

7 October 2025

# Historical Results Record Significant Titanium Mineralisation

## Highlights

- Comprehensive geological review shows titanium mineralisation intersected in 19 historical drill holes at Mkanda & Kampini Projects (Table 1<sup>1</sup>) in Malawi
- The 19 drill holes assayed by Sovereign Metals Limited (ASX:SVM) in 2018 recorded significant titanium<sup>1</sup>
- Fortuna's initial Phase 1 soil sampling (232 samples) and hand auger drilling (63 holes for 581 metres) has been completed with first assay results anticipated from November 2025
- XRD and QEMSCAN mineralogy analysis underway at ALS Perth to determine rutile content in the heavy mineral concentrate (HMC) of panned samples
- The projects sit directly along strike from ~\$450 million market capitalised Sovereign Metals Limited's (ASX: SVM) tier one Kasiya rutile and flake graphite deposit: 1.8Bt @ 1% Rutile & 1.4% Graphite (TGC%)<sup>2</sup>

Fortuna Metals Limited (ASX: FUN) (Fortuna or the Company) is pleased to report that a comprehensive desktop review has identified historical drill holes recording titanium mineralisation at the Company's 100% owned Mkanda and Kampini rutile and graphite Projects (Projects) in Malawi.

Commenting on the historical results, Fortuna CEO, Mr Tom Langley, said *"The titanium results in historical drilling validate the prospectivity for widespread rutile potential across our projects in Malawi. The historical results reported in our desktop study were the result of Sovereign Metals first identifying high titanium values in their metallurgical test work at the Malingunde graphite project in 2018. Sovereign then carried out re-assaying of existing drill samples and identified significant rutile across broad areas within their project. Sovereign subsequently expanded their search for rutile across their regional tenure which at the time was >4,000km<sup>2</sup>. The Mkanda and Kampini licences were part of a larger tenement rationalisation as Sovereign went on to discover and drill out the world's largest rutile deposit at Kasiya, located approximately 40km north of our Mkanda project.*

*"The historical results when viewed in conjunction with the mineralogical work completed by SVM at their Kasiya deposit demonstrating rutile as the primary titanium mineral present, suggests strong potential for rutile to occur over large areas at the Mkanda and Kampini projects. Our own drilling will be critical in verifying the historical results and rutile mineralogy and then stepping out into areas that have never been drilled. Importantly, Fortuna holds the majority of the most prospective geology extending over 70km of strike south from Kasiya, the world's largest rutile and second largest flake*

graphite resource held by Sovereign Metals.

*“Our phase one drilling was completed on time and we are eagerly awaiting rutile assays to confirm the scale and grade of the potential mineralisation across our projects. We believe we are well placed to make a significant rutile discovery.”*

**Cautionary Note:** *The Company cautions that titanium assays alone should not be considered a proxy for, or a substitute for complete rutile determination. Whilst rutile is expected to be the dominant titanium species, titanium assays alone on raw samples cannot determine rutile contribution to the assay and therefore should not be interpreted as an indication of rutile grade or economic value. Detailed and comprehensive laboratory procedures are required to determine the actual presence and grade of rutile mineralisation.*

