96                |
| Grade control                                          | \$ / t Ore | \$1.07                 |
| Ore / Waste mining cost difference                     | \$ / t Ore | Applied on block level |
| Refining                                               | \$ / t Ore | \$18.89                |
| Total Processing costs                                 | \$ / t Ore | \$44.92                |
| Recovery                                               |            |                        |
| Concentrator Recovery – Nb <sub>2</sub> O <sub>5</sub> | %          | 80.0%                  |
| Concentrator Recovery – Ta <sub>2</sub> O <sub>5</sub> | %          | 78.5%                  |
|                                                        |            |                        |

| Item                                               | Unit | Value |
|----------------------------------------------------|------|-------|
| Refinery Recovery - Nb <sub>2</sub> O <sub>5</sub> | %    | 96.5% |
| Refinery Recovery - Ta <sub>2</sub> O <sub>5</sub> | %    | 95.0% |

A range of optimisations runs were completed which showed that the resource was insensitive to mining costs, processing costs, inclusion of inferred material and overall slopes. As expected, the sensitivity analysis also showed that the overall project value is sensitive to changes in price and process recovery. The final summary of the results used for mine design purposes are highlighted in Table 1-9. The overall mine life is approximately 24 years.

**Table 1-9: Summary WHITTLE™ Pit Optimisation Updated Slopes**

| Scenario |                            | Shell No. | Total Material | Waste | Mill Feed |                                | Nb <sub>2</sub> O <sub>5</sub> & Ta <sub>2</sub> O <sub>5</sub> Metal |                                | Strip                          | Operating Cash flow |         |                    |         |         |
|----------|----------------------------|-----------|----------------|-------|-----------|--------------------------------|-----------------------------------------------------------------------|--------------------------------|--------------------------------|---------------------|---------|--------------------|---------|---------|
|          |                            |           |                |       | Tonnes    | Grade                          |                                                                       | Output                         |                                | Ratio               | Undisc. | CF Discounted @ 9% |         |         |
|          |                            |           |                |       |           | Nb <sub>2</sub> O <sub>5</sub> | Ta <sub>2</sub> O <sub>5</sub>                                        | Nb <sub>2</sub> O <sub>5</sub> | Ta <sub>2</sub> O <sub>5</sub> |                     | CF      | Best               | Worst   | Avg     |
|          |                            |           | [Mt]           | [Mt]  | [Mt]      | [ppm]                          | [kt]                                                                  | [wt : ot]                      | [US\$M]                        |                     |         |                    |         |         |
| 1        | Base Case                  | 15        | 83.3           | 47.1  | 36.1      | 3,062                          | 143                                                                   | 85.4                           | 3.8                            | 1.3                 | \$3,151 | \$1,600            | \$1,331 | \$1,465 |
| 13       | Revised slopes from Design | 15        | 87.6           | 51.9  | 35.7      | 3,042                          | 142                                                                   | 83.9                           | 3.8                            | 1.4                 | \$3,063 | \$1,562            | \$1,299 | \$1,431 |

Project cut-off grades (COG) are generally calculated based on single grade item. In this case, there are two payable grades, Niobium Pentoxide and Tantalum Pentoxide. Using the prices, process recoveries and costs, an approximate cut-off grade can be calculated for each element, which are shown in Table 1-10.

**Table 1-10: Approximate Cut-Off Grades**

| Grade item                     | Break even COG (ppm) |
|--------------------------------|----------------------|
| Nb <sub>2</sub> O <sub>5</sub> | 1,360                |
| Ta <sub>2</sub> O <sub>5</sub> | 330                  |

As the Kanyika deposit is multi-element, it is not appropriate to apply a fixed cut-off to each of the grade items. To determine if a block is ore or waste, the value generated per block needs to be calculated based on a given set of parameters. If the value generated is higher than the costs to process the block (including selling costs), then the block is considered an ore block, and all blocks generating a negative value are considered waste.

Graph 1-1 and Figure 1-9 show the Whittle results graph and isometric view of the optimal pit.

**Graph 1-1: Whittle Optimisation Results Graph**

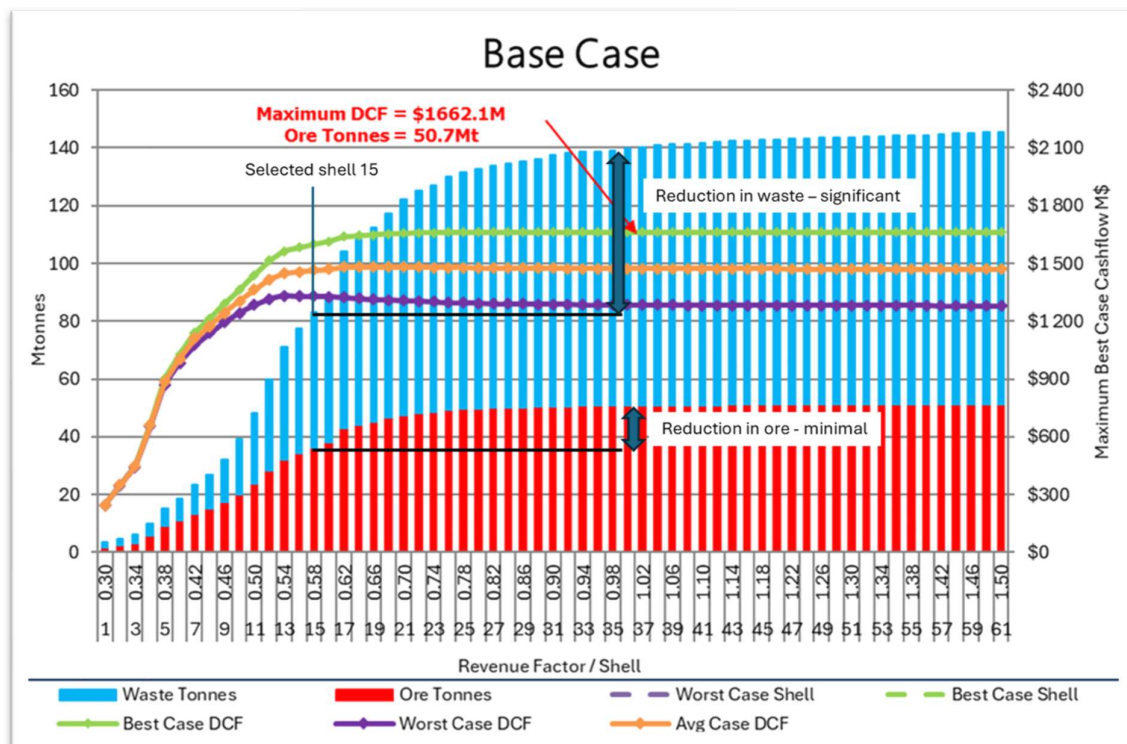
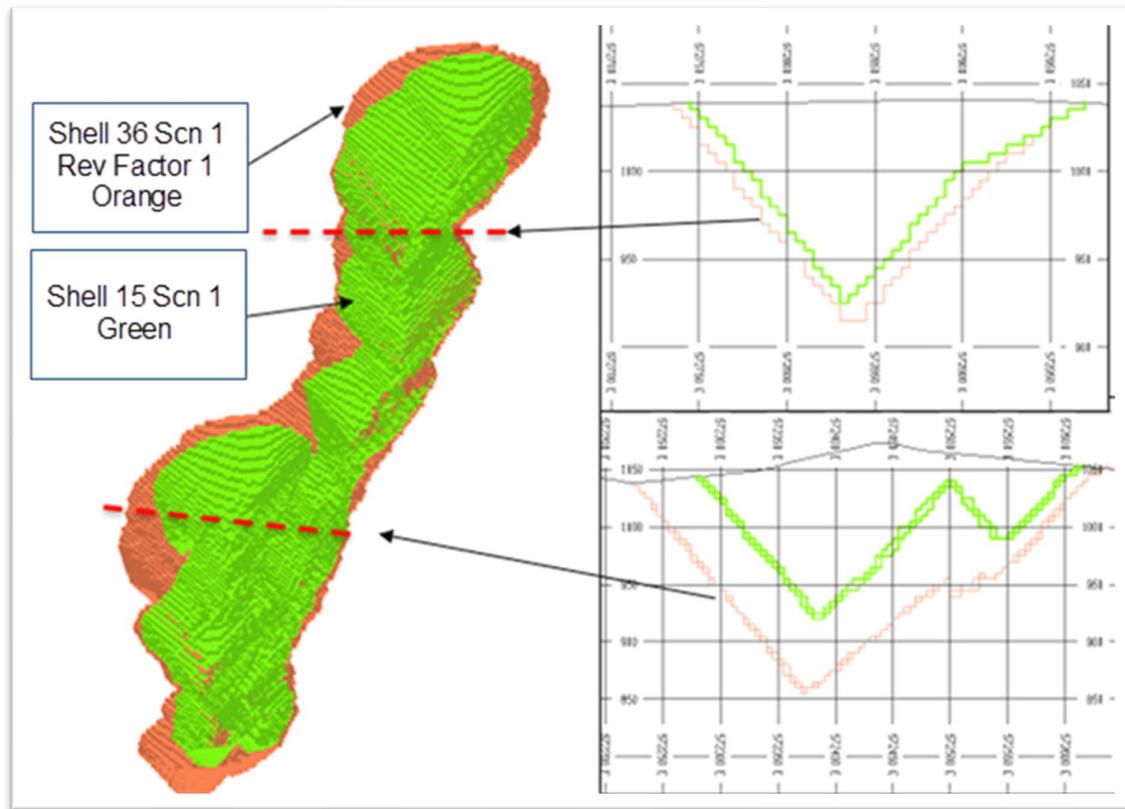


Figure 1-9 shows the results of the Base Case optimisation and highlights the selected Shell 15 in comparison to the revenue factor 1, Shell 36. Shell 15 from the base case has been selected based on:

- Shell 15 contains 96% of the Best Case discounted value of Shell 36;
- Contains 71% of the ore from Shell 36 and only 53% of the waste, and
- Has a calculated mine life of 24 years.

**Figure 1-9: Isometric View Of Whittle Optimisation Pit**



Within the cross section shown within the figure, it can also be seen that Shell 15 appears to closely match the shell in the northern proportion of the deposit. Whereas in the southern proportion, there is a significant step between the two shells. Therefore, it appears possible to extend the mine design in the north to capture the material within Shell 36 as it would be difficult to capture this ore at a later stage with a pushback if prices warranted such a move. Hence, it would be better to capture this material as part of the current design process.

Shell 15 therefore formed the basis of the subsequent mine design activity.

### 1.3.5 Mine Design

The mine design process focuses on providing safe access to the ore whilst minimising the overall waste required to access the ore. The shells produced in the open pit optimisation process are used to help guide the mine design process.

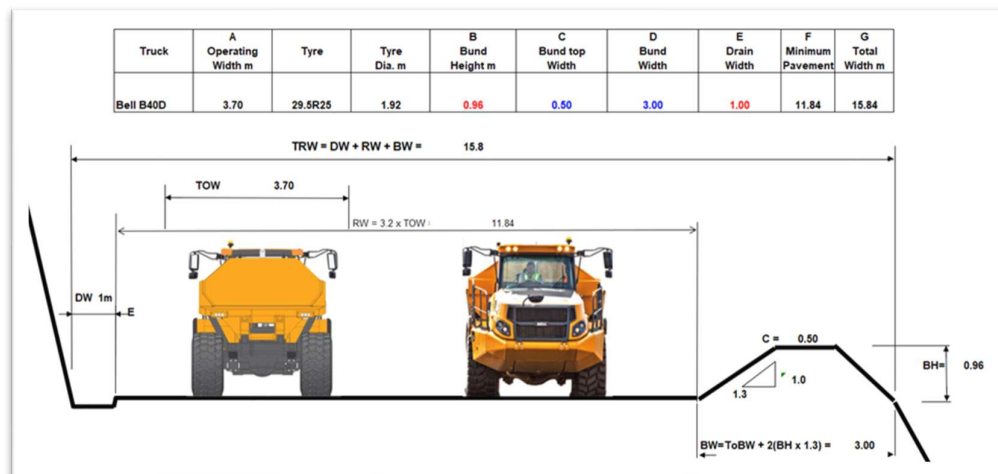
Given the size of the open pit and the amount of material that needs to be mined, a small mining fleet of articulated dump trucks will be used to haul the material to the requisite destination. The overall parameters for the mining access and design are outlined in Table 1-11.

**Table 1-11: Pit Design Parameters**

| Item             |                                  | Unit        | Value |
|------------------|----------------------------------|-------------|-------|
| Haul Road Design | Width                            | Single Lane | [m]   |
|                  |                                  | Dual Lane   | [m]   |
|                  | Gradient                         |             | [%]   |
|                  | Minimum Radius of Turning Circle |             | [m]   |
| Working Widths   | Minimum Pit Base Width           |             | [m]   |
|                  | Minimum Pit Cutback Width        |             | [m]   |

Dual lane pit ramps have been designed to suit the selected dump truck size. Roads will be designed to allow all-weather trafficability. This will include regular spreading and compaction of suitable crushed rock road base material. The minimum running width of pit ramps, exclusive of drains and bund, will be three times the operating width of the selected dump truck fleet of 3.7 m as shown in Figure 1-10. The total width of the haul road, including bunds and drains, has been rounded to 16 m. Single lane pit ramps have been used where appropriate for the lower 30 to 50 vertical metres of the designs. Single lane pit ramps have been designed at a total width of 12 m with an increase in gradient to 1: 8.

**Figure 1-10: Haul Ramp Design – Dual Lane**



A staged design approach was used to minimise the waste movement early in the schedule as well as accessing higher grade material. The different stage designs and stage inventory are shown in Figure 1-11 and Table 1-12 respectively.

Three objectives were targeted for the staged development of the Kanyika deposit, namely:

- Maximise the grade of the plant feed in the initial years by applying an elevated COG policy.
- Defer waste stripping where possible.
- Facilitate a consistent total material movement over time.

These objectives will generally have a positive impact on the project net present value (NPV). Where practical, the optimisation analysis was used to provide a guide to the location and geometry of the

interim pit stages. Low revenue factor pit shells, which identify the high value areas (i.e. higher grade and / or lower waste to ore strip ratio areas), were selected on the basis that they ideally provided more than one year's worth of crusher feed, whilst also maintaining the minimum required cut back width.

The overall pit design is shown in Figure 1-12.

**Figure 1-11: Stage Sequence**

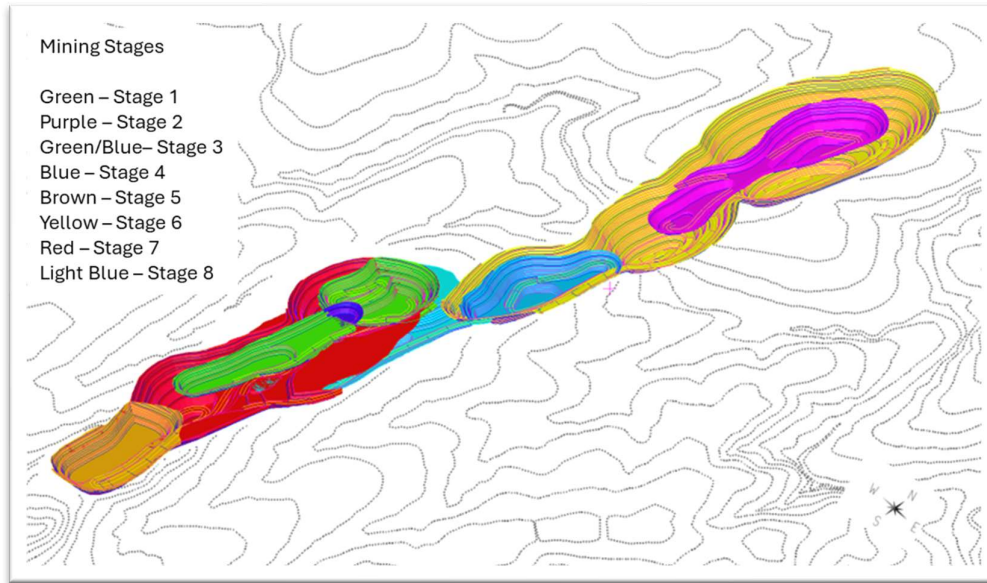
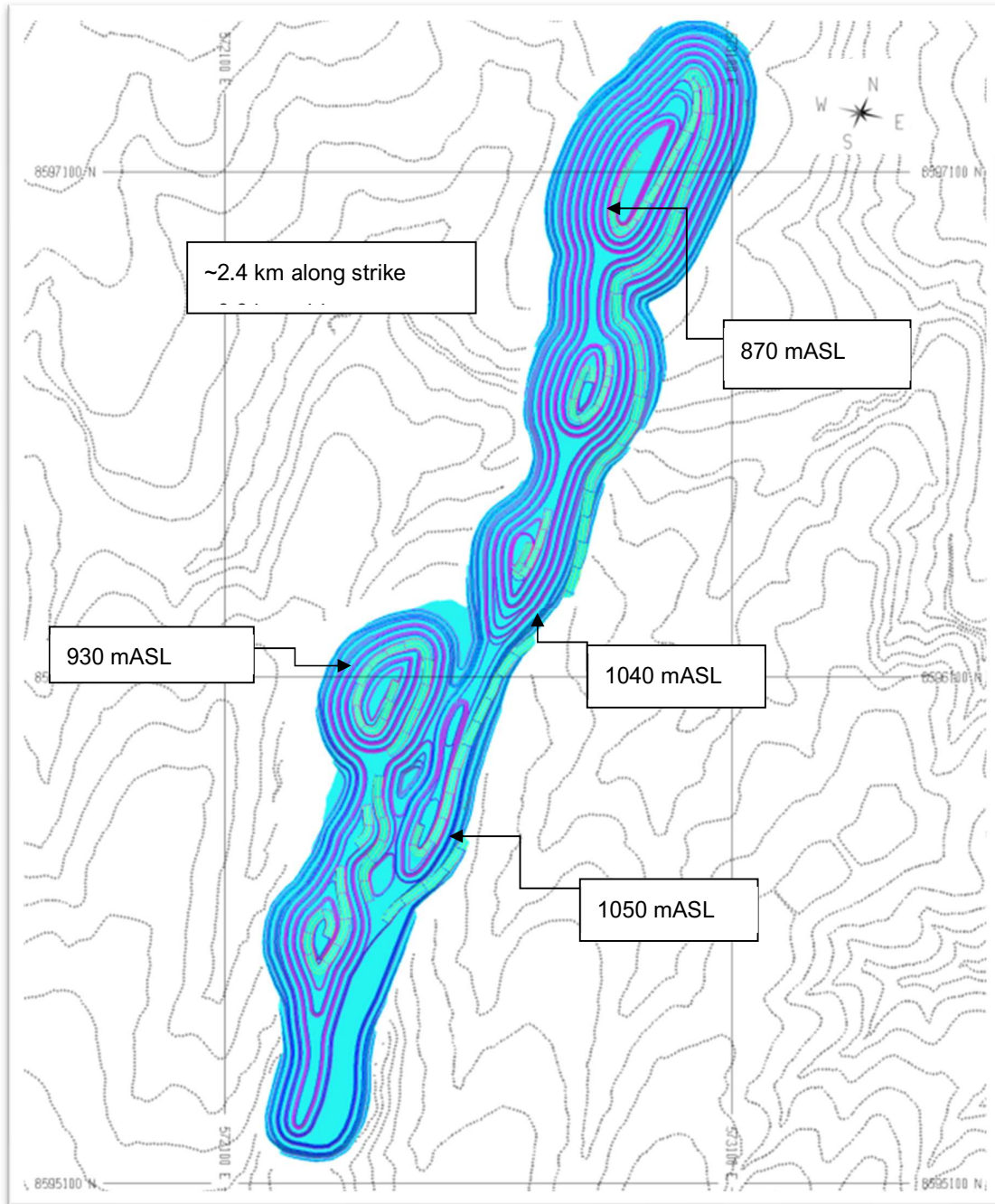


**Table 1-12: Stage Inventory**

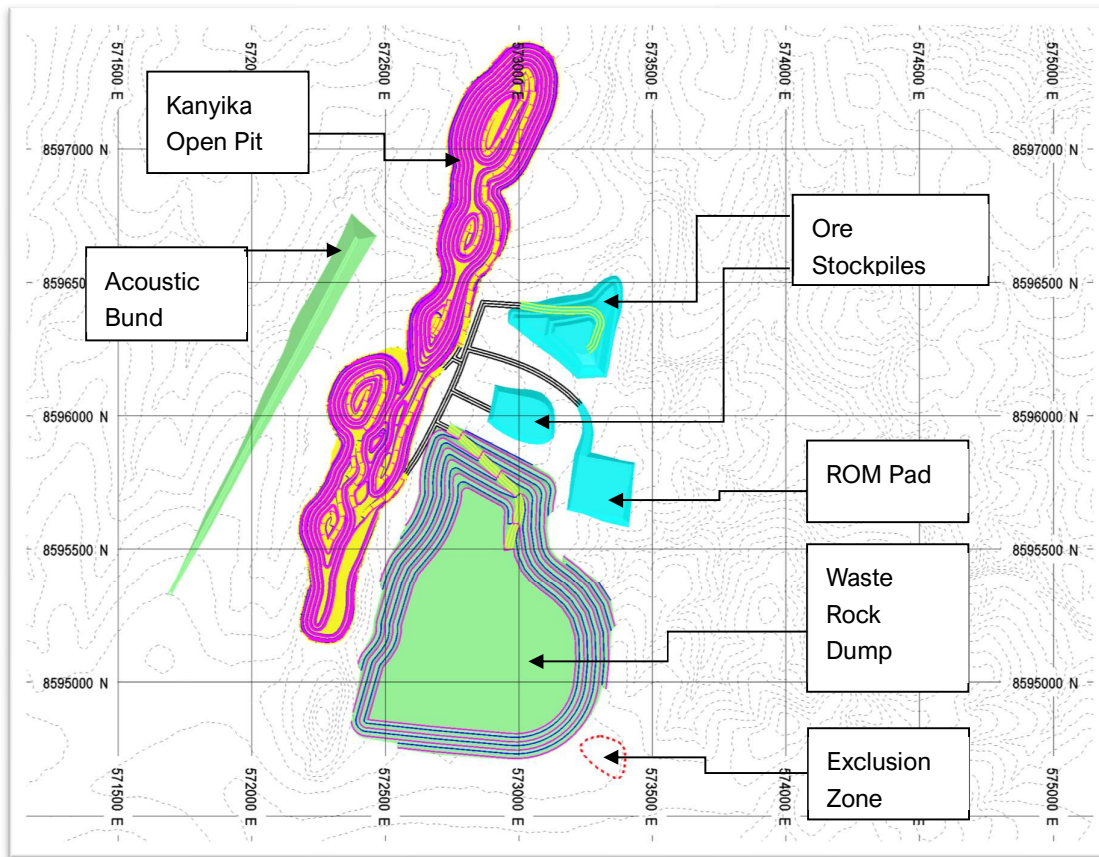
| Stage   | Total Material | Waste | Strip Ratio | Mill Feed |                                      |                                      |
|---------|----------------|-------|-------------|-----------|--------------------------------------|--------------------------------------|
|         |                |       |             | Tonnes    | Nb <sub>2</sub> O <sub>5</sub> Grade | Ta <sub>2</sub> O <sub>5</sub> Grade |
|         | [Mt]           | [Mt]  | [w:o]       | [Mt]      | [ppm]                                | [ppm]                                |
| North 1 | 4.47           | 2.84  | 1.7         | 1.63      | 4,446                                | 206                                  |
| North 2 | 3.37           | 1.39  | 0.7         | 1.98      | 3,435                                | 156                                  |
| North 3 | 43.37          | 32.49 | 3.0         | 10.88     | 3,194                                | 140                                  |
| South 1 | 2.03           | 0.36  | 0.2         | 1.67      | 3,565                                | 165                                  |
| South 2 | 4.14           | 2.56  | 1.6         | 1.59      | 3,301                                | 132                                  |
| South 3 | 4.31           | 1.64  | 0.6         | 2.67      | 2,787                                | 129                                  |
| South 4 | 20.85          | 9.86  | 0.9         | 10.99     | 2,680                                | 133                                  |
| South 5 | 4.50           | 2.15  | 0.9         | 2.35      | 2,589                                | 134                                  |
| Total   | 87.05          | 53.29 | 1.6         | 33.76     | 3,050                                | 142                                  |

**Figure 1-12: Overview of Final LOM Pit Design**



Waste dumps, ROM pads and stockpiles have also been designed to be geotechnically stable and safe over the life of the operation and are illustrated in Figure 1-13. This also includes the management of any potential acid forming waste.

**Figure 1-13: Kanyika Project Mine Layout**



### 1.3.6 Mineable Reserve Summary

On completion of the final mine design, the total Mineral Reserve of 33.8 Mt @ 3,050ppm Nb<sub>2</sub>O<sub>5</sub> and 142ppm Ta<sub>2</sub>O<sub>5</sub> was determined for the Project and is highlighted in Table 1-13.

**Table 1-13: Ore Reserve Statement (as of March 2026)**

| Classification | Tonnes [Mt] | Nb <sub>2</sub> O <sub>5</sub> [ppm] | Ta <sub>2</sub> O <sub>5</sub> [ppm] |
|----------------|-------------|--------------------------------------|--------------------------------------|
| Proved         | 5.1         | 3,682                                | 171                                  |
| Probable       | 28.7        | 2,938                                | 136                                  |
| Total          | 33.8        | 3,050                                | 142                                  |

A Niobium Pentoxide price of USD 58.00/kg and a Tantalum Pentoxide price of USD 250.00/kg were applied as the economic assumptions underpinning the pit optimisation process. The ultimate pit limits were derived from the optimisation shell corresponding to a revenue factor of 0.58. Cut-off grades used for the reporting of Mineral Reserves were determined using the same metal price assumptions of USD 58.00/kg for Nb<sub>2</sub>O<sub>5</sub> and USD 250.00/kg for Ta<sub>2</sub>O<sub>5</sub> to ensure consistency between the optimisation inputs and reserve estimation parameters.

Proved Reserves 15%, Probable Reserves 85%. Note there is no INFERRED resources contained in the Mineral Reserves.

The reported Mineral Quantities have been compiled by Mr. Ryan Locke. Mr. Locke is a Member of the Australasian Institute of Mining and Metallurgy and an employee of Oreology Consulting. He has sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking, to qualify as a Competent Person as defined in the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves' of December 2012 ("JORC Code") as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia. Mr. Locke gives Globe Metals and Mining Limited consent to use this Reserve estimate in reports and public announcements.

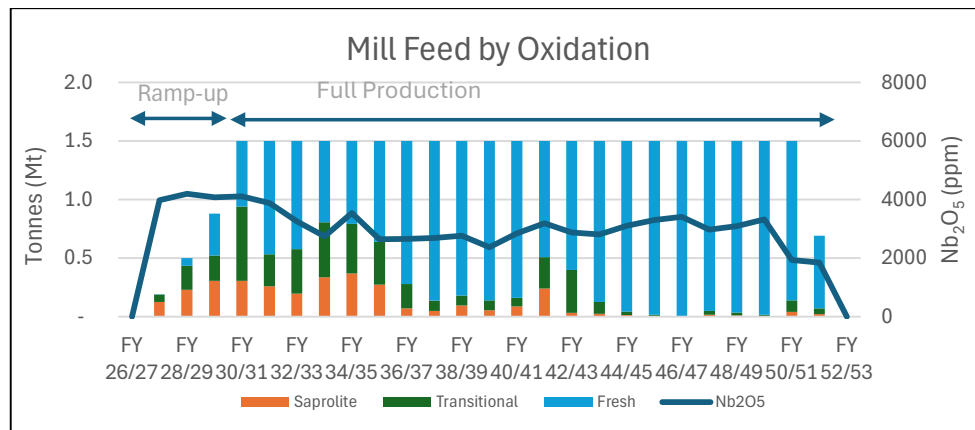
### 1.3.7 Mine Production Schedule

The principal objectives of the mine production schedule are to:

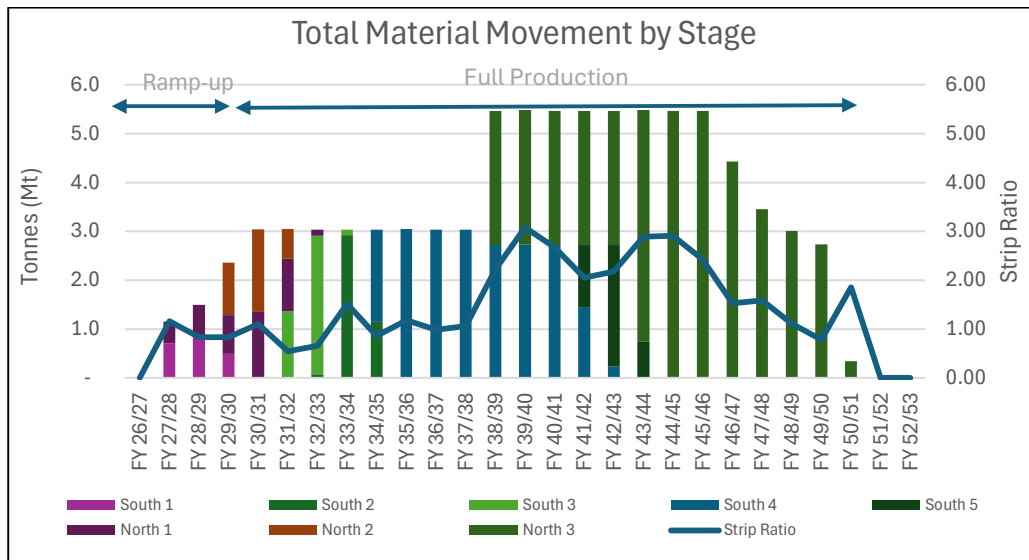
- Increase the head grade early in the schedule.
- Meet the process plant ore feed requirement.
- Defer waste movement as much as possible; and
- Maintain a smooth truck fleet profile with no spikes in equipment requirements.

The Kanyika schedule aims to achieve an initial plant feed rate of 500 ktpa while minimising material movement and costs for the first 24 months. With the start of planned plant expansion in January 2030, the feed rate increases to 1.5 Mtpa, prioritising only the highest-grade ore per strategic scheduling optimisation guidelines. As shown in Graph 1-2, ore production starts low, reaching full capacity in year 4 and maintaining 1.5 Mtpa until the mine's end in FY51/52. The Nb<sub>2</sub>O<sub>5</sub> process feed grade is notably higher in the first five years due to the cut-off policy being applied to the plant feed. The required material movement to meet the mill feed demand is shown in Graph 1-3 below.

**Graph 1-2: Production Schedule**



**Graph 1-3: Mine Production Schedule – Summary**



Key outcomes from this schedule include:

- Commencing in July 2027, a pre-production window of 6 months has been considered to allow for the initial development works including provision of waste for the plant foundations and the ROM pad. A total of 462 kt of rock including 108.1 kt of ore is mined during the pre-production window.
- The 108.1 kt of ore mined during the pre-production window will be utilised as plant commissioning material in January 2028.
- A total of 87.1 Mt of rock including 33.8 Mt of ore to be processed over a 25 year mine life.
- Material movement for the first 8 years, excluding the ramp-up period, is maintained at 3.0 Mtpa, before increasing to 5.5 Mtpa between FY38/39 to FY45/46. From FY46/47 onwards, material movement steadily decreases, with the final year of mining in 2051.
- Mining initially commences within the pit stage North 1 during the dry season alternating to South 1 during the wet season (Nov-May).
- North 1 has an initial higher strip ratio compared to South 1, however as the average grade is higher, the value generated per tonne is higher than South 1.
- South 1 provides a high value and low strip ratio location for mining during the wet season.
- All the initial stages (South 1-3 and North 1-2) are completed by 2035, i.e. 8 years from mining commencement.
- The lowest value ranked North 3, is delayed as long as possible, and only commences mining in 2039, 12 years after commencement of the operation.
- Nb<sub>2</sub>O<sub>5</sub> and Ta<sub>2</sub>O<sub>5</sub> grades for the first 4 years, are significantly higher than the model average. This increase in feed grade is intended to produce additional product during the payback period and therefore aims to increase the project NPV.
- Except for the initial period where processed tonnes are 0.5 Mtpa, the plant feed is maintained at 1.5 Mtpa from 2030 to 2051 before reducing in the final year to exhaust all remaining stocks.

- Fresh material makes up ~50% of the feed tonnes for the first 8 years of the fully expanded mine before the ratio of fresh material increases as the oxides and transitional materials are depleted.

A final year of stockpile rehandle occurs in 2051 to deplete the remaining stockpiled material.

### 1.3.8 Mine Cost Estimation

Note all costs shown in these tables are as of March 2025. The overall financial model will escalate these costs to 2026 terms.

Mining costs in Table 1-14 are based on the January 2025 mine contractor estimate. The preferred mining contractor will be supported by the owner's team which will provide the management and technical capability. The battery limit for the cost estimate is effectively the ROM, and the estimate includes allowance for:

- Haul road building.
- ROM Pad construction – Fill material only.
- Load and Haul.
- ROM Pad Management.
- Drill and Blast.
- Mining Contractor Management Fees.
- Grade control.
- De-watering and water management.
- WRD rehabilitation.

The cost of the Owners Mining Team personnel including management, technical, operations, administration and maintenance are carried in the mine Administration budget and are included within the GMMA financial cost model.

**Table 1-14: Mine Operating Unit Costs by Category**

| Category               | \$/t mined | Total \$M | % of total |
|------------------------|------------|-----------|------------|
| Load & Haul            | \$2.10     | \$182.51  | 44%        |
| Drill and Blast        | \$1.44     | \$125.63  | 31%        |
| Contractor Fixed Costs | \$0.52     | \$45.28   | 11%        |
| Ore Rehandle           | \$0.15     | \$13.11   | 3%         |
| Grade Control          | \$0.42     | \$36.59   | 9%         |
| Dewatering             | \$0.08     | \$7.20    | 2%         |
| Total                  | \$4.71     | \$410.32  | 100%       |

The capital costs as summarised in Table 1-15 attributable to mining will primarily comprise the following items:

- Mobilisation/Establishment – Mining contractor mobilisation and site setup.

- Haul road construction – primary haul roads from pit crest to ROM, Waste Dumps and Stockpiles.
- Clearing, grubbing and topsoil removal – removal of vegetation and separation of topsoil.

**Table 1-15: Capitalised Mining Costs**

| Cost Centre                                  | Total \$M |
|----------------------------------------------|-----------|
| Mobilisation/establishment                   | \$1.34    |
| Haul road construction and Topsoil Stripping | \$1.54    |
| Sub-total                                    | \$2.88    |
| Rehabilitation / WRD Reshaping (closure)     | \$0.15    |
| Total                                        | \$3.03    |

The aggregate mining costs for the LOM, excluding fixed costs attributable to the owners team, are presented in Table 1-16. The cumulative capital and operational expenditure over the 25-year mine duration amounts to USD \$413 million, reflecting the anticipated budget for all mining activities, including mobilisation, establishment, haul road construction, topsoil stripping, rehabilitation, and waste rock dump WRD reshaping at closure.

**Table 1-16: Total Mining Costs**

| Description            | Allocated | Unit    | Total \$M |
|------------------------|-----------|---------|-----------|
| Mobilisation           | Capex     | USD (M) | \$0.74    |
| Establishment          | Capex     | USD (M) | \$0.60    |
|                        |           |         |           |
| Monthly Management Fee | Opex      | USD (M) | \$45.28   |
| Drill & Blast          | Opex      | USD (M) | \$125.63  |
| E,L,H & D - Ore        | Opex      | USD (M) | \$74.16   |
| E,L,H & D - Waste      | Opex      | USD (M) | \$108.35  |
| Stockpile Reclaim      | Opex      | USD (M) | \$7.96    |
| FEL Rehandle           | Opex      | USD (M) | \$5.15    |
| Grade Control          | Opex      | USD (M) | \$36.59   |
|                        |           |         |           |
| Clearing And Grubbing  | Capex     | USD (M) | \$0.49    |
| Topsoil Management     | Capex     | USD (M) | \$0.97    |
| Road Construction      | Capex     | USD (M) | \$0.08    |
| Pit Dewatering         | Opex      | USD (M) | \$7.20    |
| Rehabilitation         | Capex     | USD (M) | \$0.15    |
| Total                  |           | USD (M) | \$413.35  |

### 1.3.9 Alternative Mining Scenario – Tailings Co-Disposal

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As part of the mining component for KNP, Oreology was requested to produce an alternative mine production schedule and mining cost estimate based on the potential for co-disposal of the tails within the WRD. The co-disposal scenario is intended to provide a high-level trade-off between the dedicated wet tails dam option (base case) and dry tails being co-disposal within the WRD.

It is noted that the data inputs for the co-disposal tails scenario have not been finalised to a BFS level of accuracy. Consequently, the modelling outputs are indicative and should be considered exclusively for Globe's financial trade-off analysis currently underway. Furthermore, the outcomes derived from this alternate development scenario do not impact the base case results or the Ore Reserve statement, thereby preserving the validity and robustness of the Ore Reserve estimation process.

The co-disposal option is designed to offer an alternative method for managing tailings waste generated by process facilities. Under the co-disposal scenario, tailings are encapsulated within the WRD, thereby eliminating the requirement for a conventional wet tailings storage facility. To facilitate safe disposal, the tailings material undergoes dewatering to achieve a reduced moisture content suitable for mechanical rehandling by the mine haulage fleet. The dewatered tailings are then transported and placed into encapsulation cells within the WRD, ensuring containment and minimising environmental risk.

The principal cost drivers influencing the mining schedule are as follows:

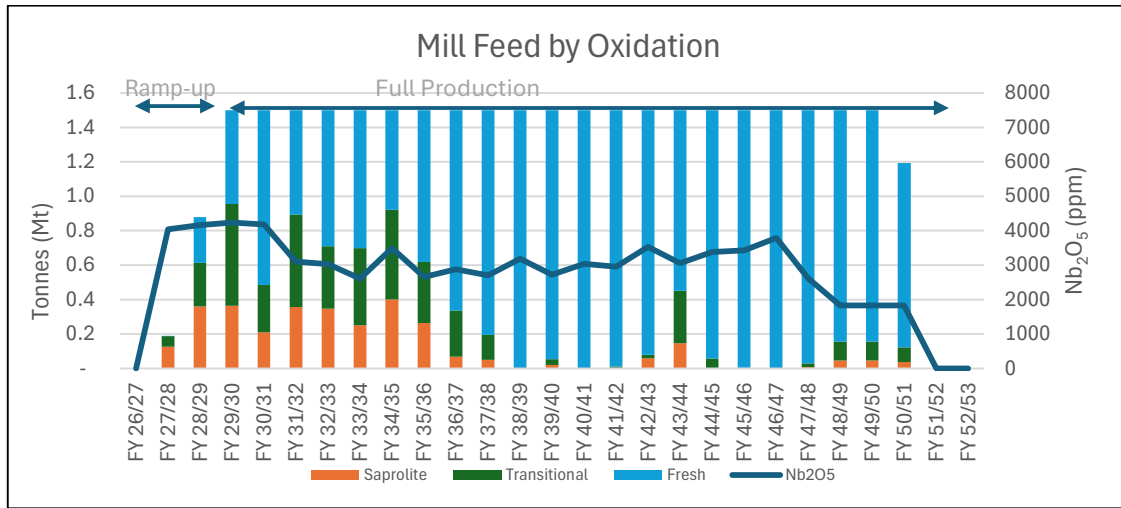
- A 63% increase in the WRD capacity is essential to accommodate the deposition of tailings.
- Extension in the mean waste haulage distance from the open pit will result in elevated unit mining costs attributable to increased fuel consumption and cycle times.
- Additional haulage expenditure will be realised for haulage of tailings from the processing plant to the WRD.
- Scheduling of waste extraction in advanced within the mine plan compared to the base case to ensure the timely availability of construction material necessary for the formation of WRD tailings cell embankments.
- Additional operating costs are anticipated for ancillary support equipment—including dozers, graders, and compactors—required for the placement and spreading of tailings material within the WRD.

Consistent with the base case schedule, the main goals for the mine schedule were to ensure the process plant feed rate of 1.5 Mtpa can be achieved whilst providing the highest-grade ore is selected for processing.

Graph 1-4 outlines the alternative mining schedule plant feed rate ramps up to full production by April 2029. Plant feed rate of 1.5 Mtpa is maintained until the end of mine life in 2051.

Graph 1-4 illustrates the Nb<sub>2</sub>O<sub>5</sub> process feed grade and when compared to the base case in Graph 1-3, the annual average feed grade is similar between the two scenarios.

**Graph 1-4: Ore Production Schedule – Co-Disposal**



Graph 1-5 illustrates the required material movement to meet the above mill feed demand including the additional waste requirements for the co-disposal. When compared to the base case schedule in Graph 1-4 outlines the alternative mining schedule plant feed rate ramps up to full production by April 2029. Plant feed rate of 1.5 Mtpa is maintained until the end of mine life in 2051.

Graph 1-4 illustrates the Nb<sub>2</sub>O<sub>5</sub> process feed grade and when compared to the base case in Graph 1-3, the annual average feed grade is similar between the two scenarios.

Graph 1-4, the average mining rate over the first 10 years has increased by 1.5 Mtpa to 4.5 Mtpa, resulting in an additional 13.5 Mt moved during the 10 year window.

**Graph 1-5: Mine Production Schedule – Co-Disposal**

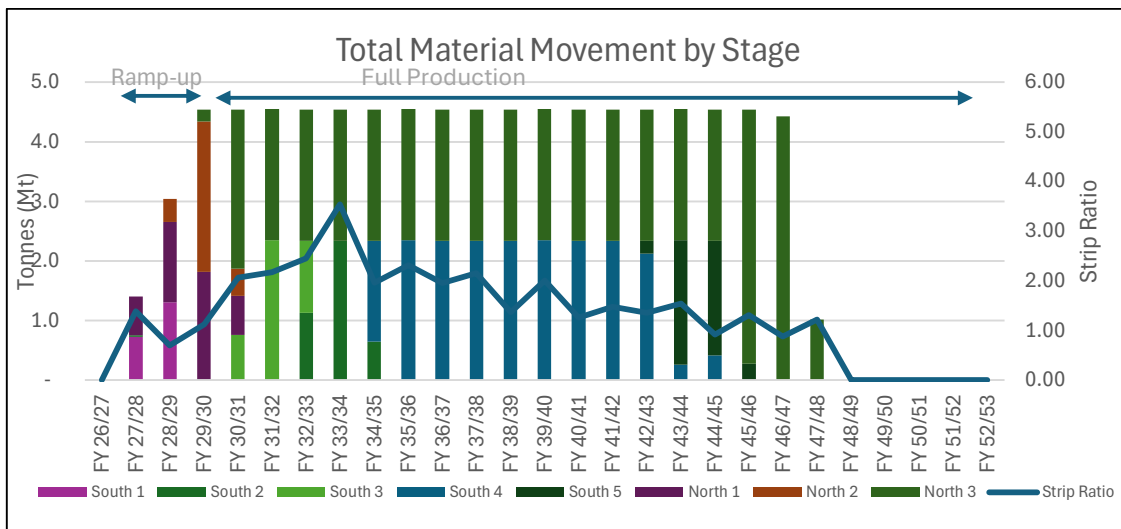


Table 1-17 contains the unit rates as reported from the alternative mine schedule produced. As can be seen, an additional waste overhaul allowance has been included in addition to the tail's haulage cost estimate.

**Table 1-17: Mine Operating Unit Costs by Category – Co-Disposal**

| Category               | \$/t mined | Total \$M | % of total |
|------------------------|------------|-----------|------------|
| Load & Haul            | \$2.13     | \$185.27  | 36%        |
| Drill and Blast        | \$1.44     | \$125.63  | 24%        |
| Contractor Fixed Costs | \$0.50     | \$43.47   | 8%         |
| Ore Rehandle           | \$0.21     | \$18.37   | 4%         |
| Tails Haulage          | \$1.20     | \$104.23  | 20%        |
| Grade Control          | \$0.42     | \$36.59   | 7%         |
| Dewatering             | \$0.07     | \$6.30    | 1%         |
| Total                  | \$5.97     | \$519.86  | 100%       |

The capital costs for the alternate scenario are summarised in **Error! Not a valid bookmark self-reference..** The increase in the WRD capacity results in an increase to the capital costs for clearing and rehabilitation when compared to the base case results in **Error! Not a valid bookmark self-reference..**

**Table 1-18: Capitalised Mining Costs – Co-Disposal**

| Cost Centre                                  | Total     |
|----------------------------------------------|-----------|
|                                              | Total \$M |
| Mobilisation/establishment                   | \$1.34    |
| Haul road construction and Topsoil Stripping | \$2.01    |
| Sub-total                                    | \$3.35    |
| Rehabilitation / WRD Reshaping (closure)     | \$0.24    |
| Total                                        | \$3.59    |

### 1.3.10 Further Work

It is estimated the mining operation will commence in July 2028, allowing approximately two years to engage with suitably qualified mining contractors to develop the Mine Services Agreement (MSA). Of the three short listed contractors requested to provide detailed submissions, only two were received, with the third contractor failing to meet the deadline. Therefore, it is recommended that the market is re-tested in H2 2026 once the 2026 BFS has been announced.

A range of mining value improvement initiatives have been identified as detailed below:

- If the financial trade-off analysis between the wet tailings and co-disposal tails options indicates a technically and economically advantageous outcome for the co-disposal scenario, it will be necessary to revise and update all relevant design parameters, operational assumptions, and material balance inputs to enable progression of the co-disposal strategy to the BFS stage. This update should incorporate detailed engineering specifications, geotechnical assessments, and operational logistics to ensure the encapsulation process within the WRD meets BFS level requirements for safety, environmental compliance, and project viability.
- The potential to increase geotechnical slope angles exists because early pit stages expose ground conditions, allowing these observations to inform the final slope design parameters of the ultimate pit

- The option to backfill areas of the final pit may decrease the footprint of the WRD, and address potential environmental concerns.
- After 7 years of contract mining, there is an option to switch to owner mining, with the potential of acquire contractors mining fleet at the end of the contract term.

## 1.4 Metallurgical Processing

### 1.4.1 Metallurgical Testwork Summary

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#### 1.4.1.1 Introduction

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Metallurgical testwork for the Kanyika Niobium Project has been undertaken over an extended period from approximately 2007 through to 2023. The program has progressed through a series of targeted phases, each addressing specific technical uncertainties and progressively refining the process flowsheet.

The development of the flowsheet reflects an increasing understanding of mineral deportment, particularly the interaction between pyrochlore and zircon, together with a strong focus on improving niobium recovery, concentrate quality, and downstream refinery efficiency. Each phase of testwork has contributed directly to the final process configuration, which represents an integrated and optimised solution.

#### 1.4.1.2 Early Testwork (Pre-2014) – Establishment of Flotation-Based Recovery

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Initial metallurgical investigations focused on mineralogical characterisation, comminution behaviour, and the identification of a suitable beneficiation route. This work established that pyrochlore is the primary niobium-bearing mineral and that flotation is an effective method for its recovery. The mineralisation was found to exhibit relatively fine liberation characteristics, necessitating fine grinding for effective recovery. A two-stage flotation flowsheet was developed and tested on small-scale borehole samples.

#### 1.4.1.3 2013 Study Testwork – Sample Selection and Drill Hole Locations

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Eleven HQ diamond holes were drilled to access ore for metallurgical and comminution testwork. In addition, core from geotechnical holes was utilised to provide broader geographical coverage of the resource. These holes penetrated to approximately 45 m depth from surface and were considered representative of the first 5 to 10 years of operation. The geotechnical holes extended to greater depths and were used to generate samples for compressive strength testing.

#### 1.4.1.4 Ore Characteristics and Mineralogy

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Kanyika mineralisation occurs in weathered granitoid host rock comprising Saprock, Transition, and Fresh ore zones. Pyrochlore hosts virtually all niobium, tantalum, and uranium and occurs as fine crystals, typically below 100 µm. This mineral is softer than the surrounding gangue, requiring controlled milling to achieve effective liberation without excessive overgrinding.

Variability testing confirmed that, once oxidation effects are accounted for, metallurgical behaviour is consistent across the orebody. Liberation size targets and flotation response are predictable, allowing a single integrated flowsheet to treat all ore types without selective processing.

Zircon is the principal diluent mineral. Its removal ahead of pyrochlore flotation is essential to achieving acceptable concentrate grade and controlling downstream refinery reagent consumption.

#### 1.4.1.5 *Materials Handling*

Bulk solids handling testwork was undertaken by TUNRA to define bin, stockpile, and chute design parameters, particularly for clay-rich Saprock material.

Key outcomes incorporated into the design include:

- Stockpile angle of repose: 35°
- Conservative ROM bin design angle: 70°
- Natural moisture above dust extinction threshold
- Fresh ore bulk density: 1.6–1.8 t/m<sup>3</sup>
- Saprock exhibits moderate flow difficulty at intermediate saturation

These parameters ensure reliable operation across seasonal moisture variation and ore blending conditions.

#### 1.4.1.6 *GZRINM 40t Pilot Program – Reagent Optimisation and Scale Validation*

A 40 t bulk sample program undertaken at GZRINM (Guanzhou Research Institute for Non-ferrous Metals) represented the first large-scale validation of the flotation flowsheet and was primarily aimed at optimising the reagent scheme and confirming metallurgical performance under continuous operating conditions.

All run-of-mine material was milled to a particle size of less than 100 µm, with desliming carried out using a single 100 mm hydrocyclone. Under these conditions, the revised flotation reagent scheme reduced the total number of reagents from 13 to 10, improving operability while maintaining performance. The pilot program achieved a concentrate grade of approximately 25% Nb<sub>2</sub>O<sub>5</sub> at an overall niobium recovery of approximately 75%, which is considered a strong result given the relatively simple classification configuration. This performance was demonstrated over a wide range of ROM grades, from approximately 2 800 ppm to 9 000 ppm Nb<sub>2</sub>O<sub>5</sub>, indicating applicability across the life of mine.

It was recognised that slimes losses in the order of 5% to 9% were incurred due to single-stage desliming and that the introduction of a two-stage desliming circuit would significantly reduce these losses and improve overall recovery.

Zircon recoveries during the pilot program varied between approximately 20% and 60% across extended runs. However, zircon recovery was not a focus of the program and was not optimised. Notwithstanding this, the pilot work clearly demonstrated that zircon consistently reports with pyrochlore and acts as a significant diluent in the niobium concentrate.

This phase confirmed the robustness of the flotation process at scale and highlighted two key areas for further optimisation: reduction of slimes losses and management of zircon within the flowsheet.

#### 1.4.1.7 *Single-Stage Flotation Development – Reagent Simplification and Selectivity*

Subsequent work in 2020 led by Dr Lahiru Basnayaka focused on further refinement of the flotation system, particularly with respect to reagent chemistry and circuit simplicity. Composite samples were prepared from drill core to represent different mining periods as well as a life-of-mine composite. This

work included over 60 batch tests and four locked-cycle tests. Batch flotation results showed rougher recoveries as high as 87% vs the ~75%.

The reagent suite was successfully reduced from 10 to just 4 reagents, representing a significant simplification of the flowsheet while improving selectivity. For a long period single stage flotation was the selected flotation process due to the lower reagent cost.

While improved niobium recoveries were achieved, it became evident that at lower ROM head grades, recoveries declined. This was partly attributed to the continued presence of zircon in the flotation system which diluted the concentrate and adversely affected flotation performance. In addition, some losses were attributed to milling of drill core samples to -150 µm and not -100 µm. It is believed that this may not have achieved optimal liberation of pyrochlore, particularly at lower grades.

This phase demonstrated that, while a highly selective and efficient flotation system could be developed, the presence of zircon and insufficient liberation remained limitations to achieving consistent high recoveries and concentrate grades.

#### *1.4.1.8 2023 Bulk Sample Program (10t) – Integrated Flowsheet Optimisation*

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The 2023 bulk sample program, based on approximately 10 t of material, represents the culmination of the metallurgical development program and the integration of multiple process improvements into a single flowsheet.

A key outcome of this phase was the evaluation of an EDS horizontal multi-shaft impactor as an alternative to conventional SAG milling. The EDS unit demonstrated a significantly lower specific energy consumption of ~ 2.1 kWh/t for a single pass, compared to >8 kWh/t for a conventional SAG mill. In addition, operation in closed circuit with a 2 mm screen resulted in approximately 21% of the crushed ROM reporting to a size of <150 µm, corresponding to the target ball mill product size. This reduced the ball mill size by ~20%, with associated capital and operating cost benefits.

Gravity separation using spirals for the +45 µm fraction and multigravity separation (MGS) were initially evaluated as a means of recovering niobium. This work confirmed unacceptable niobium losses to tailings and that niobium could not be selectively separated from zircon using gravity alone. As a result, gravity was ruled out as a suitable primary recovery method under a niobium-only, single-stage flotation strategy.

A fundamental shift in flowsheet philosophy occurred when zircon was formally reincluded as a saleable by-product. This enabled gravity separation to be reintroduced as a pre-concentration stage targeting a combined heavy mineral fraction. Under this approach, approximately 85% of ROM zircon was concentrated into approximately 12% of ROM mass. This significant mass reduction allowed the subsequent zircon flotation circuit to be substantially smaller, resulting in lower reagent consumption and reduced capital cost. This was in comparison to treating the full milled ROM stream as undertaken in the GZRINM pilot program.

The spiral concentrate was further subjected to vertical stirred milling (VSM) to a target size of <106 µm. This step serves both to “polish” the zircon (to ultimately produce a higher grade zircon product) and to liberate pyrochlore from heavy mineral composites. This improves the efficiency of the pyrochlore flotation stage.

Zircon is recovered in a dedicated flotation stage, while all remaining material, including zircon flotation tailings, spiral tailings and MGS tailings, are consolidated and treated in a subsequent pyrochlore flotation circuit.

Importantly, the simplified and highly selective four-reagent flotation scheme developed during the single-stage flotation work was retained for the pyrochlore flotation circuit. The Aero OX-101 collector

demonstrated particularly strong selectivity towards pyrochlore. This ensures both operational simplicity and high selectivity in the final recovery stage.

#### 1.4.1.9 Overall Process Improvements

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The integration of zircon flotation, gravity pre-concentration, regrinding, and improved desliming into the flowsheet has resulted in several key improvements. Removal of zircon prior to pyrochlore flotation reduces dilution of the niobium concentrate, resulting in higher concentrate grades and improved flotation performance. The adoption of two-stage desliming reduces losses of fine niobium-bearing material, while regrinding of spiral concentrate enhances liberation and recovery.

Collectively, these improvements result in an overall niobium recovery of ~80% at a concentrate grade of ~26% Nb<sub>2</sub>O<sub>5</sub> resulting in reduced mass pull to concentrate, and improved downstream refinery efficiency through reduced acid consumption and lower residue generation.

#### 1.4.1.10 Conclusions

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The metallurgical testwork program demonstrates a clear and logical progression from initial flotation-based recovery through to a fully integrated and optimised flowsheet. Early work established flotation as the primary recovery mechanism, while pilot-scale testing confirmed its scalability and highlighted milling to liberation size and the impact of zircon as a diluent. Subsequent reagent optimisation improved selectivity and reduced circuit complexity, but also reinforced the need for zircon removal.

The final flowsheet incorporates gravity pre-concentration, targeted regrinding, zircon flotation, and consolidated pyrochlore flotation, together with improved comminution efficiency using three-stage crushing incorporating EDS impactor technology. This integrated approach delivers improved niobium recovery, higher concentrate grades, and reduced operating and capital costs.

### 1.4.2 Comminution Circuit

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Comminution design is based on extensive Bond, abrasion and SMC testing across oxidation zones. Ore competency increases with depth but remains within a manageable hardness envelope.

The selected circuit incorporates staged crushing followed by ball milling to a P100 of approximately 150 µm (P80 ~113–118 µm). This grind size is a deliberate compromise between energy efficiency and mineral liberation and was validated during pilot testing. The ore exhibits an unusual comminution signature characterised by a low rod mill work index (RWI) and a comparatively high ball mill work index (BWI), indicating that coarse breakage is relatively easy while fine grinding requires higher energy input. Average measured values are approximately 9 kWh/t for RWI and 17 kWh/t for BWI, and these parameters were used directly in circuit sizing and power modelling.

Earlier studies selected a SAG-based grinding circuit because it represented the most robust commercial option available at the time. However, since 2016 the development of the EDS horizontal shaft impactor has provided a viable alternative capable of achieving controlled coarse breakage with lower capital and operating intensity. This technology was not available when the original SAG mill selection was made.

Full-scale testwork was undertaken on a 10 t bulk sample using a production-sized EDS machine. The impactor achieved a specific energy consumption of ~2.1 kWh/t on a once-through basis. When the circuit was closed over a 2 mm screen, ~21% of the product reported directly below 150 µm, effectively bypassing the ball mill entirely. This early generation of flotation-ready fines materially reduces downstream grinding duty and allows installation of a smaller ball mill, resulting in a significant reduction in both capital cost and installed grinding power.

Compared to a SAG-based alternative, the adopted configuration provides:

- improved liberation control
- reduced overgrinding of soft pyrochlore
- lower installed power
- reduced capital intensity
- simpler maintenance
- partial bypass of ball milling duty

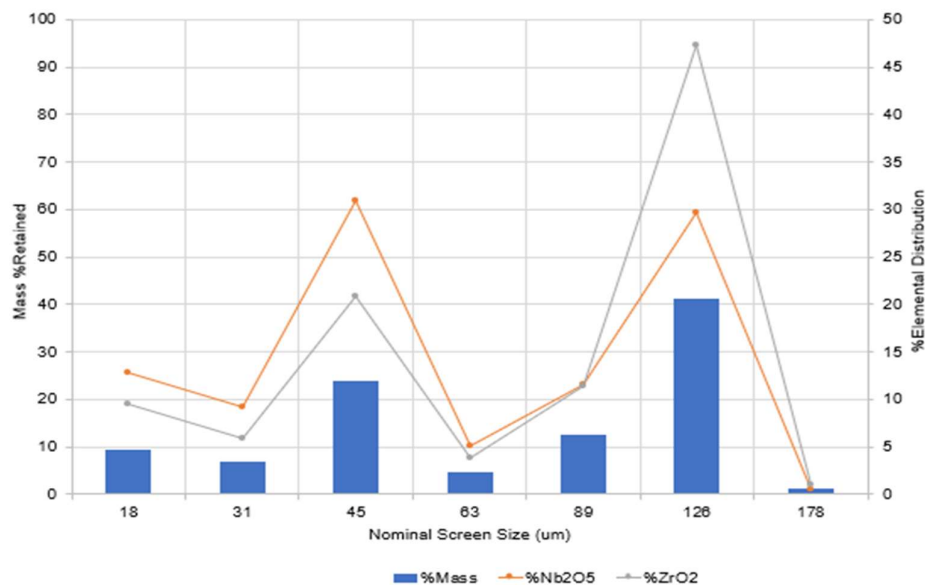
The comminution circuit is specifically tuned to prepare the feed for selective classification and gravity upgrading rather than attempting full liberation in a single grinding stage.

### 1.4.3 Classification, Magnetic Separation, Gravity Upgrade and Selective Regrind

Following ball milling, the mill discharge is classified into two approximately equal mass fractions around a 45 µm cut size. This classification step is fundamental to the concentrator design, enabling selective gravity upgrading while limiting unnecessary overgrinding and ensuring effective liberation of pyrochlore.

The +45 µm fraction passes through a two-stage low intensity magnetic separation (LIMS) circuit prior to spiral concentration. Pilot-scale spiral testwork operating under continuous conditions produced a concentrate representing approximately 10% of ROM mass, capturing roughly 85% of the +45 µm zircon and approximately 50% of contained Nb<sub>2</sub>O<sub>5</sub>.

**Graph 1-6: Bimodal Particle Size Distribution**



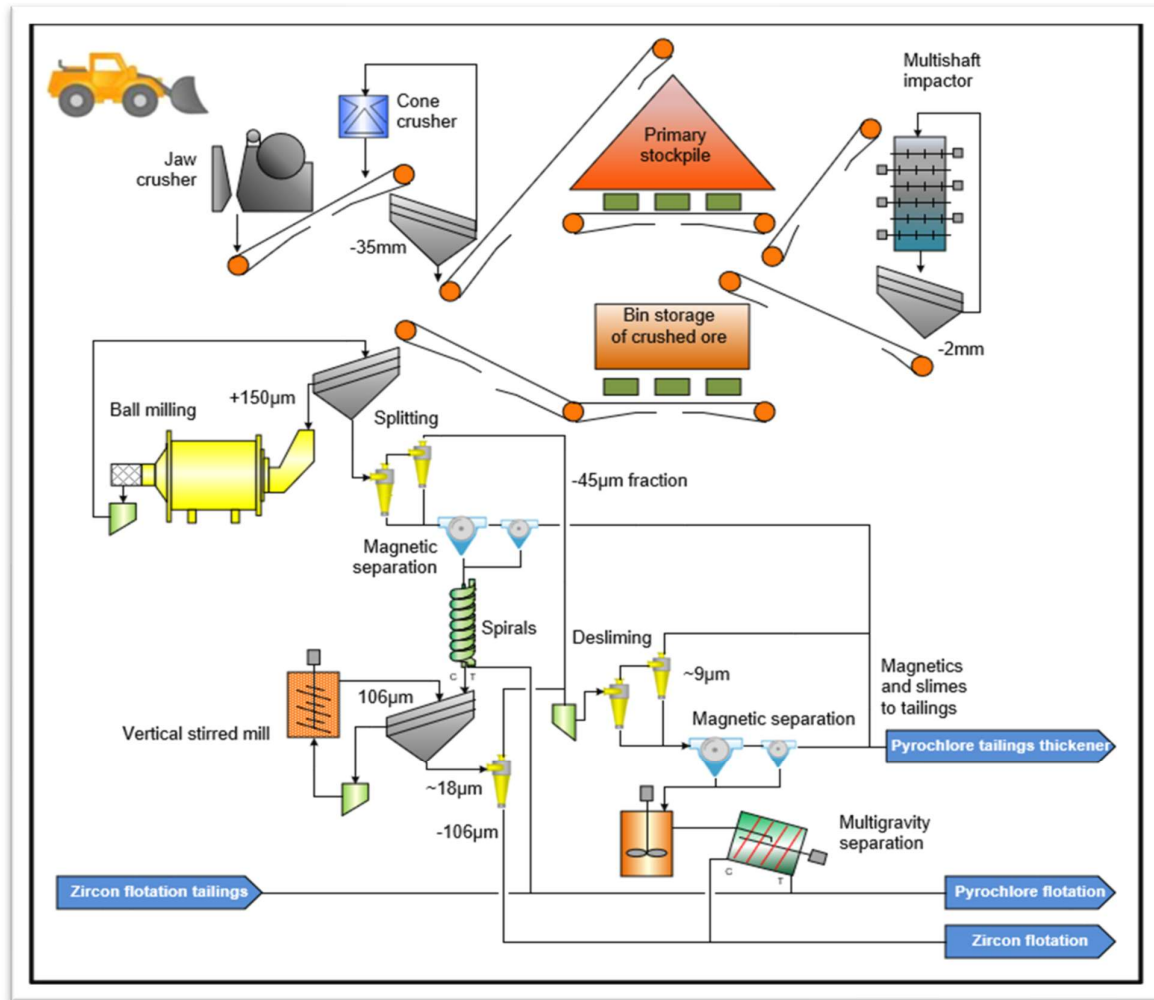
Combined gravity products exhibit a bimodal size–assay distribution, with a coarse zircon-enriched fraction containing locked pyrochlore. To reduce niobium loss, a vertical stirred mill (VSM) in closed

circuit with a 106 µm classification screen selectively regrinds the oversize fraction below 106 µm. Pilot testing confirmed that targeted regrinding liberates locked pyrochlore and materially improves downstream flotation recovery.

The –45 µm fraction is deslimed and passes through a two-stage LIMS circuit before multigravity separation (MGS). MGS testing demonstrated >91% zircon recovery and approximately 72–74% Nb<sub>2</sub>O<sub>5</sub> recovery into a gravity concentrate representing 12–15% of ROM mass.

These integrated stages form a pre-concentration and liberation platform that enables efficient flotation.

**Figure 1-14: Crushing And Milling Circuit For Kanyika**



#### 1.4.4 Flotation

A total of 34 samples were selected from various sections of drill cores to assess the impact of ore variability on flotation. These selections generally corresponded with the fractions of drill cores selected to assess the impact of ore variability on comminution processes.

Historically, the flotation of niobium minerals requires at least two sequential flotation circuits to achieve >55% Nb<sub>2</sub>O<sub>5</sub> in the concentrate. GMMA undertook an extensive initial flotation testing regime to develop a flotation regime for Kanyika mineralisation based on commercially practiced and published flotation schemes. The complexity, number and quantity of reagents required for the initial scheme was extensive. It was unable to achieve the grades required to produce 65% ferroniobium.

In 2014, GZRINM was commissioned to undertake an optimisation test-work program. The key recovery-grade results indicated a global metallurgical recovery of ~75%, an improvement over the previous scheme and with a reduction in reagents from 13 to 10. GZRINM undertook a pilot plant campaign on a 40 t bulk sample collected from 3 different test sample pits at the Kanyika site. The concentrate grade and Nb<sub>2</sub>O<sub>5</sub> recovery were approximately 25% and 76% respectively. It was found that concentrate grades up to 35% could be produced at lower Nb<sub>2</sub>O<sub>5</sub> recoveries though these were still not suitable for ferroniobium production.

Regrettably, GZRINM zircon flotation only showed a poor 40% zircon recovery. Analysis of their reagent scheme showed that there was no zircon activator. Current day heavy mineral flotation flowsheets all include sodium fluoride as an activator. Given the poor results, it has been resolved to apply the latest flotation reagent scheme to zircon flotation. This includes using pre-gelatinised starch rather than site cooked starch and the inclusion of small amounts of carboxymethylcellulose (CMC). Starch and CMC have an affinity for pyrochlore. By “cloaking” the pyrochlore with these reagents, it is possible to selectively activate zircon while depressing pyrochlore. The expected results indicate that a zircon recovery of >70% is probable while limiting niobium loss to <1.5%. This reagent scheme will be optimised prior to commissioning.