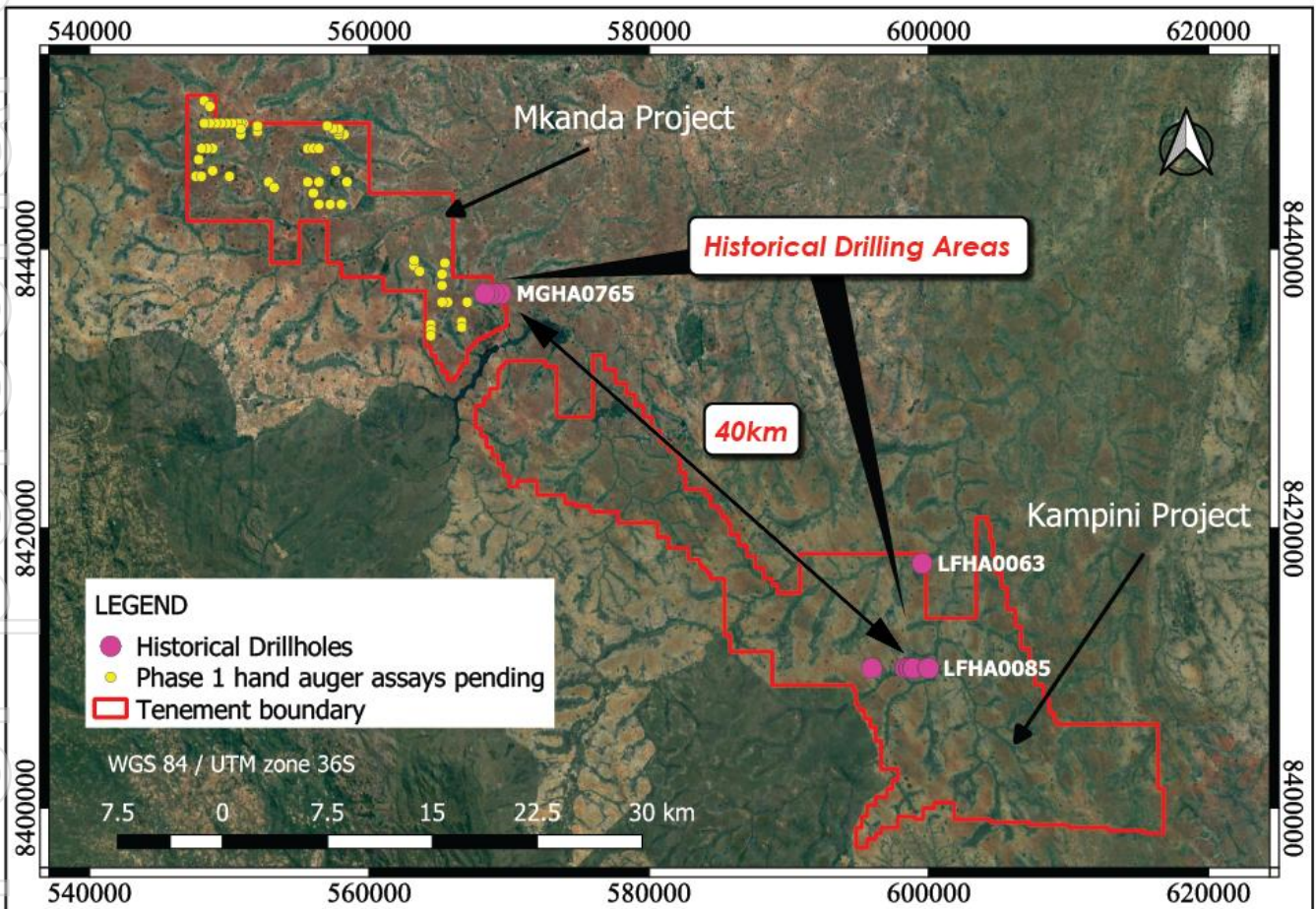


Figure 1. Historical drill holes (pink dots) highlighting 40km distance between titanium-mineralised drill holes. Completed Fortuna phase one hand auger - assays pending (yellow dots)

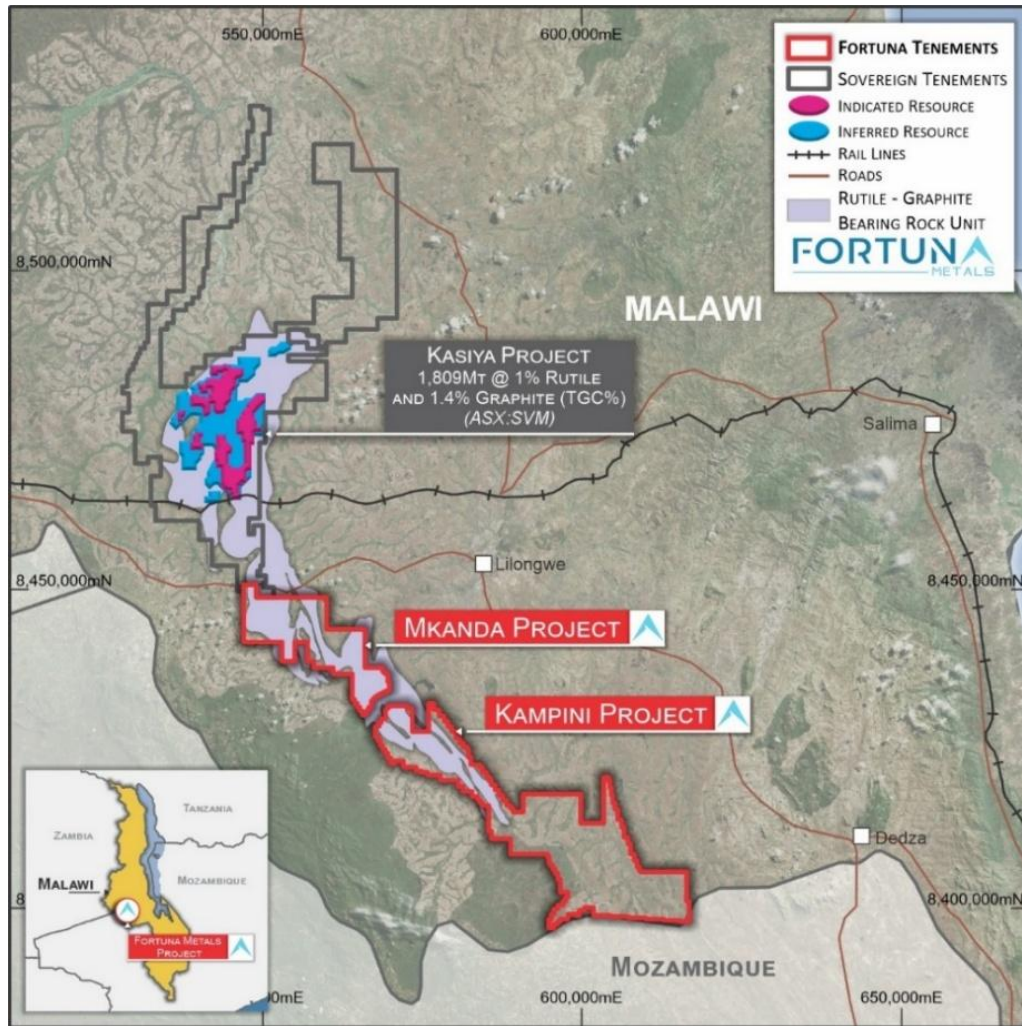


Figure 2. Project location and simplified geology map.

### Desktop Review – Key Highlights<sup>1,3</sup>

Sovereign Metals Limited (SVM) in 2018 as part of feasibility studies at the Malingunde graphite project completed re-assaying of historical hand auger holes which demonstrated titanium mineralisation hosted in free dig near surface saprolite material. Furthermore, the potential to produce rutile from the soft saprolite via a simple process flowsheet using typical mineral sands separation methods was demonstrated during their 2018 laboratory test work programs<sup>3</sup>.

Highlights from SVM's announcement on 24 January 2019 include;

- Historical hand auger drill holes were selected for re-assay to assess the overall rutile potential across Sovereign's large tenement holding in Malawi.
- Results demonstrated that titanium mineralisation was likely to be present over vast areas and is hosted in soft, "free dig" saprolite.
- Previous 2018 mineralogical and sighter metallurgical test-work on bulk samples from Malingunde demonstrated:

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- Rutile as the dominant TiO<sub>2</sub> mineral
- Rutile in concentrates generally present as discrete, clean and liberated grains
- The ability to produce rutile concentrates using typical mineral sands processing methods

### Projects Background

Fortuna's Phase 1 wide spaced soil sampling and hand auger drilling programs are now complete. The Phase 1 drill program was designed as a first pass reconnaissance to investigate large areas across the project for potential rutile mineralisation. Sixty three (63) auger holes averaging 9.2 metres depth were drilled and 232 soil samples were taken. Samples are being sent in batches to a South African laboratory to assist with quicker turnaround of assays. First results are anticipated to be received in November and regularly through to January 2026.