In 2020, GMMA employed Dr Lahiru Basnayaka, a flotation specialist. Dr Basnayaka generated a Master Composite and eight composites from core selected to cover the life of mine in terms of depth. 60 batch flotation experiments and 18 four stage cleaner flotation tests were conducted to optimise the reagent scheme for the Master Composite (equivalent to life of mine). In the process of optimisation rougher recovery was improved to 87% from the 75% average previously reported. The Master Composite reagent scheme was then deployed on 8 different composites from various depths and locations and a trench sample. It proved to work on all the composites albeit with adjustments to dosage rates.

Given that the selectivity of the single stage collector, Aero OX-101, was particularly selective of pyrochlore, it was decided to use this reagent suite for the second stage pyrochlore flotation.

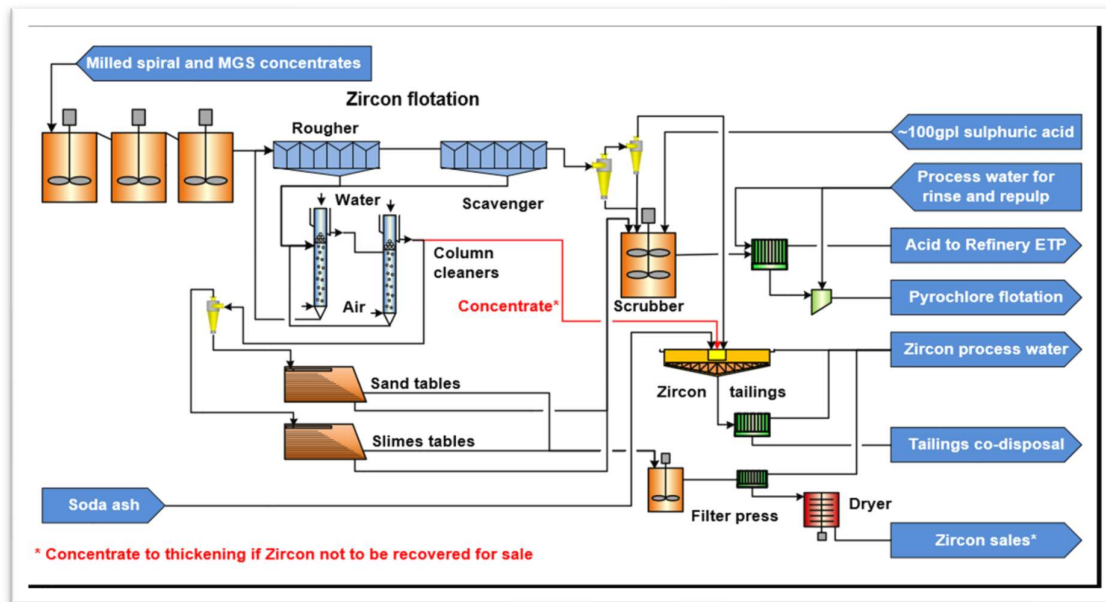
#### 1.4.5 Zircon Flotation

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Zircon flotation removes the principal diluent mineral ahead of pyrochlore flotation. Earlier GZRINM pilot work averaged only ~40% zircon recovery, allowing excessive zircon dilution of pyrochlore concentrate. Optimisation testing identified a modern reagent suite capable of achieving 70–75% zircon recovery while limiting niobium loss to <1.5% - see commentary above.

Because gravity pre-concentration routes most zircon into a small stream, the zircon flotation plant treats only ~12% of ROM mass. This stream contains approximately 85% of the zircon in the incoming ore, concentrating the majority of zircon into a compact flotation circuit while substantially reducing plant size and reagent consumption.

**Figure 1-15: Proposed Zircon Flotation Flowsheet**



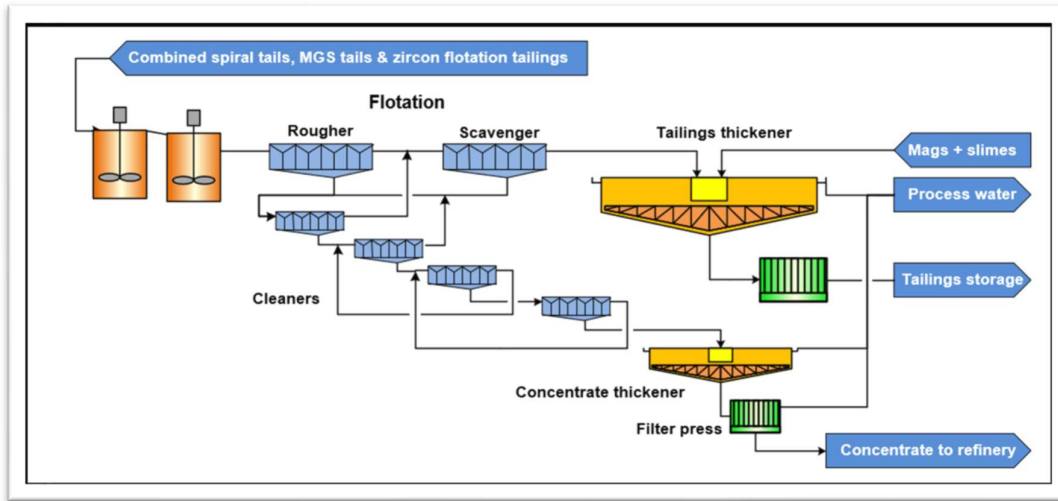
#### 1.4.6 Pyrochlore Flotation

Single-stage pyrochlore flotation optimisation testing identified a superior reagent suite that outperformed the earlier GZRINM chemistry. This optimised reagent system has been incorporated into the final staged circuit.

Based on locked-cycle and pilot testwork, the concentrator is expected to achieve approximately 80% niobium recovery to a flotation concentrate grading around 26% Nb<sub>2</sub>O<sub>5</sub>.

Tantalum recovery has consistently tracked approximately 1% to 1.5% lower than niobium. The additional loss is attributed to microlite, even though microlite has not been directly observed mineralogically, likely due to its extremely low abundance in the ROM ore.

**Figure 1-16: Proposed Pyrochlore Flotation Flowsheet**



#### 1.4.7 Overall Kanyika Concentrator Flowsheet

#### 1.4.8 Thickening and Water Recovery

High-rate thickening maximises process water recycle and stabilises tailings handling. Separate thickeners treat zircon tailings, pyrochlore tailings and concentrate.

Design targets:

- tailings underflow ~55% solids
- concentrate underflow ~50% solids
- overflow suitable for direct recycle

This minimises freshwater demand and improves site water balance.

#### 1.4.9 Plant Layout and Expansion

The concentrator is modular and expandable. Phase 2 duplicates proven process trains, reducing expansion risk and allowing operational optimisation from Phase 1.

**Figure 1-17: Overall Mine Layout**

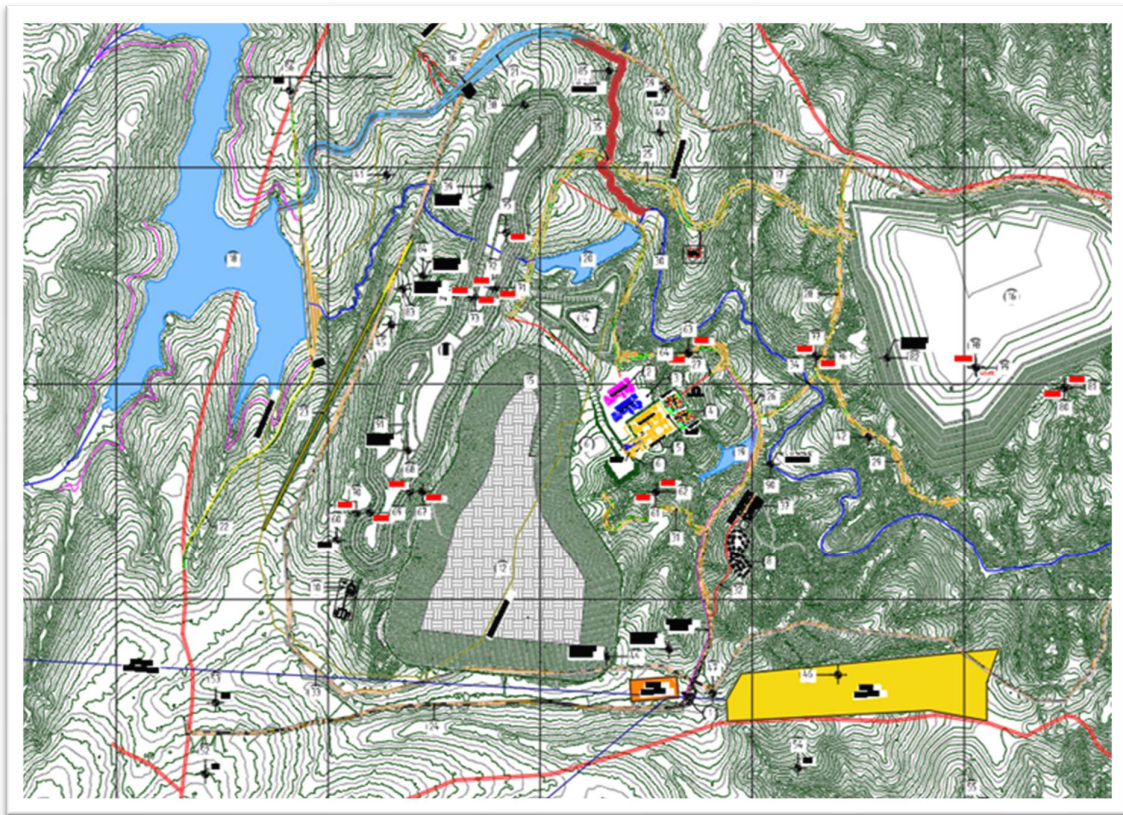
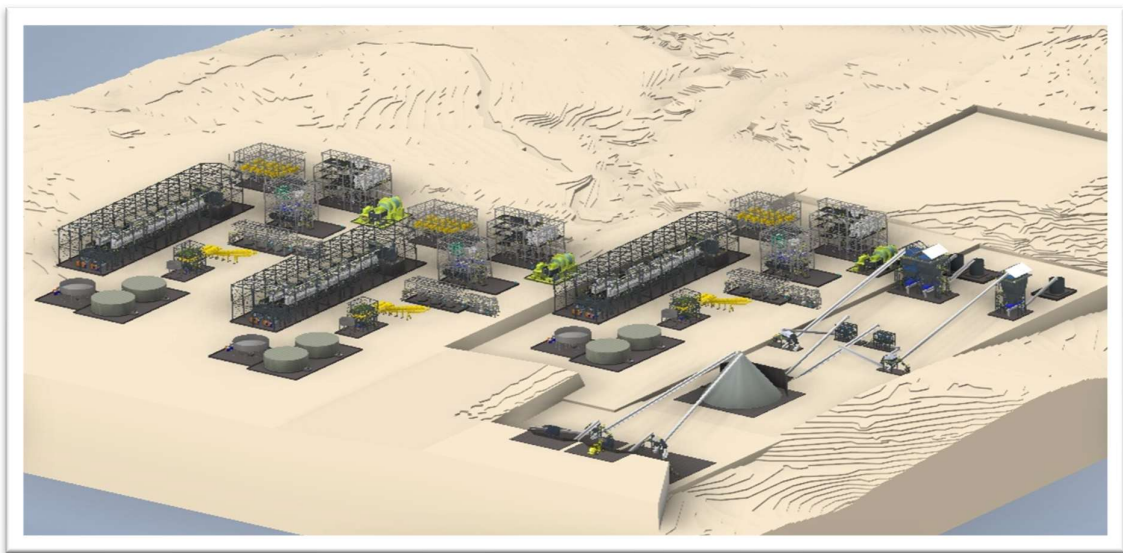


**Figure 1-18: Fully Expanded Concentrator Layout**



#### 1.4.10 Future Testwork

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##### 1.4.10.1 Magnetic Separation

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It is proposed to evaluate the LIMS circuit to see if additional grinding of the magnetic stream can produce a DMS grade magnetite as a saleable byproduct.

##### 1.4.10.2 Zircon Flotation

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The poor zircon recoveries achieved by GZRINM have prompted a change reagent chemistry to improve recoveries from ~40% to >70% using current reagent suites published by heavy mineral processing companies. This new chemistry must be tested and optimised prior to commissioning. Note: The infrastructure put in place with the change will allow a reversion to the GZRINM reagents if the new chemistry is not as successful as anticipated.

##### 1.4.10.3 Pyrochlore Flotation

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Single stage flotation and its reagent suite has been thoroughly tested. However, column flotation in the cleaning section has not been tested. There is anecdotal evidence that column flotation is the preferred methodology of a major pyrochlore producer in Brazil. It is also noted that zircon flotation will have two column cleaners in its circuit. It is recommended that column flotation be tested for greater performance of the cleaners.

##### 1.4.10.4 Zircon Silicate Concentration and Sale

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The current Jorc resource does not include zircon as a component and the zircon resource is therefore not Jorc compliant from an income generation point of view. However, in all testwork carried out by GMMA, zircon appears in every sample. To this end, a zircon flotation plant has been included to remove the zircon.

In the GZRINM pilot testwork, a flotation grade of ~3.6% was achieved. It is expected to achieve closer to 20% ZrO<sub>2</sub> with the new flotation suite. Most of the zircon, an estimated ~80%, will be >45µm in size. It is intended to pump the zircon flotation concentrate through desliming cyclones with overflow going to zircon tails scrubbing. The underflow will go into two stages of spirals to produce a ~20% zircon concentrate. This will be put to multistage shaking tables rougher, cleaner, recleaner, middlings recycle to produce an expected ~65% to 66% ZrO<sub>2</sub> ceramic grade product. The additional capital and operating cost to get this higher to 69% is not considered economic. The concentrate will be dried in a tray dryer before cooling and bagging in bulk bags. 2 200 to 2 400 tpa of zircon concentrate grading 65–66% ZrO<sub>2</sub> are expected to be produced. Note: zircon sold per kg concentrate.

What is required is testwork to confirm the final grade and the combined spiral and table recoveries to achieve this grade.

##### 1.4.10.5 Uranium Recovery

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Moist niobium-tantalum concentrate (~1 t/h, 0.75% U<sub>3</sub>O<sub>8</sub>) is first pre-leached in two serial tanks with recycled 100 g/L sulfuric acid permeate to remove acid-soluble impurities (~9% mass loss). The pre-leached cake is granulated with fresh 98% H<sub>2</sub>SO<sub>4</sub> in an intensive mixer, dried to ~0.1% moisture in a steam tray dryer, and baked at 200°C in a hot-gas oven. The baking converts the uranium to soluble sulphate. Baked granules are leached with water to produce a pregnant leach solution (~0.8 g/l U). The PLS is nanofiltered (80% permeate recovery) to recycle clean acid. The retentate is fed to solvent

extraction using Alamine 336/TBP. Loaded organic is stripped with ammonium hydroxide to precipitate ammonium diuranate (ADU). ADU is filtered, washed, calcined at 700°C, and drummed as high-purity U<sub>3</sub>O<sub>8</sub> yellowcake (~13.6 lb/h, ~108 800 lb/year). Overall uranium recovery is expected to be ~82.5%. This volume will rise to 2x that in an expanded refinery.

Note: The uranium leach recovery after baking is >80% while the SX train is modelled on the uranium plants operated in South African gold mines in the 1970's. Nanofiltration is based on a unit currently operated by Kyalekera in northern Malawi.

The baking and leaching needs to be optimised to reduce acid consumption if possible. The conversion to U<sub>3</sub>O<sub>8</sub> needs to be demonstrated prior to applying for a uranium mining licence.

Pre-leaching capital costs are estimated at \$12m while NF and SX are estimated at \$5m. Sales income can be based on ~\$50/lb ie ~\$6m/year ex-works. A uranium market shortfall is anticipated in the next 5 years.

#### 1.4.11 Refinery

##### 1.4.11.1 Historical Testwork

The historical testwork including, digestion reagent consumptions, yields and solubility profiles of both niobium oxyfluoride and tantalum fluoride in 2 Octanol is extensively reported in the 2021 DFS. It is briefly summarized here.

Refinery testwork undertaken in parallel with concentrator development and followed a similarly iterative progression from initial concept through to an integrated and optimised flowsheet. The work focused on developing a robust process for converting pyrochlore concentrate into saleable niobium products, while managing impurities, particularly uranium, and minimising reagent consumption.

Early refinery investigations focused on establishing a viable hydrometallurgical route based on digestion. A variety of acids and alkalis were tested only to confirm that the hydrofluoric and sulphuric acid system used in industry gave the best results. These studies demonstrated that niobium and tantalum could be effectively dissolved under controlled conditions, with testwork defining the key operating parameters including acid strength, temperature, and solid-to-liquid ratios. This phase confirmed the technical viability of acid digestion as the primary processing route.

Subsequent work focused on purification and separation of niobium and tantalum from the leach liquors. Various solvents were tested and evaluated. 2 Octanol (industry standard) proved to be the most effective in selectively separating niobium and tantalum from impurities. This enabled the development of a downstream process incorporating solvent extraction followed by precipitation and calcination to produce niobium oxide products suitable for further processing. Again, the industry standard of using aqueous ammonia for the precipitation of Nb at Ta proved superior to other potential reagents.

In parallel, targeted testwork was undertaken to assess the behaviour and removal of uranium and other impurities. This work confirmed that uranium could be effectively removed from both leach residues and process liquors, allowing for the development of appropriate environmental management strategies and ensuring compliance with handling requirements for naturally occurring radioactive materials.

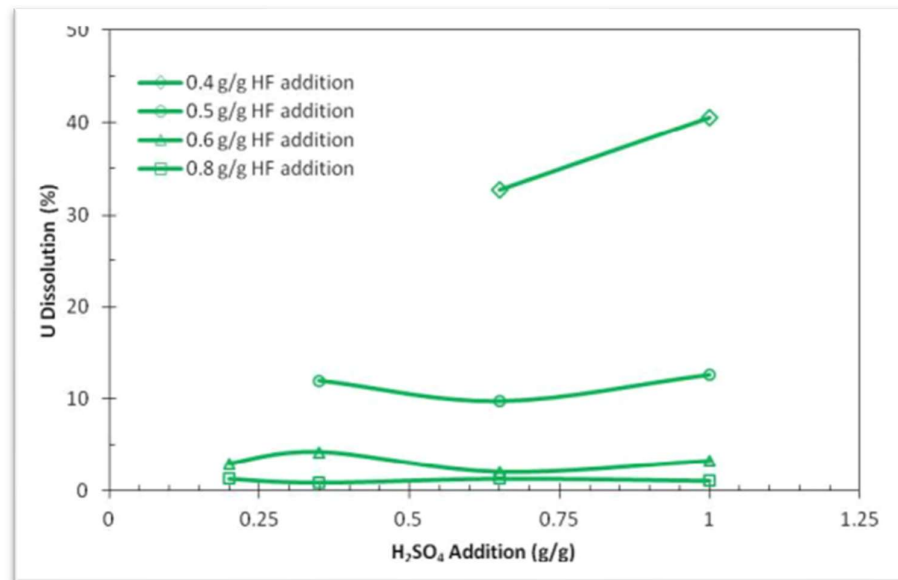
Further refinement of the refinery flowsheet included optimisation of precipitation conditions to control product purity and physical characteristics, as well as evaluation of alternative downstream processing routes. Pyrometallurgical options, including ferro-niobium production via electric arc furnace and alumino-thermic reduction, were also assessed and confirmed to be technically viable but not saleable at the grades produced.

#### 1.4.11.2 Digesting With HF + H<sub>2</sub>SO<sub>4</sub>

With all the positive test outcomes pointing to industry standard digestion, SX, precipitation and calcining the personal experience in operating an HF/SX based refinery by the GMM Chief Technical Officer has resulted in a simplified industry standard design for the refinery.

For the standard refinery design, pre-leaching was discarded. Instead, HF only leaching was changed to combined HF and sulphuric acid digestion giving a more compact design. The figure below shows the effect of HF on U dissolution. It shows that there is only ~5% uranium dissolved when the HF/concentrate ratio is  $\geq 0.55$  particularly when the H<sub>2</sub>SO<sub>4</sub> /concentrate ratio is 0.5.

**Graph 1-7: Effect Of Hydrofluoric And Sulphuric Acid Addition On Uranium Dissolution**



On the strength of this data, the design digestion conditions selected are:

- HF/concentrate:  $\geq 0.55:1$  t/t
- H<sub>2</sub>SO<sub>4</sub> /concentrate:  $\sim 0.5$  t/t – this provides  $\sim 3M$  concentration in the PLS

After value engineering, it was resolved to import anhydrous HF rather than 60% HF. The benefit is that the volume saved by not adding the 40% water with 60% HF allowed more volume in the digester. Recycling the 6M sulphuric acid SX raffinate significantly reduces the fresh sulphuric acid requirement in the digester. Free HF in the raffinate also reduces the fresh HF per batch required.

Raffinate, 100% HF and 98% sulphuric acid plus water is added to the agitated digesters. Concentrate is added concurrently. Heating is by heat of reaction and heats of dilution. Fumes are scrubbed. After cooling to  $<60^{\circ}C$ ,  $\sim 2$  to 3 hours, the digester slurry is filtered with the filtrate PLS (pregnant leach solution) sent to cooling prior to Ta solvent extraction. The solids are repulped and added to the precipitated solids from lime boil and raffinate neutralisation.

#### 1.4.11.3 Acid Reduction

Eliminating pre-leach and adding sulphuric acid and recycled raffinate into digestion reduced the original design volume of 1.94 t/t acid to concentrate to a total sulphuric acid consumption 0.65 t/t.

Lowering the HF addition rate from 0.8 t/t to 0.55 t/t has also lowered acid costs. Besides the cost reduction of lower acid consumptions there are lower raffinate neutralisation costs.

#### 1.4.11.4 Solvent Extraction

The Nb/Ta ratio in Kanyika concentrate is roughly 19:1. Ta will be extracted from the ~3M sulphuric acid digestion PLS while leaving the Nb in the aqueous phase. As the Ta is so low, the organic will be used on multiple batches of PLS until the  $Ta_2O_5$  reaches ~80gpl. Post Ta extraction, the remaining PLS is acidulated up to ~6M sulphuric acid. At 6M, niobium oxyfluoride is soluble in 2-octanol and can be extracted. Acid addition heats up the PLS via heat of dilution. After flash cooling, Nb is extracted from the acidulated PLS. Both loaded organic streams are independently washed and stripped with deionised water. Wash water is recycled to digestion.

#### 1.4.11.5 Precipitation

The strip solutions will be mixed with aqueous ammonia to precipitate Nb and Ta. Precipitated solids would be repulped with dilute aqueous ammonia to remove residual fluoride before several stages of washing with deionized water.

#### 1.4.11.6 Calcination

The niobium and tantalum hydroxide filter cakes are calcined to convert the hydroxides to saleable oxides ( $Nb_2O_5$  and  $Ta_2O_5$ ). The hydroxide filter cakes will be fed into separate, indirectly heated calciners, where the internal temperature should be between 800°C to 900°C. Product emerging from the calciner drops into water-cooled screws. Cooled product is weighed into 25ℓ plastic lined metal drums before sealing. Drums are stacked on pallets, strapped and shrink wrapped.

#### 1.4.11.7 Ammonia Recovery via Lime Boil

The lime boil process uses slaked lime and steam to convert the ammonium containing barren precipitation liquors into calcium fluoride and gypsum solids, and ammonia and steam. The discharge slurry is steam stripped to separate and recover ammonia vapour. The ammonia passes through a reflux column where ammonia/steam vapour is concentrated, condensed and recycled as 12% to 15% aqueous ammonia for re-use. Fresh ammonia vapour is injected into the stored chilled aqueous ammonia. Non condensable gases are pre-condensed with circulating chilled aqueous ammonia before acid scrubbing to below olfactory detection levels. The lime boil waste slurry is thickened and filtered with the filtrate stored and recycled internally within the refinery. The filter cake is transferred to the concentrator tailings plant where it is blended in with the concentrator tailings.

#### 1.4.11.8 Raffinate Neutralisation

SX raffinate is highly acidic. It is fed into the primary neutralisation reactor where it is reacted with milled limestone slurry to form gypsum while giving off significant heat. Limestone addition can neutralise acid to a pH of ~6. Partially neutralized raffinate slurry overflows into the secondary reactor where it reacts with slaked lime while raising the pH to >10 and precipitating mainly  $CaF_2$ . After detention, the slurry is thickened and filtered with the filtrate stored with the lime boil filtrate. Filter cake is added to the lime boil solids and digest residue and transferred to the concentrator where it is bled into the tailings. Both gypsum and  $CaF_2$  can be filtered independently if the local cement plant is willing to accept either product.

#### 1.4.11.9 Limestone and Quick Lime

Limestone is received as a primary crusher underflow from a quarry with a top size in the region of 150mm. This will be crushed in a small jaw crusher prior to being wet milled on site. Classification will be via hydro cyclone with overflow going to the primary neutralisation reactor.

Quick lime in bulk bags will be slaked with neutralized effluent water and stored in an agitated tank. From there it will be directed to lime boil and raffinate neutralisation.

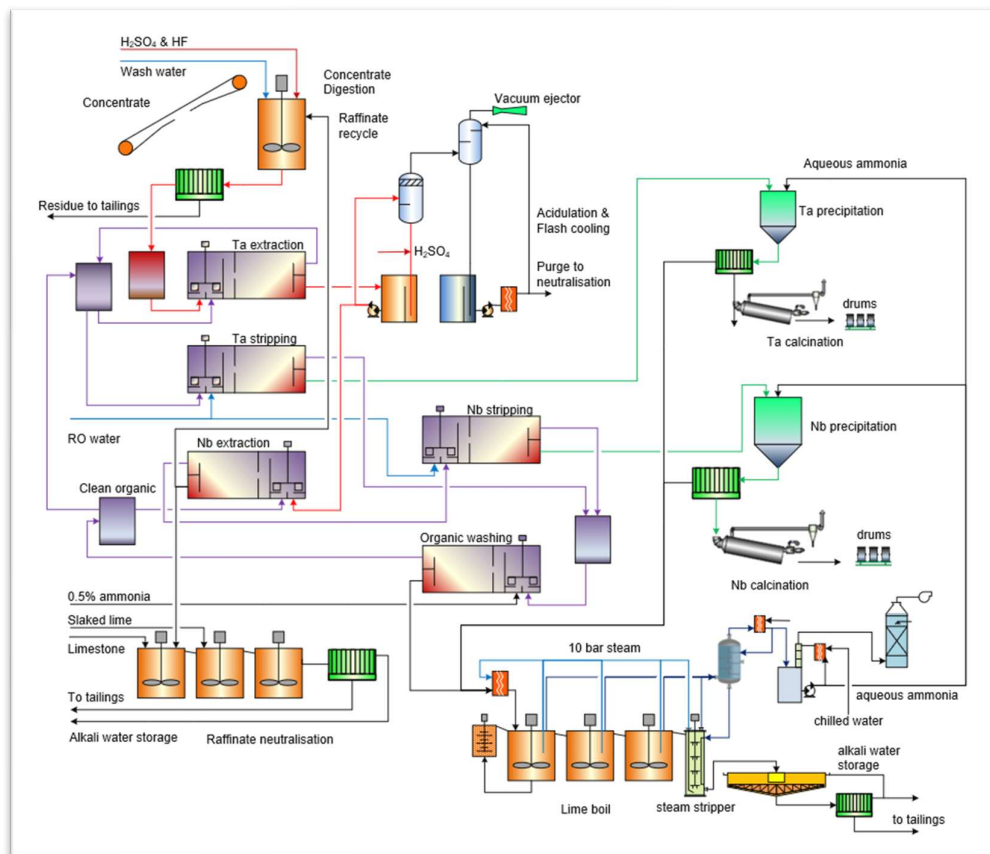
#### 1.4.11.10 RO Water

Filtered raw water will be processed through a package RO plant. Brine from the plant will go to raffinate neutralisation.

#### 1.4.11.11 Steam

Steam for the lime boil will be raised in a coal fired, travelling grate boiler. Coal will be delivered in bulk by tipper truck. Ash will be used for haul road maintenance.

**Figure 1-19: Proposed Flowsheet For Refinery Operations**



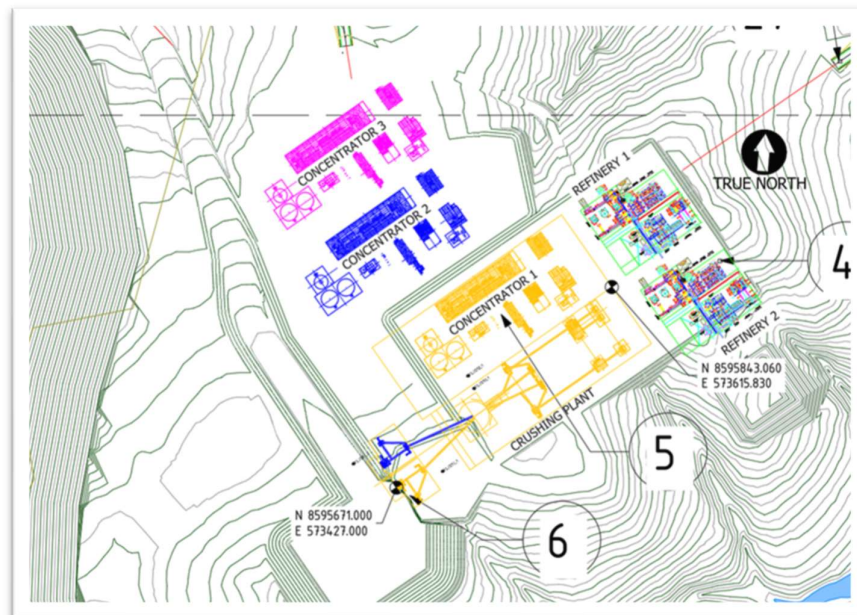
## 1.5 Process Plant

### 1.5.1 Overview

The Kanyika process plant comprises a concentrator and refinery designed to produce high-purity niobium pentoxide and tantalum pentoxide products. The project will be developed at an initial processing rate of approximately 500 ktpa ROM (63.5 t/h over 8,000 operating hours), with provision for expansion to full production to 1.5 Mtpa through duplication of selected process trains.

The concentrator and refinery have been designed to maximise recovery of niobium and tantalum while enabling recovery of zircon as a secondary product. The flowsheet incorporates conventional and proven technologies, with equipment sizing and layout optimised to minimise future expansion costs.

**Figure 1-20: The Process Plant Layout**



## 1.5.2 Concentrator

**Figure 1-21: Concentrator 3D Render**



### 1.5.2.1 *Crushing and Feed Preparation*

Run-of-mine ore is reduced in a three-stage crushing circuit comprising primary jaw crushing followed by secondary cone and tertiary multi-shaft impactor crushing. The crushing circuit is sized at 120 tph capacity. This will be duplicated to 240 tph during the expansion. Crushed ore from secondary crushing is stored on a run-of-mine stockpile. This ore is crushed further to <2mm prior to grinding.

### 1.5.2.2 *Grinding and Classification*

Ore is ground in a ball mill operating in closed circuit with hydrocyclones and high frequency screens to achieve the target liberation size. The initial plant includes one complete grinding and beneficiation train, with expansion achieved by installing two additional parallel trains to reach full capacity.

### 1.5.2.3 *Beneficiation*

The beneficiation circuit reflects the updated flowsheet developed from recent bulk sample testwork and incorporates gravity, magnetic, and flotation separation stages. The milled ore is split using two stage hydrocyclones into a coarse (+45 µm) fraction and fine (-45 µm) fraction.

### 1.5.2.4 *Magnetic Separation*

Low-intensity magnetic separation removes iron-bearing gangue minerals from both the coarse stream and the fines stream via two separate, two stage LIMS trains.

### 1.5.2.5 *Spirals*

Coarse non-magnetics go to spiral concentrators to recover coarse liberated niobium and zircon minerals.

#### 1.5.2.6 Vertical Stirred Mill

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Spiral concentrate is screened and the +106µm fraction milled by vertical stirred mill in closed circuit with the 106µm screen. The 106µm screen underflow goes to zircon flotation.

#### 1.5.2.7 Desliming

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The fines fraction is deslimed using two stage hydrocyclones to remove ultrafine material, improving downstream separation efficiency.

#### 1.5.2.8 Multi-Gravity Separators (MGS)

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The deslimed fines pass through magnetic separation before entering multiple MGS units. MGS concentrate joins spiral concentrate and goes to zircon flotation.

#### 1.5.2.9 Flotation

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Flotation selectively recovers zircon in the first stage with zircon, spirals and MGS tails going to pyrochlore flotation.

The circuit produces:

- Pyrochlore concentrate for refinery processing
- Zircon concentrate as a secondary product. This product can be upgraded for sale using separate sand and slimes shaking tables

#### 1.5.2.10 Concentrate Handling

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Niobium concentrate is thickened and filtered to produce filter cake suitable for refinery feed. Zircon concentrate is filtered and prepared for shipment.

Expansion to full production will be achieved by installation of two additional parallel flotation and concentrate handling trains.

### 1.5.3 Refinery

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The refinery processes pyrochlore concentrate to produce high-purity niobium and tantalum oxides using hydrometallurgical processing.

The refinery has been sized at >75 % of ultimate production capacity to cope with higher initial concentrate production caused by high ROM head grades in the first five years of mining. Expansion will be by building a second identical refinery.

#### 1.5.3.1 Digestion

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Concentrate is digested using hydrofluoric and sulphuric acids to dissolve niobium and tantalum. Cast, heavy wall polypropylene reactors will be used for this duty.

#### 1.5.3.2 Solid-Liquid Separation

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Leach slurry is filtered to separate the metal-bearing solution from residue.

#### 1.5.3.3 Solvent Extraction

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Sequential solvent extraction circuits selectively recover tantalum and niobium into separate streams.

#### 1.5.3.4 *Product Recovery*

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Niobium and tantalum are precipitated, filtered, and calcined to produce:

- 99.9 % Nb<sub>2</sub>O<sub>5</sub>
- 99.9 % Ta<sub>2</sub>O<sub>5</sub>

Products are dried, packaged, and prepared for export.

#### 1.5.3.5 *Neutralisation and Reagent Recovery*

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Acidic process liquors are neutralised and recycled. Alkali barren streams are processed via a lime boil process to recovery ammonia for recycling.

### 1.5.4 *Expansion Strategy*

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The plant has been designed to allow staged expansion with minimal disruption to operations.

Expansion to full capacity will involve:

- Installation of an identical three stage crushing circuit feeding the same stockpile and additional mill feed bins
- Installation of two additional concentrator beneficiation trains
- Adding a second identical refinery

This approach reduces initial capital expenditure while preserving the ability to efficiently increase production.

#### 1.5.5 *Tailings Management*

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Solid refinery residues will be added to tailings that will be pumped to a tailings dam. A PFS level study has been carried out to co-dispose tailings with mine waste. This option has much greater structural stability and will fully enclose the tailings to reduce surface NORM radiation.

#### 1.5.6 *Plant Services and Control*

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The plant includes:

- Central control room with automated process control
- Water recovery and recycling systems
- Acid storage and handling facilities located ~100m west of the refinery downwind of the prevailing wind
- Utilities including compressed air, steam, and electrical distribution

The plant is designed for continuous operation with high availability and safe handling of reagents.

## 1.6 Project Setting & Site Selection

### 1.6.1 Project Setting

The Kanyika Niobium Project is in northern Malawi approximately 55 km northeast of Kasungu and 190 km from Lilongwe. The site lies within customary land under Traditional Authority Mabulabo in a rural agricultural area.

Topography consists of gently undulating terrain with a central ridge hosting the niobium mineralisation. The Milenje River flows across the northern portion of the orebody and forms part of the regional drainage system.

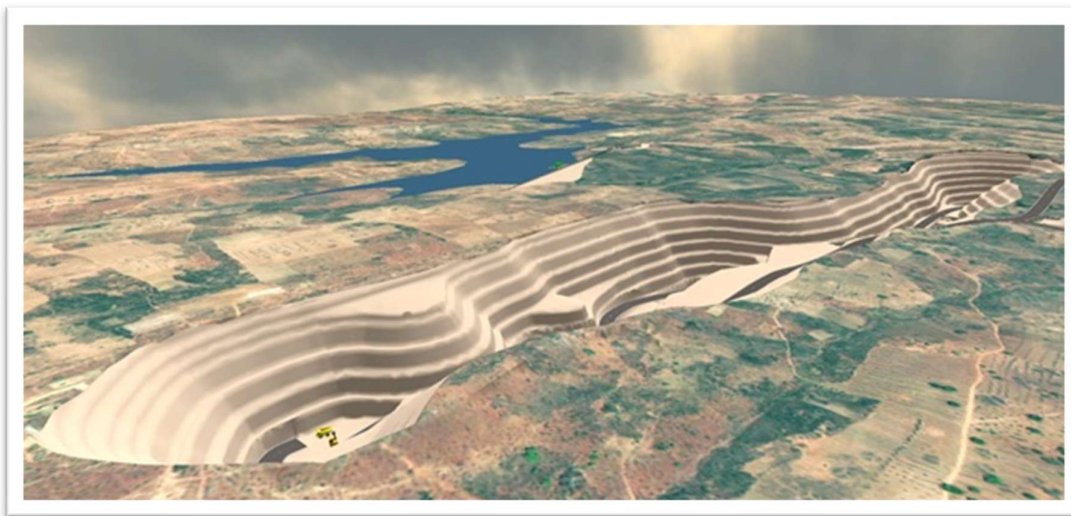
### 1.6.2 Baseline Environmental Conditions

The area consists primarily of rural agricultural land with degraded Miombo woodland. Surface water is dominated by the Milenje River, a seasonal tributary of the Dwangwa River system flowing to Lake Malawi. Groundwater is generally limited but locally contains elevated uranium concentrations due to natural geology. Air quality is dominated by dust from unpaved roads, and baseline radiation reflects naturally elevated uranium in soils and rock.

### 1.6.3 Mining and Processing Layout

Mining will be conducted by conventional open pit drill-and-blast methods. The process plant and refinery will occupy approximately 10 hectares and produce niobium pentoxide concentrate for export.

**Figure 1-22: Final Pit Outline**



### 1.6.4 Site Selection

The plant and infrastructure locations were selected to optimise:

- haulage distances from the open pit
- water management and containment

- environmental protection
- expansion capability
- minimisation of community impacts

The process plant is located east of the open pit, allowing buffer distance from nearby communities and taking advantage of prevailing wind direction.

The tailings storage facility is on the opposite bank of the Milenje in a location suitable for safe containment and staged expansion.

### 1.6.5 Project Layout

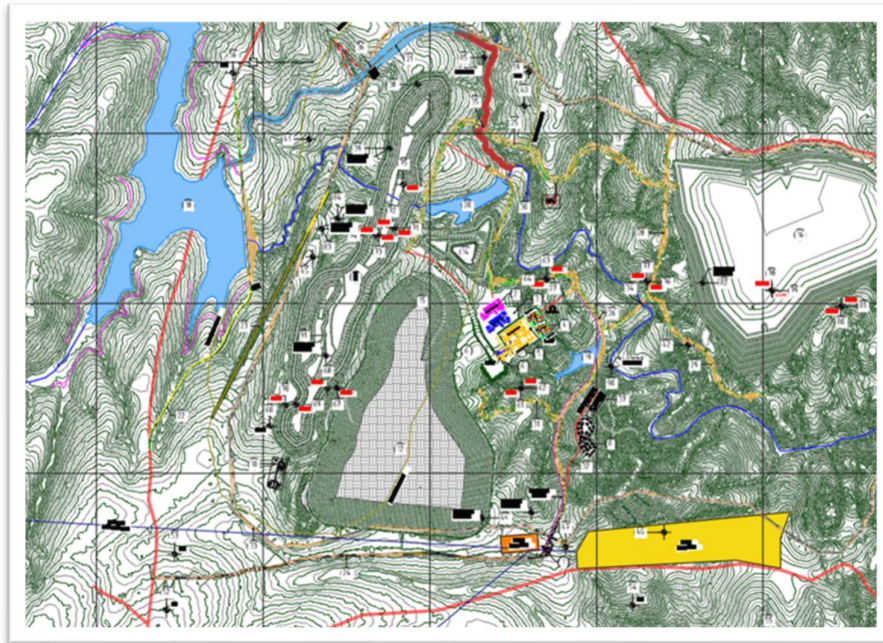
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The project comprises:

- Open pit mine
- Run-of-mine stockpiles
- Concentrator plant
- Refinery plant
- Tailings storage facility
- Water storage facility and river diversion
- Waste rock dumps
- Workshops, offices, and laboratories
- Accommodation village

The layout has been designed to minimise earthworks and allow gravity-assisted material flow where possible.

**Figure 1-23: Overall Mine Layout**



#### 1.6.6 Expansion Strategy

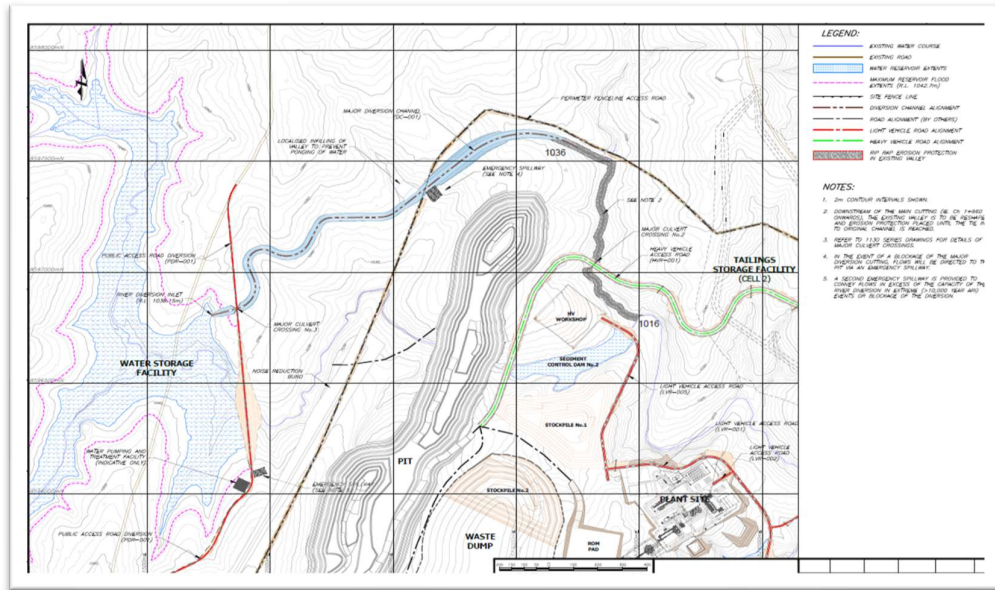
The site has been designed as a single integrated operation with an initial processing capacity of approximately 500 ktpa and provision for expansion to full 1.5 Mtpa production. Expansion will be achieved by installing additional concentrator and refinery modules within the existing plant area without major relocation of infrastructure.

Key infrastructure including crushing systems, water storage, and site services have been positioned and sized to accommodate expansion.

#### 1.6.7 Water Management and River Diversion

The Milenje River crosses the orebody and will be diverted around the open pit. Initially, water will be stored in an off-river reservoir and recycled within the process plant to minimise abstraction requirements. During the expansion, a fresh water dam with approximately 2.5 Mm<sup>3</sup> capacity will be built over the Milenje River with overflow via a contour following diversion downstream of the orebody. The project is designed as a zero-discharge operation, recycling all water internally and designed to prevent uncontrolled discharge to protect downstream water quality.

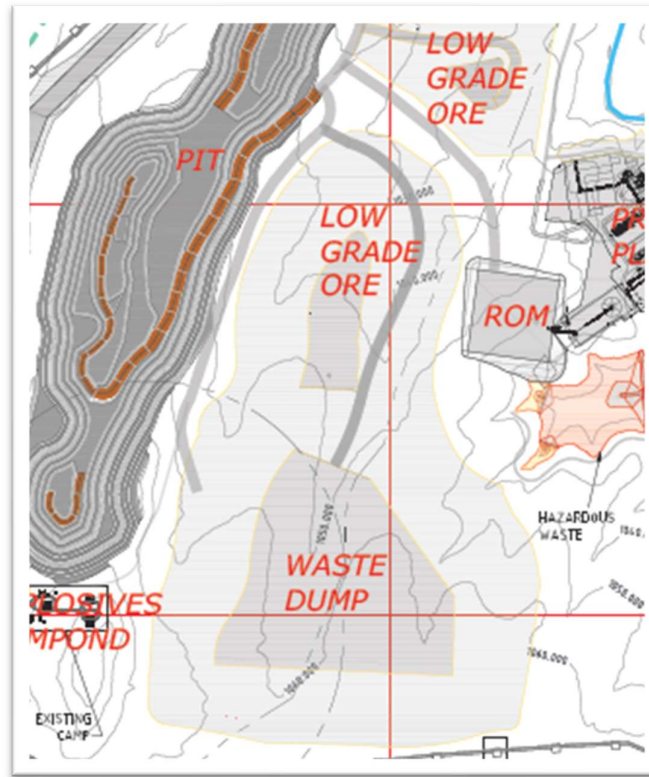
**Figure 1-24: Water Storage And River Diversion Concept**



## 1.6.8 Waste and Tailings Storage

Approximately 53.3 Mt of waste rock will be stored in engineered dumps located near the open pit. Approximately 33.8 Mt of tailings will be deposited in a valley-type storage facility designed for staged construction and long-term stability. Both facilities are located to minimise environmental and community impacts.

**Figure 1-25: Mining And Waste Flow**



### 1.6.9 Accommodation and Infrastructure

The project includes accommodation, administration, workshops, and supporting infrastructure. Facilities are designed to support initial operations and allow expansion as the project grows.

### 1.6.10 Resettlement and Social Considerations

Approximately 1,250 people will require resettlement from the project area. Compensation and relocation will follow Malawian law and IFC guidelines, ensuring affected persons are not disadvantaged. Agricultural land, graves, and community assets will be relocated or compensated.

### 1.6.11 Project Design Philosophy

The layout prioritises safety, environmental protection, cost efficiency, and long-term closure stability. Key principles include zero discharge water management, minimised haul distances, international dam safety standards, and sustainable rehabilitation.

## 1.7 Waste Management and Tailings Storage Facility (TSF)

A detailed site selection process was undertaken in the 2018 Definitive Feasibility Study (DFS). Eight tailings storage facility (TSF) sites were considered. A site on the northern bank of the Milenje River to

the northeast of the process plant was selected. The approximate final size of the TSF is ~170 ha in extent.

### 1.7.1 Standards and Codes of Practice

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All waste streams are to be managed and disposed of in accordance with the relevant Standards and Codes of Practice. These include the Malawi Bureau of Standards codes plus ANCOLD and ICOLD standards for large tailings dams.

### 1.7.2 Waste Streams

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There will be three principal solid waste streams generated at the site: waste rock, tailings and MSW. In addition to the above there will be other minor hazardous waste streams including hydrocarbon contaminated materials (fuels, oils, lubricants – Class 3 and 4 waste). These will be disposed of using a contractor.

### 1.7.3 Mining Waste Rock

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Mining waste rock will be used to build the tailings dam walls and bunding with the balance going to a waste rock dump located near the pit. The total amount of mine waste rock is expected to exceed 53 Mt.

### 1.7.4 Geochemistry

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58 samples of waste rock and low-grade ore were subjected to geochemical analysis. All waste and low-grade ore was classified as non-acid forming or acid consuming.

In testwork carried out by GMMA, digestion of pyrochlore concentrate with a combination of 20M hydrofluoric and 3M sulphuric acid at temperatures up to 80°C were only able to leach between 3% and 5% of the uranium from Kanyika concentrate. These are severe leaching conditions. Given the non-acid forming classification of the ore body, it is therefore considered improbable that significant bacterial based leaching of uranium is likely to occur in the TSF.

### 1.7.5 Tailings and Supernatant Properties

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Laboratory tests determined that the long-term density of milled tailings is 1.20 t/m<sup>3</sup>.

Dust monitoring will be undertaken during operations around the TSF. Operating procedures will allow the tailings to dry but limit the amount of desiccation to a level above which dust generation from the tailings beach surface starts to occur.

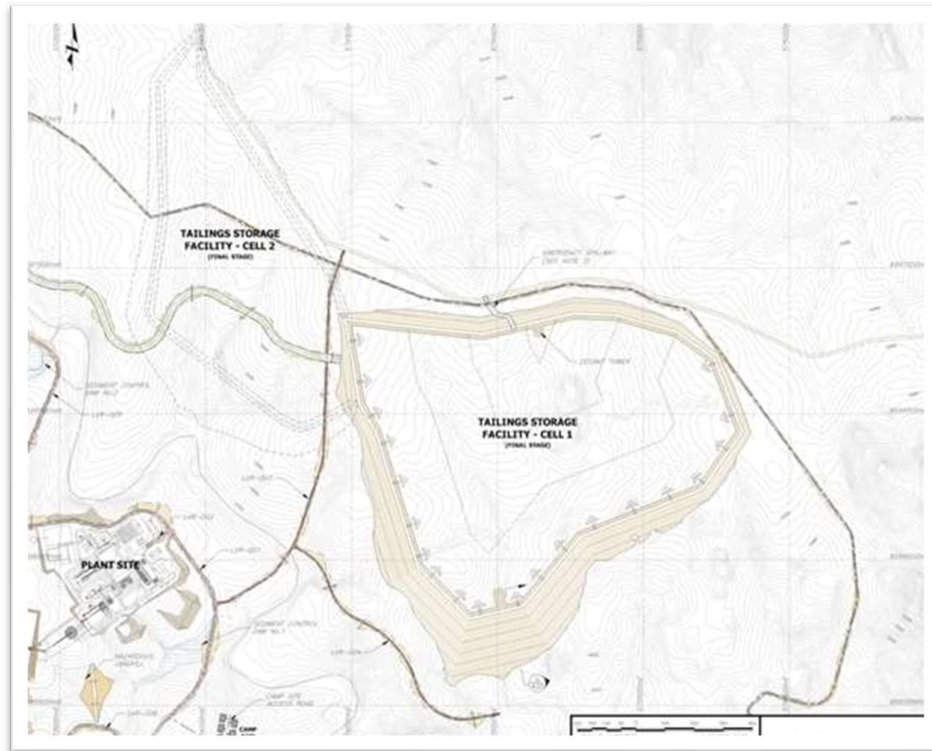
The supernatant was found to be suitable for re-use in the plant. Notwithstanding, the TSF will require a 300 mm thick low permeability soil liner (permeability less than  $1 \times 10^{-8}$  m/s) as a basin liner.

### 1.7.6 TSF Design

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The TSF will be located north and northeast of the plant site and will occupy an area of some 170 ha. Initial stages of construction will form a valley storage. Over the life of the operation the dam will transition into a hill-side storage configuration. Tailings will be deposited upslope, off the embankment wall, such that one supernatant pond is maintained and that it is pushed away from the embankment, to the north of each cell.

**Figure 1-26: TSF General Arrangement**



The TSF walls will be constructed as zoned embankments consisting mainly of an upstream low permeability core, and a downstream structural zone. To reduce embankment fill quantities the embankments will be raised annually using modified centreline methods to an ultimate height of around 65 m.

To further reduce seepage, and control piezometric pressures, within the dam wall, drains will be installed, along the upstream toe, and valley spines. Supernatant water will be decanted from the facility pond via a series of nested decant towers and pumped back to the plant.

#### 1.7.7 Construction Materials

It is expected that most of the earth-fill, competent rock, and drainage materials required to construct the TSF can be sourced locally.

#### 1.7.8 Closure Concepts

Rehabilitation trials will be undertaken during the life of the storage facility to determine the most efficient method to rehabilitate the tailings surface. The downstream face of the embankment will be rehabilitated upon completion of the final construction stage. At the end of the mining operation the main embankment will have an overall downstream slope of 3.5H:1V with several benches for erosion and drainage control. The benches will be constructed to provide a stable drainage system for the embankment. The adopted downstream profile will be stable, in the long term, under both normal and seismic loading conditions and will allow for re-vegetation.

Given that the tailings solids contain Naturally Occurring Radioactive Minerals (NORM) it is envisaged that the tailings beach will be closed and reclaimed by placing a cover system over the surface. The cover system will include a capillary break/root barrier to prevent root uptake or capillary rise of radionuclides, overlain by a low permeability soils layer or a geomembrane with low gas permeability to attenuate radon / thoron release into the atmosphere or upper cover layers. The low permeability layer will be shaped to be water shedding and overlain by a topsoil and growth medium to encourage revegetation.

#### 1.7.9 Water Balance

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Water balance modelling indicated that the TSF is in water deficit on an annual basis with the supernatant pond returning to minimum each year of operation after a short peak volume in the middle of the wet season. Modelling under extreme wet conditions results in higher wet season peaks. However, the pond remains below the tailings level at the main embankment and water is returned to average conditions prior to the following wet season.

#### 1.7.10 Dry Co-Disposal with Mine Waste

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Given the recent tailings dam failure in Zambia polluting the Kafue River, a dry tailings option has been pursued to PFS level. It is intended to pursue this option for the mine if approval can be granted by the Malawian Environmental Protection Agency. What is outstanding at this point is geotechnical surveying of the proposed site to allow for a high degree of confidence in the stockpile design.

#### 1.7.11 Hazardous Waste

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Hydrocarbon and associated wastes will be removed by contractors, typically based in Lilongwe, for safe disposal.

#### 1.7.12 Municipal Solid Waste (MSW)

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The quantities of municipal solid waste generated (MSW) initially will be significantly smaller than that at full scale. It is envisaged that a contractor will collect the MSW on a weekly or more frequent basis for disposal in an accredited MSW storage facility.

After expansion, the amount of MSW generated warrants the construction of a local disposal facility. In accordance with the Malawi Standard for waste disposal. Municipal solid waste (MSW) generated at Kanyika will require a Class II landfill to be constructed for disposal. The municipal solid waste facilities will be constructed within the mine waste dump area. Ultimately the facilities will be buried under the mine waste dump which will serve to reduce infiltration into the landfills.

#### 1.7.13 Process By-Products

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All the process byproducts generated by the refinery will be added to tailings. These include:

- Digestion residue containing NORM amounting to approximately <1% of tailings
- Gypsum and calcium fluoride filter solids from the refinery
- Boiler ash will be used by the mining team as haul road dressing

### 1.7.14 Recommendations

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#### 1.7.14.1 *Dry Stacking of Tailings*

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In the light of the catastrophic Brumadinho tailings dam failure in Brazil and the recent Sino Metals Chambishi tailings dam failure in Zambia that has contaminated the Kafue River, there has been a growing tendency in new mine design to dry stack tailings. Besides having the added benefit of reducing the overall water requirement for the plant, the overall structural integrity of the stacked tailings is better than that of wet tailings dams.

#### 1.7.14.2 *Co-disposal with Mine Waste*

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Taking dry stacking further, consider co-disposal of dry tailings with mine waste. The rocks, clay and soil generally produced when expanding the mine shell during pushbacks can be used as wall material. The tailings filter cake is then deposited within these walls before being capped by more mine waste.

A PFS level study is included for co-disposal of tailings with mine waste. This is not currently permitted by MEPA (Malawi Environmental Protection Agency) but will be considered prior to project implementation.

## 1.8 Hydrology, Hydrogeology & Water Management

### 1.8.1 Core Hydrological Setting

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This Chapter outlines the DFS design for the hydrology, hydrogeology and water management aspects of the Kanyika Niobium Project (KNP) and provides detail of the following (water management) elements:

- Climate at the site including design precipitation data
- Determination of design flows within the Milenje River
- Surface water quality
- Hydrogeological setting
- Groundwater modelling
- Groundwater quality
- Site water demand
- Water supply options
- Water balance modelling
- Design of the Water Storage Facility (WSF)
- Design of the Milenje River diversion
- Surface water (runoff) management and
- Recommended climate monitoring to be undertaken prior to detailed design.

The water management plan for the KNP is governed by a number of important factors:

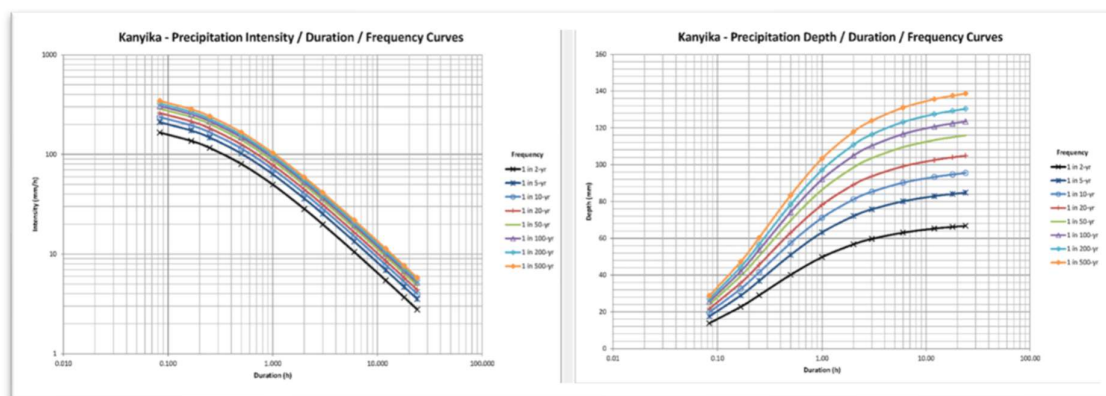
- The KNP will be a “zero-discharge” site to be designed to contain all discharges for events up to the 1:100 rainfall event. All water will be recycled through the process and any excess will be entrained in the TSF.
- Significant water use in processing will result in a negative water balance requiring a net input water supply to the project.
- Low productivity aquifers in the immediate area, precluding the use of groundwater and limiting groundwater ingress into the mining pit for use elsewhere.
- The requirement to protect downstream users of the Milenje River from any potential pollutants or disruption of supply during both the construction and operational phases.
- The requirement to “reroute” the Milenje River from the current course across the Kanyika mineralisation to the north so as to allow mining to proceed.
- CSR obligations to provide clean drinking water to various stakeholders especially those affected by the project.
- Minimisation of all ecological effects and provision of positive impacts.
- Facilitation of a responsible closure plan at the conclusion of the project.

#### 1.8.1.1 Climate and Precipitation

The Kanyika site lies in a strongly seasonal sub-tropical, water-deficit climate, with 95% of rainfall occurring November–April. A cool, dry winter season extends from May to August, and frost may occur in isolated areas in June and July. A hot, dry season lasts from September to October. Evaporation exceeds rainfall for most of the year.

Kasungu Station (49-year record) when compared to Emfeni and Kaluluma stations provides the most reliable basis for design rainfall. Frequency analysis on daily precipitation data from Kasungu was undertaken to estimate the statistical likelihood of experiencing extreme short-duration storms at the Kanyika project site. From a comparison of over sixty different probability distributions, Generalised Extreme Value function was selected for extrapolating short-duration design storms at the Kanyika site. Extrapolated data were used to derive Intensity/Duration/Frequency (IDF) curves for short duration storms (Graph 1-8a). For convenience and for improved visualisation, the Kasungu IDF curves were also integrated to derive precipitation Depth / Duration / Frequency (DDF) curves (Graph 1-8b).

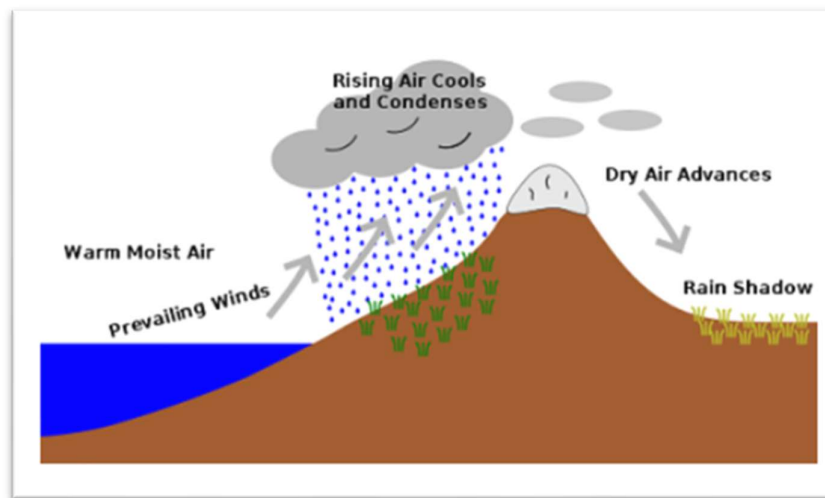
**Graph 1-8: Kasungu Intensity/Duration/Frequency And Kasungu Depth/Duration/Frequency**



It should be noted that when the derived IDF / DDF curve values are applied for design purposes to simulate storms with durations less than or equal to 24 hours, two additional adjustments are necessary - all values should be factored by 1.13 to account for potential sampling errors due to estimating sub-daily storms from fixed daily measurements and if the catchment area where the IDF / DDF values are applied is larger than 4 square kilometres (km<sup>2</sup>), depth / duration / area ratios should also be applied.

There is anecdotal evidence that a “rain shadow” is present at the KNP. Whilst the two years of Kanyika rainfall data show approximately half the recorded rainfall as the other stations there are insufficient data to definitively confirm or deny the existence of this phenomenon. However, a “rain shadow”, if it truly exists, would impact predictions of site precipitation and may lead to shortages of water within the project.

**Figure 1-27: The Rain Shadow Phenomenon**



#### 1.8.1.2 Regional Surface Water

The regional drainage in the project area is towards the east in the direction of Lake Malawi. The site is located within the Dwanga River Basin which is a tributary of Lake Malawi and forms part of the Zambezi River Basin.

The most prominent water course at the site is the Milenje River which bisects the proposed mine site in a west-east direction. It is planned to construct storage dam west of the open pit to ensure continuous water is available for the plant operations. In addition, the river from the dam will be diverted from crossing the deposit to the north, thereby providing sufficient space for the development of the open pit and other mine related infrastructure. A number of minor tributaries originate within the study area and feed into the Milenje River from the north and south. The Milenje River has its source some 30 km to the northwest of the site and has a catchment area of approximately 250 km<sup>2</sup>.

Surface water quality is generally excellent, with elevated Fe/Mn attributed to suspended solids, and low radioactivity despite the river crossing mineralisation.

#### 1.8.1.3 Hydrogeological Framework

Groundwater resources in the immediate area of the project were characterised in a drilling campaign comprising 21 new boreholes carried out in 2011 followed by numerical modelling to establish the

character of the regional groundwater and the potential impacts. The initial hydrogeological modelling report was prepared by Jones & Wagener with review and application.

The program identified two aquifers underlying the project area, namely:

- A shallow weathered aquifer in which the most consistent water strike is located within a shallow weathered aquifer at the fresh bedrock/weathering interface. Groundwater flow from this aquifer potentially discharges into surface streams. The mineralisation does not appear to be uniformly weathered, but in general, the weathering is shallower on the mineralisation body, the average being approximately 21 m below the surface. The depth of weathering ranges throughout the area between zero (outcrop areas) and 101 m below the surface.
- A deeper aquifer, where fracture flow dominates, is located in un-weathered rock. The most significant groundwater occurrence in this aquifer is the sheared upper and lower contacts of the mineralisation. The groundwater level of this aquifer ranges from 13 m to 35 m below surface. Groundwater flow within the upper portion of this aquifer appears to be governed by jointing while major faults and shears form the significant conduits at depth.
- Groundwater levels in the weathered and fractured country rock aquifers typically mimic the prevailing topography with only minimal seasonal variation. The average depth to groundwater was 12 metres below ground level (mbgl) in the weathered aquifer and in the fractured country rock, 27 mbgl in the mineralisation contacts.
- Hydraulic testing on 16 test bores in and around the proposed Kanyika pit yielded 0.085 L/s to 1.8 L/s with only two bores yielding more than 1 L/s. The bore yields obtained are therefore too low for the development of a dewatering or water supply bore field within the area of the pit.

#### 1.8.1.4 Groundwater Modelling

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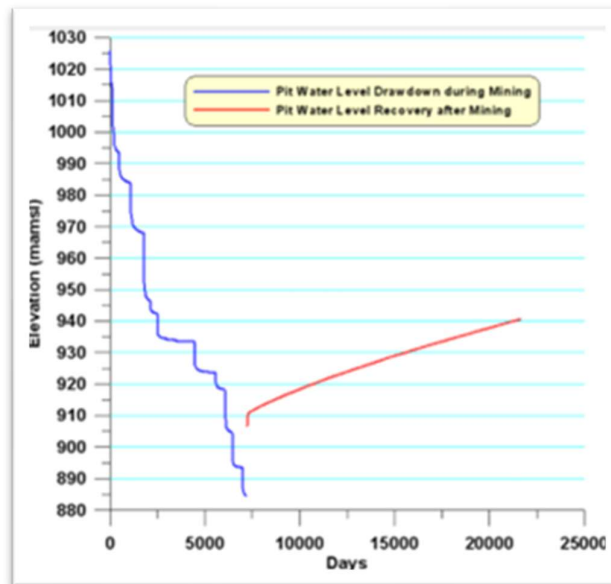
A finite element model of the study area was constructed using FEFLOW simulations show:

groundwater ingress into the pit is expected to be low and estimated at between 432 and 950 m<sup>3</sup>/day - 0.35Mm<sup>3</sup>/annum - not taking evaporation into consideration'

The extent of the cone of depression in the groundwater around the Kanyika mining pit due to the impact of mine dewatering was assessed with the calibrated groundwater flow model. The drawdown cone is steep and does not extend too far beyond the mining area.

When mining ceases the groundwater table will recover over time. This recovery period is estimated, based on the groundwater model, to be 40 years or more (Graph 1-9).

**Graph 1-9: Kanyika Mine – Water Level Drawdown/Recovery In The Pit**



This simulation did not take into consideration rainfall and evaporation, but only the expected groundwater ingress. There is a possibility the pit water level may never reach the original groundwater level due to the regions high evaporation rate. An alternative strategy may be to re-divert the Milenje back through the pit after mining. The final closure strategy will be determined after extensive consultation with the Kanyika community and all other stakeholders.

## 1.8.2 Water Balance and Supply Strategy

### 1.8.2.1 Site Water Demand

The process plant is the dominant consumer using approximately 1.5Mm<sup>3</sup>/year.

Mining uses ~319,000 m<sup>3</sup>/a, with ~220,000 m<sup>3</sup>/a recovered from pit rainfall and seepage, leaving a net deficit of ~100,000 m<sup>3</sup>/a for mining.

### 1.8.2.2 Water Sources Available but insufficient:

Within the mine site there are several sources of water available as follows:

- TSF decant return (quantity varies with season)
- Pit dewatering (year-round) although insignificant volumes produced
- Pollution (sediment) Control Dams (PCD) and other surface water runoff (wet season only).