The Mkanda and Kampini Projects extend over an area of 658km<sup>2</sup> and are located in Malawi, immediately to the south of Sovereign Metals Limited's (ASX: SVM) world class Kasiya rutile project. Kasiya is the largest rutile and the second largest flake graphite deposit in the world.<sup>2</sup>

The projects cover the majority of the 70km strike extent of the same Lilongwe Plain weathered gneiss that hosts the rutile and graphite at Kasiya. The high-grade rutile deposit at Kasiya is best described as a residual placer or eluvial heavy mineral deposit. The enrichment of rutile into economic mineralisation is a result of weathering of the primary host rock and concentration, in-place of heavy minerals, as opposed to the high energy transport and concentration of heavy minerals in a traditional placer. The enrichment stage came as tropical weathering during the Tertiary depleted the top ~5 to 10m of physically and chemically mobile minerals. This caused significant volume loss and concurrent concentration of heavy minerals including rutile.<sup>7</sup>

The projects have excellent infrastructure availability, with the central region being approximately 20km from the capital city of Lilongwe, 25km from rail access (11km at the most northern boundary), 15km from high-capacity power lines and with plentiful fresh water.

### Next steps: Exploration Plan

It is proposed that exploration on the Projects over the next 12 months will occur in two phases. The first phase of exploration is now complete with rutile and graphite assays awaited. The second phase of exploration will include the purchase and reprocessing of existing geophysical data from the Malawian government and assessment of past exploration reports, geophysical data and the results from phase one soil sampling and hand auger programs, which will be used to design a larger phase hand auger drilling program. Following positive results from phase one, subsequent exploration programs will be greatly expanded.

The Company will set up a low cost in-country laboratory for the initial steps of preparing the sample for heavy mineral separation (HMS), magnetic separation and XRF analysis. The samples that undergo

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in-country sample preparation will be sent to an external laboratory for analysis.

**Rutile – Critical Mineral**

Commercial titanium dioxide products; natural rutile (TiO<sub>2</sub> 93-97%), leucosene (TiO<sub>2</sub> 70-93%) and ilmenite (TiO<sub>2</sub> 48-64%) are the principal feedstocks for pigment production, titanium metal, welding electrodes and advanced manufacturing.

Natural rutile is a highly sought after, high grade titanium feed source currently selling for approximately US\$1,100 - 1,700 per tonne. The outlook for titanium metal is estimated to increase significantly from US\$30B in 2025 to US\$54B by 2034 – CAGR 6.5%.<sup>4</sup>

Natural rutile is the highest quality and best source of titanium feedstock for manufacturing titanium metals and TiO<sub>2</sub> pigment. Traditional deposits are becoming exhausted with legacy producers in decline, with an anticipated tight supply and industrial demand growth expected to drive strong future prices.

Titanium in robotics is revolutionizing the field of next-gen machines due to its unique properties of lightweight strength and high durability. As robotic systems become more advanced, the demand for materials like titanium grows significantly. Titanium excels in meeting the dual requirements of lightweight construction and robust performance, making it an essential component for robotic technology advancements.<sup>5</sup>

Titanium alloys allow for complex, lightweight construction techniques that reduce energy consumption while maintaining operational effectiveness. Robotic technology advancements driven by these materials also contribute significantly to industrial automation, including precision tasks like medical equipment handling and high-tech manufacturing.<sup>5</sup>

In Australia, we are seeing a reduced focus on low grade ilmenite as an economic source of titanium, with Illuka (ASX:ILU) putting the Cataby ilmenite dominate mine into care and maintenance. Meanwhile Illuka are currently developing the \$480m CAPEX rutile dominant Balranald deposit in NSW, Australia, with mineralisation starting 60m below surface.<sup>6</sup>

**Graphite – Rutile mineral association<sup>7</sup>**

In 2013 Sovereign Metals discovered coarse rutile as an accessory mineral intimately associated with coarse flake graphite. In 2017 high TiO<sub>2</sub> values of up to 3% were discovered in graphite flotation tailings at Malingunde. Subsequent testwork carried out to determine if the titanium was present as rutile and if it was a recoverable product.