However, these are insufficient to supply all the demands of the site, both in terms of quality and quantity, and therefore a raw water supply to supplement the on-site sources is required. Therefore, additional on-mine storage capacity must be created.

### 1.8.2.3 Water Balance Modelling

- Modelling of the TSF and Process Plant water balance was undertaken using the EXTEND simulation software package and the typical synthetic climate patterns derived. Wet season: TSF return water generally meets plant demand.
- Pit dewatering, waste dump runoff and sediment control dam volumes were not included in the model as they are relatively small and will not contribute significantly to make-up water requirements. The ‘Other Consumers’ in the area all require a clean raw water supply which is accounted for within the Water Storage Facility (WSF) volume.
- The tailings storage facility will store the tailings generated from the process. For the water management model, the following inputs into the TSF were included:
  - Water in the slurry from the plant,
  - Rainfall runoff from the tailings and pond surface and surrounding catchment,
  - Collected water from the Underdrainage systems at the base of the tailings facility.
- Outputs from the TSF included:
  - Evaporation losses,
  - Seepage losses,
  - Water returned to the plant as process make-up water (pumped system).
- The modelling showed that during the wet season and following months, there is sufficient volume of water (supernatant and runoff) reclaimed from the TSF to meet the processing requirements. There will however need to be some input of raw water during the wet season for uses where water quality is important such as reagent mixing or potable supplies.
- A decant return rate of 325 t/hr was used for pump sizing purposes:
- During most dry seasons or when there is no rainfall, the TSF will be able to supply only a proportion of the total requirement which is predominantly from continual supernatant release. Any additional water requirements will need to be sourced from a raw water supply.
- As discussed in Section 1.8.1.1, there is anecdotal evidence of a “rain shadow” at the site and with the current data available, the effects of the potential “rain shadow” appear to be manageable within the current site design.
- During the wet season there is insufficient runoff from the TSF and associated catchment to supply the plant site. Additional make up raw water will therefore be required.
- Lower than expected rain in the wet season results in a smaller TSF supernatant pond at the start of the dry season requiring earlier and greater abstraction of raw water from the WSF. However, the additional quantity is of the order 100,000 to 200,000 m<sup>3</sup> over the dry season which can be accommodated by the stored WSF volume.

### 1.8.3 Water Storage Facility (WSF)

Hydrogeological testing and modelling have shown that a borefield would not have sufficient yield to meet demand. As such a water storage facility (dam) is required on the Milenje River to capture and store adequate volumes of raw water for use throughout the year.

To meet water demand through a dry season, storage of 2.5 Mm<sup>3</sup> (footprint 58 ha reservoir) of water is needed. This can be achieved through the construction of an 18 m high dam upstream of the pit. The spillway for the reservoir is the diversion channel for the Milenje River (see Figure 1-28). The general principle of operation of the water storage and diversion facilities is that at the beginning of the wet season the dam refills to the minimum volume required for the next dry season of operation before water is discharged to the river diversion. Once full, any excess flows leave the storage facility via the diversion. During the wet season it is anticipated that any abstraction from the reservoir will be recharged fully by the river so that the reservoir is full at the beginning of the dry season.

The WSF has been designed in accordance with International Commission on Large Dams (ICOLD) and Australian National Committee on Large Dams (ANCOLD) design standards and guidelines for management and storage of water and complies with international best practice. The general arrangement of the WSF embankment is shown in Figure 1-29.

In addition, a Consequence Category assessment was completed for the dam in accordance with ANCOLD guidelines. A downstream waste-rock buttress provides additional stability and breach mitigation.

**Figure 1-28: Surface Plot Showing Water Storage Dam And River Diversion**

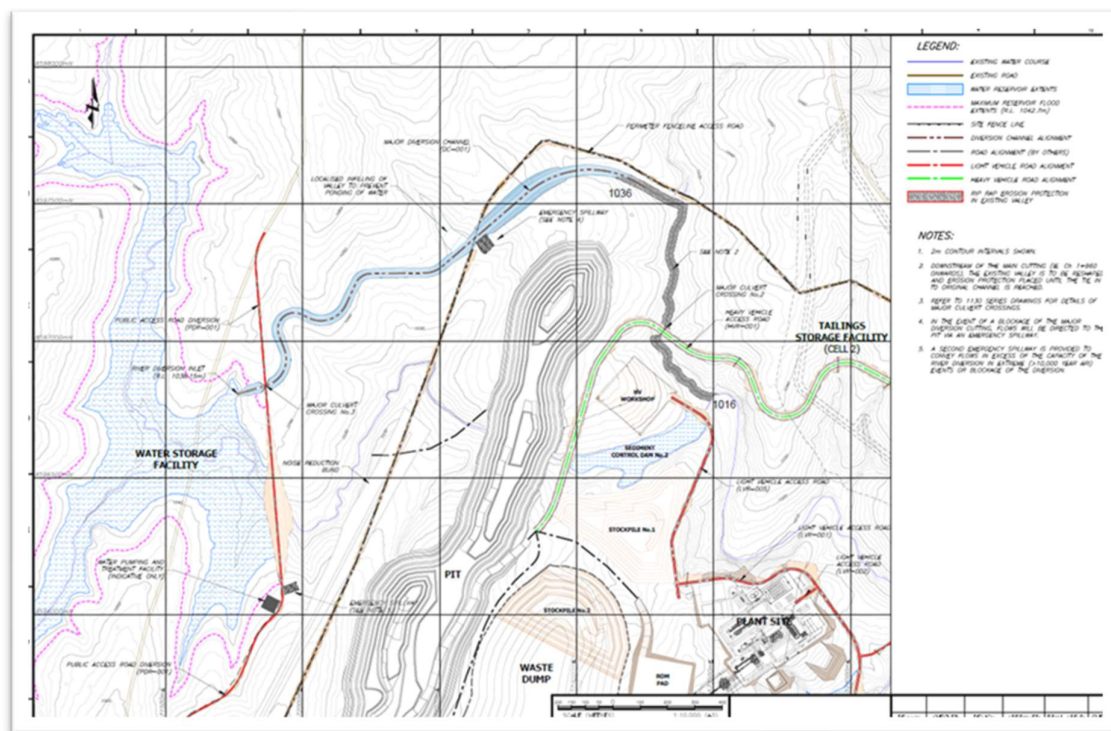
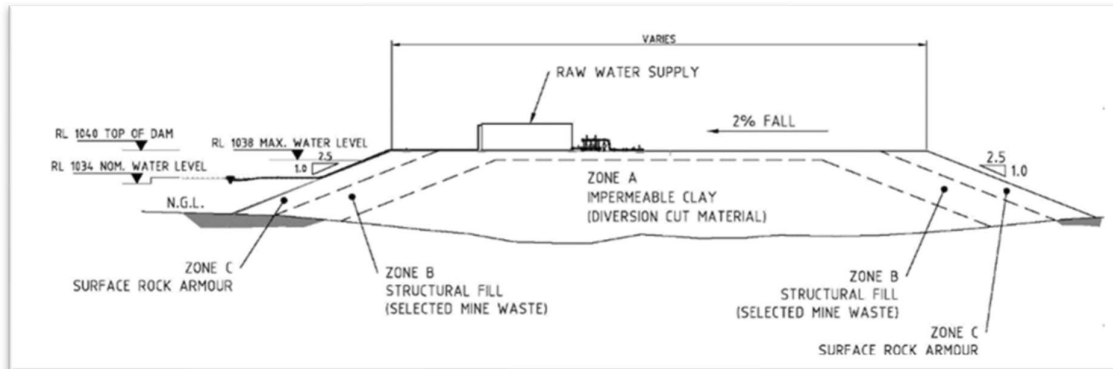


**Figure 1-29: Western Dam Embankment**



A pumping station and water treatment plant will be installed on the dam wall and water will be pumped to the KNP plant, downstream drinking water systems, and irrigation projects and into the existing Champhira potable water main.

At the conclusion of operations, the dam will be evaluated for mechanical stability and in consultation with the community a closure plan will be developed if necessary.

#### 1.8.4 Milenje River Diversion

The primary objective of the River Milenje diversion channel (WSF Spillway) hydraulic design was to establish the minimum constructible width and depth of channel along the assumed alignment such that the maximum impounded water level behind the WSF during the inflow design flood (a 10,000-year ARI storm) does not exceed recommended embankment freeboard requirements. Using HEC-HMS and HEC-RAS a channel with 5 m wide invert, depth of 4.75 m, and 1V:2.5H side slopes were designed. The longitudinal grade was fixed at a constant 1V:250H in order to reduce the depth of excavation needed to pass through the ridge to the north of the pit.

An emergency spillway is to be provided in the diversion channel upstream of the main cutting to ensure that, in the unlikely event of a slope failure in the cutting that completely blocks the diversion channel, water flows in the channel are directed in a controlled manner towards the open pit where it will be contained and managed. A further emergency spillway will be provided at the dam to convey flows in a controlled manner to the pit in the event of a blockage of the diversion channel or a storm event that exceeds the channel capacity.

#### 1.8.5 Surface Water Management System

The main goals of the surface water management infrastructure can be summarised as:

- Reduce the impact of the proposed mining activities on the quality and quantity of surface water, thereby limiting disruption of natural drainage (runoff) patterns to natural catchments at the various project sites,
- Reduce sediment discharge from the site, predominantly the waste dump, to the environment by entrapping and retaining eroded sediment as close as possible to disturbed areas,
- Integrate surface water and sediment control measures with the site topography and project development and operations plans, mainly in the form of road crossings,

- Provide long-term post-mining erosion and sediment control measures, including where practical the establishment of fully stabilised and protected final reclaimed surfaces that require minimal maintenance.

The overall concept employed is to divert runoff from surrounding natural drainage catchments (Undisturbed Water) around planned mine infrastructure development to avoid potential contact with areas developed for mining. Runoff from disturbed areas (Contact Clean Water) is routed through sediment control dams (SCDs) in order to clarify runoff. Any water that is from disturbed areas where there is the potential for contamination, such as pit dewatering, mineralised waste, landfills and the plant site (Contact Dirty Water) will be pumped to the process plant for treatment and/or use in the extraction process.

### 1.8.6 Recommended Further Work

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- GMMA has undertaken to continue with a comprehensive environmental monitoring program during the implementation phase of the project, and the following areas will be incorporated into the program.
- Continued rainfall measurements on site together with obtaining Kasungu Met Station data
- Establish and monitor an evaporation pan or similar measurement on site to determine the site-specific evaporative losses
- Re-survey and check of Milenje River gauging station channel profile and calculations used to determine flows
- Establish and monitor new flow gauging stations at the site.
- Comprehensive geotechnical investigation for WSF and diversion.
- Updated water demand and seepage modelling.

## 1.9 Project Infrastructure

### 1.9.1 Infrastructure Overview

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The project will operate as a largely self-contained industrial site. Water recycling, emissions control, and secure logistics infrastructure are incorporated.

### 1.9.2 Access and Roads

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The mine is accessed via a 29 km road from Chatoloma connecting to the M1 highway. Internal roads include heavy haul roads, light vehicle roads, and diversion roads around the Water Storage Facility.

### 1.9.3 Logistics and Consumables

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Major reagents include anhydrous hydrofluoric acid (~8 800 tpa), sulphuric acid (~12,000 tpa), ammonia (~300 tpa), and other flotation reagents. Materials are imported via ports at Nacala, Beira, and Dar es Salaam and transported by rail and truck.

#### 1.9.4 Fuel Supply

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During the initial stage diesel consumption is approximately 1 million litres per year, increasing to approximately 25 million litres per year when the plant is fully expanded. Fuel will be transported by rail to Lilongwe and trucked to site, with on-site storage tanks up to 2 million litres.

#### 1.9.5 Buildings and Facilities

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Infrastructure includes administration offices, laboratories, workshops, warehouses, medical facilities, emergency response buildings, and control rooms. Buildings use modular steel construction suitable for remote operations.

#### 1.9.6 Accommodation and Workforce

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A permanent residential village and construction camp will house staff. Total workforce is expected to reach approximately 300 personnel. Accommodation includes houses, dormitories, and shared services. The mining contractor will provide their own accommodation facilities.

#### 1.9.7 Communications and Security

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A Starlink satellite communications network, fibre optic backbone, and radio systems will support mine and plant operations.

#### 1.9.8 Overview of the Proposed Power Supply Solution

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##### 1.9.8.1 Executive Summary

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The Malawian Power Supply Utility (Escom) has the possibility to supply a small quantity of power to the operation at 33kV. This power supply is inadequate for the mine and both the quality and reliability of the supply from the rural network is considered inadequate for the operation. In addition, the power when available is expensive.

The mine will be primarily supplied with renewable solar photo voltaic (PV) power, either directly or via batteries where the excess PV is stored for consumption with the next 24 hour period. During periods of inclement weather and for a few hours per day, the operation will be supplied by diesel generators which will also be used for commissioning and early start-up of mining and process operations. The diesel generators will effectively be the power supply of last resort.

To minimise the \$/kWh, it has been found that Owner installed and operated PV/batter/diesel generator plant has significantly lower cost of production per kWh. Owner supplied and operated produces power at ~12c/kWh while IPP rates are ~20c/kWh and higher. It has been decided to capitalise the power plant.

##### 1.9.8.2 Installed capacity and configuration

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In the Initial phase 4 diesel generators will be installed such that 3 can supply the maximum load requirements of the operation with the 4<sup>th</sup> generator as an installed spare to ensure redundancy of supply.

In addition, the 20 MW of solar PV power generating equipment will be installed adjacent to the mining operation and 80 MWh of battery storage capacity. On average this will provide adequate power to operate the initial plant for 21.5 hrs per day with the balance provided by the diesel generators. On good

solar production days excess power production will be restricted to the loss of less than 30 mins of solar production.

The expansion phase is essentially a doubling of the power generating equipment with an additional 3 generators being required [7 in total] with another 20MW of PV and 80 MWh of battery storage being required

#### 1.9.8.3 *Expected Reliability and Availability*

These systems are modular and battery condition monitoring has progressed to be able to identify the early onset of battery cell failure while achieving a high availability and equipment reliability.

A service level target of better than 99.75% availability is expected [less than 24hrs production loss per year] with service level reliability targeting of less than 3 short term power supply disturbances in the year.

#### 1.9.9 Summary of Generation Technology Choices

##### 1.9.9.1 *Several technologies were considered as potential sources of power:*

**Escom:** Escom has supplied a letter of comfort to GMM stating that they will have 132kV power available at Kanyika. This option was seriously considered. However, the existing nearest point of reliable connection would require extensive network expansion ( $\pm 130$ km of new transmission line) and donor funding to enable servitude mapping, personnel relocation and finally construction. At this point, the completion programme is far out and uncertain, as is the funding.

The Mpatamanga Gorge project is slated to supply up to 350MW of additional generation capacity to the Malawi grid. Target completion is H2 2031. When/if this project is completed, it may be possible to access Eskom power with far more reliability.

**Wind:** Wind requires extensive local mapping and monitoring at location and does not suit the time frame of the project. It does have energy optimisation opportunities once the operation is operating.

**Local Hydro:** Hydro also has some opportunity in the long term once the diversion dam is built but does take both extensive development and construction time. It has a big advantage in that hydro will be effective in the periods of low solar PV production and is a significant optimisation opportunity. A 4MW turbine with 6km of penstock will cost ~\$15m. Based on average rainfall, such a plant will produce power at a cost of <20c/kWh. This would be much lower than burning diesel.

**Biomass:** Once the diversion dam is built, irrigation water can be made available to the immediate community to enable the growing of tall grass. This grass can be harvested year round and fed to a biodigester. The biomethane produced can be used to replace part of the diesel consumption as diesel engines can accept up to 35% diesel replacement when the engines are running under steady load.

##### 1.9.9.2 *Levelized Cost of Electricity (LCOE)*

The cost of electricity for the commissioning period and early works will be of the order of 61USc/kWh and will heavily be dependent on the price of diesel at the wholesale price in Malawi and the commissioning schedule of the PV and battery systems. Diesel represents some 71% of the cost of diesel generation.

Once the PV and battery systems are embedded the price of power to the plant will reduce to 30USc/kWh and the influence of the price of diesel will be significantly reduced

### 1.9.9.3 Key risks and Mitigation Strategies

Should an IPP be considered normal Power Purchase Agreement risk factors as applicable in Southern Africa would be applied in the selection of the power provider. Similarly, the legislative processes relative to power generation in Malawi are to be performed by a IPP provider as is normally applicable. Kanyika will provide support to the project via rental of land and assistance with the ESIA process as Kanyika already has MEPA approval for the mining area.

### 1.9.9.4 Implementation Timeline

Power plant development in Malawi takes a considerable time as there are some 50 documents that are required to completed and approved including the necessary consultation processes. The Environmental and Social Impact Assessment [ESIA] has made allowance for some PV land allocation. It is anticipated that the initial phase will have a head start enabling early access for PV land development.

Should GMM go the IPP route and has an acceptable partner to satisfy the IPP counter party risk requirements, the project will be able to proceed with finalising the Heads of Terms (HoT) of an acceptable Power Purchase Agreement (PPA). Several suitable IPPs that have indicated a desire to provide the power services. The Request for Proposal (RFP) and resolution of the PPA should take some 3 months from project go ahead, with the diesel generators on the ground some 9 months later i.e. 12 months from project go ahead. The PV plant will be functional 9 months later with batteries providing some support prior to full power plant commissioning.

### 1.9.9.5 Project Power Demand Overview

The project has been specifically designed to be as energy efficient as possible with particular emphasis on reducing motor inrush currents to absolute minimum.

**Table 1-19: Project Power Demand Table**

| Project Power Demand Table | Initial Phase  |               |              | Expansion Phase |               |              |
|----------------------------|----------------|---------------|--------------|-----------------|---------------|--------------|
| Maximum Demand kVA         | Design Minimum | Design supply | N-1 criteria | Design Minimum  | Design supply | N-1 criteria |
|                            | 5 343          | 3x 2 000      | 4x 2 000     | 11177           | 6x 2 000      | 7x 2 000     |
| Operating Load kW          | Design Minimum | Design supply |              | Design Minimum  | Design supply |              |
|                            | 4 992          | 5 000         |              | 10 384          | 10 400        |              |

### 1.9.9.6 Maximum demand

Under all circumstances the maximum demand can be satisfied by the diesel generation equipment, including the N-1 scenario where one generator is unavailable.

### 1.9.9.7 Average load

The average load is well satisfied by the PV and battery systems.

## **1.10 Legal Framework**

### **1.10.1 Project Ownership and Licence**

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Globe Metals and Mining Africa Limited (GMMA) holds the mining licence ML0216/21 issued on 13 August 2021, covering 33.42 km<sup>2</sup> with a 25-year term. Ownership comprises Globe Metals and Mining (UK) Limited (90%) and the Government of Malawi (10%) the transfer of which will occur in the short term.

### **1.10.2 Mining Development and Community Agreements**

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A Mining Development Agreement was signed in March 2023 and governs fiscal and operational terms between GMMA and the Government.

### **1.10.3 Malawian Mining and Environmental Legislation**

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The Mines and Minerals Act (2019), Environmental Management Act (2017), Water Resources Act (2013), and Forestry Act (2017) regulate licensing, environmental protection, water use, and natural resource conservation.

### **1.10.4 Land and Resettlement Laws**

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The Land Act (2016), Customary Land Act (2016), and Land Acquisition Act (1970, amended 2017) govern land tenure, acquisition, and compensation. Resettlement must comply with Malawian law and the Kanyika Resettlement Policy Framework which forms part of the conditions of the Environmental Approval.

### **1.10.5 Environmental and Water Compliance**

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Environmental Approval administered by the Malawian Environmental Protection Authority (MEPA) is mandatory. The approved Environmental Management and Monitoring Plans set out the binding commitments for the management of environmental and social impacts of the project. Water abstraction, storage, and discharge require licensing from the National Water Resources Authority and are also subject to conditions as set out by the authority.

### **1.10.6 Labour, Health and Safety Laws**

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Employment and labour law including the Labour Relations Act (1997) and the Employment Act (1997) as amended, as well as the Occupational Safety, Health and Welfare Act (1997), Gender Equality Act (2014), Worker's Compensation Act (2014) regulate wages, working conditions, worker safety, compensation, and equality. Occupational health and safety legislation requires safe workplaces and reporting of incidents.

### **1.10.7 Radioactive Materials and Hazardous Substances**

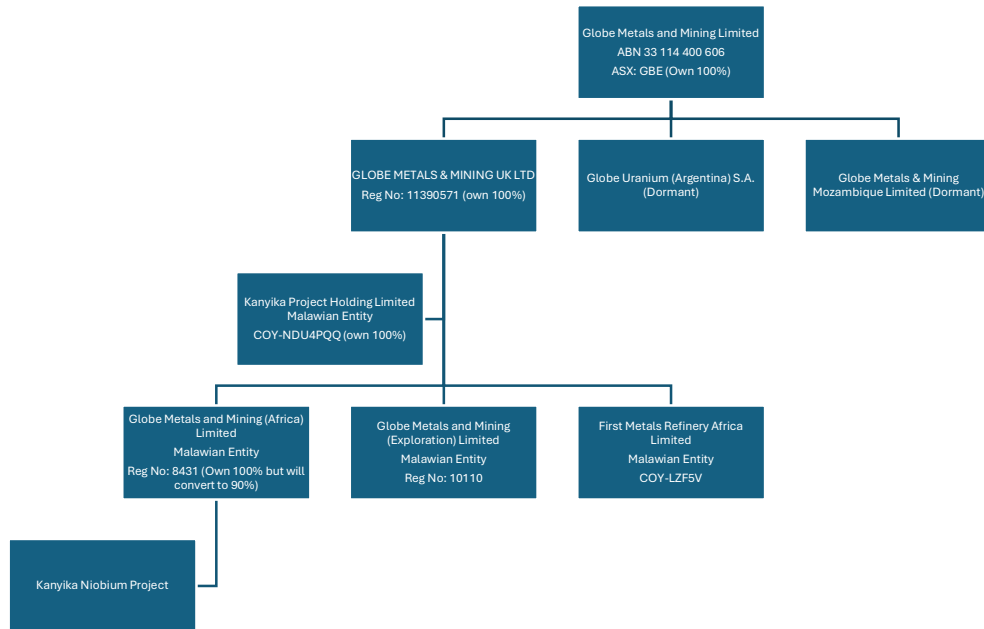
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Radioactive materials are regulated by the Atomic Energy Act (2011) and regulations (2012). The handling, transportation, storage and disposal of hazardous chemicals is governed by the Environment Management (Chemical and Toxic Substances Management) Regulations (2008).

## 1.10.8 International Conventions and Corporate Governance

Malawi is a signatory to certain international conventions, treaties and protocols that are applicable to the project, and these may be seen to provide additional direction in the absence or limitation of local legislation or policy. Corporate governance requirements are aligned to ASX requirements.

**Figure 1-30: Globe Organizational Structure**



## 1.11 Operations Management and Readiness

This Bankable Feasibility Study assesses the operational readiness of a new opencast mine integrated with a concentrator and refinery, ensuring that all technical, financial, and organizational elements are in place for a successful transition to production. The study evaluates key areas such as resource estimation, mining methodology, plant design, infrastructure requirements, logistics, workforce planning, and risk management. Extensive geotechnical and metallurgical testing confirm the viability of ore extraction and processing, while a comprehensive financial analysis demonstrates strong economic potential with competitive operating costs and robust return on investment. Environmental and regulatory compliance measures have been embedded into the planning process to align with sustainability best practices and stakeholder expectations.

A structured operational readiness framework has been developed to guarantee a smooth ramp-up to steady-state production. This includes a phased implementation plan, workforce training programs, supply chain and procurement strategies, and critical systems for safety, maintenance, and asset management. Technology-driven process automation and real-time monitoring systems will enhance efficiency and ensure seamless integration between the mine, concentrator, and refinery. Risk mitigation strategies address potential bottlenecks, including power supply stability, water management, and market fluctuations. With a well-defined execution strategy and committed investment, the project is

positioned for long-term success, delivering sustainable value to stakeholders while meeting industry-leading safety and environmental standards.

GMMA have undertaken to maximise the net benefit of the project to Malawi and a significant component of that undertaking will be to develop the human capital available with a structured management approach.

The KNP operation will commence with a limited expatriate component but with a very clear HR objective to reduce the expatriate component as quickly as practical and replace expatriates with Malawian nationals. Managers within GMMA's current structures will also be moved to the Kanyika site as required.

The KNP will be managed as two discrete business units (mine/concentrator and refinery) with total responsibility for all functions reporting as appropriate to head office. Overall operational responsibility will be undertaken by the Operations Manager and a senior management team comprising the HOD leaders responsible for their respective departmental development and the safe and efficient operation of the mine.

The functions of Finance, HSE and Security, People Management and Engineering will be combined as "Shared Services" and will provide services to both the business units. This will reduce infrastructure on site and subsequently reduce operating costs.

#### 1.11.1 Plant Staff Complement

Staff complement has been based on the following tenets:

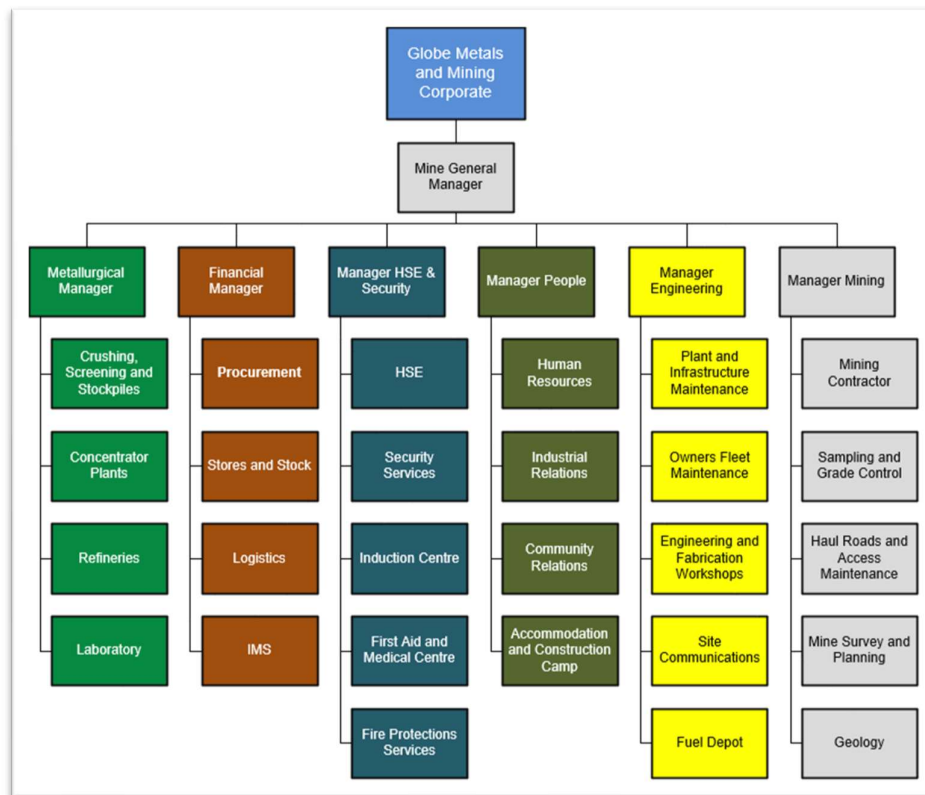
- Highly experience expatriate managers and engineers to provide overall control and expertise in their fields to deal with upsets as they arise
- A three shift, 24/7 system
- Additional cross trained staff to fill in for staff taking time off
- Shift supervisors over each major section of the plant who will manage and provide experienced guidance in cases of plant instability
- Sufficient operators to manage all the operating plant
- Cleaners to clean up spills that happen during plant operation
- The employee headcount is split across four separate operating phases or work areas:
- **Concentrator – Initial** has a total headcount of **133 employees**. This is the largest workforce and is heavily weighted toward labour, including **62 skilled labour**, **33 semi-skilled labour**, and **18 unskilled labour**. It also includes **15 administration staff**, **4 middle management**, **1 junior management**, and **no upper management / expat roles**.
- Refinery – Initial has a total headcount of 56 employees. This is a much leaner team than the initial concentrator workforce. It includes 1 upper management / expat, 2 middle management, 3 administration staff, 27 skilled labour, 16 semi-skilled labour, and 7 unskilled labour, with no junior management.
- Concentrator – Incremental Expansion adds a further 50 employees. This expansion workforce is mainly operational, consisting of 36 skilled labour, 8 semi-skilled labour, 4 unskilled labour, 1 upper management / expat, and 1 middle management, with no junior management or administration staff.
- Refinery – Incremental Expansion adds 30 employees. This is the smallest team and is mostly labour-focused, with 12 skilled labour, 13 semi-skilled labour, 4 unskilled labour, and 1

administration staff. There is no upper, middle, or junior management in this expansion component.

- Overall, the table shows that the **initial concentrator** is the most labour-intensive part of the operation, the **initial refinery** requires a smaller but still structured workforce, and the **incremental expansions** are mainly additional operating labour with very limited added management or administrative overhead.

### 1.11.2 Organogram

**Figure 1-31: Overall KNP Organogram**



### 1.11.3 Training

Personnel and skills retention will be a significant and ongoing challenge and there will be a strong and ongoing focus on training. The Kanyika Licence Agreement requires that GMMA maintain significant expenditure for training of personnel and local area inhabitants, to achieve effective use of resources.

Process plant operators will undergo formal intensive training programs during the early stages of plant commissioning, covering safety and operating procedures to be followed by formal on- and off-the-job operator training. This training will be aimed at providing each process plant operator with the necessary skills to safely operate all sections of the plant.

#### 1.11.4 SHE Management

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The health and safety of the workforce is a critical component of the GMMA culture. Globe's philosophy is that every employee should go home safe and healthy every day and GMMA are committed to keeping health and safety as a value that drives our overall performance.

GMMA will develop a comprehensive health, safety and risk management system for operations. GMMA will also place a strong emphasis on the training, competence, health and wellness of GMMA employees. As part of this, GMMA will provide opportunities for learning, as well as reinforcing and monitoring the application of learned skills and knowledge on the job.

GMMA will make a significant investment in procedures and controls into various health and safety training initiatives as a means of giving workers the skills and knowledge they need to perform their tasks in a safe and reliable way. GMMA will also require all contractors to provide and maintain a safe and healthy work environment, and ask that they meet, as a minimum, GMMA health and safety standards.

#### 1.11.5 Staff Accommodation

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The accommodation strategy will be guided by the following principles:

- **Compliance:** Adherence to all relevant Malawian laws, regulations, and international standards (e.g., IFC Performance Standards, ILO Conventions).
- **Health and Safety:** Ensuring that all accommodations meet or exceed standards for safety, hygiene, and environmental sustainability.
- **Inclusivity:** Providing equitable access to accommodation regardless of gender, ethnicity, or job level.
- **Community Integration:** Respecting local customs and minimizing disruption to surrounding communities.
- **Sustainability:** Incorporating energy efficiency and environmentally friendly practices into accommodation design and operation.

Permanent employees who qualify for company housing/accommodation, but elect to live off-site, will get a living out allowance in lieu of the housing/accommodation which will include local transport costs. All mine accommodation will be based on single status. Employees with families will accommodate their families off-site with costs for their own account. To accommodate the diverse needs of the workforce, housing will be provided in accordance with employee grades, with an emphasis on fairness, comfort, and practicality. Additionally, accommodation facilities will offer catering, boarding, and laundry services to support employee well-being and reduce time spent on domestic activities.

For both phases, the housing/accommodation for all types of employee grades will be constructed from modular/containerised temporary "park home" type of structures. This includes housing for permanent employees, contractors and site visitors. Housing/accommodation must have a lifespan of at least twenty years.

#### 1.11.6 Staff Transport

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The provision of staff transport will be limited to on-site requirements for travelling between accommodation villages and operational areas.

GMMA will facilitate transport for local employees in the immediate Kanyika/Chattaloma feeder areas by negotiating transport services with local transport supply contractors.

## 1.12 Environmental and Social Impact

### 1.12.1 Baseline Studies and Potential Project Impacts

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Extensive baseline studies were undertaken to inform the Environmental and Social Impact Assessment (ESIA, Synergistics 2012). Although the ESIA approval (Certificate 43A.4.5) issued in 2013 remains valid for the development of the project, as agreed with the MEPA in October 2024, the baseline environmental and social studies will be updated. A qualitative socio-economic survey was undertaken in January 2025 as part of the resettlement planning to provide input into the BFS. Further surveys and baseline monitoring are scheduled to commence in April 2026 and an updated EIA will be completed in 2026.

The most prominent surface water feature in the project area is the Milenje River, which bisects the mining licence area in a west to east direction. This river will be the main source of water for the project, with water initially abstracted from the river to a Pollution Control Dam and then later dammed upstream of the mine workings. At this stage the Milenje River will also need to be diverted to allow for the extension of the pit northwards.

Most of the project area has been drastically transformed through cropland agriculture and fuel wood collection. The Kanyika wetland to the south of the mining licence area however provides habitat for threatened and sensitive flora and fauna and is to be protected from further disturbance by mining activities. The Milenje River is also an important ecological corridor that is to be protected. The status of the wetland will be confirmed in the updated baseline studies.

Groundwater is an important source of water for communities in the area. The hydrocensus completed as part of the ESIA baseline studies in 2012 identified 14 community boreholes within 2 km of the orebody. It is also noted that a water reticulation system has recently been reinstated for water supply in the area. Eleven borehole pairs were also drilled within the mining licence area as part of the original baseline monitoring campaign. The monitoring campaign is to be reinstated in 2026. Some boreholes, including those in use by surrounding communities were found to have a baseline of elevated uranium levels in the previous studies and this will be checked as part of the planned monitoring. Based on geochemical studies it is not expected that the mining operations will have a deleterious effect on groundwater quality as the minerals including uranium are exceptionally stable and not prone to leaching, waste rock does not contain deleterious minerals and the low sulphur concentration and high net neutralisation potential means that the tailings will be non-acid generating.

Dewatering activities are expected to result in the lowering of levels within some surrounding community boreholes, particularly to the north of the pit. These will be monitored and alternative supply put in place as necessary.

A noise baseline was established for the area as part of the previous ESIA studies. Noise impacts on Entandweni School to the northwest of the mining are predicted. Updated noise baseline monitoring will be undertaken in 2026 and additional receptors identified. Noise monitoring will continue through construction and operations and noise mitigation implemented as required.

An extensive dust monitoring programme was undertaken to inform the previous ESIA studies and this will be reinstated in 2026. Dust dispersion is expected particularly to the west of the mining activities as

the predominant wind direction is from the east. Dust mitigation is planned throughout the construction and operational phases to minimise the impacts.

An extensive radiation monitoring programme was undertaken as part of the ESIA studies to establish baseline radiation levels. High radiation and radon gas levels were measured for sites on the ore body. Levels further away from the ore body were found to be significantly lower. Radiation impacts on communities because of mining activities are expected to largely be related to exposure to dust. Dust management from potential radiation sources is thus of importance to ensure protection of communities. It is predicted that the radiation exposure of personnel and communities will however be acceptable with the implementation of a comprehensive Radiation Management Programme.

It is estimated that the project will result in the relocation of 450 households (2,300 people), agricultural lands as well as community infrastructure. This will lead to permanent loss of land-based livelihoods mainly related to loss of croplands.

Based on the outcomes of a heritage survey undertaken in 2011 and verified as part of the 2025 socio-economic survey, there are ten known recognised graveyards/cemeteries within the relocation area and numerous individual gravesites. A further heritage survey will be undertaken as part of the updated baseline studies. The project layout has been planned to avoid such sites where practical. Access to sites for family members will be maintained throughout the life of the mine. There are however 2 sites located in the northern section of the mine pit that would need to be relocated during Phase 2. There is also one site of heritage significance which will be disturbed by the development of the tailings storage facility. This site will be test excavated prior to disturbance. GMMA will work with the Department of Museums and Monuments to update the baseline of heritage and grave sites prior to commencement of construction and for any remediation work required.

### 1.12.2 Environmental Impact Management

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The Environmental Management Plan included in the ESIA of 2012 as approved remains binding. GMMA will implement the measures to committed to. As agreed with MEPA in October 2024, the ESIA will be updated. The purpose of the update is to document changes in the baseline conditions and impacts because of these changes as well as amendments to the project description since completion of the approved ESIA. The EMP will also be updated accordingly.

### 1.12.3 Social Development Plan

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GMMA approach to Corporate Social Responsibility is in accordance with Mining Development Agreement. In 2024 GMMA signed a Community Development Agreement with the Kanyika Qualified Community. This agreement provides for the creation of the Kanyika Development Trust which will engage with the communities that surround the mine and assist with the development of those communities through funding obtained from the Kanyika Mine. GMMA's Corporate Social Responsibility projects will target water, health, education, food security and capacity building.

**Figure 1-32: Donation of desks**



Globe Metals & Mining is committed to responsible and sustainable development of the Kanyika Project, with a strong focus on environmental stewardship, community development, and transparent governance. Since the early stages of project development, Globe has actively implemented initiatives that support long-term sustainability and deliver meaningful benefits to local communities.

Globe has undertaken a range of environmental initiatives designed to promote sustainability, minimise environmental impact, and ensure ongoing compliance with regulatory requirements.

A key focus has been on reforestation and environmental awareness. Indigenous tree seedlings were donated to schools surrounding Kanyika in both 2015 and 2024. These initiatives not only contribute to biodiversity and land rehabilitation but also promote environmental education and awareness among students and the broader community.

In parallel, Globe has implemented environmental monitoring and control systems at the project site. This includes the installation of weather monitoring instruments, a dust detection machine, and laboratory water testing equipment. These systems enable continuous monitoring of air quality, water safety, and climatic conditions, ensuring that environmental risks are identified early and effectively managed. This proactive approach reflects Globe's commitment to minimising environmental impact while maintaining compliance with applicable environmental standards.

Globe has made sustained contributions to local communities across healthcare, education, and infrastructure, supporting improved living standards and long-term community development.

In healthcare, Globe assisted in the completion of the Entandweni village clinic and constructed housing for a health surveillance assistant. Additional support included the installation of a borehole at the clinic and facilitation of funding for solar power, a vaccine refrigeration system, and essential medical equipment, improving healthcare access and reliability for the local population.

In education, Globe has supported local schools through the donation of school desks to Kanyika Community Secondary School in both 2009 and 2024. These initiatives not only improved learning conditions but also supported local economic activity through engagement with local carpenters.

In terms of infrastructure, Globe undertook regular grading of the gravel road between Chatoloma and the Kanyika camp over multiple years, improving accessibility and transport reliability. The Company also installed water pumps in Machinga, including one at a primary school and another for broader community use, enhancing access to clean water.

Globe places strong emphasis on transparent governance and meaningful stakeholder engagement as a foundation for responsible project development.

Since 2007, the Company has maintained consistent engagement with local stakeholders, including community representatives, government authorities, and other key participants. This ongoing dialogue ensures that community perspectives are incorporated into project planning and development.

Globe also prioritises transparency and regulatory compliance, regularly holding community meetings and submitting project updates to the Ministry of Mining. This approach reinforces accountability and builds trust with stakeholders at all levels.

As the Kanyika Project progresses toward development, Globe is committed to delivering long-term benefits to surrounding communities. Planned initiatives linked to the next phase of development include improving access to electricity and establishing a modern business centre to support local economic activity.

These forward-looking initiatives are designed to enhance quality of life, create economic opportunities, and ensure that the benefits of the project are shared with the communities in which Globe operates.

#### 1.12.4 Resettlement

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Based on a socio-economic survey of 195 households undertaken in 2025, it is estimated that 450 households (approx. 2300 persons), 1 325 hectares of land, community infrastructure, cemeteries and graves will be affected by the project. The Resettlement Policy Framework approved as part of the ESIA sets out the principles and commitments for resettlement. Resettlement Action Plans are to be developed for the resettlement of persons, infrastructure, graves and heritage in collaboration with Ministry of Lands and the District Commissioner of Mzimba District.

Resettlement will be undertaken in two phases. An initial phase to resettle project affected persons impacted by infrastructure to be built in 2026 and the remaining project affected person will be removed prior to the commencement of the main construction activities. A cut-off date will be established for each of the two phased Resettlement Action Plans. The cut-off date will be gazetted prior to the commencement of the census.

The Resettlement Action Plans will provide the detail required for the implementation of the Resettlement Policy Framework and will culminate in the development of the compensation schedules to be entered into with the project affected persons. The Resettlement Action Plans will include a detailed census of all affected persons, land surveys, socio-economic surveys, development of asset inventory and valuation. A detailed survey by the Department of Museums and Monuments will also be undertaken as part of the updated baseline surveys to confirm the location of graves/cemeteries, heritage and sacred sites to be relocated. This will build on the previous survey work undertaken in the 2012 ESIA.

Resettlement will involve fair market-related financial compensation to project affected persons for land, houses and structures, timber and fruit-bearing trees. Affected persons will be allowed to harvest crops

(mainly maize and tobacco) prior to resettlement. Compensation will also be provided for loss of community infrastructure such as churches, boreholes, sports fields as well as the loss of business income. GMMA will provide additional assistance for relocation, reestablishment of crops and food security, as required. Provision has also been made for additional assistance to be given to vulnerable groups such as households headed by the elderly, children, people with disabilities and women for the reestablishment of their livelihoods.

### 1.12.5 Permitting and Licensing

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An Environmental Approval (Certificate 43A.4.5) was issued to GMMA for the project on 16 July 2013. At a meeting held with representatives of MEPA in October 2024, it was confirmed that the existing Environmental Approval remains valid. The conditions of the Environmental Approval (Certificate 43A.4.5) are binding as are the commitments made in the ESIA and EMP. GMMA undertakes to comply with all requirements.

MEPA is however mandated to ensure that the law as updated, is adhered to. Further to this, substantial time has lapsed since the completion of the ESIA and the baseline conditions have changed. It was thus agreed that an updated ESIA is to be compiled by GMMA for the project. This is also in accordance with Clause (I) of the conditions of the Environmental Approval.

GMMA is also to submit an update of the ESIA reflecting the change in baseline environmental and social conditions, any changes to the project description and associated impacts. The ESIA will be updated following the conclusion of a successful Bankable Feasibility Study with baseline studies due to commence in April 2026 and the updated ESIA will be completed before the end of the year.

In alignment with the Government of Malawi's policy to promote agriculture, tourism and mining (namely, the ATM Strategy), MEPA agreed that construction activities should commence as planned and in accordance with the Environmental Approval and associated conditions. MEPA however requested that GMMA submit a description of the construction activities and a Construction Management Plan. This document will assist MEPA in ensuring that activities are undertaken in accordance with current legal requirements.

In accordance with the Water Resources Act (2013), a licence is required for the abstraction, impoundment and use of water from a water resource (groundwater or river). GMMA commenced consultation with the National Water Resources Authority (NWRA) as to the process to obtain the necessary water permits required for the development in October 2024. A site visit was undertaken by representatives of NWRA on 11 February 2025. Applications will be made for water licences for the abstraction of water from boreholes and the Milenje River following the completion of the BFS. Based on discussions with NWRA on 29 October 2024, water permit applications take a maximum of 90 days to administer.

## 1.13 Project Implementation

### 1.13.1 Initial Mine and Plant Execution Programme

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The initial phase of the project is targeting to commence shipment of saleable product 18 months after project "decision to mine" is approved. To achieve this objective the KNP will undergo a series of development phases. These phases include:

- Collation of approval documents to allow the Project Go / No-Go decision comprising:

- Acceptance of the Development Agreement and related Shareholder Agreement
- Product sales agreements
- Project financing
- Select contracting strategy and identify construction partners
- Board “Decision to Mine” passed
- Commence funds drawdown and project implementation:
- Front end engineering design (FEED) and complete definition of the KNP, and supplement the technical detail to the feasibility
- Select EPCM contractor and proceed with engineering implementation
- Proceed with PAP relocation program
- Early Works Programs:
- Form Owner’s Project team
- Establish regional office support base
- Site clearing and preliminary earthworks
- Construction of accommodation camps
- Construction of access roads
- Ordering of long lead equipment
- Execution of Initial Plant Construction Phase (12 months):
- Construct power island
- Construct process plant
- Commence preliminary mining works (late phase)
- Commence Commissioning (3 months):
- 1-month cold commissioning phase
- 2-month hot commissioning phase
- Ramp-up and Production:
- Target 6-month ramp up phase to nameplate production

*Note: financial model assumes a 18-month ramp-up timeframe*

The project will be delivered using an EPCM (Engineering, Procurement and Construction Management) contracting model, which provides flexibility, cost transparency, and greater control over execution. Under this approach, the EPCM contractor is responsible for overall engineering design, procurement coordination, construction management, and commissioning oversight, while the project owner retains direct control of major contracts and suppliers.

The EPCM contractor will be engaged early to finalise detailed engineering, validate capital estimates, optimise plant design, and define procurement packages. This ensures that long-lead items, construction sequencing, and cost efficiencies are addressed prior to full-scale construction.

The tendering process will be structured around a series of work packages, including mining services, civil works, processing plant construction, power infrastructure, and key equipment supply. Each package will be competitively tendered to qualified contractors and suppliers with relevant experience, ensuring both technical capability and cost competitiveness.

A two-stage tender process will typically be adopted, comprising:

An initial prequalification phase, where contractors are assessed on technical capability, experience, safety performance, and financial strength

A subsequent competitive bidding phase, where shortlisted parties submit detailed technical and commercial proposals

For critical long-lead equipment (such as crushing, milling, and processing systems), the EPCM contractor will support early vendor engagement and procurement, ensuring delivery timelines align with the construction schedule and reducing supply chain risk.

The EPCM structure allows for parallel execution of engineering, procurement, and early works, enabling accelerated project delivery. It also supports cost control and transparency, as contracts are let directly to suppliers, and variations can be managed more efficiently than under a lump-sum EPC model.

Overall, this approach balances risk, flexibility, and execution certainty, allowing the project to leverage competitive tension in the market while maintaining strong oversight of quality, cost, and schedule throughout development.

### 1.13.2 Project Expansion

The project will begin expansion to full size upon commissioning of the initial plant. Project expansion and completion dates are summarized in indicated in the table below. The execution of engineering design, procurement, transport and construction will take approximately 24 months from project approval, with production ramp-up completed in month 36.

**Table 1-20: High Level Implementation Time Schedule initial to expansion**

| Period           | Key Activities                                                                                                                                                                                                                    |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Calendar Q2 2026 | Continue project evaluation and advance funding, offtake and EPCM negotiations; complete remaining BFS finalisation tasks; progress early development works; finalise technical and commercial framework required for development |
| Q3 2026          | Target Final Investment Decision (FID); execute initial funding and EPCM contracts; commence long-lead procurement; commence relocation of affected households in the initial phase                                               |
| Q4 2026          | Mobilise contractors and site teams; commence initial phase site works including site establishment, access roads, camp construction, water supply and temporary power                                                            |
| Q1–Q3 2027       | Major construction activities including civil works, structural steel erection, plant installation, tailings storage facility and power infrastructure; pre-strip and initial ore exposure                                        |
| Q4 2027          | Mechanical completion of major circuits; commissioning preparations                                                                                                                                                               |
| Q1 2028          | First production and initial revenues; target positive operating cash flow as initial phase reaches steady state                                                                                                                  |

| Period         | Key Activities                                                                                                                   |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| Q2 2028 – 2030 | Expansion phase construction to reach full capacity; full-scale operations expected in early 2030 (subject to market conditions) |
| 2049 – 2052    | Progressive closure and rehabilitation, with mine life extending through to 2052                                                 |

## 1.14 Capital Cost Estimate

Note all costs reflected in this section are as of 1 April 2025. The overall financial model will escalate these costs to 2026 terms.

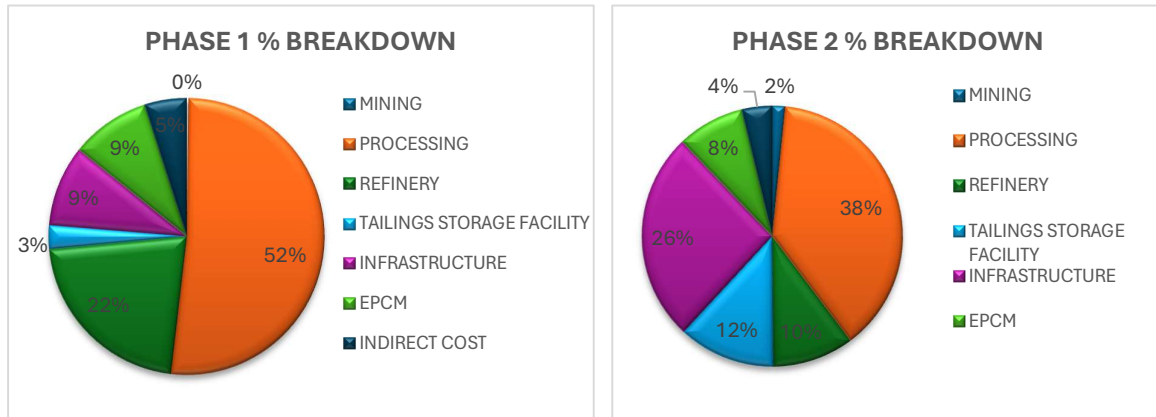
### 1.14.1 Capital cost estimates

The capital cost estimate was prepared according to the American Association of Cost Engineers (“AACE”) Class 2 level estimate with an expected accuracy of (+20% - 15%) The estimate for capital expenditure (“CapEx”) has a base date of Q1-2026. A summary of the estimated initial capital expenditures which will be executed into 2 phases

**Table 1-21: Capital Cost Estimate - Summary Breakdown**

| Description                  | Overall Plant  | Initial        | Expansion      |
|------------------------------|----------------|----------------|----------------|
| Mining                       | \$ 3 260 000   | \$ 200 000     | \$ 3 060 000   |
| Processing                   | \$ 119 451 185 | \$ 46 077 412  | \$ 73 373 773  |
| Refinery                     | \$ 38 672 564  | \$ 19 336 282  | \$ 19 336 282  |
| Tailings Facility            | \$ 25 673 985  | \$ 2 491 012   | \$ 23 182 973  |
| Infrastructure               | \$ 58 372 358  | \$ 8 452 288   | \$ 49 920 070  |
| EPCM                         | \$ 24 401 513  | \$ 8 317 306   | \$ 16 084 207  |
| Indirect Cost                | \$ 11 598 136  | \$ 4 388 408   | \$ 7 209 728   |
| SUB TOTAL                    | \$ 281 429 741 | \$ 89 262 708  | \$ 192 167 033 |
| Environmental & Social Costs | \$ 3 737 478   | \$ 2 185 218   | \$ 1 552 260   |
| Environmental Bond           | \$ 1 000 000   | \$ 1 000 000   | \$ -           |
| Contingency                  | \$ 42 214 461  | \$ 13 389 406  | \$ 28 825 055  |
| GRAND TOTAL                  | \$ 328 381 680 | \$ 105 837 332 | \$ 222 544 348 |

**Graph 1-10: Initial & Expansion % Breakdown**



### 1.14.2 Commodity Cost Breakdown

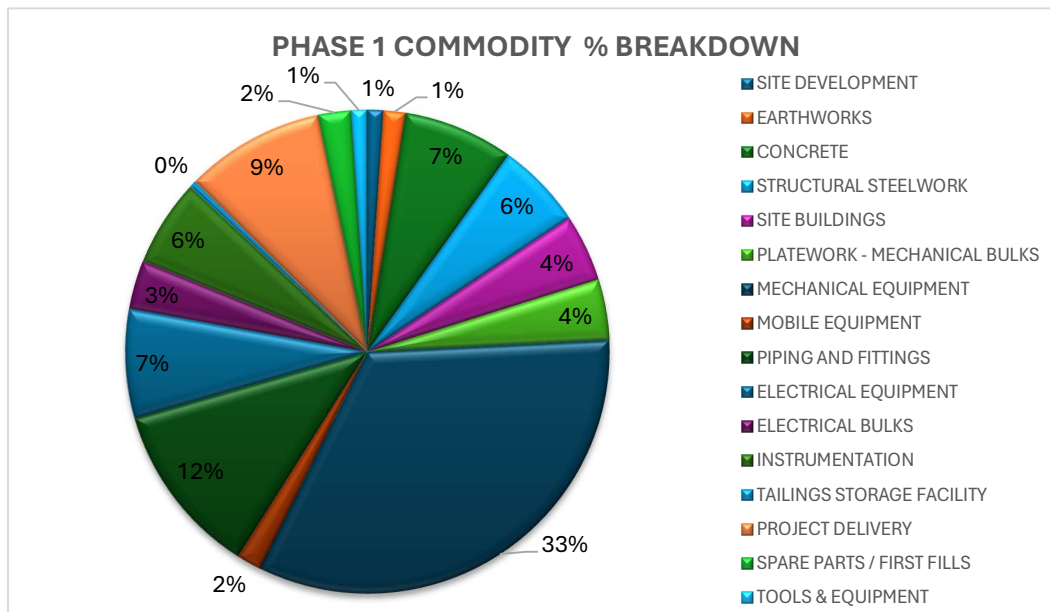
The capital cost estimate has been further analysed and presented as a commodity-based cost breakdown to illustrate the relative contribution of the major construction disciplines.

**Table 1-22: Capital Cost Estimate - Commodity Breakdown**

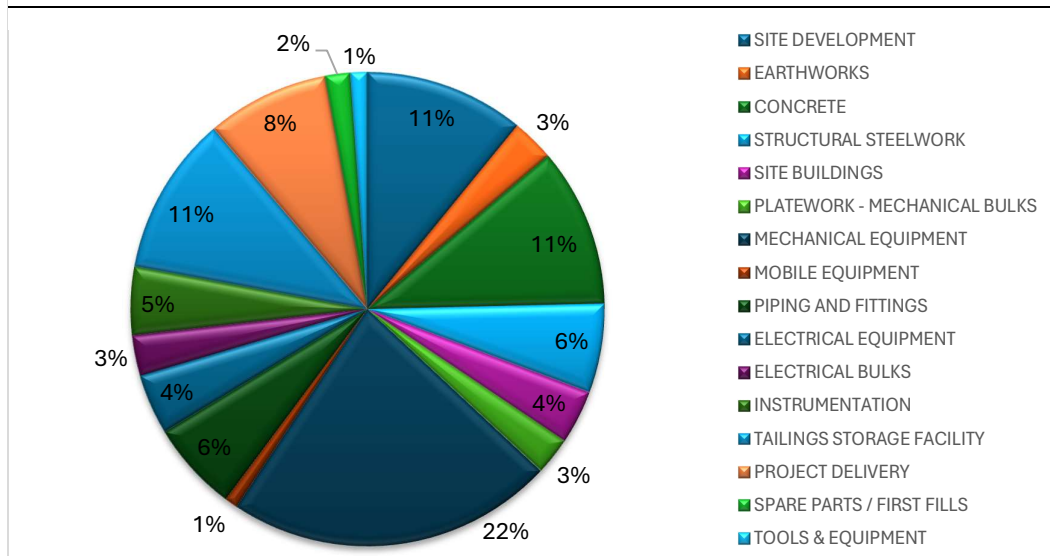
| Description                  | Overall Plant  | Initial       | Expansion      |
|------------------------------|----------------|---------------|----------------|
| Site Development             | \$ 21 883 753  | \$ 936 587    | \$ 20 947 166  |
| Earthworks                   | \$ 6 912 649   | \$ 1 333 677  | \$ 5 578 972   |
| Concrete                     | \$ 27 352 437  | \$ 6 552 442  | \$ 20 799 995  |
| Structural Steelwork         | \$ 16 863 586  | \$ 5 163 327  | \$ 11 700 259  |
| Site Buildings               | \$ 11 076 404  | \$ 4 011 713  | \$ 7 064 691   |
| Platework - Mechanical Bunks | \$ 8 522 380   | \$ 3 618 406  | \$ 4 903 974   |
| Mechanical Equipment         | \$ 72 540 650  | \$ 29 551 606 | \$ 42 989 044  |
| Mobile Equipment             | \$ 3 165 811   | \$ 1 465 763  | \$ 1 700 048   |
| Piping And Fittings          | \$ 22 150 427  | \$ 10 353 118 | \$ 11 797 309  |
| Electrical Equipment         | \$ 14 437 296  | \$ 6 505 752  | \$ 7 931 544   |
| Electrical Bunks             | \$ 8 207 705   | \$ 2 904 506  | \$ 5 303 199   |
| Instrumentation              | \$ 14 181 135  | \$ 5 212 429  | \$ 8 968 706   |
| Tailings Storage Facility    | \$ 21 301 670  | \$ 413 431    | \$ 20 888 239  |
| Project Delivery             | \$ 24 401 513  | \$ 8 317 306  | \$ 16 084 207  |
| Spare Parts / First Fills    | \$ 5 228 285   | \$ 1 958 605  | \$ 3 269 680   |
| Tools & Equipment            | \$ 3 204 040   | \$ 964 040    | \$ 2 240 000   |
| SUB TOTAL                    | \$ 281 429 741 | \$ 89 262 708 | \$ 192 167 033 |

| Description                  | Overall Plant  | Initial        | Expansion      |
|------------------------------|----------------|----------------|----------------|
| Environmental & Social Costs | \$ 3 737 478   | \$ 2 185 218   | \$ 1 552 260   |
| Environmental Bond           | \$ 1 000 000   | \$ 1 000 000   | \$ -           |
| Contingency (15%)            | \$ 42 214 461  | \$ 13 389 406  | \$ 28 825 055  |
| GRAND TOTAL                  | \$ 328 381 680 | \$ 105 837 332 | \$ 222 544 348 |

**Graph 1-11: Initial Commodity % Breakdown**



**Graph 1-12: Expanded Commodity % Breakdown**



### 1.14.3 Currency Exchange Rate

The capital cost estimate has been prepared in United States Dollars (USD) as the base reporting currency. Where cost inputs were obtained in other currencies, these values were converted to USD using the exchange rates indicated in Table 1-23.

**Table 1-23: Exchange Rates**

| Phase     | Other Currency | Exchange Rate <sup>*</sup> | Percentage | Amount        |
|-----------|----------------|----------------------------|------------|---------------|
| Initial   | Rand (ZAR)     | R 18.40                    | 62.1%      | \$ 55 445 179 |
| Expansion |                |                            | 38.6%      | \$ 74 244 033 |

### 1.14.4 Cashflow

The CapEx cashflow has been developed based on the planned project execution schedule and reflects the timing of capital expenditure from early bulk works through to mechanical completion and the start of production. Costs are distributed monthly in accordance with the expected construction sequence and procurement schedule. Contingency and EPCM costs have been distributed across the schedule to reflect the overall project execution period.

Table 1-24: Capex Cash Flow Forecast

| CapEx Cashflow Phase 1                          |           |            | Kanyika Project - DFS |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         | Start of production Phase 1 ▼ |                               |                  |
|-------------------------------------------------|-----------|------------|-----------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|-------------------------|-------------------------------|-------------------------------|------------------|
| Description                                     | Units     | Tot / Avg  | Early Bulk Work ▼     |                   | Project Start ▼  |                  |                  |                  |                  |                  |                  |                  |                   |                  | Mechanical Completion ▼ |                               | Start of production Phase 1 ▼ |                  |
|                                                 |           |            | Mth 1<br>Nov-26       | Mth 1<br>Dec-26   | Mth 2<br>Jan-27  | Mth 3<br>Feb-27  | Mth 4<br>Mar-27  | Mth 5<br>Apr-27  | Mth 6<br>May-27  | Mth 7<br>Jun-27  | Mth 8<br>Jul-27  | Mth 9<br>Aug-27  | Mth 10<br>Sept-27 | Mth 11<br>Oct-27 | Mth 12<br>Nov-27        | Mth 13<br>Dec-27              |                               |                  |
|                                                 |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| <b>MINING</b>                                   |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Mining Infrastructure                           | USD 000's | 200 000    |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  | 100 000                 | 100 000                       |                               |                  |
| <b>INFRASTRUCTURE</b>                           |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| External Infrastructure Upgrades - Public Roads | USD 000's | 116 732    | 23 346                | 23 346            | 23 346           | 23 346           | 23 346           |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Site Preparation, Bulk Earthworks And Roads     | USD 000's | 1 302 093  | 325 523               | 325 523           | 325 523          | 325 523          |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Mine - External Roads                           | USD 000's |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Water Storage Facility And River Diversion      | USD 000's | 609 530    |                       |                   | 69 953           | 69 953           | 69 953           | 69 953           | 69 953           | 69 953           | 69 953           | 69 953           | 69 953            | 69 953           |                         |                               |                               |                  |
| Waste And Product Storage Facilities            | USD 000's |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Buildings                                       | USD 000's | 4 771 836  | 1 192 959             | 1 192 959         | 1 192 959        | 1 192 959        |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Process Plant Pipework'S                        | USD 000's | 261 312    |                       |                   |                  | 52 262           | 52 262           | 52 262           | 52 262           | 52 262           | 52 262           |                  |                   |                  |                         |                               |                               |                  |
| <b>PROCESS PLANT</b>                            |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| <b>CONCENTRATION</b>                            |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Crushing                                        | USD 000's | 10 295 644 |                       | 1 286 956         | 875 130          | 875 130          | 875 130          | 875 130          | 1 029 564        | 1 029 564        | 1 029 564        | 1 029 564        | 1 029 564         | 1 029 564        | 360 348                 |                               |                               |                  |
| Grinding And Classification                     | USD 000's | 11 109 271 |                       | 1 388 859         | 944 288          | 944 288          | 944 288          | 944 288          | 1 110 927        | 1 110 927        | 1 110 927        | 1 110 927        | 1 110 927         | 1 110 927        | 388 824                 |                               |                               |                  |
| Pyrochlore Flotation                            | USD 000's | 3 236 671  |                       | 404 884           | 275 117          | 275 117          | 275 117          | 275 117          | 323 667          | 323 667          | 323 667          | 323 667          | 323 667           | 323 667          | 113 263                 |                               |                               |                  |
| Zircon Flotation                                | USD 000's | 2 635 765  |                       | 316 971           | 215 540          | 215 540          | 215 540          | 215 540          | 253 577          | 253 577          | 253 577          | 253 577          | 253 577           | 253 577          | 88 752                  |                               |                               |                  |
| Pyrochlore Concentrate Dewatering & Storage     | USD 000's | 2 862 169  |                       | 360 271           | 244 984          | 244 984          | 244 984          | 244 984          | 288 217          | 288 217          | 288 217          | 288 217          | 288 217           | 288 217          | 100 676                 |                               |                               |                  |
| Tailings Storage Facility                       | USD 000's | 413 431    |                       | 51 679            | 35 142           | 35 142           | 35 142           | 35 142           | 41 343           | 41 343           | 41 343           | 41 343           | 41 343            | 41 343           | 14 470                  |                               |                               |                  |
| Tailings Handling                               | USD 000's | 2 153 624  |                       | 269 203           | 183 058          | 183 058          | 183 058          | 183 058          | 215 362          | 215 362          | 215 362          | 215 362          | 215 362           | 215 362          | 75 377                  |                               |                               |                  |
| General Reagents                                | USD 000's | 1 134 004  |                       | 141 750           | 96 390           | 96 390           | 96 390           | 96 390           | 113 400          | 113 400          | 113 400          | 113 400          | 113 400           | 113 400          | 39 690                  |                               |                               |                  |
| <b>REFINERY</b>                                 |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Refinery                                        | USD 000's | 10 981 727 |                       | 1 372 716         | 933 447          | 933 447          | 933 447          | 933 447          | 1 098 173        | 1 098 173        | 1 098 173        | 1 098 173        | 1 098 173         | 1 098 173        | 384 360                 |                               |                               |                  |
| Acid Adjustment & Cooling / Leach               | USD 000's | 209 149    |                       | 26 144            | 17 778           | 17 778           | 17 778           | 17 778           | 20 915           | 20 915           | 20 915           | 20 915           | 20 915            | 20 915           | 7 320                   |                               |                               |                  |
| Solvent Extra Tantulum Extraction               | USD 000's | 1 812 372  |                       | 226 547           | 154 052          | 154 052          | 154 052          | 154 052          | 181 237          | 181 237          | 181 237          | 181 237          | 181 237           | 181 237          | 63 433                  |                               |                               |                  |
| Tantalum Precipitation                          | USD 000's | 1 108 876  |                       | 138 359           | 94 084           | 94 084           | 94 084           | 94 084           | 110 688          | 110 688          | 110 688          | 110 688          | 110 688           | 110 688          | 38 741                  |                               |                               |                  |
| Neutralisation                                  | USD 000's | 2 174 591  |                       | 271 824           | 184 840          | 184 840          | 184 840          | 184 840          | 217 459          | 217 459          | 217 459          | 217 459          | 217 459           | 217 459          | 76 111                  |                               |                               |                  |
| Lime Boil                                       | USD 000's | 1 377 996  |                       | 172 249           | 117 130          | 117 130          | 117 130          | 117 130          | 137 800          | 137 800          | 137 800          | 137 800          | 137 800           | 137 800          | 48 230                  |                               |                               |                  |
| Utilities                                       | USD 000's | 1 673 571  |                       | 209 196           | 142 254          | 142 254          | 142 254          | 142 254          | 167 357          | 167 357          | 167 357          | 167 357          | 167 357           | 167 357          | 58 676                  |                               |                               |                  |
| <b>INFRASTRUCTURE</b>                           |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Plant Services                                  | USD 000's | 1 300 784  |                       |                   | 195 118          | 195 118          | 195 118          | 195 118          |                  | 195 118          | 195 118          | 130 078          |                   |                  |                         |                               |                               |                  |
| Process Control & Instrumentation System        | USD 000's | 5 212 429  |                       |                   | 781 864          | 781 864          | 781 864          | 781 864          |                  | 781 864          | 781 864          | 521 243          |                   |                  |                         |                               |                               |                  |
| Mobile Equipment                                | USD 000's | 1 445 163  |                       | 293 163           | 293 163          | 293 163          | 293 163          | 293 163          |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Water Supply                                    | USD 000's | 80 076     |                       | 12 011            | 12 011           | 12 011           | 12 011           | 12 011           |                  | 12 011           |                  | 8 008            |                   |                  |                         |                               |                               |                  |
| Electrical Services                             | USD 000's | 9 410 258  |                       |                   | 941 026          | 941 026          | 941 026          | 941 026          |                  | 941 026          | 941 026          | 941 026          | 941 026           | 941 026          | 941 026                 |                               |                               |                  |
| Plant Air                                       | USD 000's | 105 082    |                       |                   |                  |                  |                  |                  | 15 762           |                  |                  | 15 762           |                   |                  |                         |                               |                               |                  |
| <b>OWNERS COST</b>                              |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| <b>TEMPORARY FACILITIES</b>                     |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Tools & Equipment                               | USD 000's | 222 043    |                       | 222 043           |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Temporary Services And Facilities               | USD 000's | 350 276    |                       | 350 276           |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| <b>SPARES &amp; FIRST FILL</b>                  |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Spares & First Fill                             | USD 000's | 2 350 326  |                       |                   |                  |                  |                  |                  |                  |                  |                  | 470 065          | 470 065           | 470 065          | 470 065                 | 470 065                       |                               |                  |
| <b>GR&amp;A</b>                                 |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| EPICM                                           | USD 000's | 8 317 306  | 415 865               | 415 865           | 415 865          | 415 865          | 415 865          | 415 865          | 582 211          | 582 211          | 582 211          | 582 211          | 582 211           | 582 211          | 582 211                 | 748 558                       |                               |                  |
| <b>CONTINGENCY</b>                              |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Contingency (15%)                               | USD 000's | 80 262 707 | 1 957 684             | 9 472 285         | 8 764 052        | 8 816 315        | 7 594 735        | 6 944 833        | 6 876 540        | 2 634 446        | 7 955 891        | 8 040 025        | 7 388 704         | 7 483 450        | 3 951 692               | 1 052 277                     | 582 211                       |                  |
|                                                 |           | 13 389 406 | 293 654               | 1 420 843         | 1 314 608        | 1 322 447        | 1 139 210        | 1 041 725        | 881 331          | 395 167          | 1 193 384        | 1 206 004        | 1 108 306         | 1 122 517        | 592 754                 | 157 841                       | 87 332                        |                  |
| CapEx Cashflow Phase 2                          |           |            | Kanyika Project - DFS |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         | Start of production Phase 2 ▼ |                               |                  |
| Description                                     | Units     | Tot / Avg  | Early Bulk Work ▼     |                   | Project Start ▼  |                  |                  |                  |                  |                  |                  |                  |                   |                  | Mechanical Completion ▼ |                               | Start of production Phase 2 ▼ |                  |
|                                                 |           |            | Mth 21<br>Aug-28      | Mth 22<br>Sept-28 | Mth 23<br>Oct-28 | Mth 24<br>Nov-28 | Mth 25<br>Dec-28 | Mth 26<br>Jan-29 | Mth 27<br>Feb-29 | Mth 28<br>Mar-29 | Mth 29<br>Apr-29 | Mth 30<br>May-29 | Mth 31<br>Jun-29  | Mth 32<br>Jul-29 | Mth 33<br>Aug-29        | Mth 34<br>Sept-29             |                               | Mth 35<br>Oct-29 |
|                                                 |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| <b>MINING</b>                                   |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Mining Infrastructure                           | USD 000's | 3 060 000  |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  | 1 009 800               | 1 009 800                     | 1 040 400                     |                  |
| <b>INFRASTRUCTURE</b>                           |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| External Infrastructure Upgrades - Public Roads | USD 000's | 3 827 619  |                       |                   |                  | 765 524          | 765 524          | 765 524          | 765 524          | 765 524          |                  |                  |                   |                  |                         |                               |                               |                  |
| Site Preparation, Bulk Earthworks And Roads     | USD 000's | 6 828 968  |                       |                   |                  | 1 365 794        | 1 365 794        | 1 365 794        | 1 365 794        | 1 365 794        |                  |                  |                   |                  |                         |                               |                               |                  |
| Mine - External Roads                           | USD 000's | 1 046 684  |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Water Storage Facility And River Diversion      | USD 000's | 14 831 011 |                       |                   |                  |                  |                  |                  | 1 483 101        | 1 483 101        | 1 483 101        | 1 483 101        | 1 483 101         | 1 483 101        | 1 483 101               | 1 483 101                     | 1 483 101                     | 1 483 101        |
| Waste And Product Storage Facilities            | USD 000's | 320 874    |                       |                   |                  |                  |                  |                  | 32 097           | 32 097           | 32 097           | 32 097           | 32 097            | 32 097           | 32 097                  | 32 097                        | 32 097                        |                  |
| Buildings                                       | USD 000's | 13 609 262 |                       |                   |                  | 2 721 852        | 2 721 852        | 2 721 852        | 2 721 852        | 2 721 852        | 2 721 852        | 2 721 852        | 2 721 852         | 2 721 852        | 2 721 852               | 2 721 852                     | 2 721 852                     |                  |
| Process Plant Pipework'S                        | USD 000's | 4 614 179  |                       |                   |                  |                  |                  |                  | 922 836          | 922 836          | 922 836          | 922 836          | 922 836           | 922 836          | 922 836                 | 922 836                       | 922 836                       |                  |
| <b>PROCESS PLANT</b>                            |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| <b>CONCENTRATION</b>                            |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Crushing                                        | USD 000's | 10 372 801 |                       |                   |                  | 1 296 600        | 881 688          | 881 688          | 881 688          | 881 688          | 1 037 280        |                  |                   | 933 552          | 933 552                 | 933 552                       | 933 552                       | 777 960          |
| Grinding And Classification                     | USD 000's | 19 863 319 |                       |                   |                  | 2 482 915        | 1 688 382        | 1 688 382        | 1 688 382        | 1 688 382        | 1 986 332        |                  |                   | 1 787 699        | 1 787 699               | 1 787 699                     | 1 787 699                     | 1 489 749        |
| Pyrochlore Flotation                            | USD 000's | 6 529 967  |                       |                   |                  | 816 245          | 555 046          | 555 046          | 555 046          | 555 046          | 652 996          |                  |                   | 587 696          | 587 696                 | 587 696                       | 587 696                       | 489 747          |
| Zircon Flotation                                | USD 000's | 6 599 816  |                       |                   |                  | 749 977          | 509 984          | 509 984          | 509 984          | 509 984          | 599 982          |                  |                   | 539 983          | 539 983                 | 539 983                       | 539 983                       | 449 986          |
| Pyrochlore Concentrate Dewatering & Storage     | USD 000's | 5 648 990  |                       |                   |                  | 706 124          | 480 164          | 480 164          | 480 164          | 480 164          | 564 899          |                  |                   | 508 409          | 508 409                 | 508 409                       | 508 409                       | 423 674          |
| Tailings Storage Facility                       | USD 000's | 20 853 935 |                       |                   |                  | 2 608 742        | 1 772 584        | 1 772 584        | 1 772 584        | 1 772 584        | 2 085 393        |                  |                   | 1 876 854        | 1 876 854               | 1 876 854                     | 1 876 854                     | 1 564 045        |
| Tailings Handling                               | USD 000's | 2 600 078  |                       |                   |                  | 325 010          | 221 007          | 221 007          | 221 007          | 221 007          | 260 007          |                  |                   | 234 007          | 234 007                 | 234 007                       | 234 007                       | 195 006          |
| General Reagents                                | USD 000's | 2 297 234  |                       |                   |                  | 287 154          | 195 265          | 195 265          | 195 265          | 195 265          | 229 723          |                  |                   | 206 761          | 206 761                 | 206 761                       | 206 761                       | 172 293          |
| <b>REFINERY</b>                                 |           |            |                       |                   |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                         |                               |                               |                  |
| Refinery                                        | USD 000's | 10 981 727 |                       |                   |                  | 1 372 716        | 933 447          | 933 447          | 933 447          | 933 447          | 1 098 173        |                  |                   | 988 355          | 988 355                 | 988 355                       | 988 355                       | 823 630          |
| Acid Adjustment & Cooling / Leach               | USD 000's | 209 149    |                       |                   |                  | 26 144           | 17 778           | 17 778           | 17 778           | 17 778           | 20 915           |                  |                   | 18 823           | 18 823                  | 18 823                        |                               |                  |

## 1.15 Operating Cost

### 1.15.1 Introduction

This executive summary presents an overall evaluation of the operating expenditure (OpEx) for the Kanyika Niobium and Tantalum operation.

The structure of the OpEx forecast separates the Concentrator and the Refinery, which are operated as distinct processing units during operation. Operating costs are reported in accordance with the type of material processed, such that the Concentrator is evaluated on a cost per tonne of ROM basis (USD/t<sub>ROM</sub>), while the Refinery is evaluated on a cost per tonne of concentrate basis (USD/t<sub>Conc</sub>).

All figures presented in this report have been rounded to an appropriate level of precision, while underlying calculations are performed using unrounded values. As a result, minor differences may arise when re-performing calculations using reported figures or when values are extracted across different sections. These variations are expected and are not material to the overall conclusions.

**Table 1-25: Design Parameters**

| Parameter                    | Units  | Initial | Incremental Expansion | Overall LOM |
|------------------------------|--------|---------|-----------------------|-------------|
| ROM Feed to the Concentrator | Tonnes | 939 583 | 32 821 418            | 33 761 001  |
| Concentrate Feed to Refinery | Tonnes | 12 059  | 304 806               | 316 865     |
| Annual Operating Hours       | h/a    | 8000    | 8000                  | 8000        |
| Daily Operating Hours        | h/a    | 24      | 24                    | 24          |
| Operating Days               | d/a    | 333     | 333                   | 333         |
| Mining Duration              | years  | 2.5     | 22                    | 24.5        |
| Processing Duration          | years  | 2       | 23                    | 25          |

### 1.15.2 Operating Cost Forecast

**Table 1-26: Concentrator Opex**

| Parameter                                     | Initial | Incremental Expansion | Overall LOM |
|-----------------------------------------------|---------|-----------------------|-------------|
| <b>Direct Cost - (USD/t<sub>ROM</sub>)</b>    |         |                       |             |
| Labour                                        | 7.44    | 0.95                  | 3.46        |
| Reagents                                      | 19.83   | 19.83                 | 19.83       |
| Electricity                                   | 1.83    | 1.03                  | 1.05        |
| Maintenance                                   | 0.96    | 0.54                  | 0.86        |
| Replacement Capital                           | 0.30    | 0.22                  | 0.23        |
| Plant Consumables                             | 0.60    | 0.45                  | 0.45        |
| <b>Indirect Costs - (USD/t<sub>ROM</sub>)</b> |         |                       |             |
| Wet Tailings Storage                          | 0.93    | 0.93                  | 0.93        |

| Parameter     | Initial | Incremental Expansion | Overall LOM |
|---------------|---------|-----------------------|-------------|
| Mining        | 22.66   | 12.10                 | 12.39       |
| Mining Labour | 1.38    | 0.36                  | 0.38        |
| Camp Services | 0.40    | 0.12                  | 0.13        |
| G&A           | 11.88   | 4.49                  | 4.69        |
| Total Opex    | 68.20   | 41.01                 | 44.40       |

**Graph 1-13: Overall Concentrator Opex Distribution**

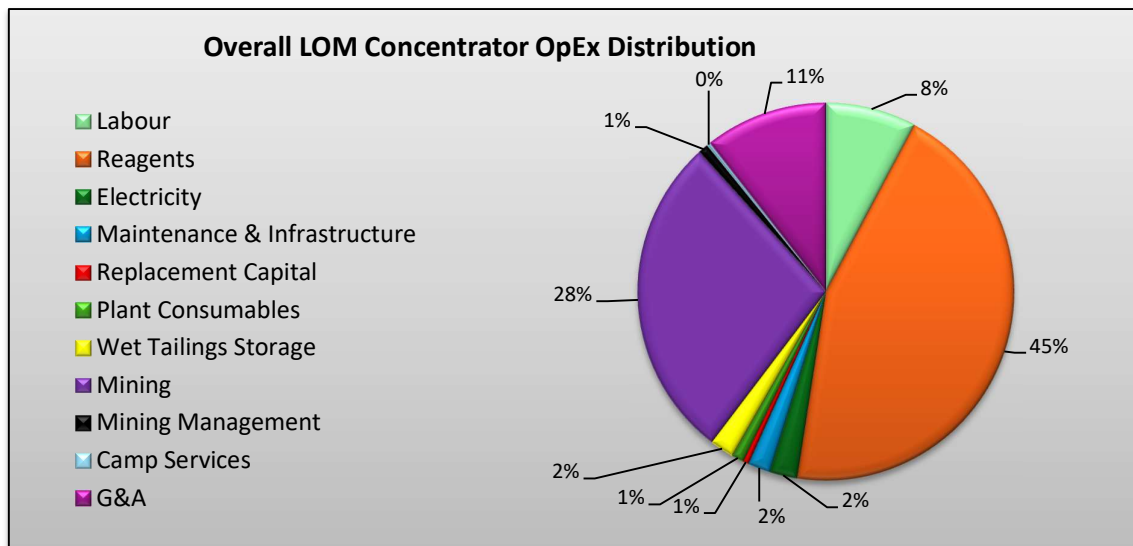
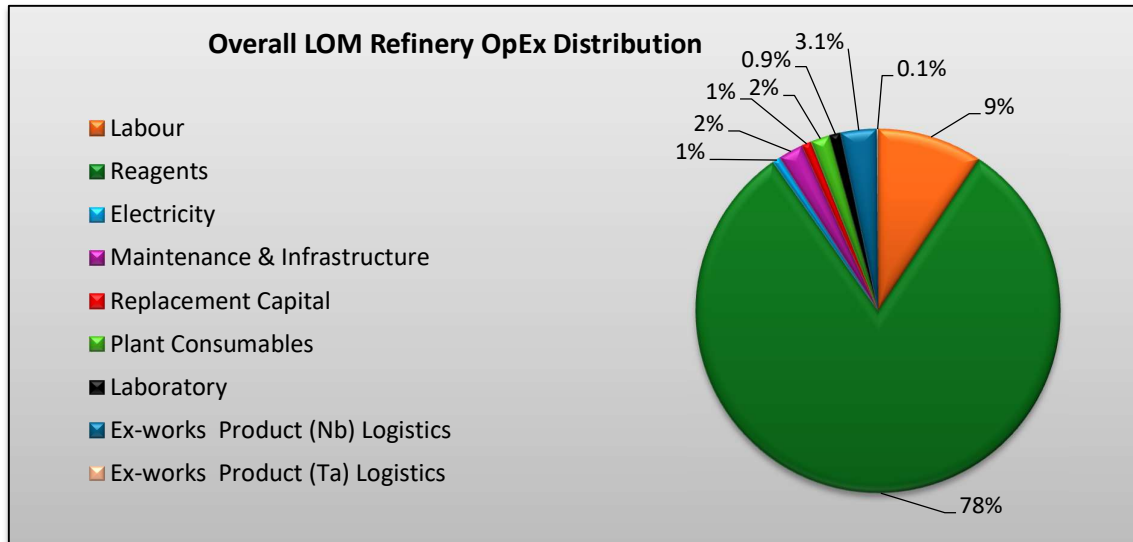


**Table 1-27: Refinery Opex**

| Cost Component                                 | Initial  | Expansion | Overall  |
|------------------------------------------------|----------|-----------|----------|
| <b>Direct Costs - (USD/t<sub>Conc</sub>)</b>   |          |           |          |
| Labour                                         | 250.62   | 48.42     | 163.42   |
| Reagents                                       | 1 415.29 | 1 415.29  | 1 415.29 |
| Electricity                                    | 15.80    | 12.29     | 12.42    |
| Maintenance & Infrastructure                   | 42.45    | 18.47     | 38.47    |
| Replacement Capital                            | 17.24    | 14.94     | 15.03    |
| Plant Consumables                              | 34.48    | 29.89     | 30.06    |
| <b>Indirect Costs - (USD/t<sub>Conc</sub>)</b> |          |           |          |
| Laboratory                                     | 21.00    | 7.00      | 16.97    |
| Nb Logistics                                   | 55.76    | 55.76     | 55.76    |
| Ta Logistics                                   | 2.16     | 2.25      | 2.25     |
| Camp Services                                  | 13.08    | 6.09      | 6.44     |

| Cost Component | Initial  | Expansion | Overall  |
|----------------|----------|-----------|----------|
| G&A            | 96.16    | 50.18     | 51.93    |
| Total Opex     | 1 964.04 | 1 660.58  | 1 808.04 |

**Graph 1-14: Overall Refinery Opex Distribution**



### 1.15.3 Opex Discussion Summary

The operating cost profile of the Kanyika process plant demonstrates a clear improvement in unit cost efficiency over the life of mine (LOM), driven primarily by the transition from the initial plant configuration to the expanded operation, while limiting the corresponding staff and infrastructure ramp-up as far as possible without compromising the operation itself.

The Concentrator shows a reduction in unit cost from 68.20 USD/t<sub>ROM</sub> to 44.40 USD/t<sub>ROM</sub> over the LOM, representing a 35% decrease. The Refinery shows a smaller reduction in unit cost compared to the Concentrator, decreasing from 1,964.04 USD/t<sub>Conc</sub> to 1,808.04 USD/t<sub>Conc</sub>, equating to an 8% decrease. This is mainly driven by the scale of throughput change from initial to expansion operations, where a steep ROM step-up from 0.5 Mtpa to 1.5 Mtpa (67%) is matched by a similar transition step-up for the Refinery from 8 Ktpa to 16 Ktpa (50%).

Labour costs demonstrate a strong efficiency gain with increased throughput. In the Concentrator, labour decreases from 7.44 USD/t<sub>ROM</sub> to 3.46 USD/t<sub>ROM</sub> (53% reduction), while in the Refinery, labour decreases from 250.62 to 163.42 USD/t<sub>Conc</sub> (35% reduction). This behaviour is consistent with the semi-fixed nature of labour, where core operational staffing requirements remain largely unchanged, and incremental increases are limited to additional operators and equipment handlers. As a result, labour intensity per tonne reduces as throughput increases, improving overall cost efficiency.

Table 1-28 and 1-29 above indicate the split electrical costs for the Concentrator in USD/t<sub>ROM</sub> and the Refinery in USD/t<sub>Conc</sub>. However, for the purpose of a clearer evaluation, the discussion on electricity cost will be reviewed on a USD/t<sub>ROM</sub> basis for the combined demand of the Concentrator and Refinery. Electricity costs show a notable improvement, decreasing from 2.03 USD/t<sub>ROM</sub> in the initial phase to 1.17 USD/t<sub>ROM</sub> over the LOM (42% reduction). The cost structure is driven primarily by diesel-based backup generation at 0.58 USD/kWh, although generator utilisation is limited to approximately one hour per day.

The majority of the plant's energy demand is supplied through solar and battery systems, contributing a relatively stable cost of 0.10 USD/t<sub>ROM</sub>. The reduction in unit electricity cost is therefore attributed to improved utilisation of installed capacity and higher throughput, rather than changes in energy pricing or technology.

Reagent costs remain constant throughout the LOM at 19.83 USD/t<sub>ROM</sub> for the Concentrator and 1,415.29 USD/t<sub>Conc</sub> for the Refinery (0% change). This is expected, as reagent consumption is fundamentally linked to metallurgical requirements on a per-tonne basis and is not sensitive to throughput increases. Consequently, reagent costs continue to dominate the Refinery operating cost structure, accounting for approximately 78% of total Refinery Opex. While significantly high, this is expected due to the high chemical reliance of the Refinery process.

Indirect operating costs associated with the Concentrator include mining, wet tailings storage, mining management, camp services, and general and administrative (G&A) costs, all of which are reported per tonne of ROM processed.

Wet tailings storage costs remain constant at 0.93 USD/t<sub>ROM</sub>, reflecting low operational complexity and stable unit costs over the LOM.

Mining costs reduce from 22.66 to 12.39 USD/t<sub>ROM</sub> (45% reduction), driven by improved scale efficiencies and operational optimisation as production increases. Mining management, which forms a smaller component of total mining cost, decreases from 1.38 to 0.38 USD/t<sub>ROM</sub> (72.5% reduction), further reinforcing the semi-fixed nature of labour.

Camp services are closely linked to labour requirements. The camp is established during the initial phase, with sufficient capacity provisioned upfront to accommodate future increases in personnel. As a result, unit costs reduce from 0.40 to 0.13 USD/t<sub>ROM</sub> (67.5% reduction), reflecting improved utilisation rather than reductions in absolute cost.

G&A costs decrease from 11.88 to 4.69 USD/t<sub>ROM</sub> (60.5% reduction), indicating meaningful scaling benefits. However, a portion of G&A remains fixed in nature, limiting the extent of cost reduction relative to fully variable cost categories.

Indirect operating costs associated with the Refinery include laboratory services, product logistics, camp services, and G&A, all reported per tonne of concentrate produced.

Laboratory costs decrease from 21.00 to 16.97 USD/t<sub>Conc</sub> (19.2% reduction), consistent with improved utilisation of fixed infrastructure.

Nb<sub>2</sub>O<sub>5</sub> and Ta<sub>2</sub>O<sub>5</sub> product logistics are costed on an ex-works basis, up to packaging and storage. These activities exhibit low operational complexity and variability, and costs remain stable over the LOM at 55.76 and 2.25 USD/t<sub>Conc</sub>, respectively (0% change).

Refinery camp services decrease from 13.08 to 6.44 USD/t<sub>Conc</sub> (50.8% reduction), reflecting improved utilisation of established infrastructure.

Refinery G&A costs decrease from 96.16 to 51.93 USD/t<sub>Conc</sub> (46.0% reduction), demonstrating partial scalability, although a portion remains fixed due to administrative and corporate overhead requirements.

Overall, the Concentrator cost structure is highly sensitive to scale, with clear reductions in labour, mining, electricity, and support services as throughput increases. In contrast, the Refinery cost structure remains largely driven by reagent consumption, resulting in a more stable unit cost over the LOM. This indicates that the Concentrator benefits primarily from throughput-driven efficiencies, while the Refinery requires optimisation of reagent consumption to achieve further cost improvements.

## 1.16 Risk

### 1.16.1 Overview

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This section summarises the key risks identified in the Bankable Feasibility Study (BFS) for the Kanyika Niobium Project (KNP). The assessment covers risks across project implementation, operations, and closure. A structured risk register and evaluation matrix were applied to identify intolerable and undesirable risks after mitigation measures. The list is not exhaustive.

### 1.16.2 Principal Risk Categories

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The project is classified as moderate to high risk in several areas:

- Technical Risk – Complex processing plant in a remote location; operating costs sensitive to energy and reagents; requirement for skilled workforce.
- Sovereign & Social Risk – Long-term investment in a developing mining jurisdiction; community relations and regulatory stability considerations.
- Marketing & Revenue Risk – Concentrated niobium market with dominant supplier; opaque pricing and off-take execution risk.
- Infrastructure & Power Risk – Dependence on grid supply (ESCOM) with risk of late delivery or unreliable supply.
- Health & Safety Risk – Remote location impacts medical response; radiation and chemical handling considerations.

### 1.16.3 High and Intolerable Risks Identified

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The following risks require close management even after mitigation:

- Tailings or water dam failure (including seismic events).
- Late or unreliable high-voltage power supply (Expansion).
- Failure to secure product off-take agreements.
- Serious medical incidents due to remoteness.
- Isolation from critical services and supply chain interruptions.

### 1.16.4 Risk Assessment Framework

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A formal likelihood–consequence matrix was applied. Risks scoring above 1,000 points were classified as intolerable and required elimination or transfer. Risks between 101–1,000 were deemed undesirable and subject to avoidance or transfer strategies.

### 1.16.5 Key Mitigation Measures

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Globe has adopted the following mitigation strategies:

- Phased development (Initial at ~33% scale to de-risk Expansion).
- EPCM delivery model with five specialist contract packages.
- Conservative engineering design (ANCOLD/ICOLD standards).
- Diesel, solar and battery backup power systems.

- Strategic reagent and spares inventory planning.
- Community Development Agreement (CDA) and Mine Development Agreement (MDA).
- Medical evacuation plans and safety management systems.
- Long-term off-take negotiations and financing diversification.
- Workforce training and operational readiness programs.

#### 1.16.6 Closure and Legacy Risks

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Key long-term risks include tailings rehabilitation, river diversion stability, and pit flooding. Closure planning incorporates capping, co-disposal strategies, and engineered drainage systems.

#### 1.16.7 Further Risk Minimisation Opportunities

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- Secure off-take agreements prior to full-scale commitment.
- Consider joint venture participation.
- Continue detailed engineering, pilot testing and geotechnical investigations.
- Maintain optionality, including the 'do-nothing' alternative.

### 1.17 Market

#### 1.17.1 Global Niobium Oxide Market – Comprehensive Institutional Outlook (2019–2035)

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This report presents an in-depth, independent, and neutral institutional-grade assessment of the global niobium oxide market. It expands upon prior summaries to provide deeper analysis across market size, applications, pricing dynamics, supply structure, geopolitical influences, trade flows, ESG considerations, technological drivers, and forward-looking structural outlook.

##### 1.17.1.1 Niobium Executive Summary

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The global niobium oxide market reached approximately 13,379.77 tons in 2024 and is forecast to grow to 29,267.33 tons by 2035, reflecting a CAGR of approximately 7.39%. Structural growth drivers include aerospace propulsion systems, defence modernization, optical and imaging technologies, semiconductor expansion, and next-generation battery development.

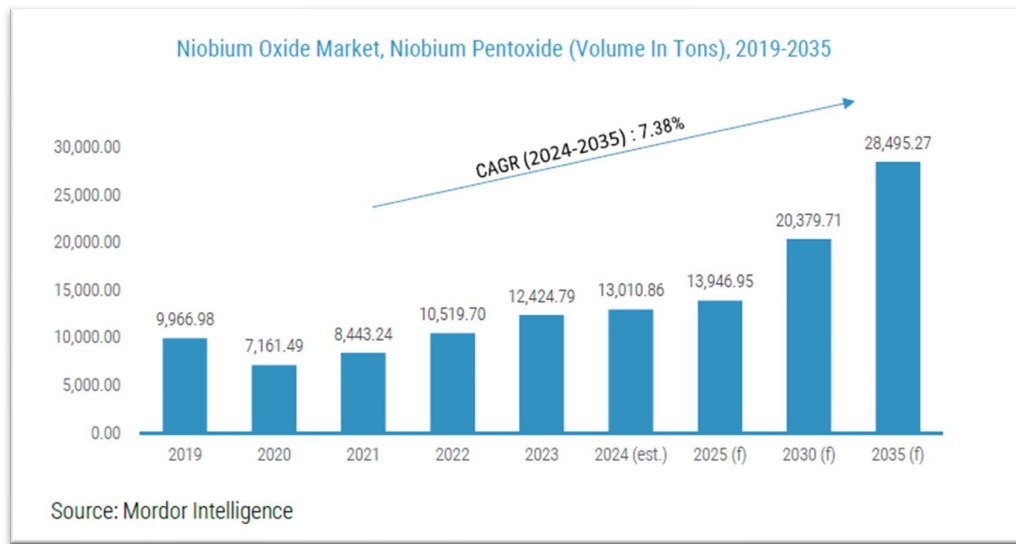
The market remains highly supply-concentrated, with Brazil controlling the majority of global reserves. This concentration creates structural price sensitivity and strengthens supplier bargaining power.

##### 1.17.1.2 Historical Market Development (2019–2024)

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From 2019 to 2020, the market experienced contraction due to COVID-19-related industrial slowdown. Volumes declined sharply in 2020 before rebounding strongly in 2021–2023 as aerospace, electronics, and steel production recovered.

**Graph 1-15: Niobium Oxide (Volume in Tons) 2019-2035**



Post-2021 growth reflects restoration of supply chains, increased semiconductor demand, and defence expenditure expansion globally.

#### 1.17.1.3 Forecast Volume Outlook (2025–2035)

Demand is projected to increase steadily, driven by structural aerospace growth, rising global defence budgets, battery material commercialization, and high-performance optical systems supporting AI-enabled infrastructure.

Battery-related niobium applications are expected to accelerate from mid-decade onward as commercialization timelines mature.

#### 1.17.1.4 Application Segmentation Analysis

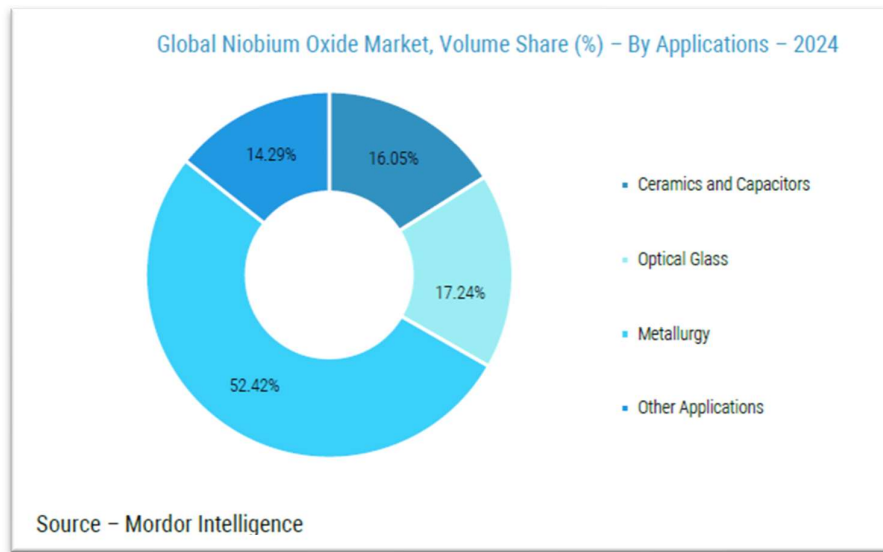
Metallurgy remains the dominant segment (~52%), particularly in superalloys used in jet turbines, rocket engines, and high-temperature propulsion systems.

Optical glass (~20%) benefits from growth in medical imaging, smart city surveillance, autonomous vehicle sensors, and AI-driven cameras.

Electronics and semiconductor applications leverage niobium's dielectric properties in capacitors and advanced materials.

Battery technologies incorporating niobium-based anodes and cathodes represent the fastest-growing potential segment over the forecast period.

**Graph 1-16: Niobium Oxide Volume share by applications**



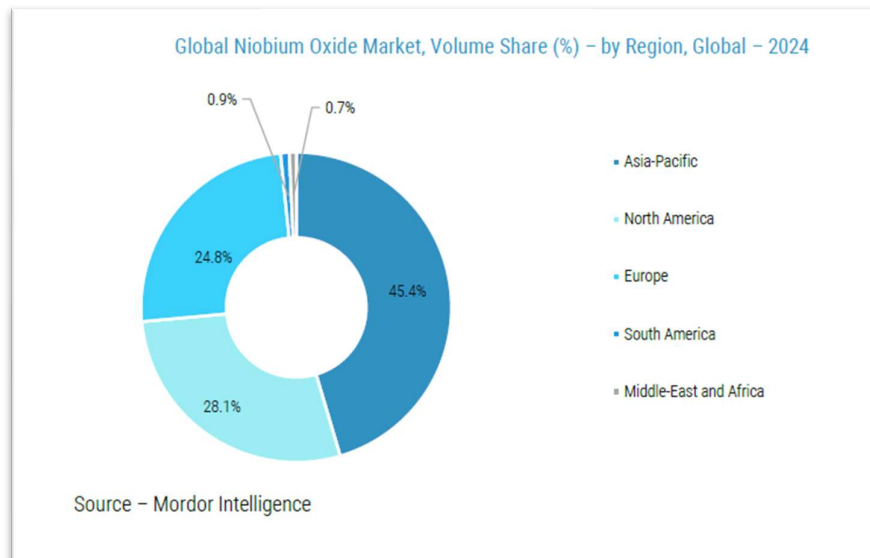
#### 1.17.1.5 Regional Demand Distribution

Asia-Pacific accounts for approximately 39% of global consumption, led by China, Japan, South Korea, and India.

North America (~32%) benefits from aerospace, defence, and semiconductor production.

Europe (~27%) maintains strong demand in high-purity and advanced manufacturing applications.

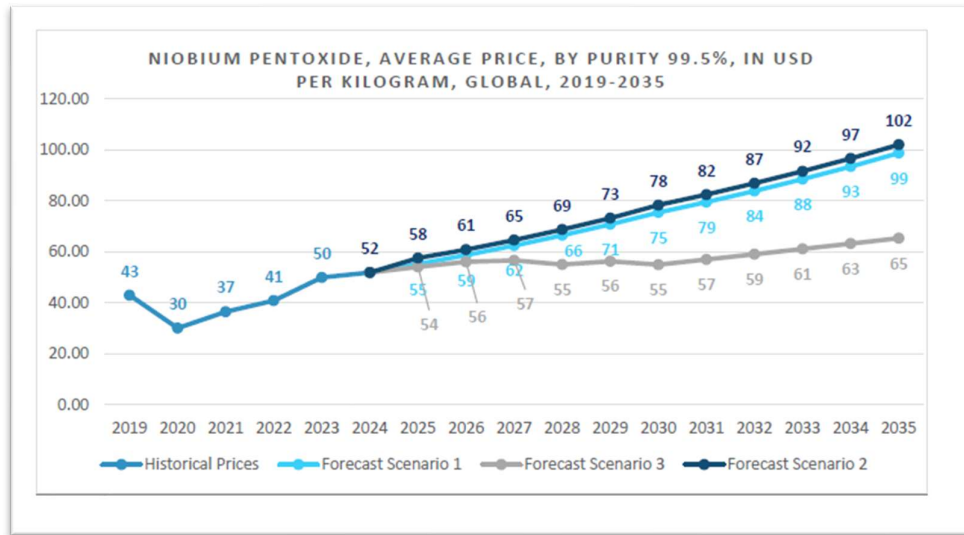
**Graph 1-17: Niobium Oxide Volume Share by Region**



#### 1.17.1.6 Price Trend Analysis – 99.5% Purity

Prices declined in 2020 but entered structural recovery from 2021 onward. Forecast scenarios suggest prices reaching USD 99–102/kg by 2035 under demand-driven and inflation-adjusted conditions.

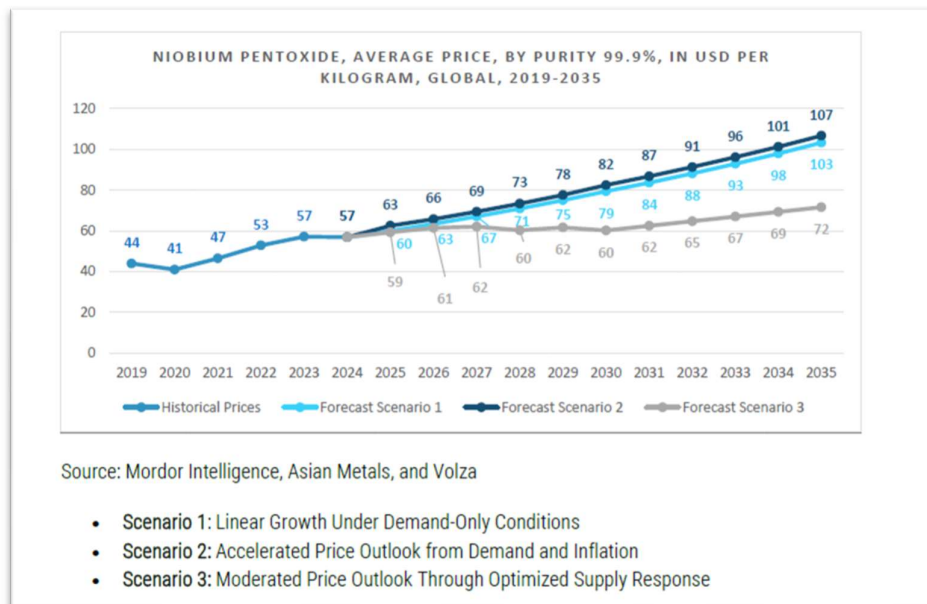
**Graph 1-18: Average Price Forecast For Niobium Oxide 99.5% 2019-2035**



#### 1.17.1.7 High-Purity Price Dynamics – 99.99% Purity

High-purity material commands premium pricing due to additional refining steps and limited feedstock suitability.

**Graph 1-19: Average Price Forecast For Niobium Oxide 99.9% 2019-2035**



#### 1.17.1.8 Global Supply Structure & Competitive Landscape

Brazil dominates global reserves, followed by Canada. China operates refining capacity dependent on African feedstock.

Major producers include CBMM and other vertically integrated entities. Market consolidation limits competitive fragmentation.

#### *1.17.1.9 Geopolitical & Defence Demand Drivers*

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Global military expenditure has reached record levels in recent years, driving superalloy demand.

The global space race and hypersonic propulsion programs increase demand for high-performance refractory alloys.

#### *1.17.1.10 Battery & Energy Transition Outlook*

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Niobium-enhanced battery materials improve charging speed and thermal stability. Commercialization timelines suggest structural demand contribution beginning mid-decade.

#### *1.17.1.11 Trade Flow & Import-Export Considerations*

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Global trade remains sensitive to export policies from dominant producing nations.

Supply chain resilience and diversification strategies are increasingly prioritized by downstream consumers.

#### *1.17.1.12 ESG & Regulatory Considerations*

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Mining activity raises environmental scrutiny regarding deforestation, water usage, and emissions.

Stronger ESG compliance may enhance long-term competitiveness for compliant producers.

#### *1.17.1.13 Risk Assessment*

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Risks include supply disruption, geopolitical restrictions, inflationary pressures, and substitution in limited applications.

#### *1.17.1.14 Structural Market Outlook*

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The niobium oxide market demonstrates characteristics of a strategically significant specialty metal sector with structural pricing support and strong long-term demand fundamentals.

#### *1.17.1.15 Geopolitical Dynamics: East–West Strategic Competition*

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The global niobium oxide market increasingly sits within a broader geopolitical framework characterized by intensifying strategic competition between Western economies and China. Critical minerals have emerged as instruments of industrial policy, national security strategy, and technological leadership.

Western governments — including the United States, European Union, United Kingdom, Canada, Australia, and Japan — have introduced critical minerals strategies aimed at supply chain diversification, domestic processing incentives, and reduced reliance on single-country supply concentration. These policies reflect concerns over concentrated production and refining capacity in a limited number of jurisdictions.

In parallel, China has pursued a long-term resource access strategy across Africa and other emerging markets. Chinese entities have invested extensively in upstream mining projects, infrastructure corridors, and processing facilities across resource-rich African jurisdictions. This includes participation in niobium-, tantalum-, and rare-metal-bearing deposits in Central and Southern Africa.

#### *1.17.1.16 Critical Minerals Policy & Strategic Stockpiling*

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Several Western governments have expanded stockpiling initiatives for critical materials deemed strategically important for defence and advanced manufacturing. National stockpile programs, strategic reserve mechanisms, and defence procurement policies increasingly prioritize secure access to high-performance alloy inputs and specialty metals.

In the United States, defence-oriented procurement frameworks and critical minerals funding programs have been strengthened through legislation aimed at reshoring processing capacity and supporting allied supply chains. Similar frameworks have been implemented across the European Union under the Critical Raw Materials Act, which emphasizes diversification targets and domestic processing capacity development.

China's industrial policy, including export licensing controls and strategic mineral management frameworks, has demonstrated the ability to influence pricing dynamics in globally traded specialty metals. Although niobium has not experienced the same level of export restrictions as certain rare earth elements, the broader policy precedent contributes to strategic risk considerations among Western policymakers.

#### *1.17.1.17 Africa Access & Resource Nationalism Considerations*

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African jurisdictions play an important role in supplying niobium- and tantalum-bearing ores. China's long-standing presence in African mining infrastructure, combined with financing arrangements and bilateral agreements, has strengthened its access to upstream feedstock.

Western governments are increasingly engaging with African partners to promote alternative investment channels, ESG-aligned development, and diversified trade corridors. This competitive investment environment may shape future project financing structures and geopolitical alignment.

Resource nationalism trends — including royalty revisions, domestic beneficiation requirements, and export policy adjustments — represent an additional variable influencing long-term supply stability.

#### *1.17.1.18 Strategic Implications for Niobium Oxide Market*

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The intersection of East–West strategic competition, stockpiling initiatives, and Africa-focused investment policy reinforces niobium's positioning as a strategically relevant specialty metal. While current market fundamentals remain driven by aerospace, defence, and technology demand, policy-driven demand and precautionary inventory accumulation could contribute to incremental pricing support during periods of geopolitical stress.

Overall, geopolitical considerations add a structural overlay to the niobium oxide market, potentially influencing investment flows, financing availability, supply diversification strategies, and long-term trade relationships.

The niobium market is driven primarily by metallurgy and superalloy demand, particularly in aerospace, defence, and high-strength steel applications, with additional use in optics, electronics, batteries, and advanced materials. Demand is concentrated in Asia-Pacific, led by China, Japan, South Korea, and India, reflecting the global distribution of industrial manufacturing and high-tech growth sectors.

Supply is highly concentrated and strategically controlled, with the majority of global production originating from Brazil, alongside smaller contributions from Canada and Africa. This concentration, combined with limited substitute materials, complex processing requirements, and high barriers to entry, creates a tightly controlled market with strong pricing discipline and long-term stability.

Niobium supply in Africa plays a supporting but increasingly important role, with resources located in countries such as Nigeria and the Democratic Republic of Congo (DRC), often produced as a by-product

of other mining activities. However, Africa remains a secondary supply source compared to Brazil, and production can be variable due to infrastructure, investment, and regulatory factors.

Overall, the niobium market is characterised by stable, long-term demand growth and a highly concentrated supply base, supporting a strong outlook for high-purity niobium oxide in advanced industrial and technology applications.

### 1.17.2 Global Tantalum Oxide Market – Comprehensive Institutional Outlook (2019–2035)

This report provides an independent and neutral institutional-grade assessment of the global tantalum oxide market, based primarily on the Mordor Intelligence 2019–2035 market study. The analysis covers historical performance, demand segmentation, regional trends, pricing outlook, supply structure, technology drivers, and long-term structural growth dynamics.

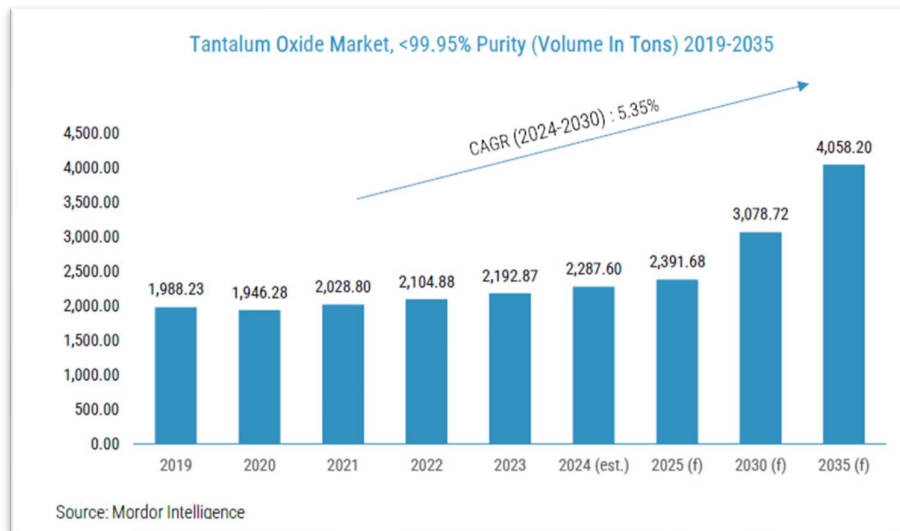
#### 1.17.2.1 Executive Summary

The global tantalum oxide market totalled approximately 2,876.34 tons in 2024 and is forecast to expand to 5,041.45 tons by 2035, representing a CAGR of approximately 5.23% from 2024–2035. Demand is primarily driven by electronics and semiconductor applications, followed by superalloys, medical devices, optical systems, and advanced industrial applications.

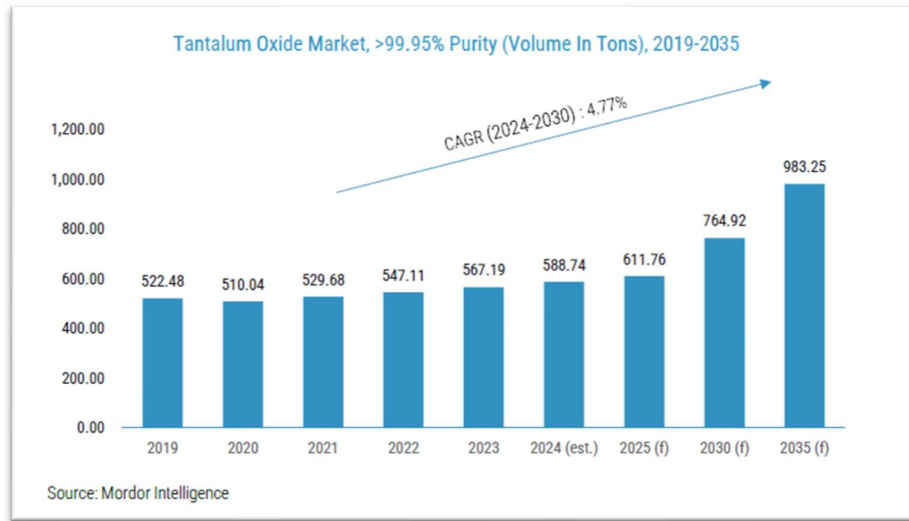
#### 1.17.2.2 Historical Market Performance (2019–2024)

The market experienced temporary contraction in 2020 due to pandemic-related industrial slowdown, before recovering steadily from 2021 onward. Stabilization in 2023–2024 reflects improved supply conditions and normalization of downstream demand.

#### Graph 1-20: Tantalum Oxide Market (Volume In Tons) For Less Than 99.95% 2019-2035



**Graph 1-21: Tantalum Oxide Market (Volume In Tons) For Greater Than 99.95% 2019-2035**



#### 1.17.2.3 Forecast Volume Outlook (2025–2035)

From 2025 onward, demand is expected to grow steadily, driven by semiconductor manufacturing expansion, advanced electronics miniaturization, aerospace superalloy usage, and medical device innovation. The market is projected to surpass 3,843 tons by 2030 and exceed 5,000 tons by 2035.

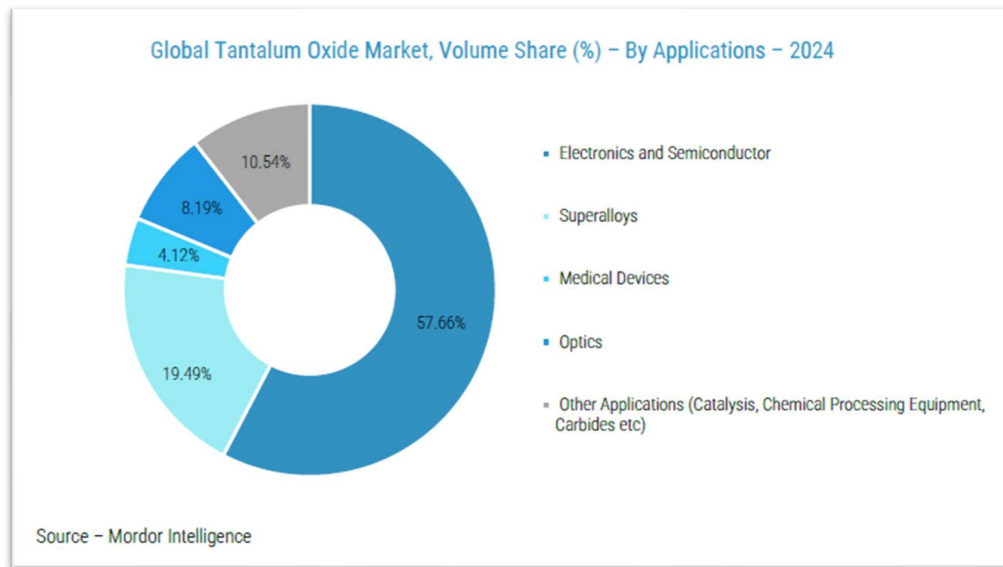
#### 1.17.2.4 Application Segmentation

Electronics and Semiconductor applications represent approximately 57% of total demand. Tantalum oxide is critical in capacitors, high-power resistors, and semiconductor components due to its stability, conductivity, and dielectric properties.

Superalloys account for nearly 19% of demand, driven by aerospace engine components, high-temperature turbine materials, and defence-related metallurgy.

Medical devices represent approximately 4% of demand, supported by tantalum's biocompatibility. Optical systems and other industrial applications (including catalysis and chemical processing equipment) comprise the remaining share.

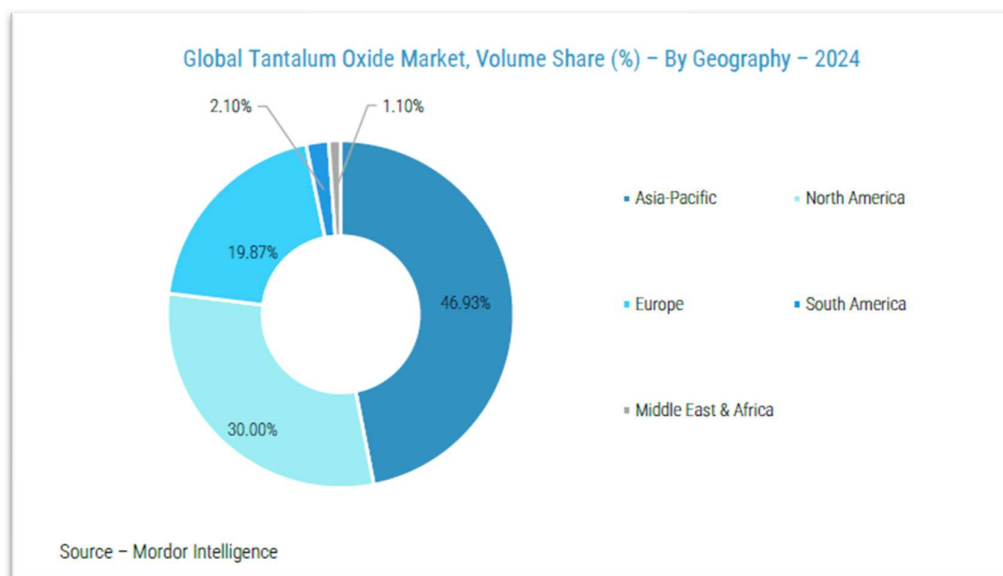
**Graph 1-22: Tantalum Oxide Volume Share By Applications**



#### 1.17.2.5 Regional Market Analysis

Asia-Pacific dominates global consumption (~47%), led by China, Japan, South Korea, and India. North America accounts for roughly 30%, supported by semiconductor manufacturing and aerospace production. Europe represents approximately 20%, with steady growth in medical and industrial applications.

**Graph 1-23: Tantalum Oxide Volume Share By Geography**

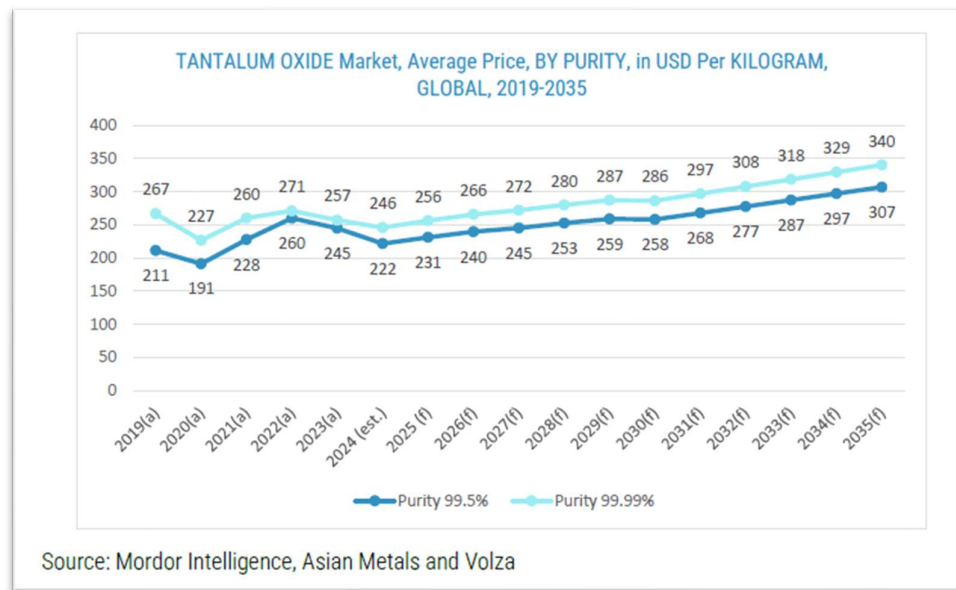


### 1.17.2.6 Pricing Outlook

Following elevated pricing during supply disruptions in 2022, prices stabilized in 2023–2024. From 2025 onward, tantalum pentoxide prices are projected to rise steadily due to inflationary pressures (2–4% annually), sustained semiconductor demand, and limited early-decade supply additions.

Mid-decade supply expansions are expected to moderate sharp price spikes, though strong demand is likely to prevent material price declines. From 2031 onward, supply constraints are projected to re-emerge, supporting gradual upward pricing pressure.

**Graph 1-24: Tantalum Oxide Average Price By Purity 2019-2035**



### 1.17.2.7 High-Purity (99.99%) vs Standard (99.5%) Tantalum Oxide

Production of 99.99% purity tantalum oxide requires advanced hydrometallurgical processing, solvent extraction, ion exchange, and stringent contamination controls. These energy-intensive methods result in significantly higher production costs compared to 99.5% grade material.

High-purity tantalum oxide is essential for superconductors, advanced electronics, and specialized optical systems, where performance requirements justify higher costs.

### 1.17.2.8 Supply Structure & Industry Concentration

The tantalum oxide supply chain consists of integrated miners, oxide processors, and downstream component manufacturers. Supply remains concentrated, with reliance on coltan and tantalite feedstock from select African jurisdictions. Processing capacity is distributed across Asia, Europe, and North America.

### 1.17.2.9 Technology & Industrial Growth Drivers

Miniaturization of electronics, expansion of 5G infrastructure, growth in electric vehicles, advanced aerospace propulsion systems, additive manufacturing, and medical implant innovation are expected to reinforce long-term demand growth.

#### 1.17.2.10 Market Risks

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Key risks include supply disruptions, substitution in limited applications, regulatory changes, and cyclical semiconductor downturns. However, structural demand drivers in electronics and aerospace provide long-term growth resilience.

#### 1.17.2.11 Long-Term Structural Outlook

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The tantalum oxide market exhibits steady mid-single-digit structural growth supported by high-technology applications. While supply expansions may periodically stabilize pricing, underlying demand fundamentals remain positive through 2035.

The tantalum market is driven primarily by electronics and semiconductor demand, particularly for capacitors and advanced microelectronics, with additional use in superalloys, optics, and medical devices. Demand is concentrated in Asia-Pacific, led by China, Japan, and South Korea, reflecting the global distribution of high-tech manufacturing.

Supply is constrained and geographically concentrated, with a significant portion originating from Africa and Brazil, and is sensitive to geopolitical and regulatory factors. Combined with complex processing requirements and limited new entrants, this creates a structurally tight market, supporting a strong long-term outlook for high-purity tantalum oxide.

Tantalum supply in Africa remains critical but increasingly complex and sensitive, with a significant portion of global production coming from Central and East Africa, particularly the Democratic Republic of Congo (DRC), Rwanda, and surrounding regions. Much of this production is derived from artisanal and small-scale mining (ASM), which introduces variability in quality, traceability, and reliability of supply.

Conflict in parts of Central Africa, particularly the DRC, continues to impact tantalum supply through disruptions, informal mining activity, and ongoing scrutiny under conflict mineral regulations.

#### 1.17.3 Marketing strategy

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Globe's marketing strategy is built around supplying high-purity niobium and tantalum oxide products into high-value, technology-driven end markets, where product quality, consistency, and security of supply are critical. The primary products are niobium pentoxide ( $\text{Nb}_2\text{O}_5$ ) and tantalum pentoxide ( $\text{Ta}_2\text{O}_5$ ), produced to tight impurity specifications suitable for applications in optical glass, electronics, capacitors, superalloys, aerospace, defence, and emerging technologies such as additive manufacturing and advanced batteries.

From a geographic perspective, sales are expected to be focused on Asia-Pacific (particularly China, Japan, and South Korea), as well as Europe and North America, where the majority of downstream processing, refining, and high-tech manufacturing is located.

Pricing for both products is typically linked to prevailing market prices for high-purity oxides, with niobium pentoxide currently trading in the range of ~US\$50–100/kg depending on purity and market conditions, and tantalum products generally achieving premium pricing due to higher purity requirements and tighter supply-demand dynamics. Globe's strategy is to sell on a combination of contract-based and market-linked pricing mechanisms, including fixed-price contracts, index-linked pricing, and negotiated premiums for higher-purity or specialised products. The inclusion of tantalum credits further enhances overall realised revenue and reduces the effective unit cost of niobium production.

The commercial strategy is designed to balance long-term contracted offtake with flexible merchant sales. A portion of production is intended to be secured under strategic offtake agreements with end-users or integrated processors, providing revenue certainty, supporting project financing, and aligning with customers requiring secure, long-term supply. These agreements may include prepayment or structured financing components, forming a key part of the project's overall funding strategy.

In parallel, Globe intends to maintain exposure to merchant markets, allowing it to capture upside from favourable pricing conditions. This is complemented by engagement with global traders, who can purchase product, provide pre-shipment financing, and distribute into a diversified customer base, particularly during ramp-up.

A key opportunity lies in supplying specialised, high-growth segments, including additive manufacturing (3D printing powders), aerospace superalloys, and advanced electronics. These markets are typically less price-sensitive and support premium pricing, particularly where consistent high-purity feedstock is required. There is also potential to supply into strategic stockpiling programs, particularly in the United States and allied jurisdictions, where both niobium and tantalum are classified as critical minerals for defence and technology supply chains.

Overall, Globe's marketing approach positions the Company as a reliable, ESG-compliant supplier of high-purity oxides into a supply-constrained and strategically important market, leveraging a mix of long-term contracts, trader relationships, and direct sales to optimise pricing, reduce risk, and maximise long-term value.

#### 1.17.3.1 Products – Provisional Specifications

The Kanyika Project is designed to produce high-purity niobium and tantalum oxides using a proven hydrometallurgical process. This involves acid leaching followed by solvent extraction, precipitation, and calcination to deliver premium-grade final products suitable for advanced industrial and high-tech applications.

These products are specifically targeted at high-value end markets, where purity, consistency, and tight impurity control are critical to performance. Applications include specialty glass and optics, electronics, capacitors, semiconductors, aerospace alloys, and other advanced materials. The low impurity profiles are particularly important in these applications, as even trace contaminants can materially affect conductivity, strength, thermal stability, and optical properties.

##### 1.17.3.1.1 Niobium Pentoxide ( $Nb_2O_5$ ) – Glass Grade

A high-purity niobium oxide product tailored for applications in specialty glass, optics, electronics, and advanced alloys, where enhanced refractive index, strength, and thermal resistance are required.

- $Nb_2O_5$ : 99.986%
- Impurities:
 

|    |     |      |    |     |      |    |     |      |    |     |      |    |     |      |
|----|-----|------|----|-----|------|----|-----|------|----|-----|------|----|-----|------|
| Ta | <10 | ppm, | Fe | <10 | ppm, | Ca | <15 | ppm, | Si | <10 | ppm, | Al | <10 | ppm, |
| Na | <15 | ppm, | Mg | <10 | ppm, | P  | <10 | ppm, | W  | <10 | ppm, | Ti | <10 | ppm, |
| Co | <3  | ppm, | S  | <15 | ppm, | Sb | <3  | ppm, | B  | <1  | ppm  |    |     |      |
- Average particle size: ~25  $\mu m$  (to be confirmed)

The tight control of impurities such as iron, silicon, and alkali metals is essential for glass and optical applications, where clarity, colour stability, and performance are directly impacted by trace elements. The particle size distribution is also important for downstream processing and product consistency.

### 1.17.3.1.2 Tantalum Pentoxide ( $Ta_2O_5$ )

An ultra-high-purity tantalum oxide product suitable for use in capacitors, semiconductors, and other advanced electronic applications, where reliability and performance are critical.

- $Ta_2O_5$ : 99.995%
- Impurities:  
Nb <10 ppm, Fe <1 ppm, Ca <10 ppm, Si <10 ppm, Al <1 ppm,  
Na <15 ppm, Mg <7 ppm, P <10 ppm, W <10 ppm, Ti <2 ppm,  
Co <3 ppm, S <15 ppm, Sb <5 ppm, B <1 ppm
- Average particle size: ~45  $\mu m$  (to be confirmed)

The extremely low impurity levels, particularly for elements such as iron, aluminium, and titanium, are critical for electronic applications, where even minimal contamination can impact dielectric performance and long-term reliability. The high purity level supports use in demanding technologies including capacitors and semiconductor components.

### 1.17.3.2 Positioning

These provisional specifications demonstrate the Project's ability to produce exceptionally high-purity oxide products aligned with global market requirements. This positions Kanyika as a future supplier into high-specification, technology-driven industries, with the flexibility to refine and tailor product specifications in line with customer requirements as further metallurgical work and product qualification progresses.

## 1.18 Financial Modelling

### 1.18.1 Financial Evaluation

#### 1.18.1.1 Financial Evaluation Methodology

The financial evaluation of the Kanyika Project (“**the Project**”) was carried out using the Discounted Cash Flow (“**DCF**”) evaluation methodology, utilising an MS Excel financial model of the Project prepared by M S Golding and Associates (UK) Limited (“**MSG&A**”).

The DCF evaluation methodology requires the determination of the forecast future free cash flows over the life of the project, and an appropriate discount rate:

- Forecast future free cash flows were determined by reference to assumptions and information provided by Globe Metals & Mining Limited (“**GMM**”) and the various technical and other consultants who contributed to the studies and work streams underpinning this Bankable Feasibility Study (“**BFS**”) report; and
- The discount rate was determined by the Board of Directors of GMM following a review of discount rates utilised in the financial evaluation of broadly comparable projects.

#### 1.18.1.2 Key assumptions

The following key assumptions were made in the determination of the forecast future free cash flows of the Project:

#### 1.18.1.2.1 Project structure

The operation of the Project will be split amongst the following corporate entities:

- Globe Metals and Mining (Africa) Limited (“GMMA”), the holder of the mining licence and signatory to the Mining Development Agreement (“MDA”) with the Government of Malawi, will house the mining and concentrator operations; and
- First Metals Refinery Africa Limited (“FMRA”), the applicant for an Export Processing Zone (“EPZ”) licence, will house the refinery operations.