Raw samples containing 1.5% TiO<sub>2</sub> was subject to a typical mineral sands flowsheet and resulted in recovered grade of about 0.9% TiO<sub>2</sub> with almost all TiO<sub>2</sub> present in the product as crystalline rutile.

Initial work programs in 2018 investigating the rutile-graphite association confirmed that rutile was present at the graphite dominated deposit at Malingunde. Higher rutile grades were not generally associated with higher graphite grades, ie high grade rutile often associated with low grade graphite

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The presence of any graphite at all appeared to indicate the likelihood of rutile occurring.

A well-developed weathering profile concentrated rutile in the upper 5-10m parts of the weathering profile, particularly in the soil and ferruginous pedolith and somewhat in the mottled zone.

A rutile product could be produced from the Malingunde graphite tails using a traditional mineral sands processing flowsheet resulting in Sovereign Metals hypothesis; Large or very large regolith hosted 'eluvial' deposits could occur across the Lilongwe Plain associated with graphite mineralisation.

Further exploration programs in 2019 completed re-assay of selected historical regional graphite drill holes for  $TiO_2$  and additional mineralogical examination of  $TiO_2$  species.

The key findings showed numerous areas with thick intercepts from surface of 2-3%  $TiO_2$  in historical graphite drill holes associated with high and low grade graphite. Rutile was determined as the dominant  $TiO_2$  mineral, being present as a highly crystalline, clean rutile grains with no leucoxene observed. Recoverable rutile grades in the sand fraction 45 $\mu$ m-2mm were generally around 1-2%. Rutile was shown to be particularly enriched in the top 4m of the weathering profile.



**Figure 3. Graphite mineralisation observed in Fortuna's first drill-hole MHA0001 in soft friable saprolite. Refer to Appendix 1 for further information.**

**Cautionary Statement:** The Company cautions that, with respect to Figure 3, visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations. Refer to Appendix 1 for further details of the sampling undertaken. Drill testing will be required to understand the

grade and extent of mineralisation.

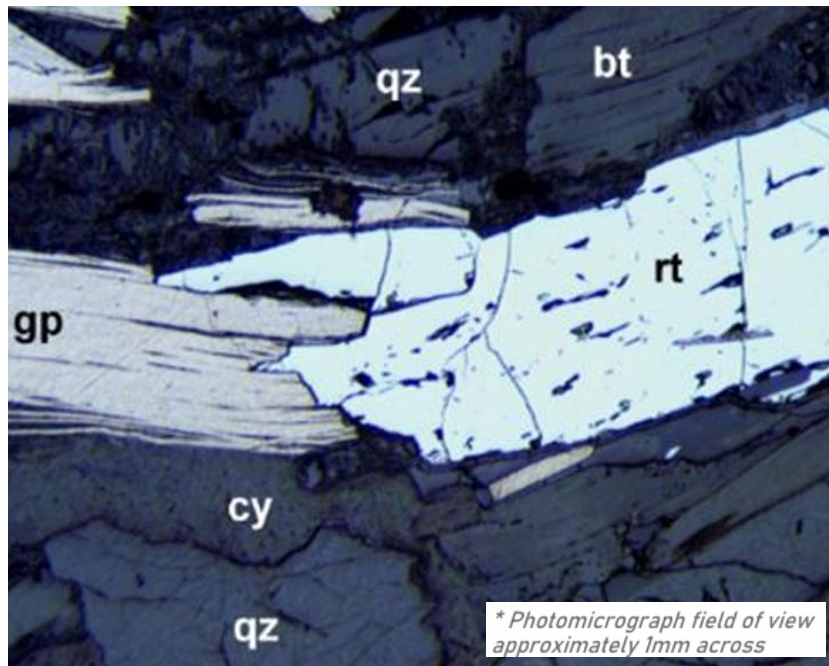


Figure 4. Photomicrograph from Sovereign Metals showing rutile (rt) and graphite (gp) in close association.<sup>7</sup>

Table 1: Significant Historical Titanium Results on Mkanda and Kampini projects<sup>1</sup>