#### 1.18.1.2.2 Timing

**Table 1-28: Activity Timeline**

| Activity                                                | Start date      | End date         |
|---------------------------------------------------------|-----------------|------------------|
| Project evaluation & Fund raising                       | 1 January 2026  | 31 October 2026  |
| Initial phase construction                              | 1 November 2026 | 29 February 2028 |
| Initial phase mining operations <sup>(1)</sup>          | 1 July 2027     | 31 December 2029 |
| Initial phase processing operations <sup>(1)(2)</sup>   | 1 January 2028  | 31 December 2029 |
| Expansion phase construction                            | 1 August 2028   | 28 February 2030 |
| Expansion phase mining operations <sup>(3)</sup>        | 1 January 2030  | 30 June 2052     |
| Expansion phase processing operations <sup>(2)(3)</sup> | 1 January 2030  | 30 June 2052     |
| Closure / rehabilitation                                | 1 July 2049     | 30 June 2052     |

(1) Initial phase capacity is 500 Ktpa

(2) Concentrator & refinery

(3) Incremental expansion phase capacity is 1,000 Ktpa, bringing total capacity to 1,500 Ktpa

#### 1.18.1.2.3 Macroeconomic factors

**Table 1-29: Key Macro-Economic Assumptions**

| Description                                                        | Unit                |
|--------------------------------------------------------------------|---------------------|
| Evaluation currency                                                | 1 January 2026 US\$ |
| Long run USA inflation rate                                        | 2.3%                |
| USA inflation between 1 April 2025 & 1 January 2026 <sup>(1)</sup> | 1.33%               |
| Long run MWK:US\$ exchange rate <sup>(2)</sup>                     | 1,740               |
| Long run ZAR:US\$ exchange rate <sup>(2)</sup>                     | 18.40               |

(1) Inflator applied to those capital cost, operating cost, and revenue input parameters expressed in 1 April 2025 terms

(2) Expressed in 1 April 2025 terms

## 1.18.1.2.4 Production

## 1.18.1.2.5 Mine &amp; Concentrator

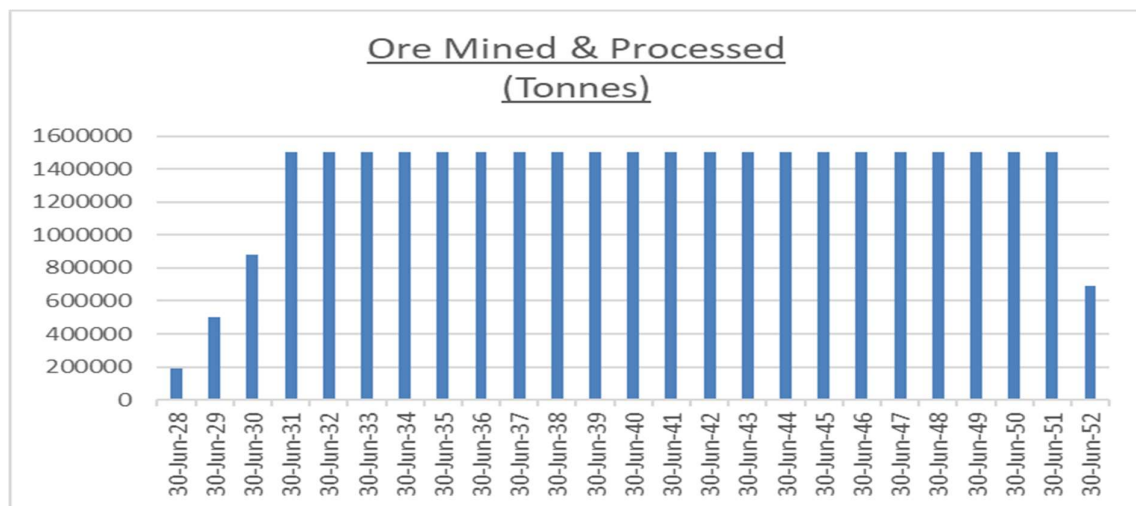
**Table 1-30: Mine & Concentrator production**

| Description                                                        | Unit   | Total      |
|--------------------------------------------------------------------|--------|------------|
| Ore mined and processed                                            | Tonnes | 33,761,001 |
| Weighted average feed grade <sup>(1)</sup>                         |        |            |
| • Nb <sub>2</sub> O <sub>5</sub>                                   | ppm    | 3,050      |
| • Ta <sub>2</sub> O <sub>5</sub>                                   | ppm    | 142        |
| Concentrator recovery <sup>(2)</sup>                               |        |            |
| • Nb <sub>2</sub> O <sub>5</sub>                                   | %      | 80.0%      |
| • Ta <sub>2</sub> O <sub>5</sub>                                   | %      | 78.5%      |
| Concentrate produced                                               | Tonnes | 316,865    |
| • Contained Nb <sub>2</sub> O <sub>5</sub>                         | Tonnes | 82,385     |
| • Contained Ta <sub>2</sub> O <sub>5</sub>                         | Tonnes | 3,752      |
| Concentrate grade (Nb <sub>2</sub> O <sub>5</sub> ) <sup>(2)</sup> | %      | 26.0%      |

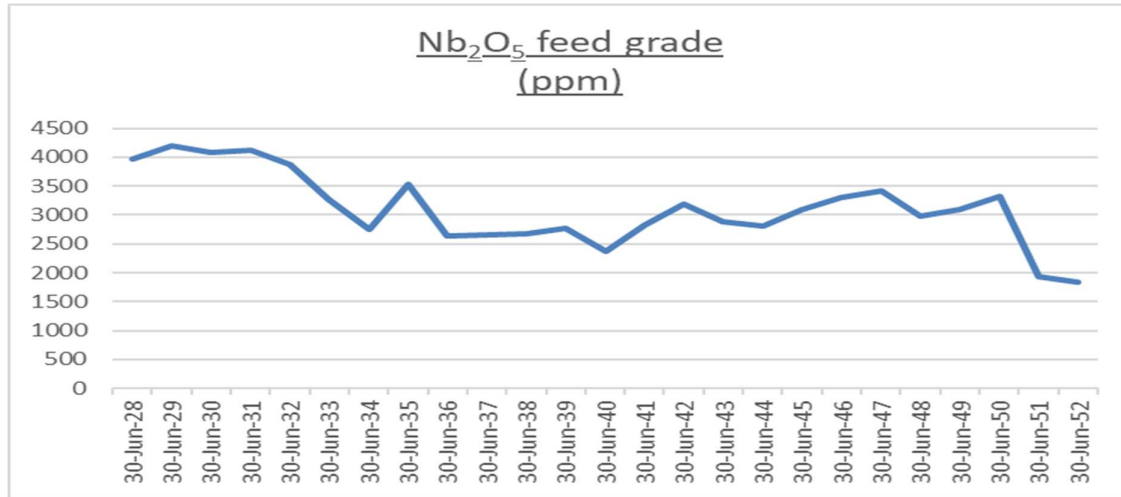
(1) Weighted average over LOM

(2) Constant over LOM

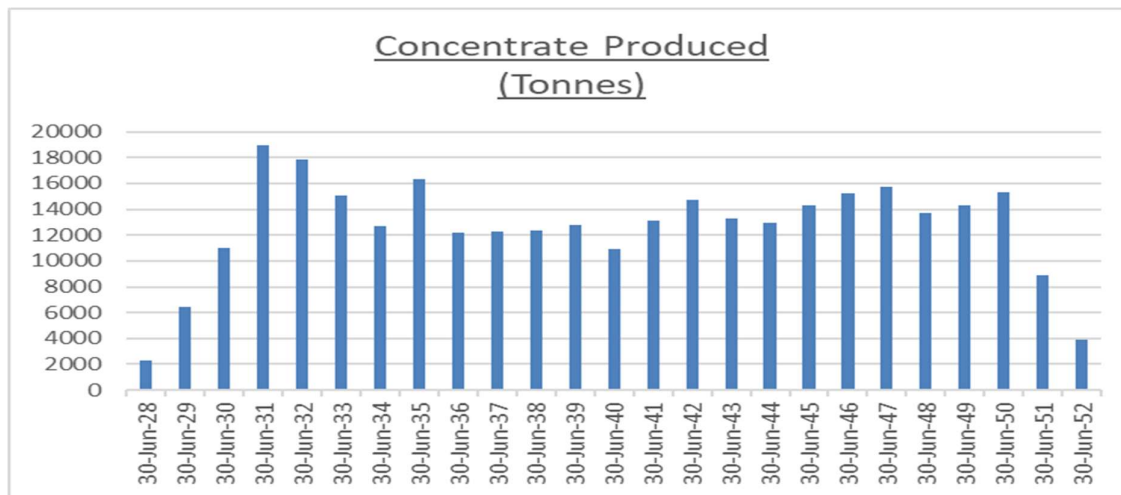
Selected details are illustrated graphically hereunder:

**Graph 1-25: Ore Mined And Processed**


**Graph 1-26: Nb<sub>2</sub>O<sub>5</sub> Feed Grade**



**Graph 1-27: Concentrate Produced**



### 1.18.1.2.6 Refinery

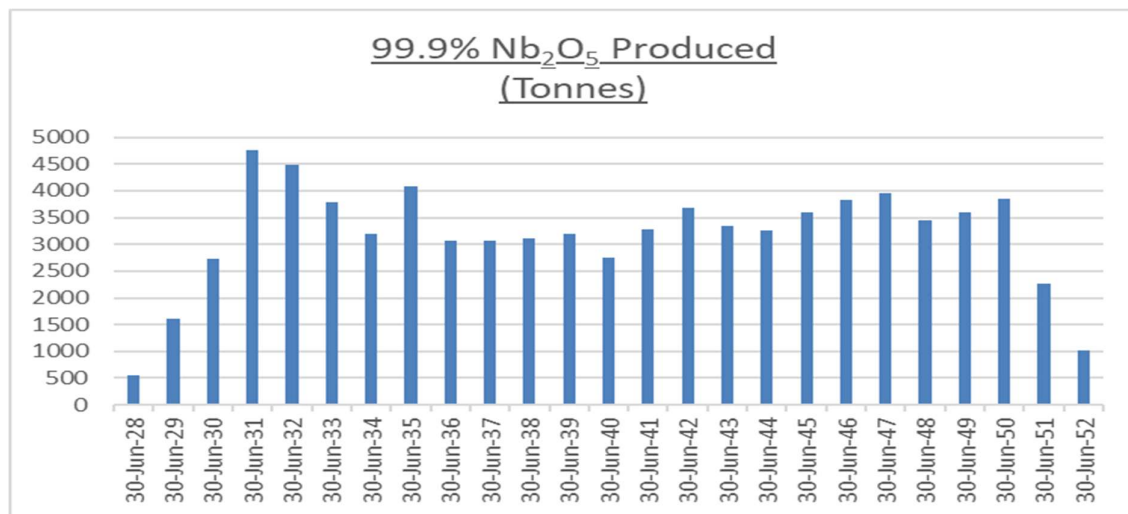
**Table 1-31: Refinery production**

| Description                            | Unit   | Total   |
|----------------------------------------|--------|---------|
| Concentrate processed                  | Tonnes | 316,865 |
| Refinery recovery <sup>(1)</sup> :     |        |         |
| • 99.9% Nb <sub>2</sub> O <sub>5</sub> | %      | 96.5%   |
| • 99.9% Ta <sub>2</sub> O <sub>5</sub> | %      | 95.0%   |
| Finished product produced              |        |         |
| • Nb <sub>2</sub> O <sub>5</sub>       | Tonnes | 79,502  |
| • Ta <sub>2</sub> O <sub>5</sub>       | Tonnes | 3,565   |

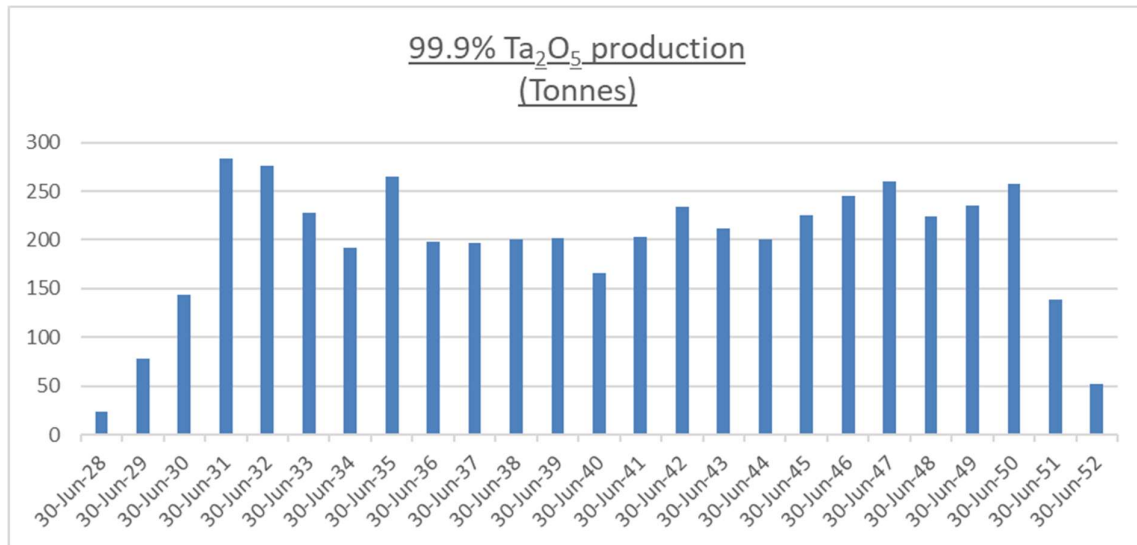
(1) Constant over LOM

Selected details are illustrated graphically hereunder:

**Graph 1-28: 99.9% Niobium Produced**



**Graph 1-29: 99.9% Tantalum Production**



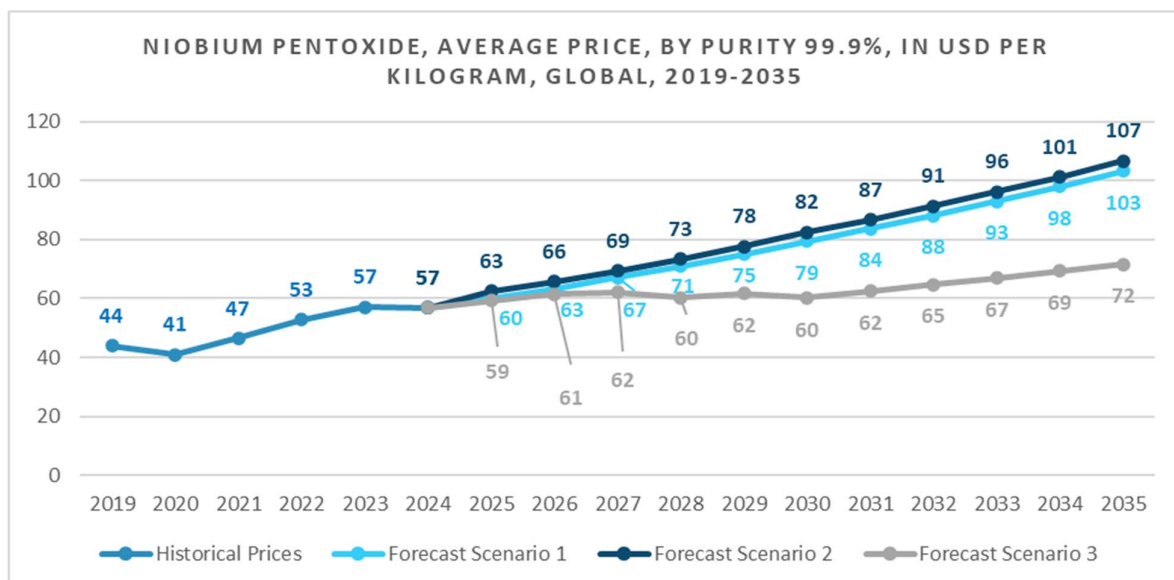
#### 1.18.1.2.7 Sales and marketing

The concentrate produced by GMMA will be transferred to FMRA at a price which is reflective of prevailing market conditions and pricing for comparable Nb<sub>2</sub>O<sub>5</sub> concentrates.

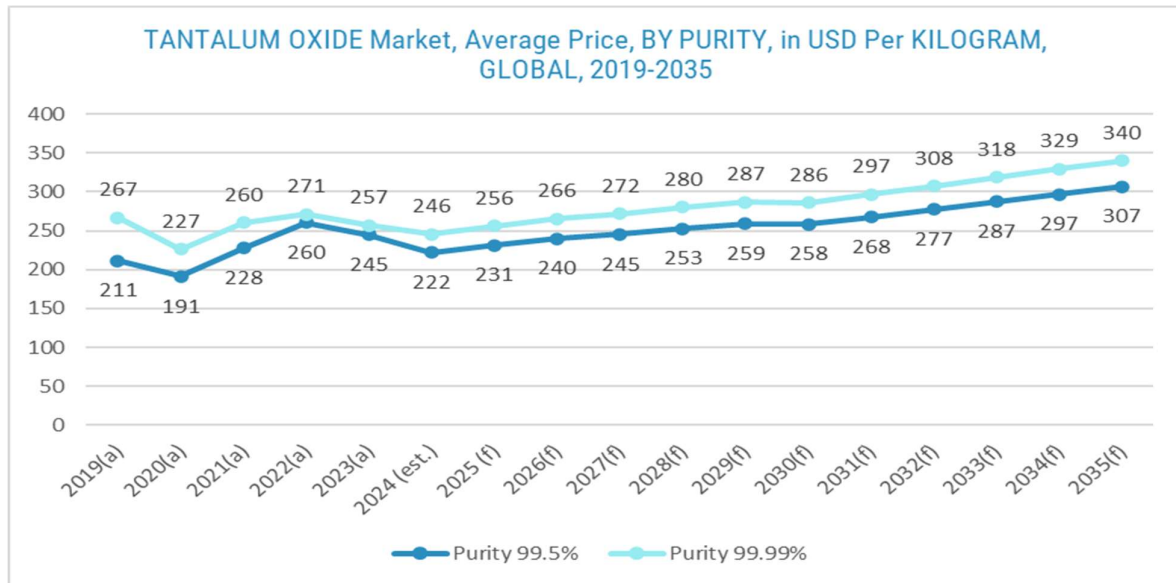
It is anticipated that 99.9% Nb<sub>2</sub>O<sub>5</sub> and 99.9% Ta<sub>2</sub>O<sub>5</sub> will be sold on an ex-refinery gate basis by FMRA to international customers at a price expected to average approximately 93% of prevailing 99.9% Nb<sub>2</sub>O<sub>5</sub> and 99.9% Ta<sub>2</sub>O<sub>5</sub> market prices. Payment terms are expected to be 80% upon collection at refinery gate, with the balance being payable within 60 days thereafter.

Mordor Intelligence were approached by GMM to provide forecasts of future 99.9% Nb<sub>2</sub>O<sub>5</sub> and 99.9% Ta<sub>2</sub>O<sub>5</sub> market prices for use in the financial evaluation of the Project. Three price forecasts were provided for 99.9% Nb<sub>2</sub>O<sub>5</sub> and a single best estimate price forecast for 99.9% Ta<sub>2</sub>O<sub>5</sub>.

**Graph 1-30: Niobium Pentoxide Price Forecasts**



**Graph 1-31: Tantalum Oxide Price Forecast**



Source: Mordor Intelligence, Asian Metals, and Volza

Please note:

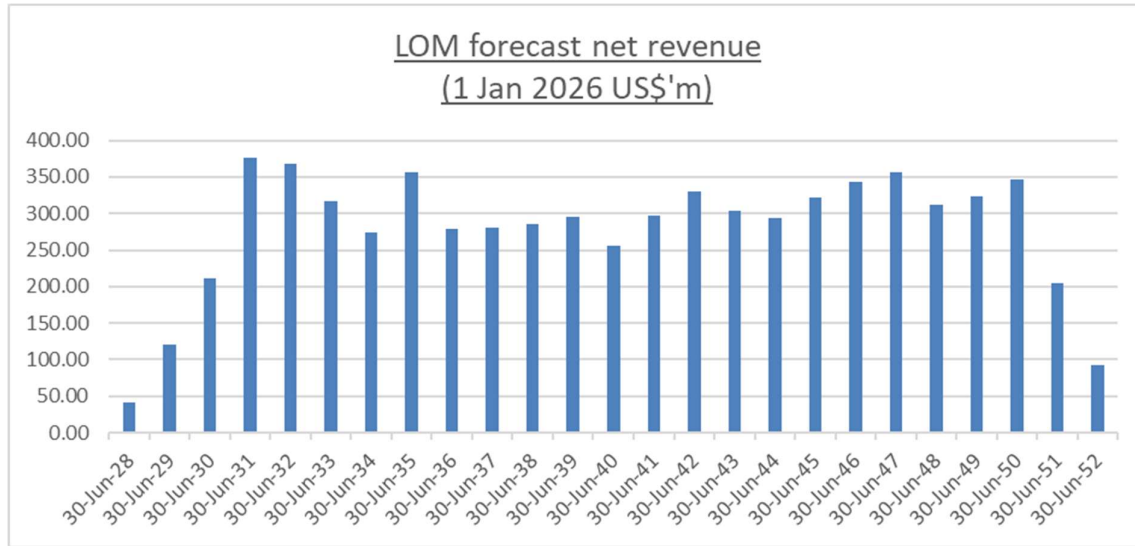
- Prices are based on CIF delivery to China;
- Prices are expressed in nominal terms;
- Prices are assumed to remain constant in real terms w.e.f. 2035 onwards; and
- GMM has adopted Forecast Scenario 1 (Nb<sub>2</sub>O<sub>5</sub>) and the 99.99% Purity Scenario (Ta<sub>2</sub>O<sub>5</sub>) for financial evaluation purposes (the sensitivity of the Project's investment metrics to varying prices will be presented in the Key Investment Metrics section of this report).

Total forecast net revenue over the LOM is illustrated in the table and graph below:

**Table 1-32: Forecast Net Revenue**

| US\$'million        | Nb <sub>2</sub> O <sub>5</sub> | Ta <sub>2</sub> O <sub>5</sub> | Total    |
|---------------------|--------------------------------|--------------------------------|----------|
| Gross sales revenue | 6,523.9                        | 984.2                          | 7,508.10 |
| • Marketing         | (326.2)                        | (49.2)                         | (375.4)  |
| • Logistics         | (130.5)                        | (19.7)                         | (150.2)  |
| Net sales revenue   | 6,067.2                        | 915.3                          | 6,982.5  |

**Graph 1-32: LOM Forecast Net Revenue**



#### 1.18.1.2.8 Operating costs

Forecast operating costs, expressed in 1 January 2026 terms, are set out in the table and graph hereunder:

**Table 1-33: Forecast Operating Costs**

| Description                                      | Total <sup>(1)</sup> | % of total | US\$/Kg of Nb <sub>2</sub> O <sub>5</sub> <sup>(2)</sup> |
|--------------------------------------------------|----------------------|------------|----------------------------------------------------------|
| Mining                                           | 469.8                | 22.9       | 5.85                                                     |
| Concentrator                                     | 905.0                | 44.2       | 11.38                                                    |
| • Labour                                         | 116.8                | 5.7        | 1.47                                                     |
| • Reagents                                       | 669.4                | 32.7       | 8.42                                                     |
| • Other                                          | 118.7                | 5.8        | 1.49                                                     |
| Refinery                                         | 550.4                | 26.8       | 6.92                                                     |
| • Labour                                         | 51.8                 | 2.5        | 0.65                                                     |
| • Reagents                                       | 448.5                | 21.9       | 5.64                                                     |
| • Other                                          | 50.1                 | 2.4        | 0.63                                                     |
| Site Infrastructure and services                 | 6.5                  | 0.3        | 0.06                                                     |
| General and administration                       | 119.7                | 5.8        | 1.46                                                     |
| Sub-total                                        | 2051.4               | 100.0      | 25.67                                                    |
| Ta <sub>2</sub> O <sub>5</sub> by-product credit | (915.3)              | (44.6)     | (11.41)                                                  |
| Total                                            | 1,136.1              | 55.4       | 14.26                                                    |

(1) Total over LOM

(2) Weighted average over LOM

**Graph 1-33: Operating Cost Forecast Over LOM**



#### 1.18.1.2.9 Capital costs

Forecast capital costs, expressed in 1 January 2026 US\$ million, are set out in the table hereunder:

**Table 1-34: Forecast Capital Costs**

| Description                      | Initial | Expansion | Total |
|----------------------------------|---------|-----------|-------|
| Mining                           | 0.2     | 3.1       | 3.3   |
| Concentrator & TSF               | 34.2    | 75.1      | 109.3 |
| Refinery                         | 19.6    | 19.6      | 39.2  |
| Infrastructure                   | 25.1    | 75.0      | 100.1 |
| Solar PV & Battery system        | 27.8    | 27.6      | 55.4  |
| Environment & resettlement       | 3.2     | 1.6       | 4.8   |
| Owner's costs                    | 15.4    | 21.9      | 37.3  |
| Contingency                      | 13.6    | 29.2      | 42.8  |
| Total                            | 139.1   | 253.1     | 392.2 |
|                                  |         |           |       |
| % of capital denominated in US\$ | 62.1%   | 38.6%     | 46.9% |
| % of capital denominated in ZAR  | 37.9%   | 61.4%     | 53.1% |

#### 1.18.1.2.10 Royalties & Taxation

The fiscal regime which will be applied to the companies comprising the Project is included in *inter alia* the EPZ license, the MDA, and normal Malawian taxation provisions, and is summarised in the table hereunder:

**Table 1-35: Forecast Royalty and Taxation Parameters**

| Description                                  | GMMA     | FMRA    |
|----------------------------------------------|----------|---------|
| Royalties:                                   |          |         |
| • Kanyika Community <sup>(1)</sup>           | 0.45%    | -       |
| • Government of Malawi <sup>(1)</sup>        | 5.00%    | -       |
| Normal taxation:                             |          |         |
| • Assessed loss carry forward                | 10 years | 6 years |
| • Income tax rate – 1 <sup>st</sup> 10 years | 30%      | 0%      |
| • Income tax rate- thereafter                | 30%      | 30%     |
| Resource rent taxation <sup>(2)</sup>        | 15%      | -       |

(1) Based on net sales value

(2) Based on after tax income

Forecast royalty and taxation payments expressed in 1 January 2026 terms over the Project's LOM are set out in the table hereunder:

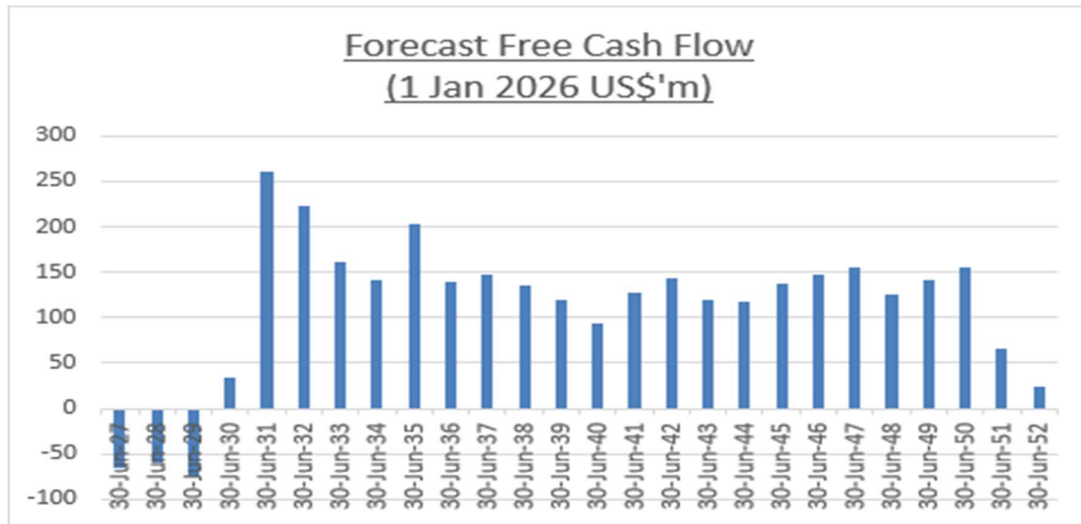
**Table 1-36: Forecast Royalty and Taxation Payments**

| Description            | GMMA    | FMRA  | Total   |
|------------------------|---------|-------|---------|
| Royalties:             |         |       |         |
| • Kanyika Community    | 16.7    | -     | 16.7    |
| • Government of Malawi | 186.0   | -     | 186.0   |
| Income taxation        | 613.6   | 483.8 | 1,097.4 |
| Resource rent taxation | 326.9   | -     | 326.9   |
| Total                  | 1,143.2 | 483.8 | 1,627.0 |

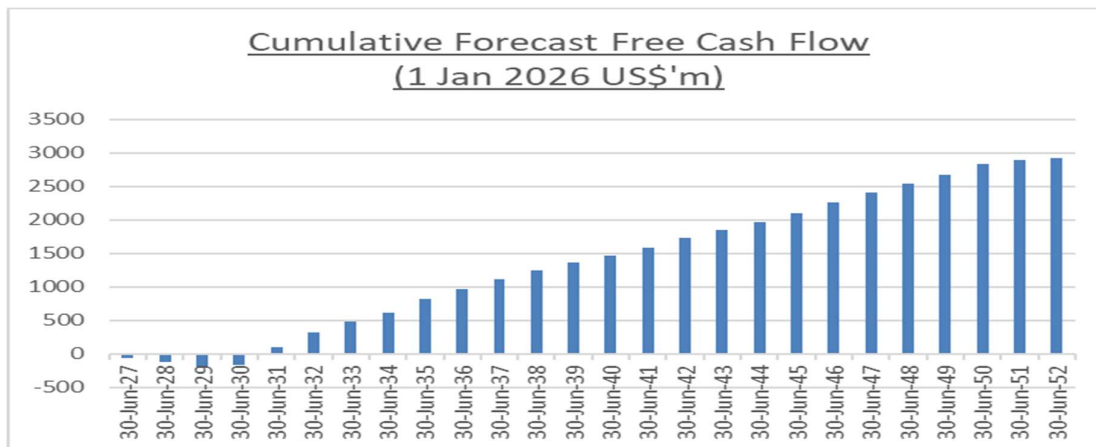
#### 1.18.1.3 Forecast future free cash flows & profitability

Based on the aforementioned assumptions, the Project is forecast to generate some US\$ 2.9 billion (expressed in 1 January 2026 terms) in free cash flows, and approximately US\$ 4.9 billion (expressed in 1 January 2026 terms) in EBITDA over its almost 25-year forecast operational life:

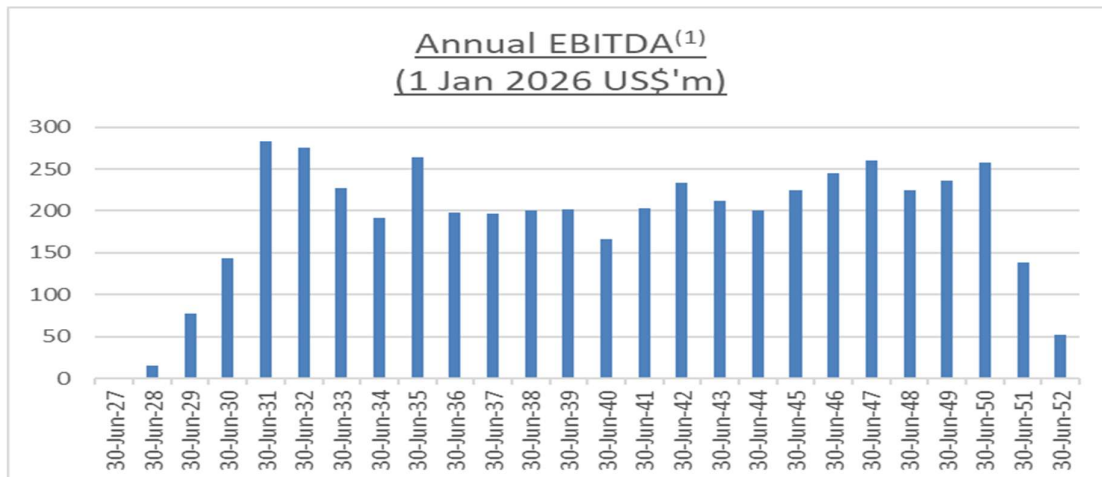
**Graph 1-34: Free Cash Flow Over LOM**



**Graph 1-35: Cumulative Free Cash Flow Over LOM**



**Graph 1-36: EBITDA Over LOM**



(1) Excludes royalties

#### 1.18.1.4 Discount rate

The real discount rate used for evaluation purposes is 8% and was determined by the Board of Directors of GMM following a review of discount rates utilized in the financial evaluation of broadly comparable projects.

The sensitivity of the Project's investment metrics to varying discount rates will be presented in the Key Investment Metrics section of this report.

#### 1.18.1.5 Key investment metrics

Based on the above, the Project returns the following key investment metrics:

**Table 1-37: Key Investment Metrics**

| Description                   | Unit                                |
|-------------------------------|-------------------------------------|
| Pre-tax NPV                   | US\$ 1,523.9 million <sup>(1)</sup> |
| Post-tax NPV                  | US\$ 1,024.9 Million <sup>(1)</sup> |
| Real ungeared IRR             | 48.4%                               |
| Payback period <sup>(2)</sup> | 43 months <sup>(2)</sup>            |

(1) Expressed in 1 January 2026 terms

(2) Undiscounted, and calculated from the commencement of operations

The sensitivity of the Project's NPV, expressed in 1 January 2026 terms, to variations in certain specific key input parameters are set out in the tables hereunder:

#### 1.18.1.5.1 Concentrator recoveries

**Table 1-38: Post-Tax NPV Sensitivity: Concentrator Recoveries**

| Description     | Recovery %<br>(Nb <sub>2</sub> O <sub>5</sub> / Ta <sub>2</sub> O <sub>5</sub> ) | Post-tax NPV         |
|-----------------|----------------------------------------------------------------------------------|----------------------|
| Lower scenario  | 75.0% / 73.5%                                                                    | US\$ 921.2 million   |
| Base case       | 80.0% / 78.5%                                                                    | US\$ 1,024.9 million |
| Higher scenario | 85.0% / 83.5%                                                                    | US\$ 1,127.5 million |

#### 1.18.1.5.2 Refinery recoveries

**Table 1-39: Post-Tax NPV Sensitivity: Refinery Recoveries**

| Description     | Recovery %<br>(Nb <sub>2</sub> O <sub>5</sub> / Ta <sub>2</sub> O <sub>5</sub> ) | Post-tax NPV         |
|-----------------|----------------------------------------------------------------------------------|----------------------|
| Lower scenario  | 95.0% / 93.5%                                                                    | US\$ 990.9 million   |
| Base case       | 96.5% / 95.0%                                                                    | US\$ 1,024.9 million |
| Higher scenario | 98.0% / 96.5%                                                                    | US\$ 1,058.9 million |

### 1.18.1.5.3 Nb<sub>2</sub>O<sub>5</sub> forecast price scenario

**Table 1-40: Post-Tax NPV Sensitivity: Nb<sub>2</sub>O<sub>5</sub> Price Forecast**

| Description               | LOM avg price | Post-tax NPV         |
|---------------------------|---------------|----------------------|
| Forecast price scenario 1 | US\$ 80.98/Kg | US\$ 1,024.9 million |
| Forecast price scenario 2 | US\$ 84.03/Kg | US\$ 1,077.9 million |
| Forecast price scenario 3 | US\$ 57.61/Kg | US\$ 622.3 million   |

### 1.18.1.5.4 ZAR:US\$ exchange rate

**Table 1-41: Post-Tax NPV Sensitivity: ZAR : USD Exchange Rate**

| Description              | ZAR:US\$ exchange rate | Post-tax NPV         |
|--------------------------|------------------------|----------------------|
| Strengthening scenario 2 | 16.40                  | US\$ 1,009.8 million |
| Strengthening scenario 1 | 17.40                  | US\$ 1,017.9 million |
| Base case                | 18.40                  | US\$ 1,024.9 million |
| Weakening scenario 1     | 19.40                  | US\$ 1,031.0 million |
| Weakening scenario 2     | 20.40                  | US\$ 1,036.6 million |

### 1.18.1.5.5 Real discount rate

**Table 1-42: Post-Tax NPV Sensitivity: Real Discount Rate**

| Description       | Real discount rate | Post-tax NPV         |
|-------------------|--------------------|----------------------|
| Lower scenario 1  | 6.0%               | US\$ 1,301.3 million |
| Base case         | 8.0%               | US\$ 1,024.9 million |
| Higher scenario 1 | 10.0%              | US\$ 816.7 million   |
| Higher scenario 2 | 12.0%              | US\$ 657.4 million   |
| Higher scenario 3 | 15.0%              | US\$ 482.0 million   |

The sensitivity of the Project's NPV, expressed in 1 January 2026 terms, to more generic variations in input parameters is set out in the table hereunder:

**Table 1-43: Overall Sensitivity Analysis**

| US\$'million       | -20%    | -10%    | Base case | +10%    | +20%    |
|--------------------|---------|---------|-----------|---------|---------|
| Selling prices     | 670.8   | 848.1   | 1,024.9   | 1,199.8 | 1,374.7 |
| All costs          | 930.7   | 977.9   | 1,024.9   | 1,071.1 | 1,117.3 |
| • Mining cost      | 1,003.2 | 1,014.0 | 1,024.9   | 1,035.7 | 1,046.6 |
| • Processing costs | 959.0   | 992.0   | 1,024.9   | 1,057.2 | 1,089.6 |
| • Other costs      | 1,018.9 | 1,021.9 | 1,024.9   | 1,027.9 | 1,030.9 |

|               |       |       |         |         |         |
|---------------|-------|-------|---------|---------|---------|
| Capital costs | 970.2 | 997.6 | 1,024.9 | 1,051.1 | 1,077.2 |
|---------------|-------|-------|---------|---------|---------|

As illustrated, the Project is robust:

- Does not return a negative NPV in any of the aforementioned sensitivities or any combination thereof;
- Real ungeared IRR of 48.4%, comfortably in excess of the Project's anticipated marginal cost of capital;
- 43-month payback period post commissioning; and
- All in life of project operating cost of US\$ 14.26/Kg (after tantalum by-product credit), significantly below current and forecast Nb<sub>2</sub>O<sub>5</sub> prices.

#### 1.18.1.6 Project Funding

A detailed analysis and modelling of the Project funding arrangements has yet to take place, but early indications are that the Project will be able to secure a funding package comprising long and short-term debt and equity on acceptable terms and conditions thus enhancing the investment returns to Project participants.

## 1.19 Mine Closure Plan

### 1.19.1 Project Context and Closure Framework

The Kanyika Exclusive Prospecting Licence (EPL) was obtained in 2005 by Globe Metals and Mining (Africa) Ltd (GMMA), previously known as Globe Uranium (Africa). Subsequent exploration led to the discovery of significant pyrochlore mineralisation bearing niobium (Nb) and tantalum (Ta), and zircon (ZrSiO<sub>4</sub>).

The project is designed as a conventional open-pit load-and-haul operation supported by a standard mineral processing flowsheet. The key components include:

- Mining of the open pit will be conventional shovel truck operation comprising drill, blast, load and haul of both the ore and waste rock material. Appropriate ancillary equipment will provide dozing, grading and dust allaying functions. Hauling distances have been minimised by designing the ramp systems to exit on the east, closer to the plant, ore stockpiles and waste rock dump.
- Open pit mine extracting ore and waste using truck-and-shovel methods.
- Comminution circuit consisting of a primary crusher and a ball mill to reduce ore to the required particle size.
- Concentration plant to upgrade the ore and produce a saleable concentrate.
- On-site waste storage facilities, including:
  - Waste rock dumps for material stripped from the open pit.
  - Tailings or milled waste product storage facilities associated with the concentration plant.
- Supporting infrastructure, such as haul roads, workshops, power supply, water management systems, and administrative facilities.

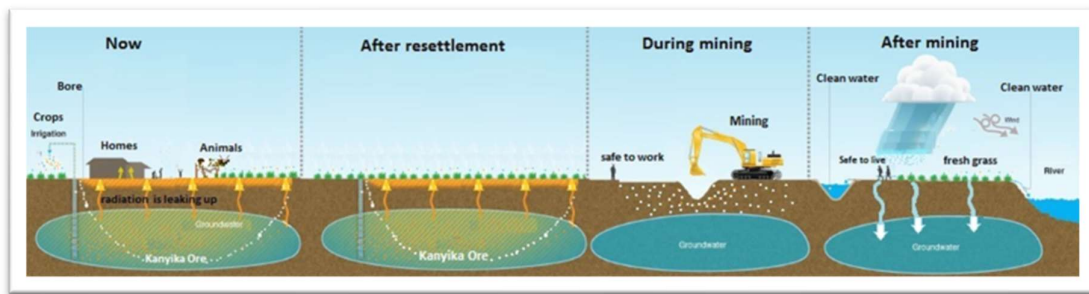
This configuration reflects a standard, proven approach for deposits of this scale and mineralogy.

Evaluation of Kanyika mineralisation and project development culminated in a scoping study that was issued in 2009, and a Definitive Feasibility Study (DFS) in 2018 and now the 2026 Bankable Feasibility Study which is currently being completed with latest available data.

The current plan allows for a project operating life for both the initial and expanded production schedules of 24 years. A resource extension drilling programme may be initiated during the mine life which would aim to extend the current resource estimate.

The primary objective of mining rehabilitation is to return the land back to the community in an acceptable and sustainable way. The deposit contains naturally occurring radioactive material (NORM). During mining, this material will be safely removed, isolated and managed in controlled facilities. As a result, when the area is rehabilitated and returned to the community, the overall environmental condition will be improved compared to the pre-mining state, as illustrated in Figure 1-33 below.

**Figure 1-33: Mining Improving The Effects Of NORM**



Closure planning is integrated into the life-of-mine schedule and must comply with statutory environmental and safety requirements. Closure principles emphasise public safety, environmental protection, community acceptability, and cost-efficient execution.

The mine closure plan will take into consideration all the statutory requirements that need to be met at the end of the mine life to restore, as near as possible, the mine site to the state of the land before mining.

The project is designed as a conventional open-pit load-and-haul operation supported by a standard mineral processing flowsheet. The key components include:

- Open pit mine extracting ore and waste using truck-and-shovel methods.
- Comminution circuit consisting of a primary crusher and a ball mill to reduce ore to the required particle size.
- Concentration plant to upgrade the ore and produce a saleable concentrate.
- On-site waste storage facilities, including:
  - Waste rock dumps for material stripped from the open pit.
  - Tailings or milled waste product storage facilities associated with the concentration plant.
  - Supporting infrastructure, such as haul roads, workshops, power supply, water management systems, and administrative facilities.

In general mine closure and rehabilitation activities will include:

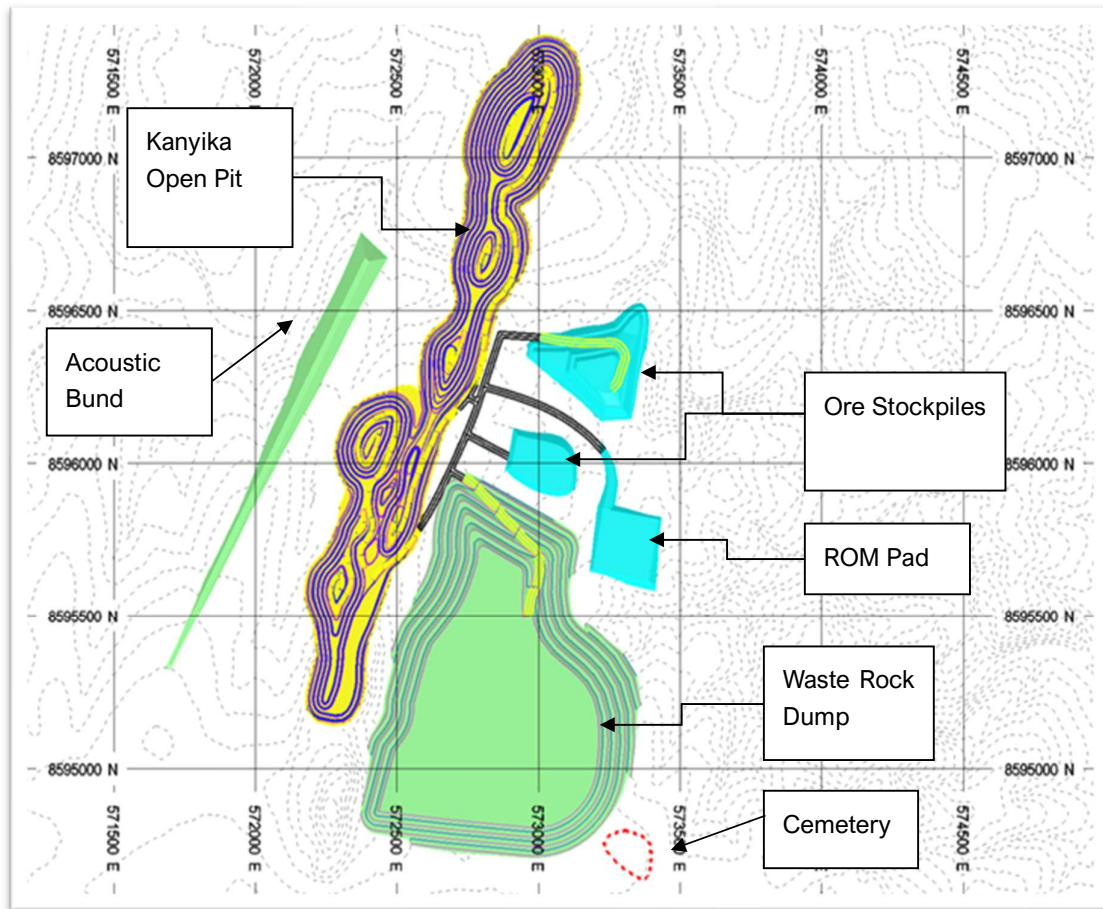
- Rehabilitation of waste rock dumps and disturbed areas.

- Establishment of long-term drainage so that no potentially contaminated run-off can leave the site.
- Removal of buildings and other structures; and
- Flattening of the upper pit crest.

This configuration reflects a standard, proven approach for deposits of this scale and mineralogy.

A plan view of the Kanyika open pit, ore stockpiles, ROM pad and waste rock dump are shown in Figure 1-34.

**Figure 1-34: Plan View Of Kanyika Open Pit, Stockpiles And Dump**



### 1.19.2 Mining, Material Movement and Landform Basis

Mining is by conventional open-pit drill-blast-load-haul methods, with eight pit stages and a final pit approximately 2.4 km long, 300 m wide, and 180 m deep as shown in Figure 1-35 and Table 1-43. Total material mined is 87.1 Mt, comprising 33.8 Mt of ore and 53.3 Mt of waste rock

These volumes define the footprint, final geometry of the waste rock dumps (WRDs), tailings storage facilities (TSFs), and disturbed areas requiring rehabilitation.

**Figure 1-35: Isometric view showing the eight pit stages**

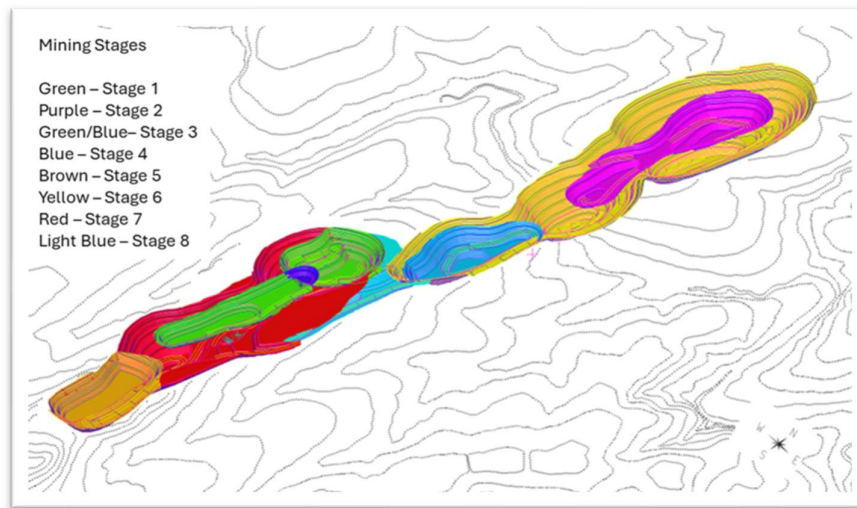


**Table 1-44: Table Of Material Mined In Each Stage**

| Stage   | Total Material | Waste | Strip Ratio | Mill Feed |                                      |                                      |
|---------|----------------|-------|-------------|-----------|--------------------------------------|--------------------------------------|
|         |                |       |             | Tonnes    | Nb <sub>2</sub> O <sub>5</sub> Grade | Ta <sub>2</sub> O <sub>5</sub> Grade |
|         | [Mt]           | [Mt]  | [w:o]       | [Mt]      | [ppm]                                | [ppm]                                |
| North 1 | 4.47           | 2.84  | 1.7         | 1.63      | 4,446                                | 206                                  |
| North 2 | 3.37           | 1.34  | 0.7         | 1.98      | 3,435                                | 156                                  |
| North 3 | 43.37          | 32.49 | 3.0         | 10.88     | 3,194                                | 140                                  |
| South 1 | 2.03           | 0.36  | 0.2         | 1.67      | 3,565                                | 165                                  |
| South 2 | 4.14           | 2.56  | 1.6         | 1.59      | 3,301                                | 132                                  |
| South 3 | 4.31           | 1.64  | 0.6         | 2.67      | 2,787                                | 129                                  |
| South 4 | 20.85          | 9.86  | 0.9         | 10.99     | 2,680                                | 133                                  |
| South 5 | 4.50           | 2.15  | 0.9         | 2.35      | 2,589                                | 134                                  |
| Total   | 87.05          | 53.29 | 1.6         | 33.76     | 3,050                                | 142                                  |

### 1.19.3 Waste Rock Dumps

A strategy concerning progressive rehabilitation of waste rock dump's (WRD) will be developed, including rehabilitation of dump slopes as they are completed during their life. Doing this during operations will minimise the amount of rehabilitation required in the closure phase at the end of the mine life. The progressive rehabilitation of the WRD has many benefits, including:

- Rehabilitation costs are spread over the life of the mine.
- The use of recently disturbed topsoil provides the potential for better rehabilitation outcomes.
- A knowledge base is gained from on-site rehabilitation trials and efforts.

- Minimising the amount of time required for ongoing monitoring and maintenance post mine closure; and
- Avoidance of a major cost commitment at the end of the mine life.

WRD's are designed for end-dumping with minimal rehandling. The dump is designed at a maximum height of 70 m using 10 m lift heights and an overall slope of  $\sim 18^\circ$ , see Figure 1-36 and Figure 1-37.

The dump is accessed by a single 25m clockwise ramp designed at a gradient of 1 in 10. Approximately 21.1Mm<sup>3</sup> of waste rock will be generated, requiring  $\sim 27.4$  Mm<sup>3</sup> of dump capacity after swell. Progressive rehabilitation is planned to reduce long-term exposure, improve vegetation success, and distribute costs across the mine life.

No pit backfilling is included in the current plan, though future studies may evaluate backfilling options.

**Figure 1-36: Section View Showing Waste Rock Design Profiling**

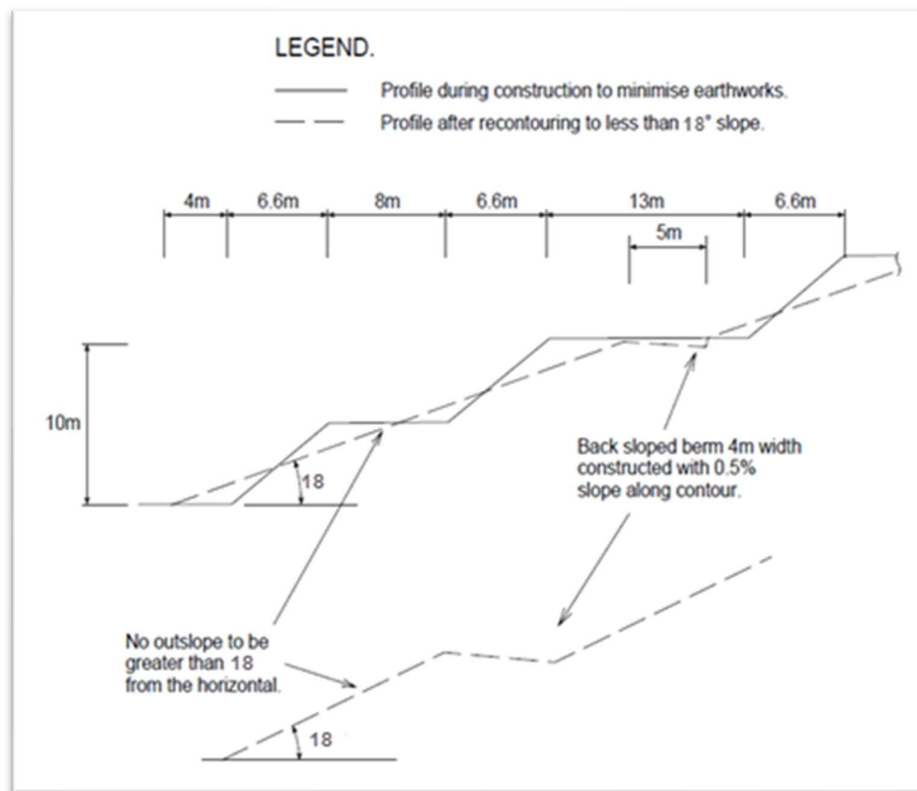
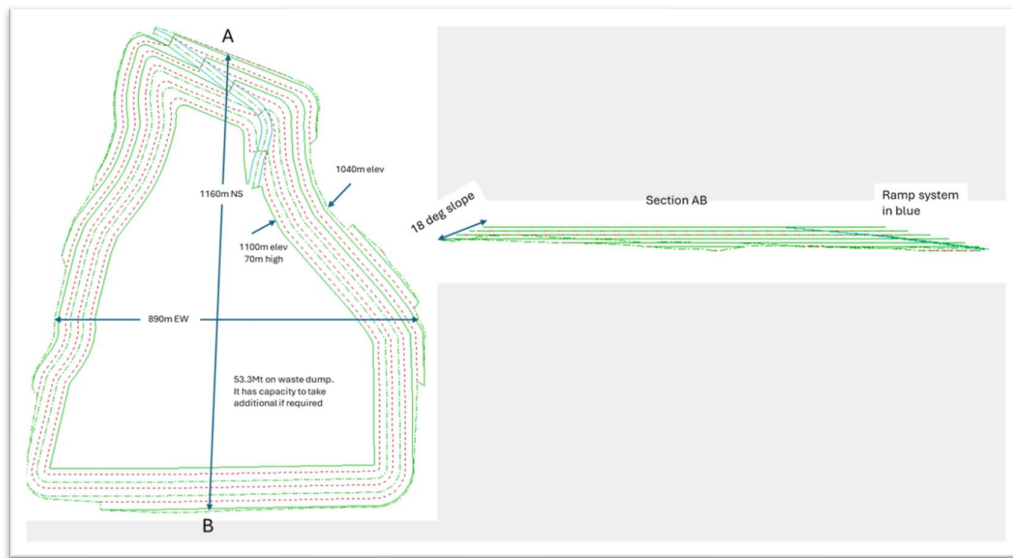


**Figure 1-37: Plan And NS Section Of The Waste Rock Dump**



#### 1.19.4 Tailings Storage Facilities

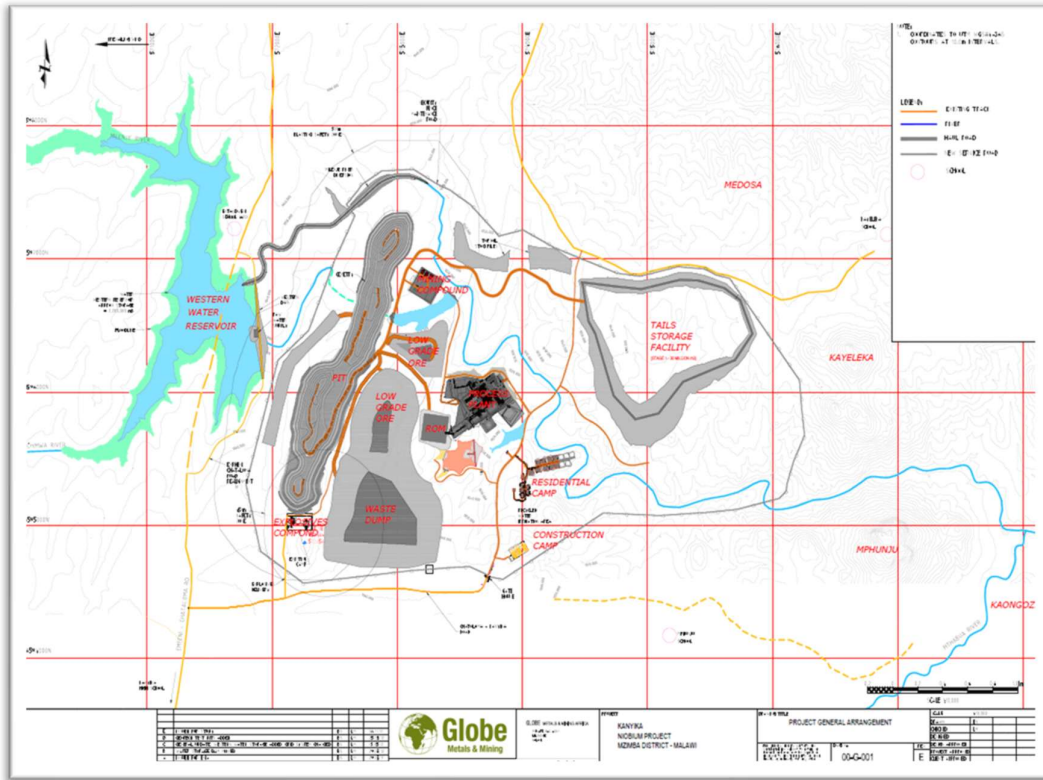
Tailings are non-acid forming due to a negative NAPP and NAG pH greater than 4.5, but contain elevated barium, nickel, and radionuclides, requiring a multi-layer engineered cover system at closure. In addition, given that the tailings solids radiometric analyses indicated that the activity of certain radionuclides exceeded the activity guidelines set out in the adopted naturally occurring radioactive minerals (NORM) guidelines, a site-specific radiation dose assessment is required to determine appropriate radiation control measures and therefore the final cover system design. It is envisaged that the cover system will include a capillary break / root barrier to prevent root uptake or capillary rise of radionuclides, overlain by a low permeability layer constructed of low permeability soils or a geomembrane with low gas permeability to attenuate radon/thoron release into the atmosphere or upper cover layers. The low permeability layer should be shaped to be water shedding and overlain by a topsoil and growth medium to encourage revegetation.

The TSF was designed to accommodate 83 Mt of flotation tailings assuming 1.5 Mt per annum throughput over 24 years of operation. The TSF comprises two cells with a combined capacity of 43 Mt (30 Mt + 13 Mt), occupying ~210 ha. Closure works include permanent spillways, shaping for long-term stability, and installation of a low-permeability radon-attenuating cover with topsoil and vegetation.

A potential co-disposal strategy (tailings encapsulated within WRDs) may be evaluated if economically favourable.

The Figure 1-38 below shows the surface layout plan including the tailings storage

Figure 1-38: The Surface Layout Plan



### 1.19.5 Open Pit Closure

At closure, the upper 10 m of the pit crest will be dozed to flatten the slope, and access will be restricted using bunds and a rock berm positioned 50m from the pit edge. Backfilling is not included in the current design. The top bench of the pit will be dozed into the pit to form a slope to warn locals of a change and possible danger.

All the ore stockpiles will be mined to the plant during and at the end of the life of mine and the area will be scarified, topsoiled and rehabilitated to the acceptable state.

### 1.19.6 Infrastructure Decommissioning

All buildings, workshops, utilities, and roads will be dismantled or demolished. Foundations and slabs will be removed, and disturbed areas will be scarified, topsoiled, and revegetated as described below.

- Haul Roads will be managed by the mining contractor and will be limited to the mining fleet and authorised mine support vehicles, design is based on accommodating haul trucks, single lane width of 12m, double lane width 16m and approximate total length – 4.02 Km.
- Light vehicle service roads including the access road will be maintained by the GMMA maintenance group. The main access roads will be built to a similar standard to the access road and constructed at the same time. Width – 5m, length – 12.6 Km
- Access tracks will be graded to service peripheral infrastructure including fence maintenance access and access to water storages, etc.

Hazardous materials will be removed or disposed of in accordance with regulatory requirements. All reusable equipment will be sold or relocated.

#### 1.19.7 Water Management and Drainage

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Closure drainage will be designed to ensure no contaminated runoff leaves the site. WRDs and TSFs will be shaped to shed water, and sediment control structures will remain in place until vegetation is established. Permanent spillways will be constructed at the TSF to safely route stormwater into natural watercourses.

#### 1.19.8 Rehabilitation Objectives and Outcomes

---

Rehabilitation aims to return the site to a safe, stable, and community-acceptable land use. Key outcomes include:

- Stable WRD and TSF landforms with long-term erosion control
- Vegetated surfaces using stockpiled topsoil
- Safe access restrictions around the final pit
- Removal of infrastructure and restoration of natural drainage
- Long-term monitoring to ensure environmental performance

#### 1.19.9 Closure Costing and Assumptions

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Closure costs are based on current-day values and assume:

- Progressive WRD rehabilitation during operations
- Full removal of infrastructure at the end of the mine life – plant offices, workshops etc.
- Disturbances left by infrastructure removal including foundations and compacted areas will be rehabilitated, topsoiled and vegetated
- Final government sign-off before handover back to them

Costs for redundancy, post-closure operations, and long-term monitoring are excluded unless specified in other BFS chapters.

#### 1.19.10 Overall Technical Interpretation

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The closure concept plan is technically conventional, aligned with international best practice, and integrates progressive rehabilitation to reduce long-term liabilities. The presence of NORM requires engineered controls for tailings and waste, but the plan demonstrates that these can be safely managed. The final landform will be more stable and environmentally secure than the pre-mining condition.

### 1.20 Company Policies and Procedures

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This document provides a consolidated three-page executive summary of Globe Metals & Mining Ltd's Company Policies and Procedures framework. The summary outlines the Company's governance principles, ethical standards, operational controls, and corporate responsibility commitments.

### 1.20.1 Governance, Ethics and Code of Conduct

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Globe operates under a Board-approved Code of Conduct requiring directors, officers and employees to act with honesty, integrity, fairness and compliance with all applicable laws. The Code establishes clear standards regarding conflicts of interest, confidentiality, protection of company assets, anti-bribery, insider trading, and regulatory compliance.

Employees must avoid personal interests that conflict with Company interests, disclose related-party transactions, and ensure procurement decisions are merit-based. Gifts and entertainment must not influence business judgment, and government officials must not receive benefits without prior approval.

The Company maintains strict compliance with securities laws, including insider trading prohibitions. Material non-public information must not be used for personal gain or disclosed improperly. Accurate financial records and internal controls are mandatory to ensure transparency and accountability.

### 1.20.2 Legal Compliance and Risk Management

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Globe is committed to full compliance with all legal and regulatory requirements across its operating jurisdictions. Employees are responsible for understanding applicable laws and seeking guidance from legal advisors when required.

The Risk Management Policy establishes a company-wide framework for identifying, assessing, managing, and monitoring risks using a structured plan-do-check-act methodology. The objective is to maintain risk exposure within defined tolerance levels while protecting assets, people, reputation and financial stability.

The Company cooperates with legitimate government information requests, with all communications managed through appropriate executive and legal channels to ensure consistency and protection of rights.

### 1.20.3 Workplace Standards and Human Resources

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Globe maintains a zero-tolerance approach to bullying, harassment, discrimination and workplace violence. The Company promotes diversity, equal opportunity, and merit-based recruitment and advancement. All employees are entitled to a safe and respectful working environment.

Health, Safety and Environment (ECHOS) standards require employees to comply with statutory requirements, report hazards, participate in safety training, and follow emergency preparedness procedures. Drug and alcohol use in the workplace is strictly prohibited.

The HIV and AIDS Policy supports non-discrimination, confidentiality, education, prevention, and access to treatment. The Company encourages voluntary testing and awareness programs while protecting employee privacy.

The Human Resources framework covers recruitment, probation, performance management, leave, termination, and professional development, ensuring compliance with applicable labour laws and ethical standards.

### 1.20.4 Information Technology and Data Protection

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Company IT resources are provided for legitimate business purposes. Employees must protect confidential information, comply with software licensing requirements, and avoid inappropriate or unlawful use of internet, email, or social media platforms.

The Company reserves the right to monitor IT usage to safeguard security, prevent data breaches, and ensure compliance with internal policies.

#### 1.20.5 Corporate Social Responsibility and Sustainability

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Globe's Corporate Social Responsibility (CSR) framework is built on the principles of Relationships, Environmental Care, Social Care, Responsible Production, Engagement, Cultural Awareness and Tolerance.

The Company prioritizes sustainable development through community engagement, local employment, capacity building, environmental stewardship, and transparent communication. Key focus areas include water access, healthcare, education, food security and infrastructure development in host communities.

The Environmental and Social Policy commits the Company to pollution prevention, rehabilitation of disturbed land, biodiversity protection, and proactive community grievance mechanisms.

#### 1.20.6 Financial Controls and Business Operations

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Group Accounting Policies ensure that financial statements are prepared in accordance with recognized accounting standards. Management exercises judgment in applying accounting principles while maintaining transparency and consistency.

The Business Travel Policy defines authorization requirements, expense controls, conduct standards, insurance provisions, and reimbursement procedures. Corporate credit cards must be used responsibly and strictly for business purposes.

Collectively, these policies form an integrated governance framework designed to uphold integrity, minimize risk, ensure legal compliance, and support sustainable long-term value creation.

### 1.21 Mine Safety Management

#### 1.21.1 Regulatory and Governance Framework

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The chapter establishes that the mine's Work Health and Safety (WHS) obligations are anchored in the Occupational Safety, Health and Welfare Act (Cap. 55.07, 1997). The Code of Practice functions as:

- A practical guide for achieving WHS standards.
- A benchmark for what is "reasonably practicable" in court.
- A minimum standard, with flexibility to adopt higher technical or industry standards.

The mine operator and mine holder carry the primary duty to ensure that workers and other persons are not exposed to risk, and must demonstrate systematic, documented WHS management.

#### 1.21.2 Employer Duties and Workplace Requirements

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Under the Occupational Safety, health and Welfare Act (Cap.55.07, 1997) of the Laws of Malawi the employer must ensure:

- Ensure the safety, health and welfare at work of all employees
- The maintenance of plant and systems that are safe
- Arrangements for the "safety and absence" of risks to health

- Provision of information, instruction, training and supervision of employees
- Management of the workplace in a safe manner
- Policies on safety, health at work.

The workplace is required to provide WHS that focuses on:

#### *1.21.2.1 Health and Welfare*

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The workplace should be, clean, not overcrowded, properly ventilated, appropriate lighting and provide sanitary conveniences, washing facilities, change rooms if required, sufficient tables and chairs for meetings, tool box talks and to serve as a lunchroom, drinking water, first aid facilities and general medical examinations at the clinic.

#### *1.21.2.2 Machinery Safety*

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All moving parts of machinery must be adequately guarded to prevent injury to persons working on or near the machinery. Maintenance of machinery will only be carried out by suitably qualified persons using the correct equipment.

#### *1.21.2.3 Health and Safety*

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For hazardous substances, the Company needs to provide material safety data sheets (MSDS) and information, mark and label, identify appropriate handling procedures, provide protective workwear, prevent fire, dust fumes, noise, vibration, provide information and training.

On dry windy days, workers may be exposed to radioactive dust. To reduce the risk of radiation exposure, workers must wear masks whenever out their vehicles and in the open and, the water truck will spray the loading faces keeping them damp to reduce dust. In addition, in extreme windy conditions, major production blasts will not be set off in the pit.

#### *1.21.2.4 Notifications*

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Notify authorities for all reportable incidents/accidents and follow through with a thorough investigation. In addition, accidents, dangerous occurrences and industrial diseases must be recorded on mine.

#### *1.21.2.5 Records*

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Keep an abstract of Occupational Safety, Health and Welfare Act on public display, policies and procedures for safety and health, maintain a record and register of incidents.

#### *1.21.2.6 Administration*

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Allow the Director of Occupational Safety, Health and Welfare or their nominee access to inspect the work site, persons and records

The WHS system requires all persons conducting a business or undertaking (including the mine holder and the mine operator) to ensure, so far as is reasonably practicable, that workers and other persons are not put at risk from work carried out as part of the business or undertaking. This involves eliminating or minimising risks to health and safety so far as is reasonably practicable.

In addition, a mine operator has specific duties under the WHS including:

- Develop, implement, maintain and document an effective management system
- Identify all hazards and eliminate or minimise risks so far as is reasonably practicable

- Identify all principal mining hazards, assess the risks and prepare management control, and
- Prepare an emergency plan and use it when responding to an emergency.

#### 1.21.2.7 *Managing risks*

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To effectively control the risks at a mine, requires the mine operator to follow a risk management process. This is discussed in the Risk Section 16 of the main report.

#### 1.21.2.8 *Consultation*

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Throughout the development and implementation of the system, the mine operator will on a regular basis consult with their workers at the mine including other persons conducting a business or undertaking at the workplace.

### 1.21.3 **Work health and safety Management System (WHSMS)**

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The WHSMS is the primary mechanism for ensuring safe operation on a mine. It brings together several procedures and policies to ensure it is comprehensive enough to suit the risks and complexity of the mine operations. It is a tool that enables a mine operator to follow a process that will assist them in systematically achieving and maintaining the required level of health and safety. It must be:

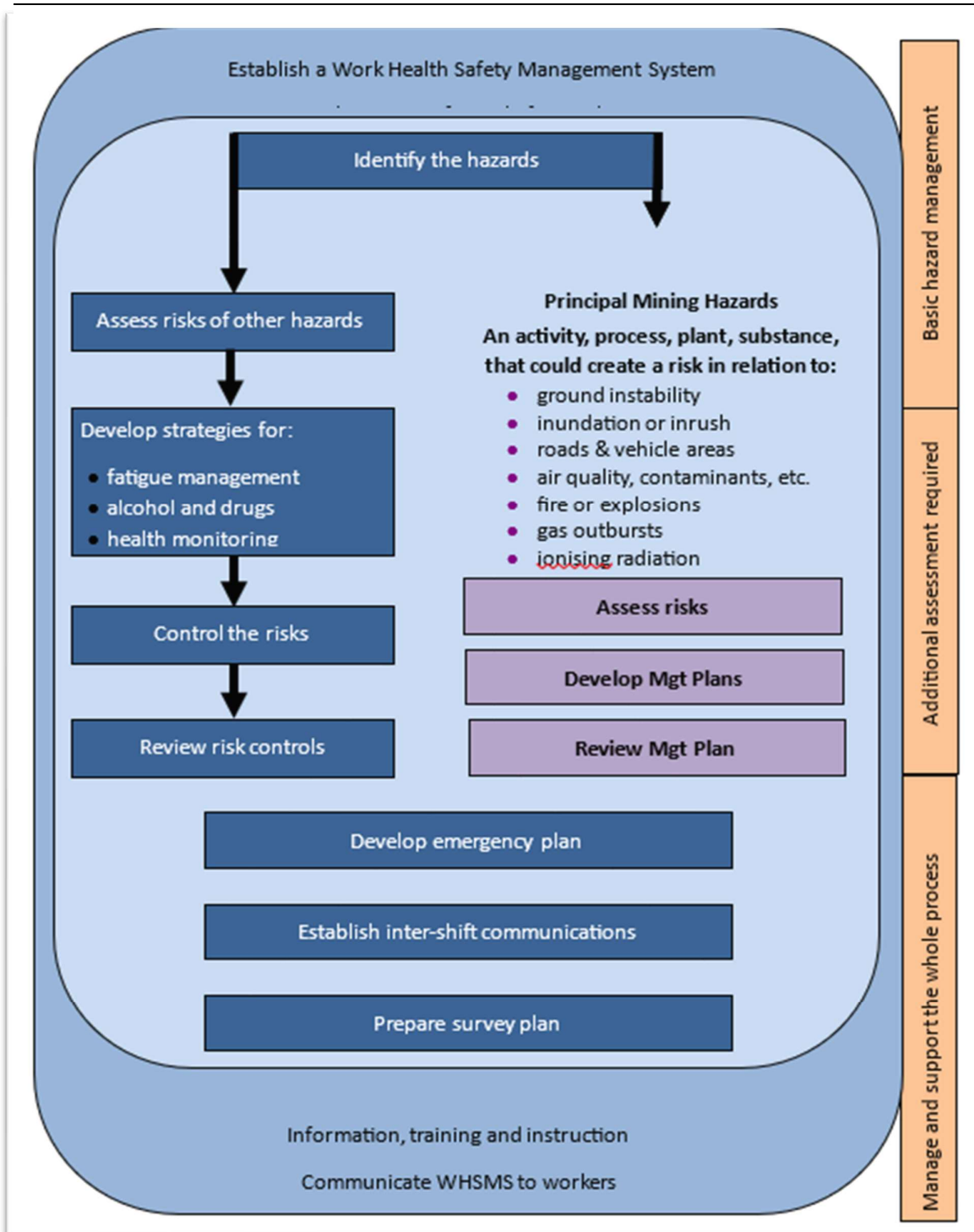
- Documented, accessible, and written in clear language.
- Comprehensive, integrating all WHS elements into a single system.
- Risk-based, with emphasis on principal mining hazards.
- Continuously improved, through audits, reviews, and incident investigations.

The WHSMS must demonstrate compliance to regulators, contractors, external auditors and when seeking external certification.

While most mines have safety-related policies, plans and processes in place, the WHSMS ties all the elements together into an integrated system to effectively manage the risks to the health and safety of all workers

Figure 1-39 shows the link between the duties detailed in the WHS and how a WHSMS is developed and implemented.

Figure 1-39: WHS And WHSMS



#### 1.21.4 Principal Mining Hazards

A principal mining hazard in any activity, procedure, plant, structure, process, substance, situation or other circumstance that could result in multiple fatalities over time or pose a serious risk to health and

safety. The chapter identifies eight principal mining hazards requiring specialised, systematic management:

- Ground/strata instability
- Inundation or inrush
- Mine materials movement, mine shafts, winders
- Roads and vehicle operating areas
- Air quality and airborne contaminants
- Fire or explosion
- Gas outbursts
- Ionising radiation

**Figure 1-40: Principal Mining Hazards**



Principle mining hazards are singled out for special consideration because they have specific relevance to mining activities. They also have the potential to cause an incident with very serious consequences if not adequately controlled, even though the likelihood of it happening may be low.

Each hazard requires a Principal Mining Hazard Management Plan (PMHMP) that documents:

- Hazard identification
- Risk assessment (individual and cumulative)
- Control selection and justification
- Monitoring, maintenance, and review requirements

These hazards are treated separately because they can cause multiple fatalities or catastrophic events.

### 1.21.5 Elements of a Comprehensive WHSMS

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A WHSMS for a mine is the primary means of ensuring the safe operation of a mine. It brings together a number of procedures and policies to ensure it is comprehensive enough to suit the risks and complexity of the mine operations. It is a tool that enables a mine operator to follow a process that will assist them in systematically achieving and maintaining the required level of health and safety. The WHSMS must be documented. It must be easily understood and accessible to those who need to read it. It should be written in plain language

A complete WHSMS integrates the following components:

#### 1.21.5.1 Policy

---

A formal WHS policy with measurable objectives and targets serves as the operators safety policy.

#### 1.21.5.2 Management

---

The organisational structure and contacts of those responsible for managing health and safety. It should include details of their roles and responsibilities and arrangements for persons in acting roles in the event of an emergency.

#### 1.21.5.3 Operations

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Procedures for operating, responding to alarms, shutdown, and isolation.

#### 1.21.5.4 Maintenance

---

Preventative maintenance- programs and procedures, asset integrity, and overhaul procedures.

#### 1.21.5.5 Hazard Management

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Description of the systems, procedures and measures to manage all risks in a detailed and integrated manner including:

- Hazard identification
- Risk assessment
- Selection and classification of controls
- Monitoring, maintaining and review of controls and safety systems
- Access and security
- Inspections and testing, and
- Specific principal mining hazard management plans.

#### 1.21.5.6 Emergency Response

---

Plans for evacuation, rescue, isolation, equipment, training, and coordination with authorities to ensure that it is prepared to address:

- Possible emergencies based on the hazards and risks assessed
- Requirements for emergency equipment, crews, first aid, transport
- Evacuation, isolating of process or work areas, and alternate exits

- Training and practices to ensure its effectiveness
- Crisis management and recovery.

#### *1.21.5.7 Communication*

---

Shift-to-shift communication, WHS information flow, and worker involvement.

- Training and Competence
- Induction, task-specific training, refresher training, and competency verification.
- Incident Management
- Reporting, investigation, corrective actions, and tracking.
- Record Management
- Document control, mine record requirements, and retention
- Continuous improvement from review, audits, investigations etc.
- Contingency planning.

Example of a comprehensive WHSMS system is shown in Figure 1-41.

#### *1.21.5.8 Implementation of the WHSMS system*

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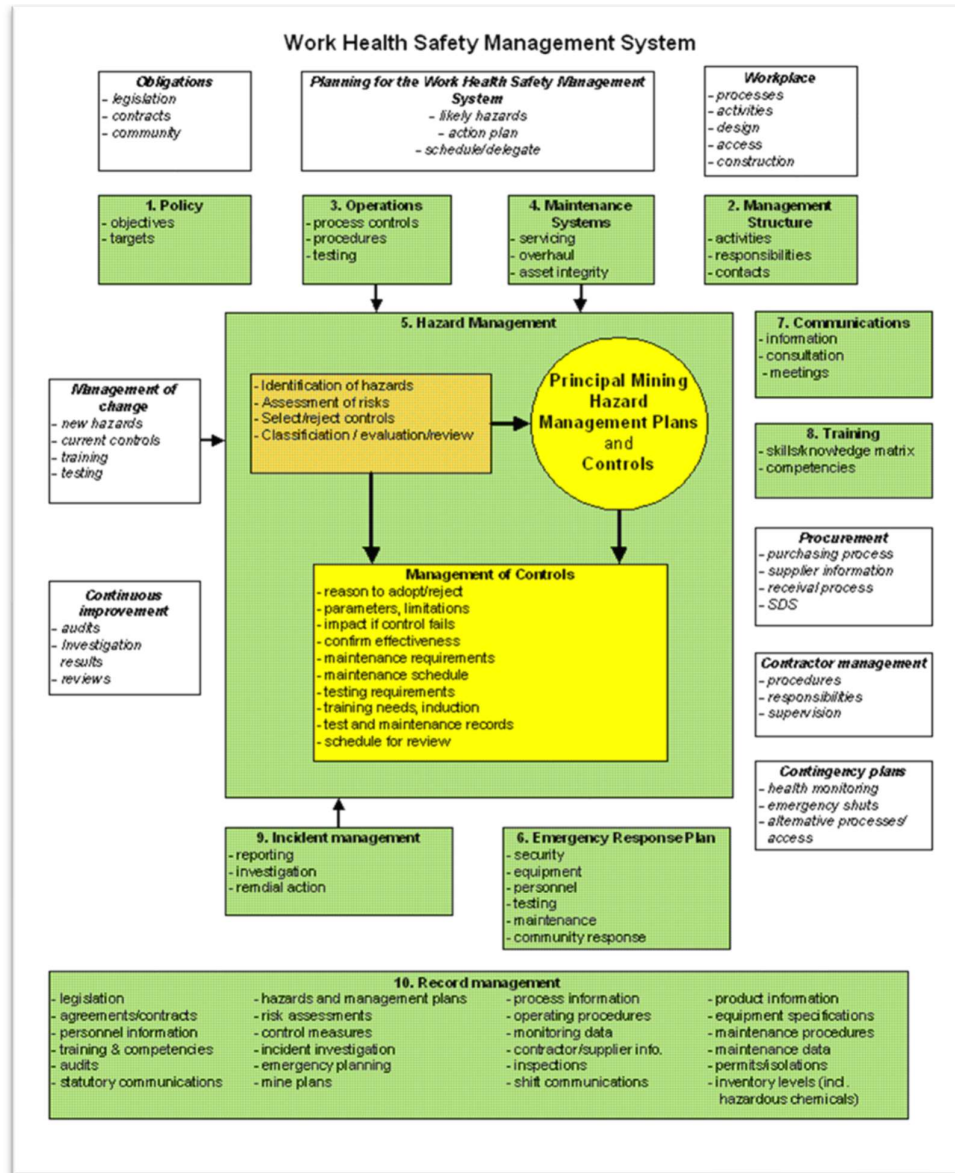
A WHSMS cannot be implemented, maintained, and improved without identifying and providing adequate resources. Resources include people with specialised skills, appropriate time, authority and financial delegation. This should all be identified in the WHS action list.

The representative of the mine operator will appoint an officer and they must exercise due diligence to ensure the person conducting a business or undertaking complies with their duties and obligations.

The role of an officer should be defined, documented and communicated to the relevant people in the organisation and includes:

- Ensuring that WHSMS requirements are established, implemented and maintained
- Reporting on the effectiveness of the WHSMS (for example, targets being met), and
- Regularly reviewing and improving the WHSMS.

Figure 1-41: Elements Of A WHSMS To Support Risk Controls



### 1.21.6 Mine Safety Plan

The mines plan should at least include the elements in the coloured panels of Figure 1-41, namely policy, operating procedures, maintenance programs, hazard & incident management, emergency plan, management structures, training, communications, fatigue, alcohol or drugs management and record management.

### 1.21.7 Consultation

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Workers should play an active role in every stage of workplace health and safety. In essence, they should be involved in identifying risks, shaping solutions, monitoring wellbeing, and ensuring that communication and training meet the right standard.

### 1.21.8 Hazard Identification and Risk Assessment

---

At the core of a WHSMS are the processes for managing hazards, in particular principal mining hazards. The processes selected must be able to deliver the work health and safety targets defined by the policy. When selecting a hazard management process the mine operator should also consider the nature of the hazards at the workplace (for example, chemical, physical, biological or ergonomic hazards), their extent and any impact particular work arrangements may have on a hazard management process (for example, repetitive tasks, work pace, shift work) which may result in fatigue/stress.

Hazards are grouped into:

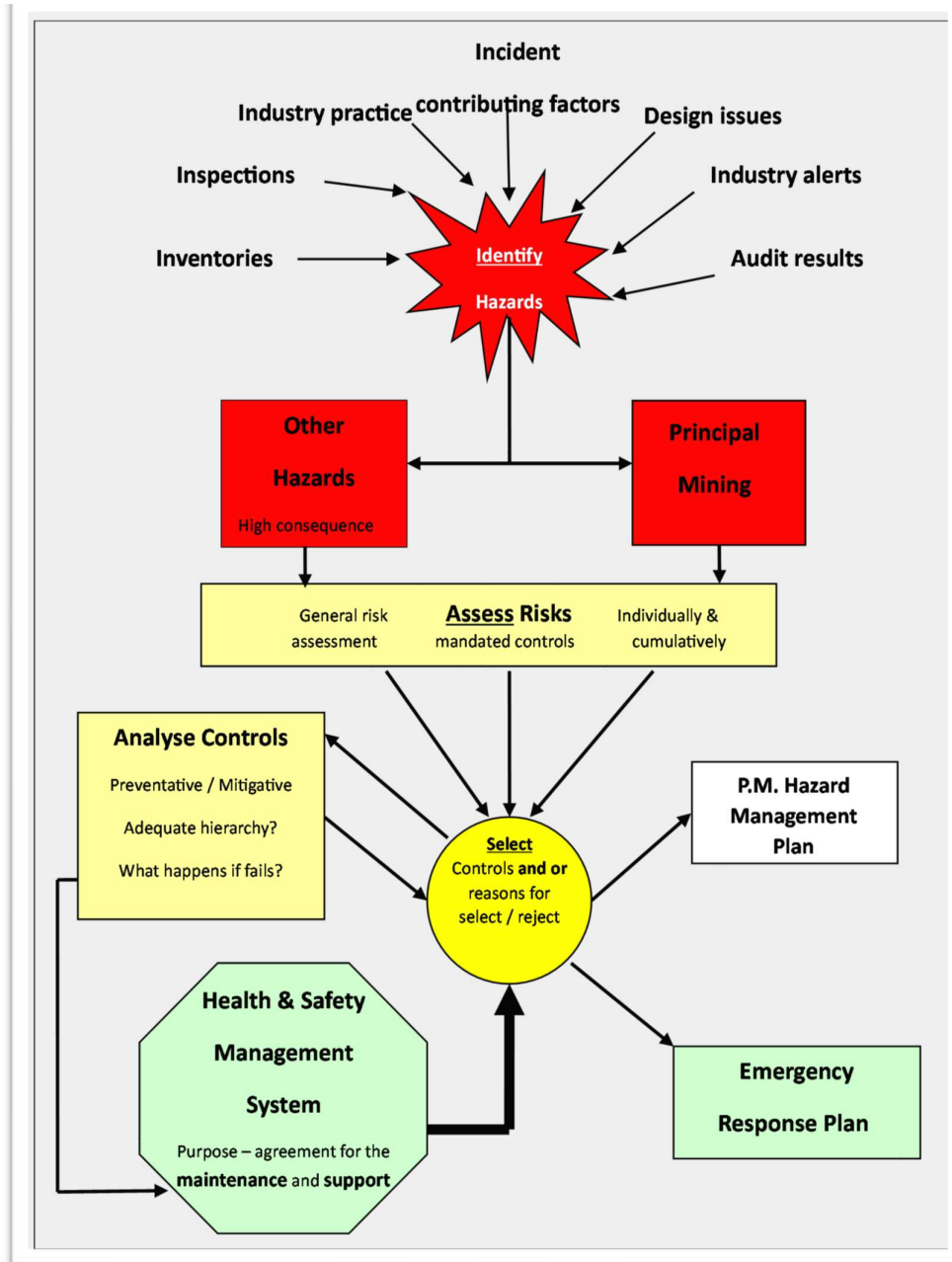
- Principal mining hazards (catastrophic potential)
- Other significant hazards (e.g., electricity, explosives, chemicals)
- High-frequency hazards (slips, manual handling, tools)
- New or unexpected hazards (requiring change management)

Risk assessment must consider:

- Hazard nature and severity
- Likelihood of the hazard or risk causing harm
- Possible severity of the harm
- Operating conditions (normal/abnormal)
- Past incidents and emergency scenarios
- Interactions between hazards

Components of the hazard management element showing links to Principal Mining Hazard Management Plans and the WHSMS is shown in Figure 1-42.

**Figure 1-42: Mining Hazard Management Plan**



### 1.21.9 Risk Control and the Hierarchy of Controls

Controlling risks involves eliminating the risk so far as is reasonably practicable. If this is not able to be done, the risk must be minimised so far as is reasonably practicable. The most effective way is to do this is to first of all, in consultation with the mine team, develop a mine wide Risk Register that states the inherent risk and mitigation measures by selecting control measures in accordance with the hierarchy of controls. It is likely that a combination of control measures needs to be used. The hierarchy of controls is as follows:

- Substitution – a new activity, procedure, process or substance related to the hazard
- Isolating the worker from the hazard (for example, guarding, remote controls)
- Engineering controls (for example, interlocks, pressure relief valves)
- Administrative controls (for example, safety rules, operating procedures), and
- PPE – personal protective equipment.

For principal mining hazards, controls must be documented in PMHMPs with justification for acceptance or rejection.

Controls must be supported by:

- Procedures & records
- Training
- Maintenance and withdrawal of damaged or unsafe plant
- Monitoring
- Competent personnel
- Permit-to-work systems
- Verification and inspection

#### 1.21.10 Emergency Management

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Mine operations will prepare an emergency plan. The emergency plan should collate a list of controls that were selected from the various risk assessments which would require urgent activation following an incident. The plan must be documented and include the procedures to activate those controls which will minimise the effects of an incident. The emergency plan will specify the resources that may be needed if a risk eventuates e.g. Breathing apparatus, lifting gear.

The emergency plan must address:

- Integration of controls identified in risk assessments
- Define resources, equipment, and personnel
- Communication systems
- Provide for multi-shift, prolonged emergencies
- Include evacuation, communication, isolation, and rescue procedures
- Be tested annually with local emergency services
- Maintain up-to-date mine plans

Emergency equipment must be inspected, tested, and maintained regularly.

#### 1.21.11 Consultation, Training, and Worker Involvement

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Where possible, workers should participate in discussions about safety matters relevant to their work and in developing any policies and procedures for their work. The WHSMS should describe how that consultation is to be done.

Training covers many requirements including initial induction of visitors, orientation for workers, specific work requirements or procedures, general safety such as the WHSMS, specific risk control measures and refresher training. Each type of training has different objectives, but it is an essential activity for the operator to manage safety. It is important that training is documented to ensure consistency, minimise possible gaps and verify that competency was achieved.

In particular, the mine operator must provide workers with information, instruction and training on hazards at the mine, the implementation and use of risk control measures and the content and implementation of the WHSMS. Workers will need additional training for their work and any specific controls required, particularly to implement new control measures.

Workers must be involved in:

- Hazard identification
- Risk assessment
- Control selection
- Emergency planning
- Incident investigation
- WHSMS review
- Training must consider literacy, language, and workforce composition.

#### 1.21.12 Measurement, Evaluation, and Continuous Improvement

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This section provides guidance on what is involved in measuring and evaluating a WHSMS. It includes the requirement to review the WHSMS. The mine operator will consult with workers and involve them during the review stage.

The WHSMS must include and assess if:

- Risk control measures are effective
- Objectives and targets set out in the policy are met
- Consistent application of the WHSMS, and
- Compliance with WHS legislation.
- Monitoring and measurement of WHS performance
- Incident investigation procedures
- Corrective and preventative actions
- Scheduled reviews (at least every 3 years)
- Internal and external audits
- Triggers for review (incidents, changes, deficiencies, worker requests)

Mine records must be kept and should include:

- Notices under regulations
- Notifiable incidents
- High-potential incidents

- Investigations and outcomes

### 1.21.13 Technical Depth: Risk Assessment Criteria for Principal Hazards

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The chapter provides detailed engineering considerations for each principal hazard. Examples include:

- Ground instability: geological structure, rock properties, seismicity, blasting, support design, groundwater regimes.
- Inundation/inrush: extreme weather, dam failure, aquifer pressures, backfill liquefaction, worst-case scenarios.
- Roads/vehicles: geometry, visibility, grades, interactions, weather effects, proximity detection.
- Airborne contaminants: ventilation design, exposure standards, monitoring, alarms, gas migration.
- Fire/explosion: ignition sources, flammable storage, detection systems, explosion-protected equipment.
- Ionising radiation: exposure limits, work procedures, waste management.

These criteria form the engineering basis for Principal Mining Hazard Management Plans.

### 1.21.14 Integrated Interpretation for BFS and Operations

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The chapter establishes a Work, Health and Safety framework that:

- Aligns with Malawian law and international mining practice
- Provides a systematic, auditable structure for safety management
- Ensures principal hazards receive specialised engineering attention
- Embeds continuous improvement and worker participation
- Supports BFS-level readiness for permitting, construction, and operations
- It is designed to be scalable, allowing the WHSMS to evolve as the mine transitions from construction to operations and closure.

## 1.22 Radiation Management

### 1.22.1 Introduction

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The Kanyika Niobium Project involves open-pit mining, beneficiation, and refining of pyrochlore concentrate containing minor quantities of naturally occurring radioactive material (NORM), primarily uranium and its decay products. Uranium is present at approximately 88 ppm in ore and is concentrated to approximately 0.5%  $U_3O_8$  in flotation concentrate. This chapter summarises baseline radiation conditions, radiation sources and pathways, predicted worker and public exposures, uranium deportment during processing, and engineering and institutional controls implemented to ensure compliance with regulatory and international standards.

### 1.22.2 Regulatory Compliance

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GMMA will comply with the Malawi Atomic Energy Act (2012), which governs the handling, storage, processing, transport, and disposal of radioactive materials. Radiation protection measures will also follow International Commission on Radiological Protection (ICRP) guidance for NORM.

Applicable dose limits include:

- Public exposure:  $\leq 1$  mSv/year above natural background
- Occupational exposure:  $\leq 20$  mSv/year averaged over five years (maximum 50 mSv in any single year)

ICRP guidance recognises that NORM exposure risks arise primarily from long-term inhalation or ingestion, rather than acute exposure. Accordingly, protection measures focus on exposure minimisation through engineering controls, shielding, monitoring, and operational procedures.

### 1.22.3 Baseline Radiation Environment

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A baseline radiation study conducted in 2012 by Mr J Slabbert Pr.Sci.Nat. established pre-mining radiation conditions. Exposure pathways assessed included external gamma radiation, radon inhalation, airborne dust inhalation, and drinking water ingestion.

Measured gamma dose rates ranged from 0.06 to 0.12  $\mu$ Sv/hour, equivalent to annual doses of 0.525 to 1.052 mSv/year, consistent with global natural background radiation.

Radon exposure ranged from 0.259 to 1.370 mSv/year, comparable to the global average of approximately 1.1 mSv/year. Elevated radon flux occurs locally over the orebody but is significantly lower at the planned plant and tailings locations.

Airborne dust radiation exposure is low under baseline conditions. Drinking water from the Milenje River exhibits low uranium concentrations and will be the sole operational water source.

Baseline studies concluded that, with appropriate controls, mining operations will not increase public radiation exposure beyond regulatory limits.

### 1.22.4 Sources and Pathways of Radiation Exposure

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Radiation exposure sources include:

- Naturally occurring uranium within ore and waste rock.
- Pyrochlore flotation concentrate ( $\sim 0.5\%$   $U_3O_8$ ;  $\sim 88$  Bq/g).
- Digest residue and neutralised refinery waste solids.
- Tailings storage facility solids.
- Radon gas from exposed uranium-bearing soils.

Primary exposure pathways include external gamma radiation and inhalation of dust or radon gas. Ingestion and waterborne exposure pathways are controlled through water management and environmental protection measures.

### 1.22.5 Uranium Deportment During Processing

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Pyrochlore flotation concentrates uranium approximately fifty-fold relative to ore, resulting in concentrate containing approximately  $0.5\%$   $U_3O_8$ . Concentrate production represents approximately 1% to 2% of ore mass depending on ROM head grade.

During refining, concentrate is digested using hydrofluoric and sulphuric acids at elevated temperature. Under these aggressive conditions, less than 3% of uranium dissolves. Approximately 97% remains in the solid digest residue.

Any dissolved uranium is subsequently precipitated during neutralisation of refinery raffinate and returned via solid waste streams. Consequently, essentially all uranium remains in solid form and is disposed of in the tailings storage facility.

Tailings geochemical testing confirms non-acid generating conditions, significantly reducing long-term uranium mobility. Blending of refinery residue with tailings and other solids results in uranium concentrations lower than those in the original ore.

#### 1.22.6 Worker Radiation Exposure Assessment

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Measured baseline radiation exposure on the orebody corresponds to approximately 2.18 mSv/year, well below occupational exposure limits.

Detailed shielding and exposure modelling indicates expected occupational exposures of approximately:

- Concentrate filtration operators: ~4 mSv/year (unshielded worst-case).
- Digest filtration operators: ~0.6 mSv/year.
- Digestion operators: ~1.3 mSv/year.
- Total refinery exposure: approximately 1–4 mSv/year.

Shielding using brick and reinforced concrete walls with lead window reduces radiation exposure by more than three orders of magnitude. These values remain significantly below the occupational exposure limit of 20 mSv/year.

#### 1.22.7 Public Radiation Exposure

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The processing plant is located approximately 800 metres from the nearest public receptors. Residents currently located on the orebody will be relocated, reducing their exposure to naturally elevated radiation.

Dust suppression, engineered tailings containment, and controlled access prevent significant off-site exposure. Public radiation exposure is predicted to remain below 1 mSv/year above baseline.

#### 1.22.8 Engineering Controls and Radiation Protection

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Engineering controls include:

- Reinforced concrete and brick shielding walls with lead glass around concentrate and residue handling equipment.
- Movable lead shielding at flotation cleaner stages.
- Enclosed and automated concentrate handling systems.
- Wet processing and moisture retention preventing airborne radioactive dust.
- Dust suppression systems including water sprays and scrubbers.
- Shielded concentrate and residue storage bunkers.
- Controlled access to high radiation areas.

These controls reduce occupational exposure to acceptable levels.

### 1.22.9 Tailings and Waste Management

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Approximately 98% to 99% of ROM ore mass reports to tailings. Refinery residues containing uranium are blended with tailings and stored in engineered tailings storage facilities with seepage collection and water recycling systems.

Refinery waste contains approximately 0.18%  $U_3O_8$  prior to blending and substantially less after dilution. Tailings are geochemically stable and non-acid generating.

Closure measures include installation of low-permeability covers, radon attenuation layers, revegetation, and long-term groundwater monitoring.

### 1.22.10 Radiation Monitoring Programme

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A Radiation Management Programme will be implemented, including:

- Appointment of a Radiation Safety Officer.
- Personal dosimetry monitoring of exposed workers.
- Workplace gamma radiation monitoring.
- Airborne dust and radon monitoring.
- Groundwater and environmental radiation monitoring.
- Routine inspection using radiation survey instruments.

Monitoring frequencies will be highest during early operations and adjusted based on measured conditions. Records will be retained in accordance with regulatory requirements.

### 1.22.11 Training and Institutional Controls

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All personnel will receive radiation awareness training appropriate to their responsibilities. Controlled and supervised areas will be designated and access restricted where necessary.

Operational procedures, emergency response plans, and radiation safety protocols will be implemented and periodically reviewed.

### 1.22.12 Conclusion

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Radiation at the Kanyika Project arises from naturally occurring uranium associated with the pyrochlore mineral. Baseline radiation levels are consistent with natural background ranges, except for localised elevated areas directly above the orebody.

Processing does not mobilise uranium significantly, with ~97% remaining in chemically stable solid waste streams disposed in engineered facilities.

Engineering controls, shielding, dust suppression, and radiation monitoring ensure worker exposures remain well below regulatory limits and public exposures remain below 1 mSv/year above background.

The Project complies with Malawi Atomic Energy Act requirements and international ICRP radiation protection standards and is considered radiologically safe for construction, operation, and closure.

## 1.23 Opportunities

### 1.23.1 Resource Expansion & Upside Through Further Drilling

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The current mine plan is based predominantly on Measured and Indicated reserves, with only limited deeper or peripheral areas fully tested. The mineralisation remains open to the north and at depth, presenting clear upside potential.

Targeted drilling programs could:

- Extend the strike length and depth of the orebody
- Convert additional material into higher-confidence categories
- Potentially support mine life extension or increased production rates

This is a relatively low-cost, high-impact opportunity to unlock additional value beyond the current life-of-mine plan.

### 1.23.2 Production Expansion & Throughput Optimisation

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The project is already designed with a phased expansion strategy, allowing capacity to scale over time. Beyond the base case, there is further opportunity to:

- Increase throughput beyond Phase 2 design
- Optimise recoveries through additional metallurgical work
- Debottleneck key circuits (comminution, flotation, hydromet)

Given that the deposit is large and consistent, increasing plant capacity could materially improve economies of scale and unit costs, further strengthening the project's position on the global cost curve.

### 1.23.3 Downstream Processing & Higher-Value Product Strategy

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Currently, the project produces high-purity oxides, but there is a clear opportunity to move further downstream into value-added products, including:

- Niobium alloys and master alloys for steel and aerospace
- Additive manufacturing (3D printing) powders
- Electronic-grade and capacitor materials (tantalum)
- This would allow Globe to:
- Capture higher margins
- Access premium, less price-sensitive markets
- Strengthen relationships with strategic end-users

There is also potential to supply into strategic stockpiling programs and defence-related supply chains, further enhancing long-term demand security.

## 1.24 Conclusion

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The Kanyika Niobium Project represents a highly advanced, technically de-risked and strategically positioned development opportunity, underpinned by a JORC-compliant Mineral Resource and Ore Reserve, and supported by a comprehensive Bankable Feasibility Study prepared to Class 3 cost estimate standards, reflecting a level of definition appropriate for financing, Final Investment Decision and project execution.

The Study confirms that Kanyika is capable of delivering robust, long-term financial performance, characterised by strong operating margins, attractive capital efficiency and a resilient economic profile across a range of market conditions. The application of a disciplined financial framework, including pricing assumptions informed by independent market research, an 8% discount rate and detailed cost estimation derived from independently sourced engineering inputs, provides confidence that the Project economics represent a realistic and supportable basis for funding and development.

A key strength of the Project lies in its phased development strategy, which has been deliberately designed to optimise capital allocation, reduce upfront funding requirements and accelerate time to first production. The initial development phase enables early cash flow generation and operational validation at a reduced scale, while preserving the ability to expand to full production capacity once technical, commercial and funding milestones have been achieved. This staged approach materially enhances project bankability by lowering execution risk, improving financing flexibility and allowing capital to be deployed progressively in line with de-risking outcomes.

From a technical standpoint, the Project benefits from a well-defined and continuous mineralised system, amenable to conventional open pit mining methods and supported by detailed mine design, scheduling and geotechnical analysis. The processing flowsheet integrates established comminution, flotation and hydrometallurgical refining technologies to produce high-purity niobium and tantalum oxides, achieving product specifications aligned with global market requirements. The inclusion of an on-site refinery represents a significant value uplift, enabling the Project to move beyond concentrate production and capture downstream margins through the production of high-purity (>99.9%) oxides.

Infrastructure and site development planning have been undertaken with a strong focus on practicality, scalability and cost efficiency. The Project incorporates a fully integrated mining, processing and refining operation, supported by fit-for-purpose infrastructure solutions including water management systems, a hybrid power supply strategy and logistics pathways aligned with regional constraints. While Malawi presents certain structural challenges, including infrastructure limitations, foreign exchange constraints and power reliability, these have been explicitly considered within the Study and addressed through engineering design, supply chain planning and operational strategies.

The legal and fiscal framework supporting the Project further enhances its attractiveness. The granting of a long-term mining licence, together with the execution of a Mining Development Agreement, provides a stable and predictable regulatory and fiscal environment, including defined Government participation and fiscal terms. In addition, the proposed Export Processing Zone status for the refinery has the potential to provide material benefits, including tax efficiencies, duty exemptions and full repatriation of profits, further strengthening the Project's overall economic profile.

Environmental and social considerations have been comprehensively addressed through the completion of an Environmental and Social Impact Assessment and the establishment of formal community engagement structures, including a Community Development Agreement. These frameworks ensure that the Project is developed in a responsible and sustainable manner, with clear mechanisms for community participation, benefit sharing and the establishment of a long-term social licence to operate.

The Project is positioned within a highly favourable and increasingly strategic long-term market context. Niobium is a critical mineral with supply concentrated in a limited number of jurisdictions, while demand is expected to strengthen across a broad range of applications, including high-strength structural steel, aerospace and defence systems, electronics, and emerging technology sectors.

Importantly, accelerating global investment in artificial intelligence infrastructure and data centres is driving incremental demand for high-performance materials, including niobium-bearing alloys used in advanced steels, superalloys and electronic components. These applications require enhanced

strength, heat resistance and efficiency, positioning niobium as an enabling material in next-generation computing, energy systems and advanced manufacturing.

In this context, the development of a new, independent source of high-purity niobium oxide represents a strategically significant addition to global supply chains, supporting increasing demand for secure, traceable and diversified supply outside of existing concentrated production regions.

While the Study acknowledges the presence of typical development risks — including commodity price volatility, funding execution, permitting timelines and operational ramp-up — these risks are well understood and are supported by clearly defined mitigation strategies. These include phased development, contractor-based mining approaches, modular infrastructure expansion, engagement with multiple offtake pathways and alignment with strategic funding partners. Importantly, the Project's ability to generate early cash flow and progressively de-risk through staged execution provides a strong foundation for managing these risks effectively.

In conclusion, the Kanyika Niobium Project is considered to be technically sound, economically robust and strategically compelling, with a clear and credible pathway to development. The outcomes of this Bankable Feasibility Study provide a high level of confidence in the Project's viability and support its advancement into the financing, procurement and construction phases.

The Project is therefore positioned to transition from study to execution, establishing Globe Metals & Mining as a producer of high-purity niobium and tantalum products and delivering a new, globally significant and strategically important source of supply into markets underpinning structural steel, aerospace, electronics, and the rapidly expanding AI and data centre economy.

## Appendix 1

### 1.25 Competent Persons Statements

The information in this announcement that relates to **Exploration Results and Exploration Targets** is based on, and fairly represents, information and supporting documentation prepared for the ASX announcement dated 19 August 2021 entitled “Kanyika Project Feasibility Study.” This document contains the full JORC Table 1 disclosure.

The Company is not aware of any new information or data that materially affects the information included in the original market announcement. The form and context in which the Competent Person’s findings are presented have not been materially modified from the original announcement.

This statement above is validated by the processing of the data collected and observations from site visits by David R Young and the various validation methods followed over the 2 years association with GMM has provided sufficient absorption of the corporate memory to allow this author to function as the Competent Person (CP) for a review of the existing Mineral Resource Statement by Stephens and Bewsher dated July 2018 of the Kanyika Project. David R Young has worked continuously as an economic geologist for 51 years. Mr Young has worked across a range of mineral deposit types, including gold, PGE and rare earth projects, covering exploration, resource estimation and mine development. He holds a BSc (Hons) in Geology from London University and is registered as an Earth Scientist with the South African Council for Natural Scientific Professions. He is a Fellow (Chartered) of the Geological Society of Southern Africa, a Fellow of the Southern African Institute of Mining and Metallurgy, and a Fellow of the Australasian Institute of Mining and Metallurgy.

Competent person: The information in this announcement that relates to **Mineral Resource Estimation** is based on, and fairly represents, information and supporting documentation prepared for the ASX announcement dated 19 August 2021 entitled “Kanyika Project Feasibility Study.” This document contains the full JORC Table 1 disclosure.

The Company is not aware of any new information or data that materially affects the information included in the original market announcement. The form and context in which the Competent Person’s findings are presented have not been materially modified from the original announcement.

This statement above is validated by the processing of the data collected and observations from site visits by David R Young and the various validation methods followed over the 2 years association with GMM has provided sufficient absorption of the corporate memory to allow this author to function as the Competent Person (CP) for a review of the existing Mineral Resource Statement by Stephens and Bewsher dated July 2018 of the Kanyika Project. David R Young has worked continuously as an economic geologist for 51 years. Mr Young has worked across a range of mineral deposit types, including gold, PGE and rare earth projects, covering exploration, resource estimation and mine development. He holds a BSc (Hons) in Geology from London University and is registered as an Earth Scientist with the South African Council for Natural Scientific Professions. He is a Fellow (Chartered) of the Geological Society of Southern Africa, a Fellow of the Southern African Institute of Mining and Metallurgy, and a Fellow of the Australasian Institute of Mining and Metallurgy.

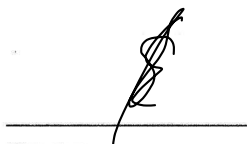
The information in this report to which this statement is attached that relates to **Metallurgy** for the definition of **Mineral Resources** is based on information compiled by Mr Jan Eklund a Competent Person who is a Member of ‘The South African Institute of Mining and Metallurgy’. Mr Eklund is an independent metallurgical consultant. Mr Eklund is a registered professional engineer with ECSA has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person. Mr Eklund

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 the report to which this statement is attached that relates **Ore Reserves** is based on information compiled by Mr Ryan Locke, a Competent Person who is a Member of 'The Australasian Institute of Mining and Metallurgy' and an employee of Oreology Consulting. He has sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking, to qualify as a Competent Person as defined in the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves' of December 2012 ("JORC Code") as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia. Mr Locke consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

**Sign-off Sheet**

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**1. Sampling Techniques and Data:**David R Young  
(Rock Economics)  
Signature25/MAR/2026  
Date**2. Reporting of Exploration Results:**David R Young  
(Rock Economics)  
Signature25/MAR/2026  
Date**3. Estimation and Reporting of Mineral Resources:**David R Young  
(Rock Economics)  
Signature25/MAR/2026  
Date**4. Metallurgical Results:**Jan Eklund  
(LogiProc (Pty) Ltd.)  
Signature26/03/2026  
Date**5. Ore Reserves:**Ryan Locke  
(Orelogy)R Locke  
Signature25 March 2026  
Date

## Appendix 2

### 1.27 JORC, 2012 Edition Table 1, Section 1 to 3

#### Section 1: Sampling Techniques and Data

**Table 1-45: JORC Code, 2012 Edition – Table 1 report -Kanyika Mineral Resource**

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

| Criteria            | JORC Code Explanation                                                                                                                                                                                                                                                                                                           | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sampling techniques | Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. | <p>The sampling of drill cuttings has been carried out on Reverse Circulation (RC) and diamond (D) drilling.</p> <p>All RC drilling used face sampling hammers with 5 ¼ or 5" drill bits and were collected at one metre intervals through a cyclone. The vast majority were dry (&lt; 0.3% being wet) and very few of these wet samples being significantly mineralised.</p> <p>Individual 1m composite samples generated from RC drilling were homogenised by a cyclone on the rig. For drilling campaigns prior to 2010, samples were weighed and then split by a 3-tier riffle splitter at 87.5/12.5 ratio. For the 2010 drilling program samples were passed through a single stage riffle splitter a number of times until the resultant weight of the split sample was about 2kg.</p> <p>Prior to 2010, diamond drilling was carried out at HQ size, with only one hole reduced to NQ. In the 2012 program the definition drilling was conducted with NQ2 drill bits, with HQ3 drilling reserved for geotechnical and metallurgical drilling. The core was orientated below the weathered and transitional zones.</p> <p>Prior to logging all driller's core metreage markers were checked for errors, core was re-pieced together; recovery was determined for runs between markers; metreage lines were drawn on the core; a continuous line was drawn along bottom-of-hole orientations and photographs of core were taken to facilitate future checking. The core was halved longitudinally by a diamond saw for sampling, which was generally on one metre intervals, although some sampling was at different intervals to account for geology.</p> |
|                     | Include reference to measures taken to ensure sample representation and the appropriate calibration of any measurement tools or systems used.                                                                                                                                                                                   | Sampling was carried out under Globe Metals protocols and QAQC procedures as per industry best practice. See further details below.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                     | Aspects of the determination of mineralisation that are                                                                                                                                                                                                                                                                         | Total count scintillometer readings of the RC large sample bags were routinely taken and recorded in a standardised format, to provide an estimate of uranium and pyrochlore content prior to sample submission and analysis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Criteria              | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | <p>Material to the Public Report.</p> <p>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Drilling techniques   | <p>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</p>                                                                                                                                                                                                                               | <p>All RC drilling used face sampling hammers with 5 ¼ or 5" drill bits and were collected at one metre intervals through a cyclone. Prior to 2010, diamond drilling was carried out at HQ size, with only one hole reduced to NQ. In the 2012 program the definition drilling was conducted with NQ2 drill bits, with HQ3 drilling reserved for geotechnical and metallurgical drilling. The core was orientated below the weathered and transitional zones.</p>                                                                                                                 |
| Drill sample recovery | <p>Method of recording and assessing core and chip sample recoveries and results assessed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>In general, the RC drill holes were kept dry. The total sample was weighed (before splitting), and the data generated indicated sample recoveries below the weathered and transitional zones were acceptable. With regards to diamond core, prior to logging all driller's core retreage markers were check. for errors, core was re-pieced together; recovery was determined for runs between markers. Much of the core from the weathered and transitional zones (generally 20m to 30m down hole) is broken but is noted to only occasionally result with poor recovery.</p> |
|                       | <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p>                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>Individual 1m composite samples generated from RC drilling were homogenised by a cyclone on the rig. Prior to 2010, samples were weighed and then split by a 3-tier riffle splitter at 87.5/12.5 ratio. For the 2010 drilling program samples were</p>                                                                                                                                                                                                                                                                                                                         |

| Criteria                                       | JORC Code Explanation                                                                                                                                                                             | Commentary                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                |                                                                                                                                                                                                   | passed through a single stage riffle splitter a number of times until the resultant weight of the split sample was about 2kg.                                                                                                                                                                                                                                                           |
|                                                | Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.                                  | Sample recovery within the weathered zone at Kanyika is poorer than the fresh zone where excellent recoveries were possible. All sample material generated from RC drilling was weighed and investigated in terms of recoveries. It was noted that recovery in the fresh zone was good and was satisfactory in the weathered zone.                                                      |
| Logging                                        | Whether core and chip samples have been geologically and geotechnical/y logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. | All drill chips were geologically and geotechnically logged using the Globe Metal's geological logging legend and protocols. Suitable petrology and other laboratory-based mineralogical investigations have been undertaken to support Mineral Resource estimation, mining studies and metallurgical studies.                                                                          |
|                                                | Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.                                                                                           | Logging of RC chips records lithology, mineralogy, texture, oxidation, colour and sample quality. The logging of the diamond core makes observations on the characteristics described above as well as structural measurements of features within the core and geotechnical discontinuities.                                                                                            |
|                                                | The total length and percentage of the relevant intersections logged                                                                                                                              | All holes are logged in full.                                                                                                                                                                                                                                                                                                                                                           |
| Sub-sampling techniques and sample preparation | If core, whether cut or sawn and whether quarter, half or all core taken.                                                                                                                         | The core was halved longitudinally by a diamond saw for sampling, which was typically on one metre intervals, while some sampling was at different intervals to account for geology. A half core was taken for sampling.                                                                                                                                                                |
|                                                | If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.                                                                                                    | RC samples are collected through a cyclone and a three tiered (pre 2010) or single tiered splitter (2010). The majority of samples were kept dry. Wet and damp sample intervals are recorded on geological logs.                                                                                                                                                                        |
|                                                | For all sample types, the nature, quality and appropriateness of the sample preparation technique.                                                                                                | Samples were prepared at the Genalysis Laboratory Services in Johannesburg, South Africa. The entire sample pulverised to 85% passing -75 micron, and a sub-sample of approximately 150g retained. This pulp was air-freighted to Genalysis Perth Laboratory, and assays determined by ICP mass spectrometry following a sodium peroxide fusion.                                        |
|                                                | Quality control procedures adopted for all sub-stages to maximise representation of samples.                                                                                                      | The sampling procedures were reviewed by Quantitative Group and it was stated that there were no drilling or recovery factors that might have resulted in sampling biases for RC and diamond drilling. The sampling procedures that were set up and followed have provided samples that adequately represent the drill hole. The choice of (generally) 1 metre sample intervals for the |

| Criteria                                   | JORC Code Explanation                                                                                                                                                                                                             | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            |                                                                                                                                                                                                                                   | diamond holes provides adequate resolution considering the style of mineralisation and the geometric shape of mineralisation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                            | Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.                                                          | Field duplicates were collected with results captured in the database.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                            | Whether sample sizes are appropriate to the grain size of the material being sampled.                                                                                                                                             | Sample sizes are considered appropriate to give an indication of mineralisation given the particle size and the preference to keep the sample weight at a targeted 2-3kg mass.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Quality of assay data and laboratory tests | The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.                                                                                  | <p>Samples were prepared at Genalysis (Johannesburg) and analysed at the Genalysis Perth Laboratory. The analytical method used was ICP mass spectrometry following a sodium peroxide fusion. The pertinent elements analysed were Nb, Ta, U and Zr with each reported in elemental ppm.</p> <p>Difficulty in analysing Nb and Ta was noted and is probably due to the concentration of hydrofluoric acid in the final digestion solution and the stability of metal complexes with time. Variable concentrations will affect the ability of the aliquot to retain Nb and Ta for an extended period for some sample matrices, which will result in variable degrees of Nb and Ta precipitation in different samples.</p> |
|                                            | For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. | Total count Scintillometer readings of the large RC bags were routinely taken and used as a field check for geological domains.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                            | Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. Jack of bias) and precision have been established.                  | <p>Standards, blanks and field duplicates have been routinely submitted on a ratio of one standard, one blank and one duplicate for every 20 drilled samples. Reference material CAN-1 and CAN-2 were prepared by Ore Research &amp; Exploration Pty Ltd of Melbourne from two 125 kg bulk samples of representative mineralised alkali granitoid from Kanyika. Both standards were certified in a program with ten laboratories, for Nb, Ta, U, and Zr. CAN-1 is certified at 2,237 ppm Nb and CAN2 as 7,144 ppm Nb.</p>                                                                                                                                                                                                |
|                                            | The verification of significant intersections by either independent or                                                                                                                                                            | The Company has not undertaken independent assay verification of intersections by independent persons however they have reviewed the geological nature of each domain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Criteria                                | JORC Code Explanation          | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 72Verification of sampling and assaying | alternative company personnel. | <p>relative to assay information provided by the Company. Company employed persons have reviewed all relevant materials.</p> <p>Prior to undertaking the Mineral Resource Estimate, further validation was undertaken with a number of drill holes examined by Quantitative Group to check original data with that exported electronically from the database. A summary of the data checks undertaken is as follows:</p> <ul style="list-style-type: none"> <li>• Original sample submission sheets with sample numbers and sampled intervals were checked against those in the database. There were no problems identified;</li> <li>• Hand-written geological logging checked against database. There were no problems with the drill holes checked;</li> <li>• Original downhole survey records checked against database. In general, the difference between magnetic and grid azimuth (4.6°) was applied, although some readings have been 'smoothed' where the influence of magnetic minerals may have affected the readings. In all instances examined, these corrections are logical;</li> <li>• Updated weathering logging for all holes checked against database output, with no errors;</li> <li>• Drill hole collar locations checked in the field as described above, with no errors;</li> <li>• Bulk density determinations checked, and erroneous values removed as described above.</li> <li>• Original electronic files supplied by the assay laboratory checked against the database. Conversions of elemental assays by the laboratories to oxide values were also validated.</li> </ul> <p>The quality assurance data was analysed systematically and check and balances generated with the laboratory. Re-assaying of batches of samples were undertaken where significant deviation from standards.</p> <p>The comprehensive quality control and quality assurance programme undertaken included the use standards or reference materials, blanks (silica sand) and duplicates inserted. The blanks and standards were supplied with the batches of samples. Some 10g of standard and blanks were being submitted. The laboratory was requested to rifle split coarse reject for a field duplicate in the case of DD samples. The standards were not crushed or milled as they were sufficiently fine grained. Blanks (washed silica sand) were introduced in each batch submitted to the laboratory to provide evidence for contamination in the crushing process and pulverisation stages. Some 10g of blank material was supplied for each blank sample included in the sample batch.</p> |

| Criteria | JORC Code Explanation | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |             |                   |                         |  |                                            |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |
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|          |                       | <p>Difficulty with finding chemically appropriate commercial standards led Globe to replace the field standards used initially in the 2007 campaign with two custom standards of Kanyika material.</p> <p>AN-1 and CAN-2 standards were manufactured and certified by Ore Research &amp; Exploration Pty Ltd in February 2008. CAN-1 is a low-grade reference material, and CAN-2 is a high-grade reference material. The two standards were initially provided to Acme for use as routine laboratory standards to be inserted into each batch at their Vancouver facility.</p> <p>In subsequent drilling programs, CAN-1 and CAN-2 were routinely inserted as field standards. Comprehensive umpire assaying studies through independent laboratories were undertaken on both RC and diamond drill core material from the preceding drilling programs.</p> <table><tr><th rowspan="2">Standard</th><th rowspan="2">Constituent</th><th rowspan="2">Recommended Value</th><th colspan="2">95% Confidence Interval</th><th colspan="2">Tolerance limits 1-<math>\alpha</math>=0.99, p=0.95</th></tr><tr><th>Low</th><th>High</th><th>Low</th><th>High</th></tr><tr><td rowspan="4">CAN-1</td><td>Niobium, Nb (ppm)</td><td>2237</td><td>2162</td><td>2312</td><td>2208</td><td>2266</td></tr><tr><td>Tantalum, Ta (ppm)</td><td>136</td><td>127</td><td>146</td><td>133</td><td>139</td></tr><tr><td>Uranium, U (ppm)</td><td>79.6</td><td>76.8</td><td>82.3</td><td>72.9</td><td>81.2</td></tr><tr><td>Zirconium Zr (ppm)</td><td>1658</td><td>1658</td><td>1752</td><td>1684</td><td>1725</td></tr><tr><td rowspan="4">CAN-2</td><td>Niobium, Nb (ppm)</td><td>7144</td><td>6891</td><td>797</td><td>7034</td><td>7253</td></tr><tr><td>Tantalum, Ta (ppm)</td><td>428</td><td>412</td><td>443</td><td>422</td><td>433</td></tr><tr><td>Uranium, U (ppm)</td><td>335</td><td>329</td><td>341</td><td>329</td><td>342</td></tr><tr><td>Zirconium Zr (ppm)</td><td>2178</td><td>2113</td><td>2242</td><td>2140</td><td>2215</td></tr></table> <p>For RC drill samples, field duplicates were produced during the splitting and included in the sample batch. For DD drill samples, laboratory duplicates were generated from the coarse rejects by the laboratory. Duplicates were introduced at intervals.</p> <p>Genalysis and ACME labs are both accredited laboratories. The National Association of Testing Authorities Australia (NATA) has accredited GENALYSIS Laboratory Services Pty Ltd, following demonstration of its technical competence, to operate in accordance with ISO/IEC 17025 which includes the management requirements of ISO 9001:2000. This facility is accredited in the field of Chemical Testing for the tests, calibrations and measurements shown in the Scope of Accreditation issued by NATA.</p> <p>In 1994, ACME began adapting its Quality Management System to an ISO 9000 model. ACME implemented a quality system compliant with the International Standards Organization (ISO) 9001 Model for Quality Assurance and ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories. On November 13, 1996, ACME became the first commercial geochemical analysis and assaying lab in North</p> | Standard | Constituent | Recommended Value | 95% Confidence Interval |  | Tolerance limits 1- $\alpha$ =0.99, p=0.95 |  | Low | High | Low | High | CAN-1 | Niobium, Nb (ppm) | 2237 | 2162 | 2312 | 2208 | 2266 | Tantalum, Ta (ppm) | 136 | 127 | 146 | 133 | 139 | Uranium, U (ppm) | 79.6 | 76.8 | 82.3 | 72.9 | 81.2 | Zirconium Zr (ppm) | 1658 | 1658 | 1752 | 1684 | 1725 | CAN-2 | Niobium, Nb (ppm) | 7144 | 6891 | 797 | 7034 | 7253 | Tantalum, Ta (ppm) | 428 | 412 | 443 | 422 | 433 | Uranium, U (ppm) | 335 | 329 | 341 | 329 | 342 | Zirconium Zr (ppm) | 2178 | 2113 | 2242 | 2140 | 2215 |
| Standard | Constituent           | Recommended Value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |          |             |                   | 95% Confidence Interval |  | Tolerance limits 1- $\alpha$ =0.99, p=0.95 |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |
|          |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Low      | High        | Low               | High                    |  |                                            |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |
| CAN-1    | Niobium, Nb (ppm)     | 2237                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2162     | 2312        | 2208              | 2266                    |  |                                            |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |
|          | Tantalum, Ta (ppm)    | 136                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 127      | 146         | 133               | 139                     |  |                                            |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |
|          | Uranium, U (ppm)      | 79.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 76.8     | 82.3        | 72.9              | 81.2                    |  |                                            |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |
|          | Zirconium Zr (ppm)    | 1658                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1658     | 1752        | 1684              | 1725                    |  |                                            |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |
| CAN-2    | Niobium, Nb (ppm)     | 7144                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6891     | 797         | 7034              | 7253                    |  |                                            |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |
|          | Tantalum, Ta (ppm)    | 428                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 412      | 443         | 422               | 433                     |  |                                            |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |
|          | Uranium, U (ppm)      | 335                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 329      | 341         | 329               | 342                     |  |                                            |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |
|          | Zirconium Zr (ppm)    | 2178                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2113     | 2242        | 2140              | 2215                    |  |                                            |  |     |      |     |      |       |                   |      |      |      |      |      |                    |     |     |     |     |     |                  |      |      |      |      |      |                    |      |      |      |      |      |       |                   |      |      |     |      |      |                    |     |     |     |     |     |                  |     |     |     |     |     |                    |      |      |      |      |      |

| Criteria                 | JORC Code Explanation                                                                                                                                                       | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |                                                                                                                                                                             | America to be accredited under ISO 9001. The laboratory has maintained its registration in good standing since.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                          | The use of twinned holes                                                                                                                                                    | Due to the short history of exploration and high degree on the survey control of these drill holes, the use of twinned holes has not been prioritised. However, 18 drill holes have been drilled to scissor existing drill holes. These holes were designed to test down dip continuity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                          | Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.                                                  | All sampling, geological logging and assay data has been captured digitally using standard file structure protocols and is stored in the Globe Access database, managed by BMGS in Perth. Copies of the database are held by Globe and various approved consultants.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                          | Discuss any adjustment to assay data.                                                                                                                                       | No assay data was adjusted. However, conversions were utilised to report concentrations of pertinent metals. Elements reported in ppm units were converted to their oxide/silicate equivalents.<br>$\text{Nb}_2\text{O}_5 = \text{Nb} \times 1.43053$ $\text{Ta}_2\text{O}_5 = \text{Ta} \times 1.221$ $\text{U}_3\text{O}_8 = \text{U} \times 1.17925$ $\text{ZrSiO}_4 = \text{Zr} \times 2.00942$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Location of data points  | Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. | <p>Drill hole set-outs were by GPS and then picked up by a registered survey company from Lilongwe (Digital Surveying) using differential GPS. All location data has been recorded in UTM (WGS84).</p> <p>All the drill hole collars in the Kanyika project area have been accurately positioned using the prevailing industry standards. Independent checking of drill hole collar locations in the field was undertaken by Quantitative Group in' 2010 for ten drill holes by using a hand-held GPS unit. The holes were spaced widely across the project, and all checks using the hand-held GPS unit were within 2 metres of the final surveyed position, with most less than 1 metre different. This is considered acceptable give the precision of the handheld GPS unit used for the checks.</p> <p>Downhole surveying was performed by Globe using an electronic single-shot Reflex instrument up to and including 2010. This device relies on magnetism to determine the drill hole azimuth, so it is affected by magnetic minerals. Because there are few magnetic minerals at Kanyika project, the azimuths should be quite comparable. Anomalous readings were removed or smoothed. For the 2012 drilling program, downhole surveys were completed on all holes using a stacked gyro/gamma system. Readings were taken every 5 metres. The magnetic declination applied is positive 4.62 degrees.</p> |
| Remove table line at top | Specification of the grid system used.                                                                                                                                      | Grid projection is WGS 84 (Zone 36) as at 30 June 2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Criteria                                                | JORC Code Explanation                                                                                                                                                                                                        | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remove table line at top                                | Quality and adequacy of topographic control.                                                                                                                                                                                 | The surveying of drill hole collars by Differential GPS formed part of the topographic control. Supporting this dataset were elevation spot heights determined from satellite remote sensing.                                                                                                                                                                                                                                                                                                                                                                          |
| Data spacing and distribution                           | Data spacing for reporting of Exploration Results.                                                                                                                                                                           | Drill spacing in the main part of the deposit is typically on 50m spaced northing lines, with holes spaced at 40m or less along line with significant areas where the drilling has been on 20m centres on 25m spaced lines. There are areas with the 50m spaced drilling, and two small areas of 100m spaced drilling between some 50m spaced data. Refer Table A.                                                                                                                                                                                                     |
| Get table lines corrected see original document         | Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. | The spacing of drill holes within and between drill lines is sufficient to establish the degree of geological and grade continuity for this deposit.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Get Table Lines corrected throughout all tables         | Whether sample compositing has been applied.                                                                                                                                                                                 | No compositing has been undertaken.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Orientation of data in relation to geological structure | Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.                                                                   | Four mineralised zones have been identified. These strike 020° and dip to the WNW at ~40°-80°. Most of the drill holes defining the mineralisation are inclined -55° to the east. 18 scissor holes were drilled to the west to test downhole continuity. Consequently, the orientation of the sampling relative to the deposit geometry limits bias.                                                                                                                                                                                                                   |
|                                                         | If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.                   | This is not considered material. It is considered that drilling was appropriately oriented for the known strike and distribution of the mineralisation at Kanyika.                                                                                                                                                                                                                                                                                                                                                                                                     |
| Sample Security                                         | The measures taken to ensure sample security.                                                                                                                                                                                | Individual plastic bags containing samples were packed in large rice bags and sealed with cable ties. They were transported by four-wheel drive or 3-tonne hired trucks. Samples were delivered to Globe's Lilongwe office and then to the Department of Mines for inspection and export permits. After inspection the truck travelled to the airport where the samples were offloaded and weighed again at the secure premises of Manica Freight. The samples were then loaded onto the aircraft for transport to Johannesburg and collection by Genalysis. A Company |

| Criteria          | JORC Code Explanation                                                 | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                                                                       | representative was on hand at all times to oversee the packing, transportation and delivery to Manica Freight. Genalysis (Johannesburg) handled the arrangements for pulps to be delivered to Genalysis Perth.                                                                                                                                                                                                                                                                                                                                                                                                   |
| Audits or reviews | The results of any audits or reviews of sampling techniques and data. | In 2010 Quantitative Group (QG) reviewed all the systems put in place by Globe to ensure representative samples are taken and then assayed as accurately as possible with maximum attention to quality, precision and security throughout the process. All of the systems were implemented as described and were considered by QG to be of a good 'modern' industry standard. During a due diligence exercise, BMGS reviewed the data and database for the resource estimation. The review noted some spurious assays in legacy datasets but overall these had no significant effect on the resource estimation. |

## Section 2: Reporting of Exploration Results

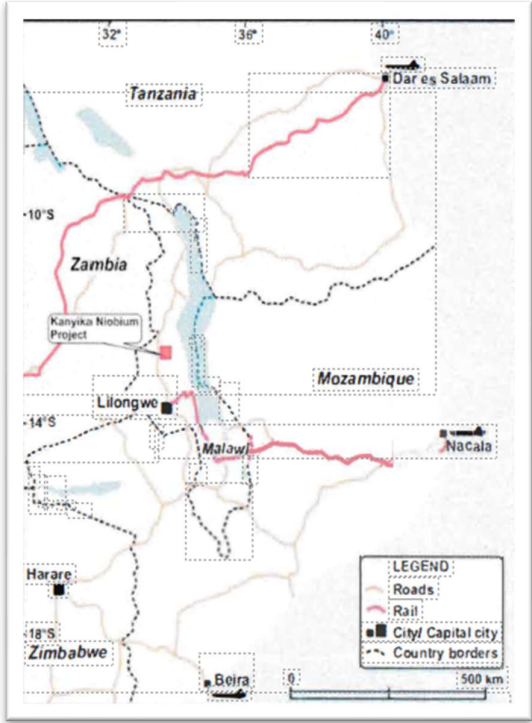
**Table 1-46: Exploration results**

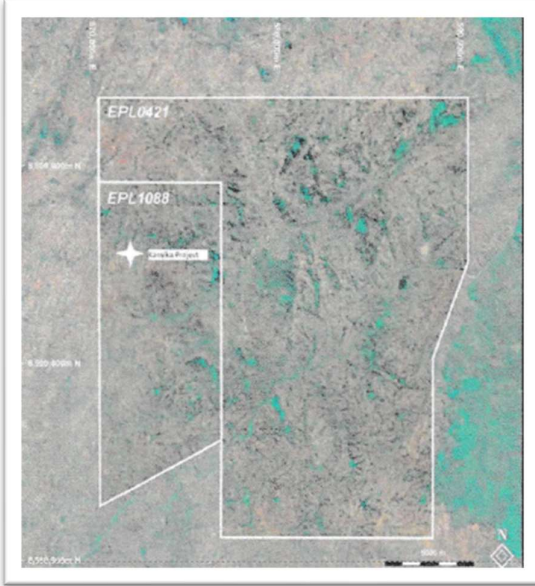
(Criteria in this section apply to all succeeding sections.)

| Criteria                                | JORC Code Explanation                                                                                                                                                                                                                                                        | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mineral tenement and land tenure status | Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. | All of the Kanyika drilling is situated within EPL1088. The Company's Mining Licence Application was lodged with the Malawi Ministry of Natural Resources, Energy and Mining on 5 December 2014 and covers part of the areas by EPL 1088/05 then and currently RPL0421/15. The Mining Lease Application has been approved subject to the conclusion of the Definitive Feasibility Study and signing of a development agreement with the Government of Malawi that remains incomplete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                         | The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.                                                                                                                                     | The license is in good standing with the Department of Mines Lilongwe as of 30 June 2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Exploration done by other parties       | The license is in good standing with the Department of Mines Lilongwe as of 30 June 2018.                                                                                                                                                                                    | <p>From 1966 to 1967, the area was mapped at a scale of 1: 250,000 by the Geological Survey of Malawi. Following mapping no work was completed in the area until the UNDP conducted a major airborne radiometric and magnetic survey over most of Malawi, at 1km line spacing, between 1984 and 1985. This survey led to the identification of a uranium and uranium-thorium anomaly, measuring approximately 3km by 1km at Kanyika.</p> <p>A field program to investigate the Kanyika airborne radiometric anomaly was conducted by the Malawi Geological Survey in 1986. A total-count ground radiometric survey was completed over an area of 2 by 0.7km. Areas of high radiometric response correlated to foliated nepheline syenite.</p> <p>A total of 91 soil samples and 21 rock chip samples were taken and analysed for Nb, Zn and Pb. Chemical analyses returned Zn and Pb results that were at or near background. However, Nb up to 1.20% in soils and 0.13% in rocks was assayed, although there was a poor correlation with anomalous radiometric zones.</p> <p>The analytical suite did not include U, Zr, Ta or REEs due to limitations on available analytical equipment. Following acquisition of the project by Globe Metals and Mining Limited, reconnaissance field programs were initiated in 2006. A total-count ground radiometric survey defined two distinct, 020° striking parallel zones, over 2.5km strike length. Soil</p> |

| Criteria              | JORC Code Explanation                                                                                                                                                   | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                       |                                                                                                                                                                         | and rock-chip sampling showed an associated +100ppm $U_3O_8$ soil anomaly (peak 482ppm $U_3O_8$ ) and coincident strong Ta and Nb. Rock Chip samples up to 0.29% $U_3O_8$ , 7.33% $Nb_2O_5$ and 0.63% $Ta_2O_5$ were returned.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Geology               | Deposit type, geological setting and style of mineralisation.                                                                                                           | <p>Kanyika is an intrusion-hosted Nb-Ta-U-Zr deposit. It lies within the Malawi Province of the Mozambique Orogenic Belt. It is almost entirely underlain by Precambrian and Lower Palaeozoic Basement Complex, predominantly gneissic metamorphic rocks.</p> <p>Most of the rocks in the region are para-gneiss originating from variable protoliths including petites, sandstones and limestones. Several granitoid bodies of variable size have intruded the gneiss basement and may have originated wholly or in part by anatexis. A few small concordant bodies of alkaline syenitic rocks carrying nepheline are also present, including the strike-extensive body which hosts the Kanyika Nb-Ta-U-Zr deposit.</p> <p>Airborne radiometric anomalies and follow-up geochemical sampling programs led to the discovery of the Kanyika deposit. Due to good surface exposure and abundant drill data, local geology at Kanyika is well known. The deposit is hosted within a NNE striking, westerly dipping alkalic granitoid, which has broadly concordant contacts with enclosing biotite gneiss. The host unit outcrops over 3.5 km strike length, and averages 200m wide at surface in the south and 50m in the north.</p> <p>Niobium and tantalum mineralization occurs as the mineral pyrochlore. The pyrochlore mineralization occurs only within the alkali granitoid, in disseminated form as well as in clustered aggregates forming centimetre wide bands. Within the resource area, four broad mineralization zones are associated with 2 separate sheets of the alkali granitoid that contain disseminated, pale yellow pyrochlore grains. Each of the four broad mineralized zones appear to correlate broadly to footwall and hangingwall zones of the two granitoid sheets.</p> <p>Higher-grade shoots appear to occur generally at slightly more shallowly dipping orientations and thus have a broadly en-echelon distribution. Zircon mineralization is associated with pegmatite zones spatially associated with these higher-grade shoots and is commonly associated with pyrochlore mineralization in the disseminated and higher grade forms.</p> |
| Drillhole information | A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: | <p>Refer Table A (attached) for drill survey information</p> <p>Refer Table B (attached) for drill hole assay intercept information</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Criteria                                       | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Commentary                                                                                                                       |
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|                                                | <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar <ul style="list-style-type: none"> <li>elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar</li> </ul> </li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth <ul style="list-style-type: none"> <li>hole length.</li> </ul> </li> </ul> <p>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</p> |                                                                                                                                  |
| Data aggregation methods                       | In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | There has been no exploration data included in this report. Only data relative to drilling and resource determination is stated. |
|                                                | Where aggregation intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.                                                                                                                                                                                                                                                                                                                                                                                                       | There has been no aggregation of data.                                                                                           |
|                                                | The assumptions used for any reporting of metal equivalent values should be clearly stated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Metal equivalents are not used.                                                                                                  |
| Relationship between mineralisation widths and | These relationships are particularly important in the reporting of Exploration Results.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mineralisation widths in drill core have been modelled into true widths.                                                         |

| Criteria          | JORC Code Explanation                                                                                                                                                                                                                                                                               | Commentary                                                                                                                                                                                                                                                                                                                                                               |
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| intercept lengths | <p>if the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</p> |                                                                                                                                                                                                                                                                                                                                                                          |
| Diagrams          | <p>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</p>                           | <p>Location of Kanyika niobium project annotated with country boundaries (dashed line) major roads (brown line) railways (red line) and major cities (follows).</p>  <p>Map of relevant exploration licences 100% owned by Globe Metals and Mining overlain on google earth image</p> |

| Criteria                           | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                    | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                    |                                                                                                                                                                                                                                                                                                                                                                                                          |  <p>Refer Figure 1 for a view of the mineralisation domains<br/>Refer Figure 2 for a view of the mineralisation in plan section, long section and oblique section</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| reBalanced reporting               | Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.                                                                                                                                                                                | Data is presented from drilling data as received from analytical laboratories.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Other substantive exploration data | Other exploration data, if meaningful and material, should be reported including (but not limited to):<br>geological observations;<br>geophysical survey results;<br>geochemical survey results;<br>bulk samples - size and method of treatment;<br>metallurgical test results;<br>bulk density, groundwater, geotechnical, and rock characteristics, potential deleterious or contaminating substances. | <p>Bulk samples have been recovered for metallurgical testwork. The location of these pits is recorded in Table A and results incorporated into metallurgical testwork outcomes.</p> <p>Mineralogical testwork has been undertaken to understand the nature of mineralization, the size of mineral assemblages and the nature of the distribution and associations. Niobium, tantalum and uranium is discretely associated with the mineral pyrochlore and zirconium with zircon minerals. Pyrochlore and zircon are not necessarily mutually associated but commonly occur together. The remaining common gangue mineral assemblages are feldspars and very minor quartz, biotite and magnetite. Pyrochlore has a dominant size range from 0.02mm to 0.5mm while zircon dominantly ranges in size from 0.2mm to 2.5mm. Metamictisation (crystalline structural degradation) of pyrochlore is (importantly) uncommon. The mineralogical composition of the Kanyika mineralization is therefore simple</p> |

| Criteria     | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                   | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|              |                                                                                                                                                                                                                                                                                                                                                         | <p>and lacks complexity of other mineral assemblages that could interfere in metallurgical processes. Mineralogical assessment of pyrochlore and zircon have also been undertaken in various recovery techniques during metallurgical test work programs.</p> <p>Table 1 and Section 3 of this report elaborates on metallurgical testwork outcomes; bulk density characteristics: geotechnical characteristics are discussed in the section on mining and groundwater in the section on environmental issues.</p>                                                                                  |
| Further work | <p>The nature and scale of planned further work ( e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p> | <p>At this stage no exploration or mineral resource development works are planned within EPL1088/0S that contains the Kanyika Project and associated mineralisation. The Company has been granted an exploration licence EPL0421/15 that covers an area of 308 Km<sup>2</sup> to the east and north of the Kanyika project which was previously part of the EPL 1088/05 after its expiry period.</p> <p>Further exploration assessment is under consideration, the details of which will be released in due course. Licence EPL0421/15 has no impact on the Kanyika Project mining application.</p> |