Hole ID	Easting	Northing	Hole Depth	Length Sampled	TiO <sub>2</sub> % weighted	Mineralisation Comments
MGHA0737	568400	8436800	10	10	1.35	Surface to EOH
MGHA0765	569420	8436800	10	4	1.26	
MGHA0773	568961	8436800	8	2	1.68	
MGHA0781	568520	8436800	7	5	1.41	
MGHA0787	568260	8436800	7	4	1.49	
LFHA0063	599525	8417498	7	7	2.19	Surface to EOH
LFHA0070	598291	8410000	6	6	1.71	Surface to EOH
LFHA0071	598350	8409996	8	8	1.46	Surface to EOH
LFHA0074	598561	8410000	3	3	1.83	Surface to EOH
LFHA0075	598580	8410000	3	3	2.03	Surface to EOH
LFHA0076	598600	8410000	3	3	2.19	Surface to EOH
LFHA0077	598620	8410001	3	3	1.92	Surface to EOH
LFHA0079	598833	8410001	7	7	2.14	Surface to EOH
LFHA0080	598850	8410000	8	8	1.6	Surface to EOH
LFHA0081	598870	8409999	7	7	1.85	Surface to EOH
LFHA0082	598889	8410003	7	7	1.77	Surface to EOH
LFHA0085	599931	8410000	8	8	1.57	Surface to EOH
LFHA0086	599990	8409999	6	6	1.36	Surface to EOH
LFHA0088	595925	8410000	6	6	1.6	Surface to EOH

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**References**

- <sup>1</sup> Sovereign Metals Limited (ASX: SVM), High Grade, Broad and Widespread Rutile Potential Demonstrated in Malawi, ASX Release, 24 January 2019
- <sup>2</sup> Sovereign Metals Limited (ASX: SVM), Optimised PFS Results dated 22 January 2025. The Kasiya deposit comprises 1,200Mt @ 1.0% TiO<sub>2</sub> and 1.5% TGC and 609Mt @ 0.9% TiO<sub>2</sub> and 1.1% TGC at a 0.7% cut-off as at 5 April 2023.
- <sup>3</sup> Sovereign Metals Limited (ASX:SVM), High Grade Rutile Recovered From Malingunde Graphite Tailings, ASX Release, 14 August 2018
- <sup>4</sup> Precedence Research - Titanium Market Size, Share, and Trends 2024 to 2034. (19 May 2025). Retrieved from <https://www.precedenceresearch.com/titanium-market>
- <sup>5</sup> Retrieved from <https://titanium-vstreet.com/blog/titanium-in-robotics-lightweight-strength-for-next-gen-machines>
- <sup>6</sup> Retrieved from <https://www.iluka.com/operations-resource-development/resource-development/balranald>
- <sup>7</sup> Discovery of the giant Kasiya rutile-graphite deposit in Malawi. AIGWA MEGWA Monthly meeting presentation June 2023. Retrieved from [MEGWA May 2023: J Stephens: Discovery of the Giant Kasiya Rutile-Graphite Deposit in Malawi](https://www.youtube.com/watch?v=LX0qB4DocuQ). <https://www.youtube.com/watch?v=LX0qB4DocuQ>

This announcement has been authorised for release by the Directors of the Company.

For additional information please visit our website at <https://fortunametals.limited/>

**CAUTIONARY STATEMENT**

This announcement has been prepared by Fortuna Metals Limited. The document contains background Information about Fortuna Metals Limited current at the date of this announcement. The announcement is in summary form and does not purport to be all inclusive or complete. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this announcement. The announcement is for information purposes only. Neither this announcement nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction.