## Section 3 Estimation and reporting of Mineral Resources

**Table 1-47: Estimation and reporting of the results of the mineral resources**

| Criteria                  | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                  | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| Database integrity        | <ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>                                                                                                            | <ul style="list-style-type: none"> <li>All survey, geotechnical, logging and sampling data once collected was entered into a temporary Excel database on the project site and validated. It was then uploaded to an internet Sharefile system to be accessed and downloaded to the Perth database, which at the time was a Datamine Fusion database. In recent times the dataset has been stored in a Microsoft Access database and managed by staff of BMGS.</li> <li>Only one geologist has been authorized to make changes to the database. Computers in the site office were all networked to the internet and routinely backed up. In addition, backups were routinely made onto external hard drives. In the same way, backups are made daily at the Globe server in Perth.</li> <li>Drill hole files generated have been compared against historically equivalent datasets as part of the validation process.</li> </ul> |
| Site visits               | <ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Nil site visits have been conducted by Andrew Bewsher of BMGS, the Competent Person.</li> <li>BMGS has only recently been involved in the project. During much of the drilling phase, Quantitative Group had a geologist provide independent oversight of the project, visiting between June 14-16 2010. This in part was documented and the comments made in these reports have been relied upon in the absence of a recent site visit.</li> <li>Mr Michael Job, the Competent Person for the previous mineral resource estimation had undertaken site visits</li> <li>Mr Alistair Stephens, the Competent Person for this mineral resource assessment has undertaken site visits.</li> </ul>                                                                                                                                                                                           |
| Geological interpretation | <ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretation on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> </ul> | <ul style="list-style-type: none"> <li>Consistent logging of the lithology has correlated well with resultant assay values.</li> <li>RC and diamond drilling data has been used in the estimation.</li> <li>No alternative interpretations have been generated.</li> <li>Geological logging was utilised for identification of the mineralised units and which in-turn guided the determination of bulk density.</li> <li>No known factors have been identified to influence grade and/ or geological continuity of the deposit.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                     |

| Criteria                            | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                     | <ul style="list-style-type: none"> <li>The factors affecting continuity both of grade and geology</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Dimensions                          | <p>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>The total strike length of the Kanyika mineral resource extends 2440 metres. At its widest the breadth of the mineralised system is 135 m. The maximum depth extent is 160m.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Estimation and modelling techniques | <ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the</li> </ul> | <ul style="list-style-type: none"> <li>Drill holes were composited to 1m with an allowable minimum composite of 0.25m. Directional variography, pairwise relative variography, correlograms and experimental variograms were generated by Isatis. These determined the nugget is moderate for Nb<sub>2</sub>O<sub>5</sub>, Ta<sub>2</sub>O<sub>5</sub> and U<sub>3</sub>O<sub>8</sub>, but generally slightly higher for ZrSiO<sub>4</sub>. Ranges are generally in the order of 100-200m although ZrSiO<sub>4</sub> in high grade shoots is significantly shorter.</li> <li>Grade estimation was completed via Ordinary Kriging (OK) for all of the mineral domains. Seven domains were created, based on variable grade distribution and orientation of mineralisation.</li> <li>The Mineral Resource estimates compares favourably with previous estimates.</li> <li>Block size was determined via a quantitative kriging neighbourhood analysis, using Datamine software. A series of checks are used to confirm the block size to be being geologically suitable.</li> <li>No assumptions were noted when determining selective mining units.</li> <li>Nil assumptions were noted regarding correlation between variables.</li> <li>The geological interpretation was used to guide the estimation. Boundaries were designated as soft or hard by examining the average grade of the variable on either side of the boundary. If there is a pronounced change in the grade across the boundary then it is designated as a hard boundary. Otherwise a soft boundary is used.</li> <li>The final estimate for the mineralised lodes and high-grade shoots does not use cut values. However, cut values were used for some of the mineralised waste domain estimated as there are some significant outliers at depth of the footwall.</li> <li>Visual checks and a series of swath validation plots that spatially compare block grades to raw composite data was used as validation tools. In addition, global comparison of</li> </ul> |

| Criteria                      | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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|                               | <p>block size in relation to the average sample spacing and the search employed.</p> <ul style="list-style-type: none"> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping. <ul style="list-style-type: none"> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul> </li> </ul> | <p>the model estimates against the raw and declustered drill hole sample statistics by domain were reviewed.</p> <ul style="list-style-type: none"> <li>The block model consists of a non-regular block size with a primary block size of 10m x 25m x 10m and a minimum block size of 1m x 5m x 1m and then regularised into 5.0m x 12.5m x 2.5m sizes for mining modelling <ul style="list-style-type: none"> <li>Nil reconciliation data is available.</li> </ul> </li> <li>No by-products have been identified however, <math>U_3O_8</math> and <math>ZrSiO_4</math> could be considered accompanying elements.</li> <li>An assessment was made into the potential viability for the recovery of by-products other than niobium and tantalum. The economic assessment using metallurgical test work shows not significant value adding for the production and sale of by-products. <ul style="list-style-type: none"> <li>Nil deleterious elements have been identified.</li> </ul> </li> <li>Raw data analysis supported with metallurgical testwork indicates they are not impacts of deleterious elements in the production of saleable products which are high purity.</li> </ul> |
| Moisture                      | Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Tonnage has been estimation on a dry basis. Bulk density values are estimated based on the extensive collection of in-situ bulk density measurements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Cut-off parameters            | The basis of the adopted cut-off grade(s) or quality parameters applied.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The Mineral Resource Model is reported using a 1500 ppm $Nb_2O_5$ cut-off based on conservative commodity prices and costs: $Nb_2O_5$ at \$US15/lb, $Ta_2O_5$ at \$US60/lb, $U_3O_8$ at \$US60/lb a 70% average recovery and at costs of recovery at US\$85/tonne (includes open pit mining, processing to a concentrate and refining to bulk finished products). These input parameters have not been altered from the previous modelling and previous resource statement for consistency and that no significant changes in pricing and costs would affect the global position of the resource model.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mining factors or assumptions | Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>A mining consultant was engaged to undertake a first pass assessment of a conceptual open pit using estimations for capital and operating costs for the determination and test of the likelihood of economic extraction. Scenarios were undertaken with mining costs of US\$4.43 per (total) tonne mined inclusive of mobilisation and demobilisation, pre-production clearing and stripping, road establishment, load and haul, drill and blast, ore handling, dewatering, tailings waste overburden removal, overhead fixed costs and dayworks. Rock bulk density in the range of 2.3 to 2.7</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Criteria                             | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                     | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                      | <p>methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</p>                                                                                                                                                                           | <p>tonne per cubic metre was used dependent on weathering type.</p> <ul style="list-style-type: none"> <li>The initial design parameters are based on a mill throughput rate of 1Mtpa in the first year (to account for ramp-up and commissioning) and 1.5Mtpa thereafter. Mining assumed a conventional open pit operation with mill feed material hauled to a ROM pad or stockpile and waste hauled to a waste rock dump. All material is to be mined on 2.5m flitches with a blasting bench height of 5.0m. A fleet selection for mine design parameters consisted of 50 tonne articulated trucks and excavators undertaken by a mining contractor with the owner conducting grade control, survey and mine planning functions.</li> <li>The Company has undertaken extensive geotechnical testwork and uses geotechnical consultants determined parameters for pit wall design as 55 degree batters in the oxide zone, 60 degree batters in the transitional zone and 70 degree batters in fresh rock zone.</li> <li>A mining consultant was used to assess and determine mining dilution. Dilution of 4.3% and mineral zone and recovery of 97% have been incorporated into a mining block model based on the wide geometry of mineralisation (up to 135m wide in places).</li> <li>Geotechnical consultants' recommendations have been incorporated into geotechnical characteristics used for mine design: the uniaxial compressive strength for oxide was assessed to be very weak, for transitional as weak and for fresh rock as strong. Rock Mass strength for oxide, transitional and fresh rock types are respectively, 29° / 53kPa; 43° / 245kPa; and 50° / 1716kPa</li> <li>Based on the geotechnical assessment criteria, batter heights are assessed to be 10m and 20m and berm widths of 6m to 15m with inter-ramp slope angles of 40° to 55°</li> </ul> |
| Metallurgical factors or assumptions | <p>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should</p> | <ul style="list-style-type: none"> <li>Various metallurgical investigations were undertaken to establish the most appropriate process route for recovering niobium and tantalum from Kanyika project mineralisation. The Company determined that the most effective process route was to concentrate the niobium- and tantalum-bearing pyrochlore mineralisation by flotation, followed by acid digestion and refining i to produce separated niobium and tantalum products.</li> <li>In regard to beneficiation and concentration processes, extensive bench-scale test-work was undertaken on trench samples, intervals of drill core samples and also test pit samples. This work was supplemented with metallurgical pilot plant testing on a 40-tonne sample of mineralisation taken from test pits at different locations within the mineralised zone.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Criteria                             | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                                      | be reported with an explanation of the basis of the metallurgical assumptions made.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>Metallurgical testing of the mineral concentration scheme has shown that milling to a p80 of 106 µm (which equates to a p100 of 150 µm) is typically required for zircon am: pyrochlore mineral liberation and effective mineral flotation. Flotation testing has demonstrated the production of a Nb and Ta-bearing pyrochlore concentrate with grade usually ranging from 20-30% Nb<sub>2</sub>O<sub>5</sub> - typically 25% Nb<sub>2</sub>O<sub>5</sub> and 1% Ta<sub>2</sub>O<sub>5</sub> - with niobium and tantalum recoveries of approximately 75%. The mass yield to concentrate is typically between 1-2%.</li> <li>In regard to acid digestion of the pyrochlore concentrate and refining of niobium and tantalum, the adapted process scheme is currently in wide commercial use for the production of refined niobium and tantalum products. Metallurgical testing has indicated that Nb and Ta dissolution is generally between 88 - 98%, and typically above 95% dissolution. Additionally, bench-scale refining 1 test-work has demonstrated that separated and purified Nb and Ta products can be produced using the process route.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Environmental factors or assumptions | Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. | <ul style="list-style-type: none"> <li>The Company has undertaken environmental studies and has certificates for the construction of road access to the project under EIA Certificate No. 41.7.4 and a certificate for the development of the Kanyika Project under Certificate No. 43A.4.5 issued under the Environment Management Act No. 23 of 1996. The project development has certain criteria for compliance that are expected to manageable and achievable.</li> <li>The site plan includes road access upgrade, a location for the open pit mine, waste dumps of ex-mine material, a tailings storage facility for process plant waste, a processing plant (crusher, grinding circuit, process recovery plant) administration and accommodation buildings, dams for water, power plant, ancillary plant and equipment. <ul style="list-style-type: none"> <li>As part of the Development Agreement with the Government of Malawi the Company has presented a Social Responsibility Plan, a local Business Development Plan, a Relocation Plan (of peoples impacted by potential development), and various programs for the management of Malawian Nationals to key management positions. The Development Agreement outlines the timeframe and compensation of the relocation plan for local communities affected by the mine development, and the relocation of areas of cultural significance. This agreement remains with the Government awaiting feedback and approval.</li> </ul> </li> <li>The Company has undertaken studies on heritage, visual assessments, air quality, noise, radiation, areas of historical and cultural significance, soils and land forms, flora and fauna, climatic studies and meteorological recordings,</li> </ul> |

| Criteria       | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>hydrology and hydrogeology, geochemistry, surface water, vibration impacts, community and public consultations, resettlement impacts and plans, employment opportunities, road safety, rehabilitation, and communicable disease programs.</p> <ul style="list-style-type: none"> <li>The Company is currently assessing renewable energy initiatives for operations</li> <li>The Company has undertaken a risk assessment analysis of the project and its environs</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Bulk density   | <ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul> | <p>Extensive in-situ bulk density measurements were made during the 2007-2009 drilling campaigns, with only minor density data gathered in the 2012 campaign. 619 valid density measurements across the deposit were used to determine the density for 11 separate domains (inclusive of oxide, transitional and fresh weathered material).</p> <p>Measurements were taken on &lt;15cm long clean, solid, core billets using an electronic scale accurate to 0.1g. The mass of the dry core billet was measured, then the mass of the core billet suspended in water in the cage below the scale. The relative density was calculated by the formula:</p> $RD = \frac{M_d}{(M_d - M_w)}$ <p>where <math>M_d</math> = weight in air and <math>M_w</math> = weight in water</p> <p>All readings were recorded on paper by a geotechnician and entered into a spreadsheet with handwritten records filed and retained. The scale was checked once a day against calibration weights supplied by the manufacturer. In order to estimate in-situ dry bulk density using relative density measurements the material to be measured must be non-porous. In the case of a weathered, vuggy sample, the core was dip into wax prior to measurement.</p> <ul style="list-style-type: none"> <li>Determinations were taken about every 5-10 metres downhole. 15 cm lengths of core were used, with weights recorded dry and in water. Oxide and porous samples were coated in wax prior to weighing. Samples with outlier values were checked by an independent geologist and removed if appropriate. These all discarded results corresponded to samples within the weathered domain and it is probable that the wax coating was ineffective.</li> <li>Bulk density for oxide material is measured to average 2.5 tonne per cubic metre and 2.7 tonne per cubic metre for transitional and fresh material types.</li> <li>Nil assumptions for bulk density estimates were made.</li> </ul> |
| Classification | <ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>Resource classification as Measured, Indicated or Inferred was based on drill-hole density. The slope of regression was also used as a guide for determining the classification. Where the drilling is spaced at 25m x 20m or less it is classified as Measured. An Indicated classification is based on 50m x 40m</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Criteria                                   | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                      |                          |                                      |                                      |                          |          |     |       |     |       |           |    |       |     |       |          |    |       |     |       |       |      |       |     |       |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------|--------------------------------------|--------------------------------------|--------------------------|----------|-----|-------|-----|-------|-----------|----|-------|-----|-------|----------|----|-------|-----|-------|-------|------|-------|-----|-------|
|                                            | <ul style="list-style-type: none"><li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data}.</li><li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li></ul>                                                                                                                                     | <p>drill spacing. An inferred classification is based on 100m drill spacing and down dip extensions. In some cases, material has also been classified as Indicated where the drill spacing is at 100m spacing -this is only in one section along strike of 50m spaced drilling, and in the upper part of the model. This is justified by the fact that where there has been infill drilling (to 50m spaced sections in this area), the interpretation, tonnes and grades have only changed slightly compared to that estimated from the broader spaced drilling.</p> <ul style="list-style-type: none"><li>Data integrity has been analysed and a high level of confidence has been placed on the dataset and resultant resource estimation.</li><li>Mr. Andrew Bewsher and Mr. Alistair Stephens retain a high degree of confidence in the result of the resource estimation.</li></ul> <table><tr><td></td><td>Million tonnes</td><td>Nb<sub>2</sub>O<sub>5</sub> (ppm)</td><td>Ta<sub>2</sub>O<sub>5</sub> (ppm)</td><td>ZrSiO<sub>4</sub> (ppm)</td></tr><tr><td>Measured</td><td>5.3</td><td>3,791</td><td>177</td><td>5,057</td></tr><tr><td>Indicated</td><td>47</td><td>2,860</td><td>135</td><td>4,784</td></tr><tr><td>Inferred</td><td>16</td><td>2,427</td><td>122</td><td>5,210</td></tr><tr><td>Total</td><td>68.3</td><td>2,832</td><td>135</td><td>4,905</td></tr></table> |                                      | Million tonnes           | Nb <sub>2</sub> O <sub>5</sub> (ppm) | Ta <sub>2</sub> O <sub>5</sub> (ppm) | ZrSiO <sub>4</sub> (ppm) | Measured | 5.3 | 3,791 | 177 | 5,057 | Indicated | 47 | 2,860 | 135 | 4,784 | Inferred | 16 | 2,427 | 122 | 5,210 | Total | 68.3 | 2,832 | 135 | 4,905 |
|                                            | Million tonnes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nb <sub>2</sub> O <sub>5</sub> (ppm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Ta <sub>2</sub> O <sub>5</sub> (ppm) | ZrSiO <sub>4</sub> (ppm) |                                      |                                      |                          |          |     |       |     |       |           |    |       |     |       |          |    |       |     |       |       |      |       |     |       |
| Measured                                   | 5.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3,791                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 177                                  | 5,057                    |                                      |                                      |                          |          |     |       |     |       |           |    |       |     |       |          |    |       |     |       |       |      |       |     |       |
| Indicated                                  | 47                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2,860                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 135                                  | 4,784                    |                                      |                                      |                          |          |     |       |     |       |           |    |       |     |       |          |    |       |     |       |       |      |       |     |       |
| Inferred                                   | 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2,427                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 122                                  | 5,210                    |                                      |                                      |                          |          |     |       |     |       |           |    |       |     |       |          |    |       |     |       |       |      |       |     |       |
| Total                                      | 68.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2,832                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 135                                  | 4,905                    |                                      |                                      |                          |          |     |       |     |       |           |    |       |     |       |          |    |       |     |       |       |      |       |     |       |
| Audits or reviews                          | The results of any audits or reviews of Mineral Resource estimates.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"><li>Nil audits have been undertaken of the Kanyika deposit.</li><li>Peer review by BMGS of previous resource estimates (by the previous JORC Code) result in no significant change to the resource estimate and find that the assumptions, assessment criteria and model outcomes are consistent.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                      |                          |                                      |                                      |                          |          |     |       |     |       |           |    |       |     |       |          |    |       |     |       |       |      |       |     |       |
| Discussion of relative accuracy/confidence | <ul style="list-style-type: none"><li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person.<br/>For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and</li></ul> | <ul style="list-style-type: none"><li>Visual checks and a series of swath validation plots that spatially compare block grades to raw composite data was used as validation tools. In addition, global comparison of the model estimates against the raw and declustered drill hole sample statistics by domain were reviewed.</li><li>Bulk sample pits taken validate mineralisation grades and validate recovery assumptions for section of the mineralisation</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                      |                          |                                      |                                      |                          |          |     |       |     |       |           |    |       |     |       |          |    |       |     |       |       |      |       |     |       |

| Criteria | JORC Code Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Commentary |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|          | <p>confidence of the estimate.</p> <ul style="list-style-type: none"> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data where available</li> </ul> |            |

**Figure 1-43: Mineralisation domains**

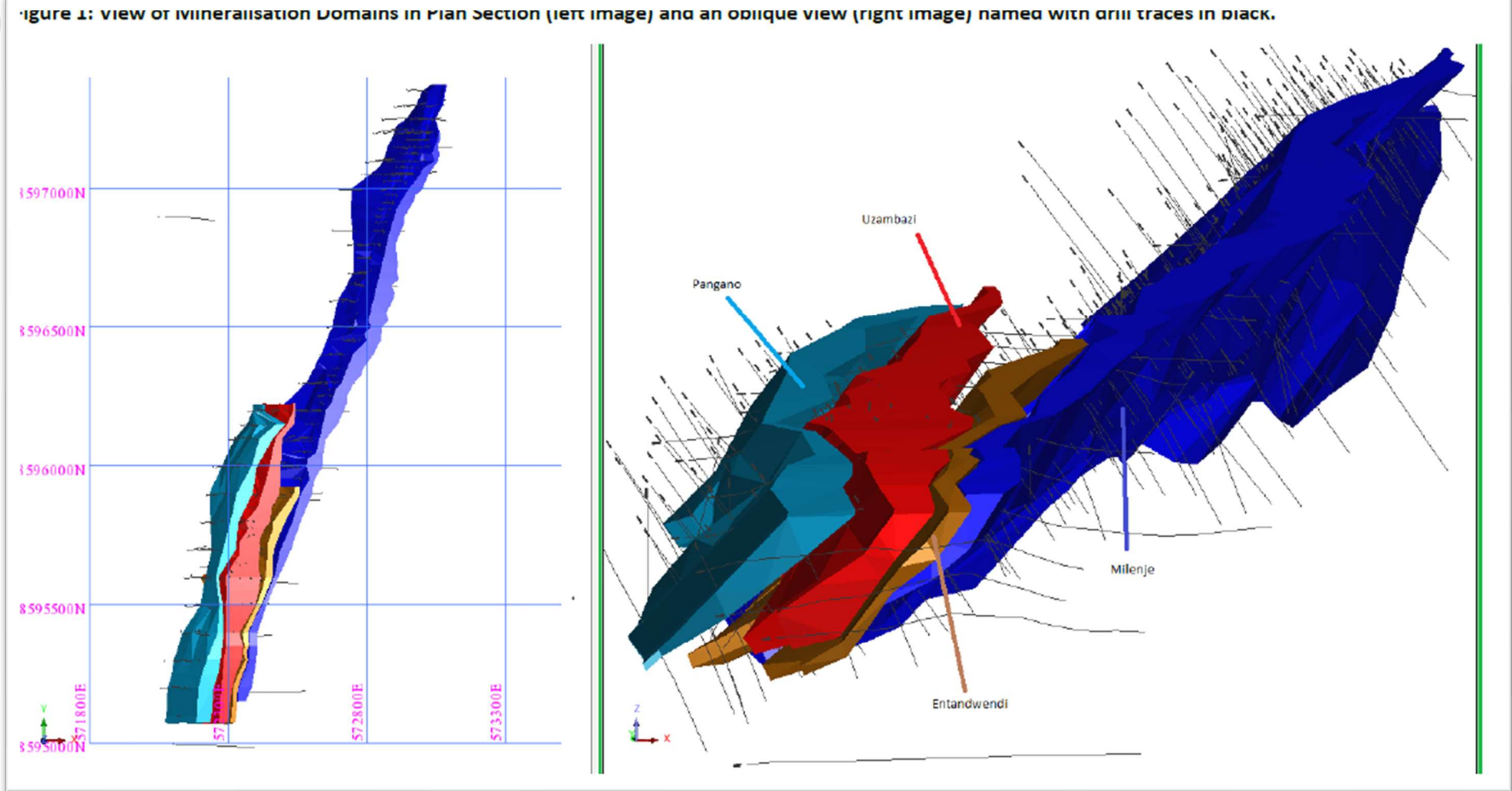


**Figure 1-44: Block grade domains**

Figure 2: View in Plan Section (left image), Long Section (upper right image) and Oblique View (bottom right image) of block grade domains including drill traces (black traces). Legend annotates modelled grade block assays in parts per million (ppm) Nb<sub>2</sub>O<sub>5</sub>.

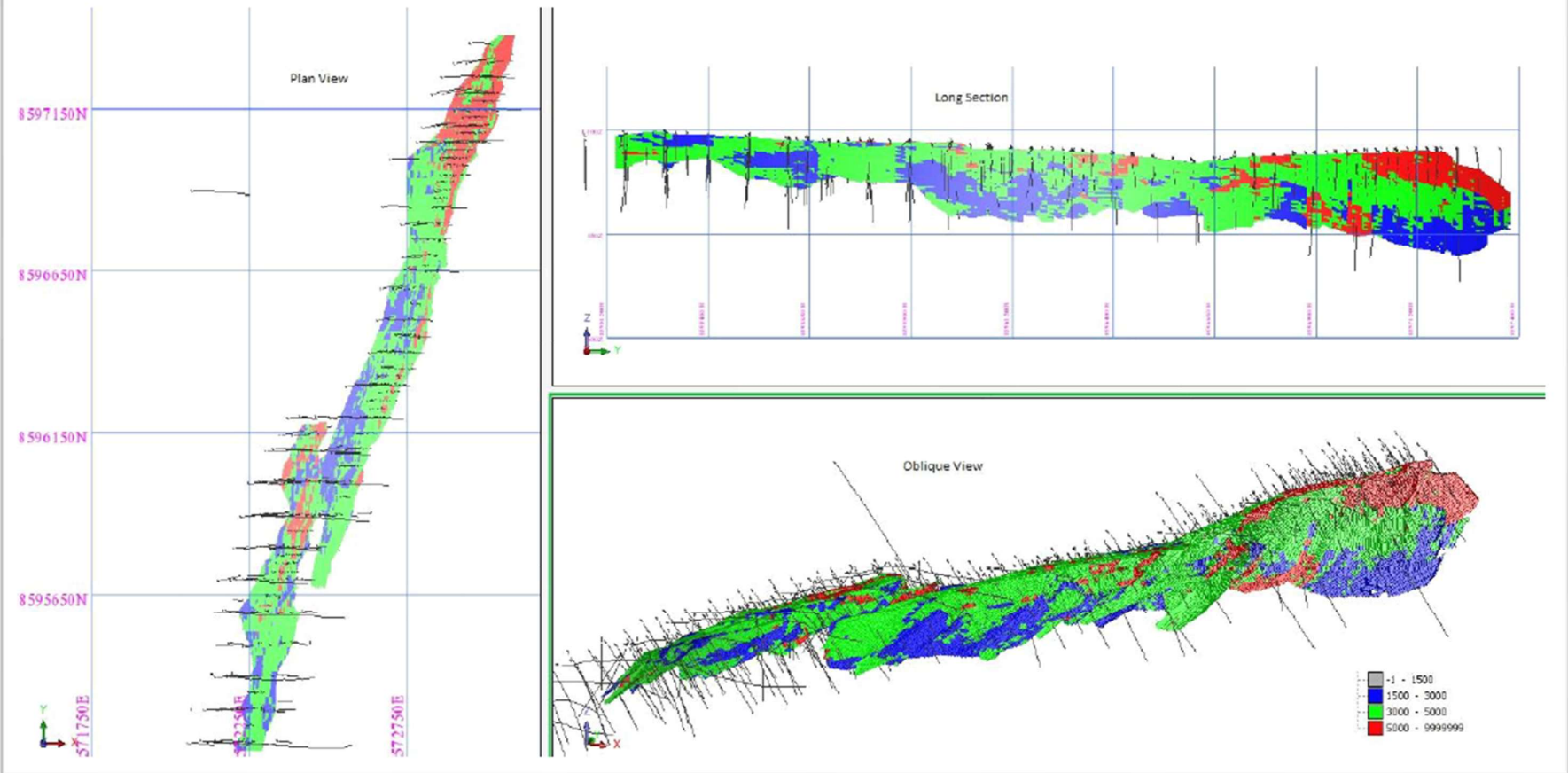


**Table 1-48: Table A: Drill Hole Survey Information**

DD= Diamond drill hole / RC= Reverse Circulation / PE= Percussion / PEDD = percussion with diamond drill tail / Pit= bulk sample pit / TR= surface trench.

Note that Pit samples are assayed as part of the metallurgical testwork and not recorded in Table B

| Hole identification | Hole type | Max depth (M) | Northing     | Easting    | Elevation | Grid Type |
|---------------------|-----------|---------------|--------------|------------|-----------|-----------|
| KADD030             | DD        | 62.70         | 8 596 199.00 | 572 657.10 | 1 052.03  | UTM84-36S |
| KADD031             | DD        | 55.10         | 8 595 799.90 | 572 397.20 | 1 072.16  | UTM84-36S |
| KADD032             | DD        | 122.40        | 8 595 801.60 | 572 353.00 | 1 066.64  | UTM84-36S |
| KAPD002             | PE        | 151.00        | 8 596 849.80 | 572,680.30 | 1 035.74  | UTM84-36S |
| KAPEDD001           | PEDD      | 378.00        | 8 597 249.00 | 572 862.20 | 1 046.99  | UTM84-36S |
| KAPT1               | PIT       | 3.35          | 8 597 050.00 | 572 960.00 | 1 045.02  | UTM84-36S |
| KAPT2               | PIT       | 2.73          | 8 597 050.00 | 572 970.00 | 1 044.31  | UTM84-36S |
| KAPT3               | PIT0      | 1.30          | 8 597 050.00 | 572 980.00 | 1 043.54  | UTM84-36S |
| KAPT4               | PIT       | 3.65          | 8 597 050.00 | 572 990.00 | 1 042.72  | UTM84-36S |
| KARC001             | RC        | 103.00        | 8 596 004.40 | 572 335.90 | 1 049.01  | UTM84-36S |
| KARC002             | RC        | 81.00         | 8 596 300.60 | 572 678.60 | 1 043.03  | UTM84-36S |
| KARC003             | RC        | 48.00         | 8 596 401.50 | 572 758.90 | 1 040.99  | UTM84-36S |
| KARC004             | RC        | 102.00        | 8 596 096.70 | 572 420.70 | 1 058.98  | UTM84-36S |
| KARC005             | RC        | 102.00        | 8 596 000.70 | 572 388.70 | 1 062.50  | UTM84-36S |
| KARC006             | RC        | 114.00        | 8 595 899.60 | 572 354.90 | 1 065.36  | UTM84-36S |
| KARC007             | RC        | 97.00         | 8 595 900.20 | 572 366.90 | 1 066.93  | UTM84-36S |
| KARC008             | RC        | 102.00        | 8 596 094.80 | 572 437.10 | 1 060.55  | UTM84-36S |
| KARC009             | RC        | 120.00        | 8 595 998.00 | 572 394.30 | 1 063.53  | UTM84-36S |
| KARC010             | RC        | 90.00         | 8 595 801.40 | 572 356.00 | 1 066.91  | UTM84-36S |
| KARC011             | RC        | 126.00        | 8 595 803.00 | 572 439.50 | 1 070.19  | UTM84-36S |
| KARC012             | RC        | 120.00        | 8 595 900.20 | 572 532.40 | 1 066.98  | UTM84-36S |
| KARC013             | RC        | 87.00         | 8 595 898.70 | 572 471.20 | 1 069.27  | UTM84-36S |
| KARC014             | RC        | 126.00        | 8 595 699.70 | 572 425.10 | 1 069.20  | UTM84-36S |
| KARC015             | RC        | 106.00        | 8 595 700.20 | 572 398.80 | 1 069.81  | UTM84-36S |
| KARC016             | RC        | 122.00        | 8 595 801.70 | 572 470.60 | 1 068.84  | UTM84-36S |
| KARC017             | RC        | 95.00         | 8 595 710.40 | 572 295.90 | 1 061.32  | UTM84-36S |
| KARC018             | RC        | 126.00        | 8 595 200.10 | 572 228.60 | 1 080.50  | UTM84-36S |
| KARC019             | RC        | 74.00         | 8 595 200.30 | 572 342.90 | 1 084.83  | UTM84-36S |
| KARC020             | RC        | 72.00         | 8 595 900.40 | 572 635.40 | 1 048.19  | UTM84-36S |
| KARC021             | RC        | 120.00        | 8 595 999.90 | 572 494.00 | 1 063.70  | UTM84-36S |

| Hole identification | Hole type | Max depth (M) | Northing     | Easting    | Elevation | Grid Type |
|---------------------|-----------|---------------|--------------|------------|-----------|-----------|
| KARC022             | RC        | 120.00        | 8 596 301.30 | 572 713.00 | 1 046.97  | UTM84-36S |
| KARC023             | RC        | 63.00         | 8 596 500.50 | 572 780.10 | 1 031.47  | UTM84-36S |
| KARC024             | RC        | 36.00         | 8 596 600.20 | 572 796.10 | 1 019.50  | UTM84-36S |
| KARC025             | RC        | 144.00        | 8 596 300.70 | 572 641.50 | 1 041.19  | UTM84-36S |
| KARC026             | RC        | 106.00        | 8 596 199.70 | 572 631.10 | 1 047.48  | UTM84-36S |
| KARC027             | RC        | 102.00        | 8 596 200.00 | 572 466.80 | 1 047.69  | UTM84-36S |
| KARC028             | RC        | 84.00         | 8 596 200.10 | 572 415.70 | 1 043.39  | UTM84-36S |
| KARC029             | RC        | 150.00        | 8 596 100.20 | 572 373.20 | 1 045.90  | UTM84-36S |
| KARC030             | RC        | 144.00        | 8 595 899.50 | 572 291.30 | 1 049.83  | UTM84-36S |
| KARC031             | RC        | 145.00        | 8 595 800.20 | 572 279.80 | 1 053.24  | UTM84-36S |
| KARC032             | RC        | 112.00        | 8 595 700.10 | 572 236.40 | 1 052.45  | UTM84-36S |
| KARC033             | RC        | 138.00        | 8 595 599.20 | 572 221.80 | 1 055.46  | UTM84-36S |
| KARC034             | RC        | 128.00        | 8 595 403.30 | 572 185.90 | 1 060.17  | UTM84-36S |
| KARC035             | RC        | 135.00        | 8 595 199.80 | 572 148.70 | 1 066.37  | UTM84-36S |
| KARC036             | RC        | 165.00        | 8 596 001.10 | 572 288.80 | 1 044.35  | UTM84-36S |
| KARC037             | RC        | 82.00         | 8 596 400.20 | 572 716.70 | 1 037.76  | UTM84-36S |
| KARC038             | RC        | 72.00         | 8 596 498.50 | 572 745.40 | 1 030.30  | UTM84-36S |
| KARC039             | RC        | 90.00         | 8 596 749.70 | 572 815.00 | 1 030.86  | UTM84-36S |
| KARC040             | RC        | 136.00        | 8 596 750.90 | 572 773.50 | 1 029.47  | UTM84-36S |
| KARC041             | RC        | 148.00        | 8 596 850.10 | 572 882.60 | 1 038.66  | UTM84-36S |
| KARC042             | RC        | 90.00         | 8 596 949.90 | 572 899.80 | 1 042.33  | UTM84-36S |
| KARC043             | RC        | 84.00         | 8 596 948.60 | 572 859.90 | 1 041.30  | UTM84-36S |
| KARC044             | RC        | 80.00         | 8 597 049.70 | 572 951.20 | 1 045.62  | UTM84-36S |
| KARC045             | RC        | 100.00        | 8 597 049.70 | 572 908.00 | 1 047.15  | UTM84-36S |
| KARC046             | RC        | 102.00        | 8 596 849.10 | 572 835.20 | 1 035.93  | UTM84-36S |
| KARC047             | RC        | 123.00        | 8 596 650.70 | 572 839.80 | 1 027.06  | UTM84-36S |
| KARC048             | RC        | 66.00         | 8,593,997.0  | 572,145.1  | 1,074.48  | UTM84-36S |
| KARC049             | RC        | 75.00         | 8,593,796.1  | 572,040.0  | 1,077.18  | UTM84-36S |
| KARC050             | RC        | 120.00        | 8,595,198.0  | 572,243.0  | 1,082.10  | UTM84-36S |
| KARC051             | RC        | 156.00        | 8,595,701.0  | 572,376.0  | 1,070.64  | UTM84-36S |
| KARC052             | RC        | 138.00        | 8,596,198.9  | 572,550.4  | 1,048.40  | UTM84-36S |
| KARC053             | RC        | 30.00         | 8,596,597.4  | 572,804.5  | 1,019.54  | UTM84-36S |
| KARC054             | RC        | 132.00        | 8,596,592.5  | 572,748.1  | 1,020.70  | UTM84-36S |
| KARC055             | RC        | 102.00        | 8,597,150.8  | 572,979.1  | 1,052.69  | UTM84-36S |
| KARC056             | RC        | 140.00        | 8,597,049.7  | 572,859.7  | 1,044.86  | UTM84-36S |

| Hole identification | Hole type | Max depth (M) | Northing    | Easting   | Elevation | Grid Type |
|---------------------|-----------|---------------|-------------|-----------|-----------|-----------|
| KARC057             | RC        | 126.00        | 8,596,661.3 | 572,765.4 | 1,021.33  | UTM84-36S |
| KARC058             | RC        | 72.00         | 8,596,664.3 | 572,810.7 | 1,027.44  | UTM84-36S |
| KARC059             | RC        | 162.00        | 8,596,948.5 | 572,919.9 | 1,041.77  | UTM84-36S |
| KARC060             | RC        | 60.00         | 8,596,749.8 | 572,836.3 | 1,033.24  | UTM84-36S |
| KARC061             | RC        | 80.00         | 8,596,101.4 | 572,599.4 | 1,052.74  | UTM84-36S |
| KARC062             | RC        | 66.00         | 8,596,000.4 | 572,577.9 | 1,055.67  | UTM84-36S |
| KARC063             | RC        | 134.00        | 8,596,500.1 | 572,699.7 | 1,029.24  | UTM84-36S |
| KARC064             | RC        | 127.00        | 8,596,399.9 | 572,675.3 | 1,036.36  | UTM84-36S |
| KARC065             | RC        | 72.00         | 8,596,102.1 | 572,599.5 | 1,052.75  | UTM84-36S |
| KARC066             | RC        | 162.00        | 8,595,999.9 | 572,477.8 | 1,065.34  | UTM84-36S |
| KARC067             | RC        | 168.00        | 8,596,100.2 | 572,330.5 | 1,041.38  | UTM84-36S |
| KARC068             | RC        | 110.00        | 8,595,602.1 | 572,173.6 | 1,052.03  | UTM84-36S |
| KARC069             | RC        | 162.00        | 8,595,201.2 | 572,101.6 | 1,063.47  | UTM84-36S |
| KARC070             | RC        | 168.00        | 8,595,900.0 | 572,415.1 | 1,071.57  | UTM84-36S |
| KARC071             | RC        | 72.00         | 8,595,600.1 | 572,425.9 | 1,073.39  | UTM84-36S |
| KARC072             | RC        | 160.00        | 8,595,799.9 | 572,394.7 | 1,072.41  | UTM84-36S |
| KARC073             | RC        | 162.00        | 8,595,685.3 | 572,325.9 | 1,070.76  | UTM84-36S |
| KARC074             | RC        | 90.00         | 8,595,500.9 | 572,388.0 | 1,082.97  | UTM84-36S |
| KARC075             | RC        | 90.00         | 8,595,400.8 | 572,359.9 | 1,083.89  | UTM84-36S |
| KARC076             | RC        | 72.00         | 8,595,322.2 | 572,349.6 | 1,087.15  | UTM84-36S |
| KARC077             | RC        | 156.00        | 8,595,300.6 | 572,249.7 | 1,080.02  | UTM84-36S |
| KARC078             | RC        | 120.00        | 8,595,400.0 | 572,259.8 | 1,075.92  | UTM84-36S |
| KARC079             | RC        | 168.00        | 8,595,500.5 | 572,284.5 | 1,071.37  | UTM84-36S |
| KARC080             | RC        | 168.00        | 8,595,500.2 | 572,190.0 | 1,057.09  | UTM84-36S |
| KARC081             | RC        | 86.00         | 8,597,249.5 | 573,041.1 | 1,046.03  | UTM84-36S |
| KARC082             | RC        | 81.00         | 8,597,200.3 | 573,011.1 | 1,050.46  | UTM84-36S |
| KARC083             | RC        | 51.00         | 8,597,149.1 | 573,001.2 | 1,051.63  | UTM84-36S |
| KARC084             | RC        | 101.00        | 8,597,150.1 | 572,960.3 | 1,052.88  | UTM84-36S |
| KARC085             | RC        | 121.00        | 8,597,149.9 | 572,939.6 | 1,052.37  | UTM84-36S |
| KARC086             | RC        | 41.00         | 8,597,098.8 | 572,981.0 | 1,048.29  | UTM84-36S |
| KARC087             | RC        | 86.00         | 8,597,100.4 | 572,940.3 | 1,050.75  | UTM84-36S |
| KARC088             | RC        | 106.00        | 8,597,100.2 | 572,919.8 | 1,050.40  | UTM84-36S |
| KARC089             | RC        | 51.00         | 8,597,049.3 | 572,942.0 | 1,046.21  | UTM84-36S |
| KARC090             | RC        | 61.00         | 8,597,049.3 | 572,930.3 | 1,046.77  | UTM84-36S |
| KARC091             | RC        | 116.00        | 8,597,049.8 | 572,885.2 | 1,047.22  | UTM84-36S |

| Hole identification | Hole type | Max depth (M) | Northing    | Easting   | Elevation | Grid Type |
|---------------------|-----------|---------------|-------------|-----------|-----------|-----------|
| KARC092             | RC        | 45.00         | 8,596,999.9 | 572,919.9 | 1,044.32  | UTM84-36S |
| KARC093             | RC        | 101.00        | 8,596,999.7 | 572,879.1 | 1,044.85  | UTM84-36S |
| KARC094             | RC        | 126.00        | 8,596,999.8 | 572,858.6 | 1,044.00  | UTM84-36S |
| KARC095             | RC        | 56.00         | 8,596,949.6 | 572,879.8 | 1,042.24  | UTM84-36S |
| KARC096             | RC        | 35.00         | 8,596,899.6 | 572,879.7 | 1,040.13  | UTM84-36S |
| KARC097             | RC        | 51.00         | 8,596,899.8 | 572,859.7 | 1,039.45  | UTM84-36S |
| KARC098             | RC        | 90.00         | 8,596,899.6 | 572,839.6 | 1,038.71  | UTM84-36S |
| KARC099             | RC        | 41.00         | 8,596,849.8 | 572,864.4 | 1,037.89  | UTM84-36S |
| KARC100             | RC        | 61.00         | 8,596,850.0 | 572,844.3 | 1,036.66  | UTM84-36S |
| KARC101             | RC        | 41.00         | 8,596,800.1 | 572,854.8 | 1,035.91  | UTM84-36S |
| KARC102             | RC        | 71.00         | 8,596,799.6 | 572,834.8 | 1,034.33  | UTM84-36S |
| KARC103             | RC        | 36.00         | 8,596,748.5 | 572,857.3 | 1,035.08  | UTM84-36S |
| KARC104             | RC        | 121.00        | 8,596,749.8 | 572,795.5 | 1,028.73  | UTM84-36S |
| KARC105             | RC        | 41.00         | 8,596,699.1 | 572,840.2 | 1,031.50  | UTM84-36S |
| KARC106             | RC        | 61.00         | 8,596,703.9 | 572,821.8 | 1,030.89  | UTM84-36S |
| KARC107             | RC        | 96.00         | 8,596,698.6 | 572,800.6 | 1,027.82  | UTM84-36S |
| KARC108             | RC        | 36.00         | 8,596,649.5 | 572,827.2 | 1,027.18  | UTM84-36S |
| KARC109             | RC        | 126.00        | 8,597,200.0 | 572,949.8 | 1,052.45  | UTM84-36S |
| KARC110             | RC        | 91.00         | 8,597,249.1 | 573,001.6 | 1,048.89  | UTM84-36S |
| KARC111             | RC        | 121.00        | 8,596,698.1 | 572,779.5 | 1,025.29  | UTM84-36S |
| KARC112             | RC        | 141.00        | 8,597,250.3 | 572,961.1 | 1,050.80  | UTM84-36S |
| KARC113             | RC        | 41.00         | 8,596,549.1 | 572,789.7 | 1,026.01  | UTM84-36S |
| KARC114             | RC        | 73.00         | 8,596,549.5 | 572,769.5 | 1,026.65  | UTM84-36S |
| KARC115             | RC        | 36.00         | 8,596,448.9 | 572,779.4 | 1,035.87  | UTM84-36S |
| KARC116             | RC        | 26.00         | 8,596,398.0 | 572,775.9 | 1,041.06  | UTM84-36S |
| KARC117             | RC        | 66.00         | 8,596,399.8 | 572,737.9 | 1,039.34  | UTM84-36S |
| KARC118             | RC        | 56.00         | 8,596,348.5 | 572,737.7 | 1,043.66  | UTM84-36S |
| KARC119             | RC        | 71.00         | 8,596,348.4 | 572,720.1 | 1,043.38  | UTM84-36S |
| KARC120             | RC        | 46.00         | 8,596,299.2 | 572,720.6 | 1,047.04  | UTM84-36S |
| KARC121             | RC        | 76.00         | 8,596,298.0 | 572,700.4 | 1,047.01  | UTM84-36S |
| KARC122             | RC        | 41.00         | 8,596,250.3 | 572,693.9 | 1,051.41  | UTM84-36S |
| KARC123             | RC        | 61.00         | 8,596,250.5 | 572,672.9 | 1,049.54  | UTM84-36S |
| KARC124             | RC        | 106.00        | 8,596,249.5 | 572,630.2 | 1,044.37  | UTM84-36S |
| KARC125             | RC        | 101.00        | 8,596,200.0 | 572,610.1 | 1,047.55  | UTM84-36S |
| KARC126             | RC        | 66.00         | 8,596,199.0 | 572,651.8 | 1,051.51  | UTM84-36S |

| Hole identification | Hole type | Max depth (M) | Northing    | Easting   | Elevation | Grid Type |
|---------------------|-----------|---------------|-------------|-----------|-----------|-----------|
| KARC127             | RC        | 46.00         | 8,596,198.0 | 572,674.6 | 1,051.81  | UTM84-36S |
| KARC128             | RC        | 24.00         | 8,596,149.2 | 572,651.4 | 1,051.70  | UTM84-36S |
| KARC129             | RC        | 48.00         | 8,596,150.4 | 572,630.1 | 1,053.09  | UTM84-36S |
| KARC130             | RC        | 26.00         | 8,596,100.0 | 572,620.3 | 1,051.60  | UTM84-36S |
| KARC131             | RC        | 66.00         | 8,596,100.0 | 572,580.9 | 1,054.05  | UTM84-36S |
| KARC132             | RC        | 21.00         | 8,596,049.9 | 572,601.2 | 1,053.72  | UTM84-36S |
| KARC133             | RC        | 46.00         | 8,596,049.5 | 572,580.3 | 1,055.62  | UTM84-36S |
| KARC134             | RC        | 51.00         | 8,595,999.8 | 572,559.0 | 1,057.51  | UTM84-36S |
| KARC135             | RC        | 81.00         | 8,595,999.8 | 572,538.4 | 1,059.89  | UTM84-36S |
| KARC136             | RC        | 26.00         | 8,595,952.2 | 572,565.3 | 1,060.14  | UTM84-36S |
| KARC137             | RC        | 54.00         | 8,595,954.1 | 572,546.0 | 1,060.70  | UTM84-36S |
| KARC138             | RC        | 36.00         | 8,595,799.7 | 572,416.0 | 1,070.82  | UTM84-36S |
| KARC139             | RC        | 71.00         | 8,595,801.0 | 572,376.9 | 1,071.90  | UTM84-36S |
| KARC140             | RC        | 46.00         | 8,595,748.0 | 572,379.7 | 1,072.21  | UTM84-36S |
| KARC141             | RC        | 56.00         | 8,595,699.3 | 572,348.0 | 1,071.05  | UTM84-36S |
| KARC142             | RC        | 61.00         | 8,595,649.5 | 572,336.4 | 1,075.39  | UTM84-36S |
| KARC143             | RC        | 81.00         | 8,595,648.6 | 572,315.5 | 1,072.66  | UTM84-36S |
| KARC144             | RC        | 66.00         | 8,595,748.5 | 572,362.6 | 1,069.53  | UTM84-36S |
| KARC145             | RC        | 71.00         | 8,595,399.6 | 572,280.0 | 1,078.51  | UTM84-36S |
| KARC146             | RC        | 56.00         | 8,595,349.5 | 572,293.1 | 1,087.32  | UTM84-36S |
| KARC147             | RC        | 91.00         | 8,595,349.6 | 572,271.7 | 1,081.23  | UTM84-36S |
| KARC148             | RC        | 51.00         | 8,595,301.8 | 572,293.3 | 1,085.50  | UTM84-36S |
| KABH001D            | RC        | 48.00         | 8,595,501.5 | 573,547.9 | 1,025.32  | UTM84-36S |
| KABH001S            | RC        | 28.00         | 8,595,500.3 | 573,542.8 | 1,025.30  | UTM84-36S |
| KABH002D            | RC        | 52.00         | 8,596,143.0 | 573,699.6 | 1,034.91  | UTM84-36S |
| KABH002S            | RC        | 30.00         | 8,596,147.6 | 573,699.2 | 1,034.36  | UTM84-36S |
| KABH003D            | RC        | 80.00         | 8,598,383.0 | 573,578.2 | 1,044.83  | UTM84-36S |
| KABH003S            | RC        | 40.00         | 8,598,379.3 | 573,575.4 | 1,044.72  | UTM84-36S |
| KABH004D            | RC        | 60.00         | 8,595,501.7 | 572,385.1 | 1,083.18  | UTM84-36S |
| KABH004S            | RC        | 30.00         | 8,595,500.8 | 572,445.4 | 1,063.29  | UTM84-36S |
| KABH005D            | RC        | 80.00         | 8,595,403.3 | 572,133.2 | 1,055.77  | UTM84-36S |
| KABH005S            | RC        | 20.00         | 8,595,405.5 | 572,197.5 | 1,060.95  | UTM84-36S |
| KABH006D            | RC        | 35.00         | 8,596,448.7 | 572,776.8 | 1,035.80  | UTM84-36S |
| KABH006S            | RC        | 10.00         | 8,596,444.6 | 572,789.9 | 1,035.62  | UTM84-36S |
| KABH007D            | RC        | 95.00         | 8,596,400.4 | 572,671.8 | 1,035.97  | UTM84-36S |

| Hole identification | Hole type | Max depth (M) | Northing    | Easting   | Elevation | Grid Type |
|---------------------|-----------|---------------|-------------|-----------|-----------|-----------|
| KABH007S            | RC        | 45.00         | 8,596,401.6 | 572,692.7 | 1,036.78  | UTM84-36S |
| KABH008S            | RC        | 32.00         | 8,596,699.5 | 572,841.0 | 1,038.39  | UTM84-36S |
| KABH009D            | RC        | 50.00         | 8,596,130.9 | 574,300.2 | 1,019.13  | UTM84-36S |
| KABH009S            | RC        | 25.00         | 8,596,125.8 | 574,300.7 | 1,018.71  | UTM84-36S |
| KABH010D            | RC        | 60.00         | 8,596,075.3 | 575,057.8 | 1,011.88  | UTM84-36S |
| KABH010S            | RC        | 40.00         | 8,596,080.8 | 575,052.6 | 1,012.35  | UTM84-36S |
| KABH011D            | RC        | 80.00         | 8,595,985.3 | 575,473.7 | 1,031.83  | UTM84-36S |
| KABH011S            | RC        | 40.00         | 8,595,978.8 | 575,470.1 | 1,038.96  | UTM84-36S |
| KADD001             | DD        | 98.40         | 8,595,699.6 | 572,424.2 | 1,069.19  | UTM84-36S |
| KADD002             | DD        | 78.15         | 8,596,299.9 | 572,700.3 | 1,046.85  | UTM84-36S |
| KADD003             | DD        | 92.35         | 8,596,750.2 | 572,818.8 | 1,031.03  | UTM84-36S |
| KADD004             | DD        | 56.00         | 8,596,800.4 | 572,850.1 | 1,035.28  | UTM84-36S |
| KADD006             | DD        | 305.11        | 8,597,051.2 | 572,786.9 | 1,040.75  | UTM84-36S |
| KADD007             | DD        | 79.41         | 8,597,048.9 | 572,920.6 | 1,046.75  | UTM84-36S |
| KADD008             | DD        | 97.41         | 8,597,048.9 | 572,899.3 | 1,047.13  | UTM84-36S |
| KADD009             | DD        | 58.67         | 8,597,100.0 | 572,959.7 | 1,049.95  | UTM84-36S |
| KADD010             | DD        | 67.77         | 8,596,999.8 | 572,900.9 | 1,045.02  | UTM84-36S |
| KADD011             | DD        | 91.41         | 8,596,800.2 | 572,813.9 | 1,032.97  | UTM84-36S |
| KADD012             | DD        | 103.81        | 8,596,649.7 | 572,783.4 | 1,021.18  | UTM84-36S |
| KADD013             | DD        | 78.61         | 8,596,599.1 | 572,774.4 | 1,020.39  | UTM84-36S |
| KADD014             | DD        | 52.56         | 8,596,451.6 | 572,759.5 | 1,035.38  | UTM84-36S |
| KADD015             | DD        | 29.01         | 8,596,348.2 | 572,761.6 | 1,041.28  | UTM84-36S |
| KADD016             | DD        | 100.86        | 8,596,252.0 | 572,648.0 | 1,044.37  | UTM84-36S |
| KADD017             | DD        | 75.73         | 8,596,149.5 | 572,606.3 | 1,050.41  | UTM84-36S |
| KADD018             | DD        | 52.92         | 8,596,049.5 | 572,559.3 | 1,057.24  | UTM84-36S |
| KADD019             | DD        | 83.90         | 8,595,700.0 | 572,304.3 | 1,065.79  | UTM84-36S |
| KADD020             | DD        | 99.65         | 8,595,300.3 | 572,230.0 | 1,077.90  | UTM84-36S |
| KADD021             | DD        | 86.60         | 8,597,200.5 | 573,019.8 | 1,049.51  | UTM84-36S |
| KADD022             | DD        | 78.40         | 8,597,050.0 | 572,970.2 | 1,044.61  | UTM84-36S |
| KADD023             | DD        | 80.00         | 8,597,049.7 | 572,987.0 | 1,043.06  | UTM84-36S |
| KADD024             | DD        | 32.40         | 8,597,050.1 | 572,960.4 | 1,045.43  | UTM84-36S |
| KADD025             | DD        | 62.40         | 8,596,999.8 | 572,921.7 | 1,044.27  | UTM84-36S |
| KADD026             | DD        | 82.30         | 8,596,749.8 | 572,838.9 | 1,033.55  | UTM84-36S |
| KADD027             | DD        | 206.40        | 8,597,150.7 | 572,921.0 | 1,051.33  | UTM84-36S |
| KADD028             | DD        | 63.20         | 8,596,299.7 | 572,654.7 | 1,041.87  | UTM84-36S |

| Hole identification | Hole type | Max depth (M) | Northing    | Easting   | Elevation | Grid Type |
|---------------------|-----------|---------------|-------------|-----------|-----------|-----------|
| KADD029             | DD        | 39.70         | 8,596,348.8 | 572,738.5 | 1,043.71  | UTM84-36S |
| KARC149             | RC        | 61.00         | 8,595,301.3 | 572,270.7 | 1,082.60  | UTM84-36S |
| KARC150             | RC        | 56.00         | 8,595,249.9 | 572,260.0 | 1,083.23  | UTM84-36S |
| KARC151             | RC        | 81.00         | 8,595,249.7 | 572,240.7 | 1,081.66  | UTM84-36S |
| KARC152             | RC        | 106.00        | 8,595,350.0 | 572,250.7 | 1,077.45  | UTM84-36S |
| KARC153             | RC        | 31.00         | 8,595,199.7 | 572,263.4 | 1,084.83  | UTM84-36S |
| KARC154             | RC        | 191.00        | 8,597,149.4 | 572,902.7 | 1,049.79  | UTM84-36S |
| KARC155             | RC        | 191.00        | 8,597,353.2 | 572,951.3 | 1,050.20  | UTM84-36S |
| KARC156             | RC        | 96.00         | 8,597,251.4 | 572,981.9 | 1,049.86  | UTM84-36S |
| KARC157             | RC        | 24.00         | 8,597,201.0 | 573,031.6 | 1,048.10  | UTM84-36S |
| KARC158             | RC        | 70.00         | 8,597,201.0 | 572,990.9 | 1,051.62  | UTM84-36S |
| KARC159             | RC        | 90.00         | 8,597,210.3 | 572,972.8 | 1,051.85  | UTM84-36S |
| KARC160             | RC        | 30.00         | 8,597,176.1 | 573,022.7 | 1,049.59  | UTM84-36S |
| KARC161             | RC        | 40.00         | 8,597,175.7 | 573,002.0 | 1,051.54  | UTM84-36S |
| KARC162             | RC        | 66.00         | 8,597,175.3 | 572,994.1 | 1,052.14  | UTM84-36S |
| KARC163             | RC        | 102.00        | 8,597,175.9 | 572,951.4 | 1,053.00  | UTM84-36S |
| KARC164             | RC        | 24.00         | 8,597,150.9 | 573,022.4 | 1,049.92  | UTM84-36S |
| KARC165             | RC        | 36.00         | 8,597,126.0 | 572,991.5 | 1,051.04  | UTM84-36S |
| KARC166             | RC        | 60.00         | 8,597,125.9 | 572,970.4 | 1,051.83  | UTM84-36S |
| KARC167             | RC        | 90.00         | 8,597,126.4 | 572,949.9 | 1,052.15  | UTM84-36S |
| KARC168             | RC        | 102.00        | 8,597,126.2 | 572,929.3 | 1,051.86  | UTM84-36S |
| KARC169             | RC        | 36.00         | 8,597,101.9 | 573,002.9 | 1,047.47  | UTM84-36S |
| KARC170             | RC        | 30.00         | 8,597,076.8 | 572,991.0 | 1,045.47  | UTM84-36S |
| KARC171             | RC        | 40.00         | 8,597,076.5 | 572,969.4 | 1,047.05  | UTM84-36S |
| KARC172             | RC        | 60.00         | 8,597,076.6 | 572,950.2 | 1,048.57  | UTM84-36S |
| KARC173             | RC        | 78.00         | 8,597,076.7 | 572,929.7 | 1,049.20  | UTM84-36S |
| KARC174             | RC        | 102.00        | 8,597,076.6 | 572,912.8 | 1,049.14  | UTM84-36S |
| KARC175             | RC        | 24.00         | 8,597,027.1 | 572,951.2 | 1,044.08  | UTM84-36S |
| KARC176             | RC        | 48.00         | 8,597,026.9 | 572,930.2 | 1,045.36  | UTM84-36S |
| KARC177             | RC        | 78.00         | 8,597,026.8 | 572,908.9 | 1,046.23  | UTM84-36S |
| KARC178             | TR        | 99.00         | 8,597,026.6 | 572,890.4 | 1,046.40  | UTM84-36S |
| KARC179             | RC        | 126.00        | 8,597,025.3 | 572,865.5 | 1,045.81  | UTM84-36S |
| KARC180             | RC        | 18.00         | 8,597,001.7 | 572,941.1 | 1,043.29  | UTM84-36S |
| KARC181             | RC        | 18.00         | 8,596,976.4 | 572,929.8 | 1,042.81  | UTM84-36S |
| KARC182             | RC        | 36.00         | 8,596,976.9 | 572,911.0 | 1,043.61  | UTM84-36S |

| Hole identification | Hole type | Max depth (M) | Northing    | Easting   | Elevation | Grid Type |
|---------------------|-----------|---------------|-------------|-----------|-----------|-----------|
| KARC183             | RC        | 60.00         | 8,596,977.1 | 572,892.1 | 1,043.80  | UTM84-36S |
| KARC184             | RC        | 96.00         | 8,596,977.0 | 572,870.8 | 1,043.32  | UTM84-36S |
| KARC185             | RC        | 30.00         | 8,596,927.2 | 572,890.4 | 1,041.08  | UTM84-36S |
| KARC186             | RC        | 54.00         | 8,596,926.8 | 572,871.4 | 1,041.20  | UTM84-36S |
| KARC187             | RC        | 78.00         | 8,596,927.2 | 572,851.2 | 1,040.43  | UTM84-36S |
| KARC188             | RC        | 30.00         | 8,596,877.6 | 572,879.3 | 1,039.37  | UTM84-36S |
| KARC189             | RC        | 48.00         | 8,596,877.8 | 572,860.4 | 1,038.41  | UTM84-36S |
| KARC190             | RC        | 72.00         | 8,596,877.4 | 572,842.6 | 1,037.76  | UTM84-36S |
| KARC191             | RC        | 54.00         | 8,596,501.9 | 572,762.8 | 1,031.52  | UTM84-36S |
| KARC192             | RC        | 72.00         | 8,596,451.5 | 572,739.6 | 1,034.31  | UTM84-36S |
| KARC193             | RC        | 90.00         | 8,596,451.4 | 572,720.4 | 1,033.79  | UTM84-36S |
| KARC194             | RC        | 96.00         | 8,596,401.8 | 572,695.5 | 1,036.99  | UTM84-36S |
| KARC195             | RC        | 83.00         | 8,596,351.4 | 572,700.3 | 1,040.28  | UTM84-36S |
| KARC196             | RC        | 102.00        | 8,596,351.4 | 572,680.6 | 1,039.57  | UTM84-36S |
| KARC197             | RC        | 33.00         | 8,596,326.3 | 572,729.1 | 1,045.73  | UTM84-36S |
| KARC198             | RC        | 72.00         | 8,596,326.4 | 572,719.2 | 1,045.37  | UTM84-36S |
| KARC199             | RC        | 24.00         | 8,596,276.4 | 572,710.0 | 1,048.88  | UTM84-36S |
| KARC200             | RC        | 66.00         | 8,596,276.6 | 572,693.8 | 1,048.27  | UTM84-36S |
| KARC201             | RC        | 36.00         | 8,596,226.3 | 572,679.5 | 1,052.77  | UTM84-36S |
| KARC202             | RC        | 60.00         | 8,596,226.2 | 572,664.8 | 1,050.63  | UTM84-36S |
| KARC203             | RC        | 90.00         | 8,596,324.6 | 572,690.2 | 1,042.09  | UTM84-36S |
| KARC204             | RC        | 66.00         | 8,596,324.6 | 572,670.2 | 1,040.80  | UTM84-36S |
| KARC205             | RC        | 110.00        | 8,596,324.8 | 572,665.7 | 1,040.70  | UTM84-36S |
| KARC206             | RC        | 96.00         | 8,596,299.8 | 572,660.5 | 1,042.06  | UTM84-36S |
| KARC207             | RC        | 84.00         | 8,596,274.6 | 572,669.3 | 1,044.51  | UTM84-36S |
| KARC208             | RC        | 90.00         | 8,596,225.0 | 572,640.6 | 1,045.81  | UTM84-36S |
| KARC209             | RC        | 93.00         | 8,596,149.2 | 572,587.6 | 1,050.81  | UTM84-36S |
| KARC210             | RC        | 90.00         | 8,596,100.7 | 572,562.6 | 1,054.83  | UTM84-36S |
| KARC211             | RC        | 96.00         | 8,596,049.2 | 572,539.9 | 1,058.99  | UTM84-36S |
| KARC212             | RC        | 102.00        | 8,596,000.0 | 572,519.4 | 1,061.65  | UTM84-36S |
| KARC213             | RC        | 24.00         | 8,595,898.3 | 572,455.8 | 1,070.48  | UTM84-36S |
| KARC214             | RC        | 36.00         | 8,595,898.1 | 572,435.6 | 1,070.91  | UTM84-36S |
| KARC215             | RC        | 60.00         | 8,595,898.1 | 572,395.4 | 1,070.41  | UTM84-36S |
| KARC216             | RC        | 24.00         | 8,595,847.9 | 572,441.2 | 1,071.05  | UTM84-36S |
| KARC217             | RC        | 42.00         | 8,595,848.1 | 572,420.7 | 1,071.28  | UTM84-36S |

| Hole identification | Hole type | Max depth (M) | Northing    | Easting   | Elevation | Grid Type |
|---------------------|-----------|---------------|-------------|-----------|-----------|-----------|
| KARC218             | RC        | 54.00         | 8,595,848.0 | 572,400.0 | 1,070.68  | UTM84-36S |
| KARC219             | RC        | 72.00         | 8,595,848.0 | 572,379.7 | 1,069.48  | UTM84-36S |
| KARC220             | RC        | 24.00         | 8,595,774.0 | 572,409.4 | 1,070.39  | UTM84-36S |
| KARC221             | RC        | 48.00         | 8,595,773.9 | 572,390.9 | 1,072.07  | UTM84-36S |
| KARC222             | RC        | 72.00         | 8,595,775.4 | 572,374.3 | 1,071.60  | UTM84-36S |
| KARC223             | RC        | 24.00         | 8,595,722.9 | 572,390.7 | 1,069.72  | UTM84-36S |
| KARC224             | RC        | 42.00         | 8,595,723.4 | 572,370.4 | 1,069.00  | UTM84-36S |
| KARC225             | RC        | 66.00         | 8,595,723.1 | 572,353.2 | 1,067.95  | UTM84-36S |
| KARC226             | RC        | 84.00         | 8,595,748.6 | 572,340.6 | 1,064.05  | UTM84-36S |
| KARC227             | RC        | 84.00         | 8,595,773.1 | 572,349.8 | 1,065.86  | UTM84-36S |
| KARC228             | RC        | 78.00         | 8,595,723.6 | 572,329.4 | 1,064.53  | UTM84-36S |
| KARC229             | RC        | 24.00         | 8,595,750.1 | 572,396.6 | 1,071.67  | UTM84-36S |
| KARC230             | RC        | 78.00         | 8,595,648.5 | 572,307.9 | 1,071.76  | UTM84-36S |
| KARC231             | RC        | 36.00         | 8,595,648.8 | 572,365.2 | 1,074.23  | UTM84-36S |
| KARC232             | RC        | 78.00         | 8,595,698.3 | 572,328.9 | 1,069.02  | UTM84-36S |
| KARC233             | RC        | 36.00         | 8,595,597.8 | 572,282.0 | 1,068.32  | UTM84-36S |
| KARC234             | RC        | 60.00         | 8,595,597.9 | 572,264.4 | 1,066.92  | UTM84-36S |
| KARC235             | RC        | 78.00         | 8,595,597.1 | 572,237.4 | 1,057.92  | UTM84-36S |
| KARC236             | RC        | 162.00        | 8,597,049.6 | 572,872.6 | 1,046.38  | UTM84-36S |
| KARC237             | RC        | 60.00         | 8,595,597.7 | 572,309.8 | 1,074.64  | UTM84-36S |
| KARCSTH001          | RC        | 103.00        | 8,598,896.2 | 572,999.1 | 1,076.74  | UTM84-36S |
| KARCSTH002          | RC        | 100.00        | 8,598,897.5 | 573,199.5 | 1,068.84  | UTM84-36S |
| KARCSTH003          | RC        | 100.00        | 8,598,898.3 | 573,398.2 | 1,066.87  | UTM84-36S |
| KARCSTH004          | RC        | 92.00         | 8,598,898.2 | 573,601.3 | 1,055.32  | UTM84-36S |
| KARCSTH005          | RC        | 106.00        | 8,598,897.3 | 573,779.1 | 1,054.30  | UTM84-36S |
| KATR001             | TR        | 357.14        | 8,596,006.5 | 572,342.1 | 1,049.72  | UTM84-36S |
| KATR002             | TR        | 98.63         | 8,596,399.7 | 572,702.9 | 1,037.32  | UTM84-36S |
| KATR003             | TR        | 459.00        | 8,595,199.6 | 572,126.2 | 1,064.69  | UTM84-36S |
| KATR004             | TR        | 76.00         | 8,596,499.9 | 572,753.0 | 1,030.57  | UTM84-36S |
| KATR005             | TR        | 101.50        | 8,596,299.2 | 572,660.4 | 1,042.08  | UTM84-36S |
| KATR006             | TR        | 85.85         | 8,596,448.8 | 572,735.6 | 1,034.27  | UTM84-36S |
| KATR007             | TR        | 339.00        | 8,595,896.1 | 572,298.3 | 1,050.62  | UTM84-36S |
| KATR008             | TR        | 281.00        | 8,596,101.5 | 572,361.9 | 1,044.83  | UTM84-36S |
| KATR009             | TR        | 153.00        | 8,596,197.7 | 572,589.5 | 1,047.64  | UTM84-36S |
| KATR010             | TR        | 162.70        | 8,596,655.3 | 572,751.6 | 1,021.07  | UTM84-36S |

| Hole identification | Hole type | Max depth (M) | Northing    | Easting   | Elevation | Grid Type |
|---------------------|-----------|---------------|-------------|-----------|-----------|-----------|
| KATR011             | TR        | 153.60        | 8,597,054.6 | 572,900.3 | 1,047.71  | UTM84-36S |
| KATR012             | TR        | 198.00        | 8,595,801.6 | 572,283.7 | 1,053.62  | UTM84-36S |
| KATR013             | TR        | 243.78        | 8,595,702.2 | 572,199.2 | 1,049.54  | UTM84-36S |
| KATR014             | TR        | 102.00        | 8,596,849.4 | 572,836.3 | 1,036.20  | UTM84-36S |
| KATR015             | TR        | 362.70        | 8,595,596.8 | 572,198.7 | 1,053.85  | UTM84-36S |
| KATR016             | TR        | 280.00        | 8,595,395.2 | 572,188.0 | 1,060.94  | UTM84-36S |
| KATR017             | TR        | 78.00         | 8,597,150.5 | 573,033.8 | 1,048.45  | UTM84-36S |
| KATR018             | TR        | 301.80        | 8,593,999.7 | 571,981.4 | 1,071.60  | UTM84-36S |
| KATR019             | TR        | 302.00        | 8,594,199.5 | 572,000.1 | 1,065.47  | UTM84-36S |
| KATR020             | TR        | 296.50        | 8,593,799.6 | 571,950.4 | 1,076.79  | UTM84-36S |
| KATR021             | TR        | 291.83        | 8,594,995.3 | 572,110.4 | 1,076.07  | UTM84-36S |
| KATR022             | TR        | 263.38        | 8,594,798.3 | 572,091.0 | 1,075.31  | UTM84-36S |
| KATR023             | TR        | 286.00        | 8,594,700.5 | 572,109.6 | 1,073.61  | UTM84-36S |
| KAWH001             | RC        | 61.00         | 8,595,292.0 | 572,070.0 | 1,056.99  | UTM84-36S |
| KADD050             | DD        | 118.45        | 8,595,298.7 | 572,211.9 | 1,075.63  | UTM84-36S |

**Table 1-49: Assay Information For Drill Data By Domain Type**

| Entandweni 1500-3000ppm Nb <sub>2</sub> O <sub>5</sub> domain |      |     |                                |                                |                               |                    |
|---------------------------------------------------------------|------|-----|--------------------------------|--------------------------------|-------------------------------|--------------------|
| Hole identification                                           | from | to  | Nb <sub>2</sub> O <sub>5</sub> | Ta <sub>2</sub> O <sub>5</sub> | U <sub>3</sub> O <sub>8</sub> | ZrSiO <sub>4</sub> |
| KABH0040                                                      | 20   | 45  | 1572                           | 88                             | 81                            | 26                 |
| KADDOO1                                                       | 6    | 30  | 3476                           | 213                            | 50                            | 6183               |
| KADD020                                                       | 84   | 93  | 5361                           | 475                            | 326                           | 16260              |
| KADD031                                                       | 53   | 55  | 2277                           | 39                             | 68                            | 936                |
| KADD032                                                       | 82   | 98  | 2564                           | 96                             | 57                            | 2038               |
| KARC007                                                       | 91   | 97  | 2207                           | 23                             | 57                            | 681                |
| KARC011                                                       | 97   | 126 | 2542                           | 100                            | 52                            | 4064               |
| KARC012                                                       | 0    | 9   | 3173                           | 149                            | 47                            | 6187               |
| KARC014                                                       | 5    | 29  | 4399                           | 204                            | 63                            | 7519               |
| KARC016                                                       | 0    | 19  | 2640                           | 112                            | 53                            | 4192               |
| KARC030                                                       | 118  | 133 | 4334                           | 199                            | 57                            | 8730               |
| KARC031                                                       | 121  | 144 | 3569                           | 156                            | 49                            | 6051               |
| KARC033                                                       | 106  | 138 | 3365                           | 211                            | 53                            | 6018               |
| KARC035                                                       | 105  | 125 | 2383                           | 145                            | 91                            | 4586               |
| KARC050                                                       | 44   | 52  | 1558                           | 58                             | 48                            | 3745               |
| KARC051                                                       | 37   | 78  | 1423                           | 73                             | 29                            | 3693               |
| KARC070                                                       | 72   | 82  | 1138                           | 35                             | 29                            | 1317               |
| KARC071                                                       | 0    | 26  | 2870                           | 128                            | 80                            | 3664               |
| KARC072                                                       | 58   | 75  | 1242                           | 53                             | 27                            | 2757               |
| KARC073                                                       | 80   | 115 | 2140                           | 58                             | 52                            | 1628               |
| KARC074                                                       | 11   | 27  | 2768                           | 113                            | 56                            | 2993               |
| KARC075                                                       | 0    | 4   | 2873                           | 44                             | 89                            | 1704               |
| KARC076                                                       | 0    | 8   | 3958                           | 103                            | 90                            | 1865               |
| KARC077                                                       | 64   | 82  | 2108                           | 137                            | 88                            | 5308               |
| KARC078                                                       | 63   | 74  | 4337                           | 203                            | 47                            | 9559               |
| KARC079                                                       | 66   | 92  | 1814                           | 127                            | 84                            | 5033               |
| KARC138                                                       | 33   | 36  | 1432                           | 22                             | 45                            | 192                |
| KARC139                                                       | 68   | 71  | 1330                           | 25                             | 66                            | 606                |
| KARC142                                                       | 55   | 61  | 3059                           | 35                             | 91                            | 337                |
| KARC143                                                       | 76   | 81  | 3636                           | 38                             | 94                            | 317                |
| KARC144                                                       | 65   | 66  | 227                            | 3                              | 0                             | 221                |
| KARC145                                                       | 50   | 60  | 1268                           | 57                             | 46                            | 1409               |

Entandweni 1500-3000ppm Nb<sub>2</sub>O<sub>5</sub> domain

| Hole identification | from | to  | Nb <sub>2</sub> O <sub>5</sub> | Ta <sub>2</sub> O <sub>5</sub> | U <sub>3</sub> O <sub>8</sub> | ZrSiO <sub>4</sub> |
|---------------------|------|-----|--------------------------------|--------------------------------|-------------------------------|--------------------|
| KARC146             | 41   | 56  | 2213                           | 93                             | 62                            | 4004               |
| KARC147             | 61   | 74  | 1257                           | 56                             | 26                            | 3170               |
| KARC148             | 45   | 51  | 1567                           | 109                            | 53                            | 3009               |
| KARC149             | 50   | 61  | 2232                           | 105                            | 64                            | 5987               |
| KARC150             | 44   | 56  | 1982                           | 88                             | 51                            | 4280               |
| KARC151             | 55   | 71  | 2810                           | 150                            | 82                            | 6578               |
| KARC152             | 79   | 84  | 3139                           | 174                            | 48                            | 4256               |
| KARC222             | 72   | 72  | 668                            | 37                             | 9                             | 1762               |
| KARC225             | 58   | 66  | 1390                           | 21                             | 45                            | 176                |
| KARC226             | 73   | 84  | 2361                           | 112                            | 45                            | 4230               |
| KARC227             | 80   | 84  | 3295                           | 39                             | 103                           | 135                |
| KARC228             | 72   | 78  | 1660                           | 69                             | 26                            | 2623               |
| KARC232             | 76   | 78  | 1996                           | 95                             | 34                            | 3780               |
| KARC254             | 76   | 88  | 2267                           | 159                            | 55                            | 11                 |
| KARC255             | 8    | 24  | 2254                           | 84                             | 57                            | 9                  |
| KARC260             | 88   | 122 | 2693                           | 131                            | 57                            | 12                 |
| KARC261             | 104  | 121 | 2592                           | 128                            | 42                            | 17                 |
| KARC264             | 13   | 46  | 2021                           | 108                            | 36                            | 21                 |
| KARC265             | 18   | 35  | 2047                           | 90                             | 51                            | 23                 |
| KARC269             | 35   | 63  | 2176                           | 144                            | 108                           | 14                 |
| KARC271             | 69   | 83  | 1294                           | 70                             | 33                            | 18                 |
| KARC272             | 34   | 52  | 2045                           | 106                            | 78                            | 16                 |
| KARC274             | 14   | 30  | 2615                           | 76                             | 63                            | 32                 |
| KARC275             | 21   | 32  | 3721                           | 179                            | 67                            | 13                 |
| KARC277             | 82   | 94  | 2831                           | 187                            | 49                            | 14                 |
| KARC278             | 97   | 149 | 2657                           | 125                            | 53                            | 17                 |
| KARC295             | 143  | 163 | 2084                           | 127                            | 44                            | 26                 |
| KARC296             | 39   | 53  | 1907                           | 124                            | 50                            | 15                 |
| KARC298             | 105  | 111 | 3193                           | 133                            | 78                            | 16                 |
| KARC302             | 85   | 97  | 2538                           | 178                            | 106                           | 30                 |
| KATR007             | 219  | 243 | 4156                           | 164                            | 82                            | 13415              |
| KATR012             | 174  | 198 | 1925                           | 70                             | 58                            | 7063               |
| KATR013             | 236  | 244 | 3737                           | 181                            | 66                            | 7184               |

## 1.28 JORC, 2012 Edition Table 1, Section 4

**Table 1-50: 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"> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> </ul>                                                                                                                                                                                                                                      | The Company has estimated a mineral resource based on the parameters in Section 3 and has undertaken detailed metallurgical programs (including a pilot plant), detailed engineering studies and relevant and recent costing quotations that enable it to report a feasibility study.                                                                                                                                                                                                   |
|                                                          | <ul style="list-style-type: none"> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>                                                                                                                                                                                                                      | Mineral Resources are inclusive of the Ore Reserves                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Site visits                                              | <ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> </ul>                                                                                                                                                                                                                                          | A site visit to the Kanyika deposit was completed by Ryan Locke on 4 <sup>th</sup> February 2025.                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                          | <ul style="list-style-type: none"> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>                                                                                                                                                                                                                                                                   | Not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Study status                                             | <ul style="list-style-type: none"> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> </ul>                                                                                                                                                                                                                                     | The mining study has been completed to Bankable Feasibility Study level.                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                          | <ul style="list-style-type: none"> <li>The Code requires that a study to at least Pre-Feasibility Study 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.</li> </ul> | An achievable and realistic mine plan has been generated based on robust pit designs utilising the outcomes of a comprehensive open pit optimisation process. The schedule has been financially modelled independently by M S Golding & Associates. The optimisation process included a full sensitivity analysis of input parameters to ensure the economic viability and robustness of the outcome. Modifying factors were fully considered and chosen appropriately for the process. |

| Criteria           | JORC Code explanation                                                                                              | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cut-off parameters | <ul style="list-style-type: none"> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul> | As the deposit contains multiple elements, no single element COG can be utilised, and a sliding COG dependent upon both grade items is used.                                                                                                                                                                                                                                                                                                    |
|                    |                                                                                                                    | The Block Value Formula as shown below.                                                                                                                                                                                                                                                                                                                                                                                                         |
|                    |                                                                                                                    | <i>Block Value = (Revenue Generated – Costs (Excluding Variable mining costs))</i>                                                                                                                                                                                                                                                                                                                                                              |
|                    |                                                                                                                    | or                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                    |                                                                                                                    | <i>Block Value = (Tonnes * grades * recoveries * price) – ( Processing Cost, Concentrate costs, Selling Costs, Fixed costs )</i>                                                                                                                                                                                                                                                                                                                |
|                    |                                                                                                                    | To identify ore and waste within the Kanyika deposit, the block value calculation was applied to all blocks within the block model on a block by block basis. If the block value returned is greater than zero, then the block is flagged as ore. This method was applied as Kanyika is multi element deposit, therefore a single COG value cannot be determined.                                                                               |
|                    |                                                                                                                    | Note:<br>1. The variable costs associated with mining each block is excluded from the above calculations as the variable mining costs are considered as “sunk costs” for COG purposes.<br>2. The optimisation process uses the variable mining costs to determine the shape of the ultimate pit shell, and therefore the blocks can be considered as mined to the pit exit and then the decision to <u>process</u> the block or not is applied. |

| Criteria                      | JORC Code explanation                                                                                                                                                                                                                                                                               | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |               |            |                           |          |         |                           |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------|------------|---------------------------|----------|---------|---------------------------|----------|---------|---------|-----|-----|----------|----|---|----|----|----|-----|----|------------|----|-----|----|----|----|-----------|-------|-------|----|-----|----|------|-----|-------|--------|------|-------|-------|-------|-------|----|-----|----|------|--------|---|
| Mining factors or assumptions | <ul style="list-style-type: none"><li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study 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).</li></ul> | <p>Completion of a Whittle 4x optimisation including sensitivities analysis for:</p> <ul style="list-style-type: none"><li>+/-15% Price</li><li>+/-15% Processing recoveries</li><li>+/-15% Mining costs</li><li>+/-15% Processing costs</li><li>+/- 5° Slopes</li></ul> <p>Completion of a detailed staged mine design and mine schedule.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |               |            |                           |          |         |                           |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |
|                               | <ul style="list-style-type: none"><li>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.</li></ul>                                                                              | A conventional open pit mine method was chosen as the basis of the BFS due to the low strip ratio and the outcropping of ore at surface. A small scale mining fleet consisting of a single 70t excavator matched to 41t articulated dump trucks was selected to ensure mining selectivity and dilution expectations could be achieved.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |               |            |                           |          |         |                           |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |
|                               | <ul style="list-style-type: none"><li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li></ul>                                                                                                                | <p>The geotechnical data from which the geotechnical domains have been derived is based primarily on geotechnical logging of drill core. Geotechnical data was collected from drill core by a Coffey Mining engineering geologist, following industry accepted standards - ISRM/AS 1726. The geotechnical data quality was rated as generally high. The dominant sample direction (drillhole azimuth) is toward the east. Five drill holes have westerly azimuths, intersecting the west wall and one drill hole intersected the north wall</p> <table><tr><th>Domain</th><th>Design Sector</th><th>Weathering</th><th>BFA (°)</th><th>BW (m)</th><th>BH (m)</th><th>IRSA (crest to crest) (°)</th><th>IRSH (m)</th><th>OSH (m)</th><th>OSA (°)</th></tr><tr><td rowspan="2">All</td><td rowspan="2">All</td><td>Oxidised</td><td>55</td><td>5</td><td>10</td><td>40</td><td>20</td><td rowspan="6">180</td><td rowspan="6">49</td></tr><tr><td>Transition</td><td>60</td><td>8.5</td><td>20</td><td>45</td><td>20</td></tr><tr><td rowspan="2">Granitoid</td><td>North</td><td rowspan="2">Fresh</td><td rowspan="4">70</td><td rowspan="4">8.5</td><td rowspan="4">20</td><td rowspan="4">51.5</td><td rowspan="4">140</td></tr><tr><td>South</td></tr><tr><td rowspan="3">Gneiss</td><td>West</td><td rowspan="2">Fresh</td></tr><tr><td>East1</td></tr><tr><td>East2</td><td>Fresh</td><td>70</td><td>8.5</td><td>20</td><td>51.5</td><td>70-120</td><td>-</td><td>-</td></tr></table> <p>Abbreviations:</p> <p>BFA - Batter Face Angle; BW – Berm Width; BH – Batter Height; IRSA - Inter-Ramp Slope Angle; IRSH - Inter-Ramp Slope Height; OSH - Overall Slope Height; OSA - Overall Slope Angle</p> | Domain  | Design Sector | Weathering | BFA (°)                   | BW (m)   | BH (m)  | IRSA (crest to crest) (°) | IRSH (m) | OSH (m) | OSA (°) | All | All | Oxidised | 55 | 5 | 10 | 40 | 20 | 180 | 49 | Transition | 60 | 8.5 | 20 | 45 | 20 | Granitoid | North | Fresh | 70 | 8.5 | 20 | 51.5 | 140 | South | Gneiss | West | Fresh | East1 | East2 | Fresh | 70 | 8.5 | 20 | 51.5 | 70-120 | - |
| Domain                        | Design Sector                                                                                                                                                                                                                                                                                       | Weathering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | BFA (°) | BW (m)        | BH (m)     | IRSA (crest to crest) (°) | IRSH (m) | OSH (m) | OSA (°)                   |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |
| All                           | All                                                                                                                                                                                                                                                                                                 | Oxidised                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 55      | 5             | 10         | 40                        | 20       | 180     | 49                        |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |
|                               |                                                                                                                                                                                                                                                                                                     | Transition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 60      | 8.5           | 20         | 45                        | 20       |         |                           |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |
| Granitoid                     | North                                                                                                                                                                                                                                                                                               | Fresh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 70      | 8.5           | 20         | 51.5                      | 140      |         |                           |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |
|                               | South                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |               |            |                           |          |         |                           |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |
| Gneiss                        | West                                                                                                                                                                                                                                                                                                | Fresh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |               |            |                           |          |         |                           |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |
|                               | East1                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |               |            |                           |          |         |                           |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |
|                               | East2                                                                                                                                                                                                                                                                                               | Fresh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 70      | 8.5           | 20         | 51.5                      | 70-120   | -       | -                         |          |         |         |     |     |          |    |   |    |    |    |     |    |            |    |     |    |    |    |           |       |       |    |     |    |      |     |       |        |      |       |       |       |       |    |     |    |      |        |   |

| Criteria | JORC Code explanation                                                                                                                                         | Commentary                                                                                                                                         |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
|          | <ul style="list-style-type: none"> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> </ul> | Optimisation included only Measured and Indicated material types. The December 2012 Resource model has been used for the pit optimisation process. |

| Criteria | JORC Code explanation                                                                                                          | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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|          | <ul style="list-style-type: none"> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> </ul> | <p>The Resource Model was converted into a Mining (block) Model inclusive of allowances for ore loss and dilution. The approach to generating a Mining Model was as follows:</p> <ol style="list-style-type: none"> <li>Convert the Resource Model to a “regularised” framework, which is a block model of a single block size. The regular block dimension is intended to reflect a size at which selective mining can be practically achieved. It is also limited to an increment of the Resource Model parent block size, that is (10 mE x 25 mN x 10 mRL). In the case of Kanyika this was determined to be a 5.0 mE x 12.5 mN x 2.5 mRL block size. This was based on the anticipated machinery size, and the mining methodology of blasting a 5.0 m high bench and then mining the ore on 2 x 2.5 m vertical intervals or “flitches”. The Regular Model created contained ore parcels or “a percentage” within the regular blocks, to maintain the granularity of the sub-celled Resource Model.</li> <li>Orebody dilution is the result of waste or sub-grade material being excavated with ore during the process of mining. Ore loss may result from a combination of: <ul style="list-style-type: none"> <li>Inaccuracy in locating the ore / waste boundary or excavating along that boundary,</li> <li>Errors in ore block set-out or ore control (ore spotting), and</li> <li>Ore being misdirected to the wrong destination or diluted below cut-off grade.</li> </ul> </li> </ol> <p>In general, these effects occur along the ore / waste boundary. A dilution / ore loss allowance along the edge blocks in the regularised model was incorporated. This was achieved by:</p> <ul style="list-style-type: none"> <li>Traversing the block model across strike and identifying the edge blocks (i.e. blocks with an ore percent and an adjacent block that is 100% waste). It also separately flags isolated blocks that have 100% waste blocks on both sides.</li> <li>On a section by section basis, in a 5.0 mE x 2.5 mRL block an assumed 0.4 m “swapping thickness” was applied. This swapping thickness is an estimate based on ore body dip, equipment size and mining engineering experience. This equates to 8% barren waste (i.e. (0.4 m in section x 2.5m in depth) / (5 m in section x 2.5 m in depth)) being swapped into an ore percent, and 8% of the ore being swapped to the waste. This is achieved by reducing the contained metal of the ore percent by:<br/> <math display="block">\frac{\text{Ore percent} - 8\%}{\text{Ore percent}}</math> </li> </ul> <p>This results in no change to the contained ore tonnes, but a reduction of grade due to the loss of contained metal. The dilution method was applied to all blocks on the ore / waste intersection, whereas blocks that contained 100% ore and had neighbouring ore blocks on</p> |

| Criteria | JORC Code explanation                                                                                                                                                                  | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                                                                                                                                                                                        | <p>the east and west were not diluted. Conversely blocks which contained 100% waste on both sides (i.e. representing the orebody which is less than 5 m width), had twice the amount of dilution applied to represent the dilution at both contact zones.</p> <ul style="list-style-type: none"> <li>The model was then re-reported at the breakeven cut-off grade, which resulted in ore loss due to some material being diluted below cut-off grade.</li> </ul> <p>The results indicate an overall dilution in the region of 4% and an ore loss of 8%.</p> |
|          | <ul style="list-style-type: none"> <li>Any minimum mining widths used.</li> </ul>                                                                                                      | <p>Designs and cutbacks were designed to suit a small mining fleet consisting of a single 70 t excavator and 41 t articulated dump trucks.</p> <p>A minimum mining width of 20m was applied at the base of the open pits. A minimum mining width of 50m was applied for cutbacks.</p> <p>Two-way ramp systems widths were 16m and single lane ramp widths were 12m.</p> <p>The ramp gradient was 10% .</p>                                                                                                                                                   |
|          | <ul style="list-style-type: none"> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> </ul> | <p>No Inferred Mineral Resource has been included within the Ore Reserves.</p> <p>An optimisation sensitivity was completed including Inferred Mineralisation, and resulted in a 40% increase in pit size, and 30% increase in contained mineralisation. As the project life is ~30 years, Avg. discounted cashflow changes by less than 1% with the inclusion of Inferred classified material within the optimisation.</p>                                                                                                                                  |
|          | <ul style="list-style-type: none"> <li>The infrastructure requirements of the selected mining methods.</li> </ul>                                                                      | <p>The following infrastructure will be required and is included in the Globe Capital estimate within the DFS:</p> <ul style="list-style-type: none"> <li>Site access road,</li> <li>Administration buildings,</li> <li>Power generation,</li> <li>Waste water treatment facilities,</li> <li>Water Catchment weirs and bore field,</li> <li>Accommodation village,</li> </ul>                                                                                                                                                                               |

| Criteria                                                    | JORC Code explanation                                                                                                                                                                                                                            | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                             |                |                 |                 |   |  |  |              |             |                  |             |                |                 |                 |   |         |         |        |           |         |         |         |  |         |        |            |         |           |  |  |         |        |  |         |         |  |  |         |        |           |         |         |  |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------|-----------------|-----------------|---|--|--|--------------|-------------|------------------|-------------|----------------|-----------------|-----------------|---|---------|---------|--------|-----------|---------|---------|---------|--|---------|--------|------------|---------|-----------|--|--|---------|--------|--|---------|---------|--|--|---------|--------|-----------|---------|---------|--|
|                                                             |                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"><li>Stores and maintenance facilities,</li><li>Mineral processing facilities,</li><li>River diversion and Dam construction.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                             |                |                 |                 |   |  |  |              |             |                  |             |                |                 |                 |   |         |         |        |           |         |         |         |  |         |        |            |         |           |  |  |         |        |  |         |         |  |  |         |        |           |         |         |  |
| Metallurgical factors or assumptions                        | <ul style="list-style-type: none"><li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li></ul>                                                                                       | <p>The flowsheet developed consists of appropriately sized three stage crushing, ball milling, screening, flow division to coarse and fine, LIMS and spiral concentration of coarse, desliming/LIMS and multigravity separation of fines. Spiral and MGS concentrate is floated for zircon removal. Spiral/MGS/zircon float tails are floated for pyrochlore concentration. Concentrate is leached, tantalum and niobium extracted by solvent extraction before washing/stripping and precipitation. Precipitates are calcined to oxides and drummed for sale.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                             |                |                 |                 |   |  |  |              |             |                  |             |                |                 |                 |   |         |         |        |           |         |         |         |  |         |        |            |         |           |  |  |         |        |  |         |         |  |  |         |        |           |         |         |  |
|                                                             | <ul style="list-style-type: none"><li>Whether the metallurgical process is well-tested technology or novel in nature.</li></ul>                                                                                                                  | <p>There are no novel processes used within the flowsheet. All processes use industry standard methods.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                             |                |                 |                 |   |  |  |              |             |                  |             |                |                 |                 |   |         |         |        |           |         |         |         |  |         |        |            |         |           |  |  |         |        |  |         |         |  |  |         |        |           |         |         |  |
|                                                             | <ul style="list-style-type: none"><li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li></ul> | <p>A total of 34 samples were selected from various sections of remaining drill cores (after comminution sample removal) to assess the impact of material variability on flotation. These selections generally corresponded with the fractions of drill cores selected to assess impact of material variability on comminution processes.</p> <table><tr><th colspan="7">Sample Intervals Selected for Variability Flotation Testing</th></tr><tr><th>Ore Location</th><th>Hole Number</th><th>Hole Designation</th><th>Saprock (m)</th><th>Transition (m)</th><th>Fresh Upper (m)</th><th>Fresh Lower (m)</th><th>D</th></tr><tr><td rowspan="4">Milenje</td><td>KADD033</td><td>MET010</td><td>2.46 - 11</td><td>11 - 30</td><td>30 - 40</td><td>45 - 75</td><td></td></tr><tr><td>KADD034</td><td>MET020</td><td>3.08 - 7.4</td><td>10 - 25</td><td>25 - 41.7</td><td></td><td></td></tr><tr><td>KADD035</td><td>MET030</td><td></td><td>10 - 28</td><td>28 - 42</td><td></td><td></td></tr><tr><td>KADD036</td><td>MET040</td><td>2.57 - 20</td><td>20 - 30</td><td>30 - 41</td><td></td><td></td></tr></table> | Sample Intervals Selected for Variability Flotation Testing |                |                 |                 |   |  |  | Ore Location | Hole Number | Hole Designation | Saprock (m) | Transition (m) | Fresh Upper (m) | Fresh Lower (m) | D | Milenje | KADD033 | MET010 | 2.46 - 11 | 11 - 30 | 30 - 40 | 45 - 75 |  | KADD034 | MET020 | 3.08 - 7.4 | 10 - 25 | 25 - 41.7 |  |  | KADD035 | MET030 |  | 10 - 28 | 28 - 42 |  |  | KADD036 | MET040 | 2.57 - 20 | 20 - 30 | 30 - 41 |  |
| Sample Intervals Selected for Variability Flotation Testing |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                             |                |                 |                 |   |  |  |              |             |                  |             |                |                 |                 |   |         |         |        |           |         |         |         |  |         |        |            |         |           |  |  |         |        |  |         |         |  |  |         |        |           |         |         |  |
| Ore Location                                                | Hole Number                                                                                                                                                                                                                                      | Hole Designation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Saprock (m)                                                 | Transition (m) | Fresh Upper (m) | Fresh Lower (m) | D |  |  |              |             |                  |             |                |                 |                 |   |         |         |        |           |         |         |         |  |         |        |            |         |           |  |  |         |        |  |         |         |  |  |         |        |           |         |         |  |
| Milenje                                                     | KADD033                                                                                                                                                                                                                                          | MET010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2.46 - 11                                                   | 11 - 30        | 30 - 40         | 45 - 75         |   |  |  |              |             |                  |             |                |                 |                 |   |         |         |        |           |         |         |         |  |         |        |            |         |           |  |  |         |        |  |         |         |  |  |         |        |           |         |         |  |
|                                                             | KADD034                                                                                                                                                                                                                                          | MET020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3.08 - 7.4                                                  | 10 - 25        | 25 - 41.7       |                 |   |  |  |              |             |                  |             |                |                 |                 |   |         |         |        |           |         |         |         |  |         |        |            |         |           |  |  |         |        |  |         |         |  |  |         |        |           |         |         |  |
|                                                             | KADD035                                                                                                                                                                                                                                          | MET030                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                             | 10 - 28        | 28 - 42         |                 |   |  |  |              |             |                  |             |                |                 |                 |   |         |         |        |           |         |         |         |  |         |        |            |         |           |  |  |         |        |  |         |         |  |  |         |        |           |         |         |  |
|                                                             | KADD036                                                                                                                                                                                                                                          | MET040                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2.57 - 20                                                   | 20 - 30        | 30 - 41         |                 |   |  |  |              |             |                  |             |                |                 |                 |   |         |         |        |           |         |         |         |  |         |        |            |         |           |  |  |         |        |  |         |         |  |  |         |        |           |         |         |  |

| Criteria      | JORC Code explanation                                                                                                                                   | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |         |         |          |         |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
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|               |                                                                                                                                                         | <table><tr><td></td><td>KADD037</td><td>MET050</td><td>2 - 10</td><td>10 - 21</td><td>21 - 42</td><td>45 - 65</td><td></td><td></td></tr><tr><td></td><td>KADD038</td><td>MET060</td><td></td><td>2 - 14</td><td>14 - 41</td><td></td><td></td><td></td></tr><tr><td>Milenje South</td><td>KADD040</td><td>MET070</td><td>2 - 9</td><td>9 - 14</td><td>14 - 41</td><td></td><td></td><td></td></tr><tr><td>Uzambazi</td><td>KADD041</td><td>MET080</td><td>2 - 4</td><td>4 - 8</td><td>18 - 41</td><td>45 - 100</td><td></td><td>100 - 152</td></tr><tr><td></td><td>KADD042</td><td>MET090</td><td></td><td>2 - 23</td><td>23 - 41</td><td></td><td></td><td></td></tr><tr><td></td><td>KADD043</td><td>MET100</td><td></td><td>6 - 18</td><td>19 - 41</td><td></td><td></td><td></td></tr><tr><td></td><td>KADD044</td><td>MET110</td><td></td><td>4 - 27</td><td>27 - 41</td><td></td><td></td><td></td></tr><tr><td>Chikoka</td><td>KADD046</td><td>GTO040</td><td></td><td>4 - 24</td><td></td><td></td><td></td><td></td></tr><tr><td>Uzambazi</td><td>KADD050</td><td>GTO080</td><td></td><td></td><td></td><td></td><td></td><td>100 - 118</td></tr></table> <p>Of the metallurgical samples, the material was tested for quantitative mineralogy, locking and liberation characteristics, particle size distribution, moisture content, shear tests, compressibility, wall friction tests, angle of repose tests, dust extinction moisture, wind tunnel testing, rod mill work indices, ball mill work indices, bond abrasion indices, unconfined compressive strength tests, specific gravity tests, mineral rock competency drop weight index, attritioning batch variability tests, locked cycle tests, thickening, and screening.</p> |             | KADD037 | MET050  | 2 - 10   | 10 - 21 | 21 - 42   | 45 - 65 |      |           |      | KADD038 | MET060 |       | 2 - 14 | 14 - 41 |       |         |     | Milenje South | KADD040 | MET070 | 2 - 9 | 9 - 14 | 14 - 41 |      |      |       | Uzambazi | KADD041 | MET080 | 2 - 4 | 4 - 8 | 18 - 41 | 45 - 100 |  | 100 - 152 |  | KADD042 | MET090 |  | 2 - 23 | 23 - 41 |  |  |  |  | KADD043 | MET100 |  | 6 - 18 | 19 - 41 |  |  |  |  | KADD044 | MET110 |  | 4 - 27 | 27 - 41 |  |  |  | Chikoka | KADD046 | GTO040 |  | 4 - 24 |  |  |  |  | Uzambazi | KADD050 | GTO080 |  |  |  |  |  | 100 - 118 |
|               | KADD037                                                                                                                                                 | MET050                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2 - 10      | 10 - 21 | 21 - 42 | 45 - 65  |         |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
|               | KADD038                                                                                                                                                 | MET060                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             | 2 - 14  | 14 - 41 |          |         |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
| Milenje South | KADD040                                                                                                                                                 | MET070                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2 - 9       | 9 - 14  | 14 - 41 |          |         |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
| Uzambazi      | KADD041                                                                                                                                                 | MET080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2 - 4       | 4 - 8   | 18 - 41 | 45 - 100 |         | 100 - 152 |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
|               | KADD042                                                                                                                                                 | MET090                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             | 2 - 23  | 23 - 41 |          |         |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
|               | KADD043                                                                                                                                                 | MET100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             | 6 - 18  | 19 - 41 |          |         |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
|               | KADD044                                                                                                                                                 | MET110                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             | 4 - 27  | 27 - 41 |          |         |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
| Chikoka       | KADD046                                                                                                                                                 | GTO040                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             | 4 - 24  |         |          |         |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
| Uzambazi      | KADD050                                                                                                                                                 | GTO080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |         |         |          |         | 100 - 118 |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
|               | Any assumptions or allowances made for deleterious elements                                                                                             | No allowances were made for deleterious elements as there were no deleterious elements detected in the mineralogy of the feed ore the concentrate produced.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |         |         |          |         |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
|               | The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. | <p>Bulk samples totalling 40 tonnes were taken from four locations with assays reported below. The multi-element analysis for aggregated samples are tabled below.</p> <table><tr><td>Assays in %</td><td>Nb2O5</td><td>Ta2O5</td><td>ZrO2</td><td>SiO2</td><td>Fe2O3</td><td>Al2O3</td><td>P2O5</td></tr><tr><td>Composite</td><td>0.42</td><td>0.027</td><td>0.39</td><td>52.42</td><td>1.19</td><td>21.30</td><td>0.081</td></tr><tr><td>Surface</td><td>0.9</td><td>0.042</td><td>0.73</td><td>53.86</td><td>3.36</td><td>19.27</td><td>0.21</td></tr><tr><td>Deep</td><td>0.25</td><td>0.021</td><td>0.273</td><td>53.40</td><td>0.86</td><td>21.19</td><td>0.023</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Assays in % | Nb2O5   | Ta2O5   | ZrO2     | SiO2    | Fe2O3     | Al2O3   | P2O5 | Composite | 0.42 | 0.027   | 0.39   | 52.42 | 1.19   | 21.30   | 0.081 | Surface | 0.9 | 0.042         | 0.73    | 53.86  | 3.36  | 19.27  | 0.21    | Deep | 0.25 | 0.021 | 0.273    | 53.40   | 0.86   | 21.19 | 0.023 |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
| Assays in %   | Nb2O5                                                                                                                                                   | Ta2O5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ZrO2        | SiO2    | Fe2O3   | Al2O3    | P2O5    |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
| Composite     | 0.42                                                                                                                                                    | 0.027                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.39        | 52.42   | 1.19    | 21.30    | 0.081   |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
| Surface       | 0.9                                                                                                                                                     | 0.042                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.73        | 53.86   | 3.36    | 19.27    | 0.21    |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |
| Deep          | 0.25                                                                                                                                                    | 0.021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.273       | 53.40   | 0.86    | 21.19    | 0.023   |           |         |      |           |      |         |        |       |        |         |       |         |     |               |         |        |       |        |         |      |      |       |          |         |        |       |       |         |          |  |           |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |  |         |        |  |        |         |  |  |  |         |         |        |  |        |  |  |  |  |          |         |        |  |  |  |  |  |           |

| Criteria                     | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                    |  |  |        |                                           |             |                              |    |      |         |    |      |      |      |      |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--|--|--------|-------------------------------------------|-------------|------------------------------|----|------|---------|----|------|------|------|------|
|                              |                                                                                                                                                                                                                                                                                                                                                                                      | <p>The following outcomes for the flotation of a concentrate are reported from the pilot plant program.</p> <table><tr><th colspan="3">Summary of grade recovery results from Kanyika pilot plant testing</th></tr><tr><th>Sample</th><th>Grade (% Nb<sub>2</sub>O<sub>5</sub>)</th><th>Recovery(%)</th></tr><tr><td>Blended (2.8 Deep:1 surface)</td><td>26</td><td>75.1</td></tr><tr><td>Surface</td><td>25</td><td>80.3</td></tr><tr><td>Deep</td><td>22.1</td><td>76.4</td></tr></table> <p>Additional test work is currently in progress to assess the improvement in recovery and reduction in chemical product consumption in order to define an operational model and agents used for pyrochlore recovery.</p> | Summary of grade recovery results from Kanyika pilot plant testing |  |  | Sample | Grade (% Nb <sub>2</sub> O <sub>5</sub> ) | Recovery(%) | Blended (2.8 Deep:1 surface) | 26 | 75.1 | Surface | 25 | 80.3 | Deep | 22.1 | 76.4 |
|                              | Summary of grade recovery results from Kanyika pilot plant testing                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                    |  |  |        |                                           |             |                              |    |      |         |    |      |      |      |      |
| Sample                       | Grade (% Nb <sub>2</sub> O <sub>5</sub> )                                                                                                                                                                                                                                                                                                                                            | Recovery(%)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                    |  |  |        |                                           |             |                              |    |      |         |    |      |      |      |      |
| Blended (2.8 Deep:1 surface) | 26                                                                                                                                                                                                                                                                                                                                                                                   | 75.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                    |  |  |        |                                           |             |                              |    |      |         |    |      |      |      |      |
| Surface                      | 25                                                                                                                                                                                                                                                                                                                                                                                   | 80.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                    |  |  |        |                                           |             |                              |    |      |         |    |      |      |      |      |
| Deep                         | 22.1                                                                                                                                                                                                                                                                                                                                                                                 | 76.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                    |  |  |        |                                           |             |                              |    |      |         |    |      |      |      |      |
|                              | <ul style="list-style-type: none"><li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li></ul>                                                                                                                                                                                | <p>The ore reserve estimation is based on achieving ≥99.5% product specification for Nb<sub>2</sub>O<sub>5</sub> and Ta<sub>2</sub>O<sub>5</sub>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                    |  |  |        |                                           |             |                              |    |      |         |    |      |      |      |      |
| Environmental                | <ul style="list-style-type: none"><li>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.</li></ul> | <p>The Company has completed a baseline environmental impact study;</p> <ul style="list-style-type: none"><li>Project Environmental Impact Assessments (EIA) have been undertaken in accordance with Part V of the Malawian Environment Management Act (No. 23 of 1996), the EIA Guidelines (EAD, 1997) and the EIA Guidelines for Mining Projects (EAD, 2002).</li><li>Separate EIAs were prepared for the project access road and the (mine) project area.</li><li>A road access report was compiled, and the Terms of Reference for the EIA were submitted to the EAD in accordance with Section 24(2) of the Act. Comments were received from the EAD with the Final EIA Report submitted to</li></ul>             |                                                                    |  |  |        |                                           |             |                              |    |      |         |    |      |      |      |      |

| Criteria       | JORC Code explanation                                                                                                                                                                                                                                                                                       | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                |                                                                                                                                                                                                                                                                                                             | <p>the EAD for consideration. An EIA Certificate No. 41.7.4 was approved by the Minister responsible for Environmental Affairs.</p> <p>There is no evidence of Acid Rock Drainage within the final WRD. A separate Tails Storage Facility (TSF) has been proposed to encapsulate the processing residue material, located to the north east of the processing plant.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Infrastructure | <ul style="list-style-type: none"> <li>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.</li> </ul> | <ul style="list-style-type: none"> <li>The project has been designed on land available for development and suitable for plant and equipment.</li> <li>The project is currently accessible via a gravel road that will require upgrading to a standard for use by heavy vehicles on a regular basis. This has been planned, designed and costed.</li> <li>A 66kv power line has been installed by the power regulator from the M1 highway from Chataloma to Simlemba (and further) and a connection is possible within 5 kilometres of the project plant location. The Company has engaged with ESCOM, the local power supplier in Malawi, to provide enough power to operate the site plant. Discussions are progressing on the potential installation of a connecting powerline from the 132kV powerline near Nhotakotato to the mine site that could or would service other communities and industries. They have indicated support for the project and its importance as part of the power distribution development plan for Malawi. On confirmation of power being available, the Company will proceed with a plan for the installation of power to site. A study for the generation of power using diesel or heavy fuel oil on site, using leased equipment, has been undertaken as a back-up facility if ESCOM is unavailable to supply power. A study for the generation on site of regenerative power is under assessment. An alternative study is underway for the assessment of the supply of solar power from a solar farm near the mine licence area.</li> </ul> <p>The Project is supported by the availability, and planned development, of key infrastructure required for a bulk commodity operation, including land, power, water, transport access, labour and accommodation. For the initial phase, power requirements of approximately 5,343 kVA maximum demand and ~5 MW operating load will be met through a hybrid solution comprising a 20 MWp solar PV installation, 80 MWh battery storage system and diesel backup, with solar panels providing primary daytime generation and batteries ensuring continuous supply during night-time operations. The system is designed with N-1 redundancy and reflects proven installations in comparable African mining jurisdictions, supporting reliability and cost efficiency. The modular configuration allows for seamless expansion, with demand increasing to approximately 11,177 kVA and ~10.4 MW in the expansion phase, supported by the addition of a further 20 MWp of solar and 80 MWh of battery</p> |

| Criteria | JORC Code explanation                                                                                                                                                                                | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|          |                                                                                                                                                                                                      | <p>storage, bringing total installed capacity to 40 MWp solar and 160 MWh battery storage. This approach reduces reliance on diesel, lowers operating costs and enhances long-term energy security. The broader site infrastructure, including access, accommodation and workforce availability, is either already established or can be readily developed, with no material constraints identified to project execution.</p> <ul style="list-style-type: none"> <li>A comprehensive study on water has been undertaken. Groundwater is limited, and the Company will install a water dam to the west (upstream) of the project to store and supply water for the process plant. A river diversion has been designed and costed. In addition, the Company is assessing the installation of a dam to the east of the project (downstream) for additional storage capacity, as a risk mitigation strategy in the event of uncontained spillage from the plant operations and waste storage facilities (upstream), and also as an option to produce regenerative power.</li> <li>A transportation logistics study has been completed including the upgrade of local roads, the importation of relevant chemicals and products. Except for one specialised reagent, all other project input supplies can be sourced from within Africa. All saleable products will be exported from Malawi due to the lack of local industry and consumption - total saleable production is less than 15,000 tonnes per annum and can be shipped in sea containers by road, rail and ship.</li> <li>Administration and relevant accommodation facilities will be constructed on site and is included in the engineering designs.</li> </ul> |
| Costs    | <ul style="list-style-type: none"> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> </ul> | <p>Orelogy undertook a request for quotation (RFQ) exercise in H1 2025 for mining capital and operating costs based on a contract mining approach. Processing fixed plant capital and operating estimates have been provided by Solo Resources for the concentrator and AR Process Projects for the refinery.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|          | <ul style="list-style-type: none"> <li>Allowances made for the content of deleterious elements.</li> </ul>                                                                                           | <p>There are no deleterious elements detected in the mineralogy of the feed ore the product produced.</p> <p>Uranium levels within the ore body are low, averaging 83ppm and are well below the level regarded by the International Atomic Energy Agency (IAEA) for the ore to be classified as radioactive</p> <p>Waste material and product from the processing facilities will also be well below the levels regarded by the IAEA to be classified as radioactive though the refinery leach residue will contain naturally occurring radioactive materials.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Criteria        | JORC Code explanation                                                                                                                                                                                                                                           | Commentary                                                                                                                                                                                                                                                                                                                                                               |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 |                                                                                                                                                                                                                                                                 | Uranium levels are monitored through the mining and processing processes.                                                                                                                                                                                                                                                                                                |
|                 | <ul style="list-style-type: none"> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.</li> </ul>                                                                                               | <p>The below commodity prices were assigned to the Niobium and Tantalum oxides:</p> <ul style="list-style-type: none"> <li>Nb<sub>2</sub>O<sub>5</sub> - \$58.00/kg</li> <li>Ta<sub>2</sub>O<sub>5</sub> – \$250.00/kg</li> </ul>                                                                                                                                        |
|                 | <ul style="list-style-type: none"> <li>The source of exchange rates used in the study</li> </ul>                                                                                                                                                                | All costs used within the study are in USD.                                                                                                                                                                                                                                                                                                                              |
|                 | <ul style="list-style-type: none"> <li>Derivation of transportation charges.</li> </ul>                                                                                                                                                                         | It is assumed that all products will be collected by the buyer at the refinery gate, with transportation and onward logistics to the final customer arranged by the buyer. These costs are incorporated into the commercial terms and reflected as a charge equivalent to approximately 2% of revenue.                                                                   |
|                 | <ul style="list-style-type: none"> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> </ul>                                                                                      | Sales and marketing commissions of 5% of the final product value have been attributed to the cost of sales.                                                                                                                                                                                                                                                              |
|                 | <ul style="list-style-type: none"> <li>The allowances made for royalties payable, both Government and private.</li> </ul>                                                                                                                                       | Government royalties of 2.26% have been applied and are based on the development agreements with the Malawi Government.                                                                                                                                                                                                                                                  |
| Revenue factors | <ul style="list-style-type: none"> <li>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.</li> </ul> | <p>Head grade was based on a diluted mining block model and included allowance for ore loss.</p> <p>Commodity prices have been defined above.</p> <p>Exchange rate – all prices based on USD.</p> <p>Processing costs include treatment changes to the refined product.</p> <p>Transportation charges are included as selling costs within the Whittle optimisation.</p> |
|                 | <ul style="list-style-type: none"> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>                                                                                        | Commodity prices have been defined above and are based on producing ≥99.99% product.                                                                                                                                                                                                                                                                                     |

| Criteria          | JORC Code explanation                                                                                                                                                                                                                                                                                                         | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Market assessment | <ul style="list-style-type: none"> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> </ul> | <p>Due to its widespread use in defence and aerospace, Niobium is considered a 'strategic metal' by a number of governments, including the United States of America, United Kingdom and Russia. With the rapid advancement in the electric vehicle sector, there is a higher demand for Niobium for battery and supercapacitor applications.</p> <p>However, there is no guarantee past growth can be used to forecast future product demands.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                   | <ul style="list-style-type: none"> <li>Price and volume forecasts and the basis for these forecasts.</li> </ul>                                                                                                                                                                                                               | <p>Price and volume forecasts for niobium pentoxide are based on the independently prepared Mordor Intelligence report, incorporating both historical data and forward-looking market modelling. Current pricing in 2024 is approximately US\$52/kg (99.5%) and US\$57/kg (99.99%), with a clear upward trajectory across all forecast scenarios.</p> <p>Under the base case (Scenario 1), prices increase to approximately US\$99/kg (99.5%) and ~US\$103/kg (99.99%) by 2035, while the upside case (Scenario 2) reaches approximately US\$102/kg and US\$107/kg, reflecting stronger demand and tighter supply conditions.</p> <p>In parallel, global niobium oxide demand is forecast to grow significantly, increasing from approximately 13,010 tonnes in 2024 to approximately 28,495 tonnes by 2035, representing strong long-term structural growth driven by aerospace, defence, electronics and emerging battery applications.</p> <p>This growth profile reflects both expansion in traditional metallurgical uses and accelerating adoption in high-performance and energy transition applications, supporting a tightening supply-demand balance over time.</p> <p>Accordingly, the Company's pricing assumptions are based on a prudent mid-case within the independently derived forecast range, while recognising both strong volume growth and the potential for prices to exceed US\$100/kg under favourable market conditions.</p> |
|                   | <ul style="list-style-type: none"> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>                                                                                                                                                         | <p>Process design criteria are based on producing <math>\geq 99.99\%</math> product. Onsite testing within the laboratory will be conducted to ensure the minimum product specifications are met.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Criteria             | JORC Code explanation                                                                                                                                                                                                                          | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------|------------------|----|------------------|-----|----------------------|-----|----------------------|------|------------|------|------------|-----|---------------|------|----------------|-----|------------|-----|------------|
| Economic             | <ul style="list-style-type: none"><li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li></ul> | <p>Revenue assumed is based on the commodity prices specified above.</p> <p>Costs estimated to a +/-10% level of accuracy.</p> <p>No inflation has been applied.</p> <p>All inputs completed in US dollars.</p> <p>8% discount rate applied within the BFS.</p> <p>A detailed financial model and associated cost estimate was developed by M S Golding &amp; Associates and the project financials detailed in this document are sourced from this model.</p>                                                                                                                                            |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
|                      | <ul style="list-style-type: none"><li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li></ul>                                                                                                            | <p>NPV sensitivity results as reported from the pit shell optimisation process:</p> <table><tr><th>Parameter</th><th>NPV Change</th></tr><tr><td>Mining Cost -15%</td><td>1%</td></tr><tr><td>Mining Cost +15%</td><td>-1%</td></tr><tr><td>Processing Cost -15%</td><td>10%</td></tr><tr><td>Processing Cost +15%</td><td>-10%</td></tr><tr><td>Price -15%</td><td>-28%</td></tr><tr><td>Price +15%</td><td>28%</td></tr><tr><td>Recovery -15%</td><td>-26%</td></tr><tr><td>Recovery + 15%</td><td>26%</td></tr><tr><td>Slopes -5°</td><td>-1%</td></tr><tr><td>Slopes +5°</td><td>1%</td></tr></table> | Parameter | NPV Change | Mining Cost -15% | 1% | Mining Cost +15% | -1% | Processing Cost -15% | 10% | Processing Cost +15% | -10% | Price -15% | -28% | Price +15% | 28% | Recovery -15% | -26% | Recovery + 15% | 26% | Slopes -5° | -1% | Slopes +5° |
| Parameter            | NPV Change                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
| Mining Cost -15%     | 1%                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
| Mining Cost +15%     | -1%                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
| Processing Cost -15% | 10%                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
| Processing Cost +15% | -10%                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
| Price -15%           | -28%                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
| Price +15%           | 28%                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
| Recovery -15%        | -26%                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
| Recovery + 15%       | 26%                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
| Slopes -5°           | -1%                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |
| Slopes +5°           | 1%                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |            |                  |    |                  |     |                      |     |                      |      |            |      |            |     |               |      |                |     |            |     |            |

| Criteria | JORC Code explanation                                                                                                                                                                 | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Social   | <ul style="list-style-type: none"> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>                                    | <p>The Environment and Social Impact Assessment completed by SLR Consulting, included stakeholder consultation and has been completed with strong support registered from all stakeholders.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Other    | <ul style="list-style-type: none"> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> </ul> | <p>The mineralisation zone contains elevated U<sub>3</sub>O<sub>8</sub> grades which within the open pit do not pose a significant risk. Increased U<sub>3</sub>O<sub>8</sub> grades are expected in the concentrate product.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|          | <ul style="list-style-type: none"> <li>Any identified material naturally occurring risks.</li> </ul>                                                                                  | <p>The Kanyika deposit is located with an area with high rainfall events, with the potential for inpit flooding. Multiple work areas within the pit plus contingency stockpiles will be used to mitigate the risk of production downtime.</p> <p>The Milenji River crosses the northern section of the orebody. The mine plan includes a detailed design for diversion channel and buttressing, plus the capital allowance to divert the surface water away from the open pit.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|          | <ul style="list-style-type: none"> <li>The status of material legal agreements and marketing arrangements.</li> </ul>                                                                 | <p>The Company has secured three non-binding offtake pathways for Phase 1, providing diversified exposure across key end-use markets and supporting both revenue visibility and financing optionality. The first is with a strategic Asian trader (Myst Trading) focused on electronics and optical coatings, supplying high-purity (99.9%+) niobium and tantalum oxides into capacitors, MLCCs and advanced ceramics, with access to a broad downstream customer base and immediate market channels.</p> <p>The second is with a European aerospace and automotive master alloys producer (Affilips, part of the KBM Group), supplying high-performance alloy inputs for jet engines, lightweight automotive components and specialty castings. This pathway provides exposure to long-term, high-specification demand with consistent consumption of high-purity oxides and strong alignment with Europe's supply chain localisation strategy.</p> <p>The third is with Neo Performance Materials (via Silmet in Estonia/Canada), a leading rare earth and advanced materials producer, supplying into aerospace, defence, clean energy and magnet applications. This offtake provides access to a downstream, value-added</p> |

| Criteria | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>processing platform, with increasing demand for refined products derived from oxides and alignment with Western supply chain requirements.</p> <p>In aggregate, these non-binding arrangements represent approximately 300 tonnes per annum of high-purity niobium oxide and ~15 tonnes per annum of tantalum, forming a strong initial foundation of committed demand across premium end-use markets.</p> <p>Beyond these arrangements, the Company continues to progress additional offtake opportunities, and it is considered relatively straightforward to secure further agreements. This is driven by strong underlying market demand, a limited number of new primary niobium supply sources globally and increasing strategic focus from Western and allied markets on securing non-Chinese, non-Brazilian supply chains. In addition, the Project's ability to produce high-purity oxide products suitable for aerospace, electronics and advanced materials applications places it in a premium segment of the market where demand exceeds available supply.</p> <p>Furthermore, the presence of active traders willing to provide prepayment financing, established industrial users seeking long-term supply security, and growing demand from emerging applications such as batteries and clean energy systems provides multiple parallel pathways to convert discussions into additional offtake agreements. As a result, the Company expects to be able to expand its offtake portfolio in line with production growth, while optimising counterparties based on pricing, strategic alignment and funding benefits.</p> |
|          | <ul style="list-style-type: none"> <li>The status of governmental agreements and approvals critical to 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 Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on</li> </ul> | <p>A large-scale mining license LML0210/21 was granted to Globe Metals and Mining (Africa) Limited on the 13<sup>th</sup> August 2021 for a term of 25 years. The LML grants the right to mine and process Pyrochlore minerals containing Niobium and Tantalum and deleterious uranium over an area of 33.42Km<sup>2</sup> described by the following coordinates (Arc1950 / UTM zone 36S):</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Criteria       | JORC Code explanation                                                                                                                                                                                                                         | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |       |         |          |   |        |         |   |        |         |   |        |         |   |        |         |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|----------|---|--------|---------|---|--------|---------|---|--------|---------|---|--------|---------|
|                | <ul style="list-style-type: none"> <li>• JORC Code explanation</li> </ul> <p>which extraction of the reserve is contingent.</p>                                                                                                               | <p><b>Licenced area: MABULABO MAP SHEET No. 1233D1</b></p> <table border="1"> <thead> <tr> <th>POINT</th><th>EASTING</th><th>NORTHING</th></tr> </thead> <tbody> <tr> <td>A</td><td>570269</td><td>8599321</td></tr> <tr> <td>B</td><td>576784</td><td>8599281</td></tr> <tr> <td>C</td><td>577172</td><td>8594317</td></tr> <tr> <td>D</td><td>570269</td><td>8594321</td></tr> </tbody> </table> <p>Importantly, on 22 August 2025, the licence was formally amended and approved by the Mining Minerals Regulatory Authority (MMRA) to include additional minerals, namely zircon, hafnium, praseodymium and neodymium. This expands the scope of the Project beyond niobium, tantalum and uranium and enables the Company to develop a broader suite of critical minerals under a fully compliant and government-approved framework.</p> <p>In addition, a Mine Development Agreement (MDA) has been executed with the Government, setting out the fiscal, legal and operational framework for the Project, including stability provisions, taxation terms, and the rights and obligations of both the Company and the State over the life of mine.</p> <p>The Project is further supported by a Community Development Agreement (CDA) and related social frameworks, which formalise engagement with local communities, including commitments to employment, procurement, infrastructure and social investment, ensuring alignment with local stakeholders.</p> <p>Together, these agreements provide a robust, bankable legal foundation, reducing sovereign and regulatory risk while supporting financing, development and long-term operations.</p> | POINT | EASTING | NORTHING | A | 570269 | 8599321 | B | 576784 | 8599281 | C | 577172 | 8594317 | D | 570269 | 8594321 |
| POINT          | EASTING                                                                                                                                                                                                                                       | NORTHING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |         |          |   |        |         |   |        |         |   |        |         |   |        |         |
| A              | 570269                                                                                                                                                                                                                                        | 8599321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |         |          |   |        |         |   |        |         |   |        |         |   |        |         |
| B              | 576784                                                                                                                                                                                                                                        | 8599281                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |         |          |   |        |         |   |        |         |   |        |         |   |        |         |
| C              | 577172                                                                                                                                                                                                                                        | 8594317                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |         |          |   |        |         |   |        |         |   |        |         |   |        |         |
| D              | 570269                                                                                                                                                                                                                                        | 8594321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       |         |          |   |        |         |   |        |         |   |        |         |   |        |         |
| Classification | <ul style="list-style-type: none"> <li>• The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>• Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul> | <p>Classification of the ore reserves are from the Mineral Resource classification.</p> <p>The result appropriately reflects the Competent Person's view of the deposit.</p> <p>No Probable Reserves are derived from Measured Mineral Resource. Mineral Resources are inclusive of the Ore Reserve.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |         |          |   |        |         |   |        |         |   |        |         |   |        |         |

| Criteria                                    | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Commentary                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                             | <ul style="list-style-type: none"> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                   |
| Audits or reviews                           | <ul style="list-style-type: none"> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | No external audits or reviews have been completed on the 2026 Ore Reserve.                                                                                                                                                                                                                                        |
| Discussion of relative accuracy/ confidence | <ul style="list-style-type: none"> <li>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 appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate</li> </ul> | Orelogy are confident that the accuracy of the parameters are within BFS limits. The ore reserve is robust at a range of parameters where there is little change in the pit shape and size changes. However, the value of the project is sensitive to gross changes in the overall price of the product elements. |
|                                             | <ul style="list-style-type: none"> <li>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</li> </ul>                                                                                                                                                                                                                                                   | The Model and estimates are best described as global. Grade control drilling and estimation is required for local estimates at pre-production stage.                                                                                                                                                              |
|                                             | <ul style="list-style-type: none"> <li>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</li> </ul>                                                                                                                                                                                                                                                                                                            | Future metals pricing uncertainty will have the greatest effect on the Ore Reserve, as shown within the optimisation. The pit shape is not sensitive to price, however cashflow is significantly impacted.                                                                                                        |

| Criteria | • JORC Code explanation                                                                                                                                                                                                                                              | Commentary                                                                               |
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|          | areas of uncertainty at the current study stage                                                                                                                                                                                                                      |                                                                                          |
|          | <ul style="list-style-type: none"> <li>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.</li> </ul> | There is currently no production data available as there has been no production to date. |

## Appendix 3

### 1.29 Glossary

**AHF (Anhydrous Hydrofluoric Acid)** – Critical reagent used in the refinery to process niobium and tantalum concentrates into high-purity oxides.

**ANCOLD / ICOLD** – International standards governing tailings dam design and safety (implied under TSF design criteria).

**Batter** – The sloped face of a bench or pit wall.

**BFA (Batter Face Angle)** – The angle of the individual bench face in an open pit.

**Bench** – A horizontal mining level in an open pit.

**BFS (Bankable Feasibility Study)** – A detailed technical and economic study prepared to support financing and Final Investment Decision.

**bcm (Bank Cubic Metre)** – Volume of material in situ before excavation.

**Capex (Capital Expenditure)** – Initial costs required to develop and construct the project.

**CDA (Community Development Agreement)** – Agreement governing financial contributions to local communities.

**CF (Cash Flow)** – Net cash generated by the project over time.

**Class 3 Estimate (AACE Class 3)** – A cost estimate classification defined by the Association for the Advancement of Cost Engineering (AACE), typically prepared at a feasibility study level with approximately +10% to -15% accuracy, based on a well-defined scope.

**COG (Cut-off Grade)** – Minimum grade required for material to be economically processed.

**Comminution** – Crushing and grinding of ore prior to processing.

**Concentrator** – Processing plant producing mineral concentrate from ROM ore.

**Contract Mining** – Mining undertaken by third-party contractors rather than owner-operator.

**CP (Competent Person)** – Qualified professional responsible for reporting Mineral Resources and Ore Reserves under the JORC Code.

**Dilution** – Waste material included in mined ore, reducing grade.

**Discount Rate** – Rate used to discount future cash flows (8% used in BFS).

**Drill & Blast** – Standard mining method used to fragment rock.

**EBITDA** – Earnings before interest, tax, depreciation and amortisation (standard lender metric).

**EPZ (Export Processing Zone)** – Special economic zone offering tax and duty exemptions for export production.

**ESIA (Environmental and Social Impact Assessment)** – Assessment of environmental and social impacts and mitigation measures.

**FCF (Free Cash Flow)** – Cash available after operating costs and capital expenditure.

**Flotation** – Mineral separation process using reagents and air bubbles.

**Flowsheet** – Diagram showing process plant design and material flow.

**GMM** – Globe Metals & Mining Limited

**Grade Control** – Process of defining ore vs waste during mining.

**Gravity Separation** – Processing technique using density differences.

**Hydrometallurgy** – Chemical processing of minerals (applies to refinery).

**Indicated Resource** – Mineral Resource category with moderate geological confidence.

**Inferred Resource** – Lowest confidence Mineral Resource category.

**IRR (Internal Rate of Return)** – Discount rate at which NPV equals zero.

**IRSA (Inter-Ramp Slope Angle)** – Average slope angle between pit ramps.

**JORC Code (2012 Edition)** – Australasian reporting standard for Mineral Resources and Ore Reserves.

**LOM (Life of Mine)** – Total operating duration of the project.

**Logistics (Inbound/Outbound)** – Transport of reagents, consumables and final products.

**MDA (Mining Development Agreement)** – Agreement with government defining fiscal and regulatory terms.

**Measured Resource** – Highest confidence Mineral Resource category.

**Metallurgical Recovery** – Percentage of contained metal recovered through processing.

**Mtpa (Million tonnes per annum)** – Throughput or production rate.

**Nb<sub>2</sub>O<sub>5</sub> (Niobium Pentoxide)** – Primary product produced by the project.

**NPV (Net Present Value)** – Present value of future project cash flows.

**Opex (Operating Expenditure)** – Ongoing operational costs.

**Open Pit Mining** – Surface mining method used at Kanyika.

**Ore Reserve** – Economically mineable portion of a Mineral Resource.

**OSA (Overall Slope Angle)** – Overall pit wall slope from crest to toe.

**Payback Period** – Time required to recover initial capital investment.

**ppm (Parts per million)** – Unit of grade concentration.

**Process Plant** – Combined concentrator and refinery facilities.

**Pyrochlore** – Primary niobium-bearing mineral in the deposit.

**Recovery** – Percentage of metal extracted during processing.

**Refinery** – Plant upgrading concentrate to high-purity oxide.

**Reagents** – Chemicals used in mineral processing.

**ROM (Run of Mine)** – Raw ore prior to processing.

**Saprolite / Saprock** – Weathered rock zones in the deposit.

**Slope Stability** – Engineering discipline ensuring pit walls remain stable.

**Strip Ratio** – Ratio of waste mined to ore mined.

**Ta<sub>2</sub>O<sub>5</sub> (Tantalum Pentoxide)** – By-product of niobium processing.

**Tailings** – Waste material remaining after processing.

**TSF (Tailings Storage Facility)** – Engineered storage for tailings.

**Throughput** – Rate at which ore is processed.

**U<sub>3</sub>O<sub>8</sub> (Uranium Oxide)** – Associated element present in the orebody.

**UTM (Universal Transverse Mercator)** – Coordinate system used for mapping.

**Waste Rock** – Non-economic material removed during mining.

**WGS84** – Global coordinate reference system.

**WHSMS (Work Health and Safety Management System)** – System governing workplace safety.