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**COMPETENT PERSON'S STATEMENT**

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Thomas Langley who is a member of the Australian Institute of Geoscientists (MAIG) and a member of the Australasian Institute of Mining and Metallurgy (MAAusIMM). Mr Thomas Langley is a full-time employee of Fortuna Metals Limited, and is a shareholder, however Mr Thomas Langley believes this shareholding does not create a

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conflict of interest, and Mr Langley has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Langley consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

**Appendix 1: Sample information for visual results with assay results currently pending**

Hole ID	Easting	Northing	Type	Description
MHA0001	568597	8436795	1 metre sample from hand auger drilling	An approximate 2.0 kg sample was sampled over 1 metre interval from hand auger drilling between 5-6m. Graphite is hosted in saprolite as pervasive mineralisation. Visual estimation of in-situ graphite grade is between 3 - 6% Total Graphite Carbon (TGC)

**Notes:**

- *Samples located using handheld GPS and are reported in WGS84\_36S.*
- *Samples will be assayed with results currently pending, expected in November 2025.*
- *The Company cautions that, with respect to Figure 3, visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations. Drill testing will be required to understand the grade and extent of mineralisation.*

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## Appendix 2. JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<p><b>Historical Results</b></p> <p>Sampling was undertaken as surface grab sampling and panning of sand samples from auger drill samples. Dormer cased drilling rig and hand auger samples are taken in 1m intervals in alluvial soils and up to 1.5m in residual soils to ensure lithological contacts are honoured in the sampling.</p> <p>Sample size is approximately 5 kg which is then dried, weighed, hand pulverised and split to about 500g for analysis.</p> <p>Small portions of Dormer cased sampler and hand auger samples were panned on site to test for visible rutile and other VHM.</p> <p>Visual identification of the mineralisation was completed in the field by the Competent Person utilising hand lens and portable microscope when applicable.</p> <p>Samples will be freighted to Scientific Services in Cape Town, South Africa. A duplicate split has been composited onsite and will be sent for analysis at external laboratory. Both laboratories will perform a Heavy Liquid Separation (HLS) of the 45µm to 600µm sand fraction.</p> <p>Assay results are currently pending.</p>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<p>Hand-held auger drilled vertically to the water table or until consolidated samples were no longer possible.</p>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and</li> </ul>	<p>Sample was retrieved in total from Dormer SOS and SP type hand auger.</p> <p>The nature of the residual material drilled by hand auger ensures the hole stays open and there is no contamination.</p> <p>The whole sample is retained and is considered representative.</p>

Criteria	JORC Code explanation	Commentary
	<p>whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</p>	
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p>Samples from the Dormer hand auger have been geologically logged as hard copy and into a field computer using a set of logging codes designed by Fortuna Metals.</p> <p>Look-up tables are employed by the logging software to ensure no keystroke errors or other non-standard data are entered. This provides the first stage of data validation.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>Grab samples were panned to a concentrate in the field for visual mineral assemblage investigation only. Routine samples are dried, weighed and hand pulverised before being riffle split to ~2kg for freight to Scientific Services laboratory in Cape Town, South Africa.</p> <p>Standard samples are inserted at a rate of 1:40 routine in hand auger samples.</p> <p>No standards have been included in the soil samples.</p> <p>Duplicate samples are generated to test the precision of the splitting stage at a rate of 1:30 routine soil samples and at a rate of 1:40 hand auger samples.</p> <p>Sample size and splitting methodology are considered to produce a representative sample for analysis.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of</li> </ul>	<p>No laboratory analysis has been conducted on samples in this ASX release.</p> <p>The laboratory procedure to be employed conforms to best practice for the determination of heavy mineral sands deposits.</p> <p>Quality control measures include collection of the total sample, the insertion of HM standards and duplicate sampling at the riffle split stage.</p>

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Criteria	JORC Code explanation	Commentary
	accuracy (ie lack of bias) and precision have been established.	
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<p>No laboratory analysis has been conducted on samples in this ASX release.</p> <p>Twin holes are to be applied to the next stage of work but not to the reconnaissance program.</p> <p>All field and sample preparation procedures have been designed by Fortuna Metals and field crews have been trained and demonstrated expert adherence to these procedures.</p> <p>Protocols are in place to ensure data are recorded and saved to an external drive daily.</p> <p>Validation occurs as data are entered into field computer.</p>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<p>All sample sites were recorded by a handheld GPS.</p> <p>All sample location data is in UTM WGS84 (Zones 36S).</p> <p>Location method is considered adequate at this reconnaissance stage of work.</p>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<p>All work reported is for reconnaissance and designed purely to determine target zones for follow-up exploration activities.</p> <p>Sampling distribution is designed to isolate trends of the highest residual rutile, relating to underlying rock types with higher TiO<sub>2</sub> grades inherited during their original deposition.</p> <p>Sample compositing is done to retain a duplicate sample for storage and external analysis QAQC.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<p>Drilling is completed in a vertical orientation with hand auger and oriented by eye.</p> <p>Drilling effectively cross-profiles the weathering horizon in residual target areas and the horizontal layering in alluvial settings.</p>
Sample security	The measures taken to ensure sample security.	<p>All samples guarded all the time. Samples removed from site and stored in secure facilities.</p> <p>Samples sent to Scientific Services by courier with secure containment and sign-off at both ends.</p>
Audits or	<ul style="list-style-type: none"> <li>The results of any audits or reviews of</li> </ul>	No audits or reviews of drilling sampling

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Criteria	JORC Code explanation	Commentary
reviews	sampling techniques and data.	<p>techniques or data by external parties at this stage of exploration.</p> <p>An internal review of sampling techniques and data will be completed to ensure drilling, drill logging and sample preparation activities are of a high standard and suitable for the classification of future results according to the reporting standards of the JORC Code 2012.</p>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<p>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.</p> <p>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.</p>	<p>The Mkanda and Kampini Projects is comprised of 2 granted exploration licences EL0839-25 and EL0840-25 respectively, covering approximately 658km<sup>2</sup></p> <p>The Company has entered into a share sale agreement to purchase 100% of the issued capital in Ice Shelf Resources Pty Ltd which, via its wholly owned subsidiary Ice Breaker Limited (Malawi), owns the granted Mkanda Exploration Licence (EL0839-25) and Kampini Exploration Licence (EL0840-25), forming the Mkanda and Kampini Projects.</p> <p>There are no material issues or impediments to the Company conducting exploration on the Mkanda and Kampini Rutile Project areas.</p>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	A comprehensive detailed desktop review is underway to determine if any historical exploration work has been completed within the Projects.
Geology	Deposit type, geological setting and style of mineralisation.	<p>The areas of the Projects cover the same geological formation of the Lilongwe Plain weathered gneiss that hosts the rutile and graphite at Kasiya. The high-grade rutile deposit at Kasiya is best described as a residual placer or eluvial heavy mineral deposit. The enrichment of rutile into economic mineralisation is a result of weathering of the primary host rock and concentration, in-place of heavy minerals, as opposed to the high energy transport and concentration of heavy minerals in a traditional placer. The enrichment stage came as tropical weathering during the Tertiary depleted the top ~5 to 10m of physically and chemically mobile minerals. This caused significant volume loss and concurrent concentration of heavy minerals including rutile.</p>

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Drill hole Information	<p>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> <p>easting and northing of the drill hole collar</p> <p>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</p> <p>dip and azimuth of the hole</p> <p>down hole length and interception depth</p> <p>hole length.</p> <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>	<p>Locations of visible rutile samples are shown at Appendix 1.</p> <p>All information has been included in the body of this release and at Appendix 1.</p>
Data aggregation methods	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</p> <p>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>Weighted average TiO<sub>2</sub> grades are reported at a 0% lower cut-off. No upper cuts were used.</p> <p>Intercepts are reported as entire hand auger hole lengths at 0% TiO<sub>2</sub> lower cut-off.</p> <p>No metal equivalent values are used in this report.</p>
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <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 (eg 'down hole length, true width not known').</p>	<p>Hand auger sampling has been completed vertically, which effectively cross-profiles the mineralisation that occurs sub-horizontally due to deposition by deflation and concentration in the alluvial setting.</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</p>	<p>Geological and location maps of the projects are shown in the body of this ASX announcement.</p>

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	of drill hole collar locations and appropriate sectional views.	
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The accompanying document is a balanced report with a suitable cautionary note.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No other substantive data is available for the reconnaissance stage of exploration.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	A reconnaissance phase one drilling campaign utilising Dormer hand augers over a 658km <sup>2</sup> area is currently underway.

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