MKANGO RESOURCES LTD.

MANAGEMENT'S DISCUSSION AND ANALYSIS

For the three and six months ended 30 June 2024

This Management's Discussion and Analysis ("MD&A") provides a review of the operational performance of Mkango Resources Ltd. ("Mkango", or the "Company"). The report was prepared in accordance with the requirements of National Instrument 51-102 - Continuous Disclosure Obligations, and it should be read in conjunction with the condensed interim consolidated financial statements for the three and six months ended 30 June 2024 and the audited consolidated financial statements for the year ended 31 December 2023 (the **"Financial Statements"**). The Financial Statements and the accompanying notes have been prepared in United States dollars ($) unless otherwise indicated in accordance with International Financial Reporting Standards (**"IFRS"**) as issued by the International Accounting Standards Board (**"IASB"**) and interpretations issued by the International Financial Reporting Interpretations Committee ("**IFRIC**") in effect on 1 January 2024. This document is dated 29 August 2024.

The Board of Directors of the Company have reviewed and approved the information contained in this MD&A and the Financial Statements.

Readers are cautioned that this MD&A contains certain forward-looking statements. Please see the section concerning "Forward Looking Statements" below.

Additional information relating to the Company can be found on the SEDARplus website ("**SEDARplus**") at https://www.sedarplus.ca/landingpage/ (Please note these websites do not form part of this MD&A and only contain additional information.) The Company is listed on the TSX Venture Exchange (the "**TSX-V**") and holds an additional listing on the AIM Market of the London Stock Exchange ("**AIM**") under the symbol MKA.

FORWARD LOOKING STATEMENTS

Certain disclosures in this MD&A may constitute forward-looking statements concerning anticipated development of the Company's operations in future periods. Any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "targeted", "anticipate", "believes", "budget", "continue", "could", "estimate", "forecast", "intends", "may", "plan", "predicts", "projects", should", "will" and other similar expressions. All estimates and statements that describe the Company's future, goals, or objectives, including management's assessment of future plans and operations, including statements regarding expected commencement of equipment delivery and production, expected dates relating to feasibility studies, exploration results and budgets, mineral resource estimates, work programs, capital expenditures, timelines, strategic plans, market price of commodities or other statements that are not statement of fact may constitute forward-looking information under securities laws. Forward-looking information is based on reasonable assumptions that have been made by the Company as at the date of such information but, by their nature, forward-looking statements are subject to numerous risks and uncertainties, some of which are beyond the Company's control, including the impact of general economic and political conditions, the availability of scrap and equipment for the recycling and magnet making processes industry conditions, volatility of commodity prices, currency fluctuations, accuracy of drilling and other analysis or testing results, realization of mineral resource estimates, environmental risks, changes in environmental, tax and royalty legislation or other government regulation, the speculative nature of strategic metal exploration and development including the risks of contests over title to properties, the risks associated with obtaining necessary licences or permits, including and not limited to approval of any future mining licence applications and licence extensions, operating or technical difficulties in connection with development activities; personnel relations, competition from other industry participants, lack of availability of qualified personnel or management, availability of equipment and access, stock market volatility and the ability to access sufficient capital from internal and external sources. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

Readers are cautioned that the assumptions used in the preparation of such information, although considered reasonable at the time of preparation, may prove to be imprecise and, as such, undue reliance should not be placed on forward-looking statements. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. Mkango's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements. Mkango disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Q2 2024 HIGHLIGHTS

- Mkango Rare Earths UK ("Mkango UK") successfully commissioned a pilot plant producing separated magnet rare earths (neodymium/praseodymium and dysprosium/terbium carbonates or oxides) via a long-loop recycling process.

- A non-binding Memorandum of Understanding ("MoU") was signed between HyProMag and Envipro Holdings Inc. ("Envipro") to launch a collaboration on rare earth magnet recycling in Japan and the United Kingdom.

- Mkango completed a fund raising of £750,000 ($955,000) in April 2024, including a £150,000 ($191,000) investment by Mkango CEO, William Dawes. Use of proceeds was primarily for the acquisition of additional equipment to underpin HyProMag Limited's ("HyProMag") transition to first commercial sales of recycled NdFeB at Tyseley Energy Park in Birmingham, UK and orders of long lead time equipment at the recycling facility in Germany, unlocking additional grant funding in that country.

- The Company undertook a significant cost-cutting exercise in recent months, and focused its activities on the recycling business, enabling a 35% reduction in the ongoing operating cost requirements for the business. Executive management salaries were reduced by between 25% to 50% each from April 2024 through to September 2024 to conserve working capital for asset advancement.

- Loss after tax for the three-month period ended 30 June 2024 of $659,320 compared to $1,085,092 for the three-month period ended 30 June 2023, primarily as a result of the significant cost cutting measures undertaken during the first half of 2024.

Subsequent Events

- On 15 July 2024, the findings of the mid-project review for the bankable feasibility study ("US Feasibility Study") for HyProMag USA, LLC, a Delaware corporation ("HyProMag USA") were announced. Canada-based BBA USA Inc. ("BBA") and U.S.-based PegasusTSI Inc. ("PegasusTSI") have been engaged to complete the HyProMag USA Bankable Feasibility Study to engineer and design its REE magnet recycling plants and a production facility in the United States. HyProMag USA has the potential to supply the U.S. market with a sustainable, long term domestic supply of neodymium/iron/boron (NdFeB) permanent magnets to enable the creation of secure, low carbon and traceable rare-earth supply chains. With completion of the USA Feasibility Study expected by the end of 2024, a positive production decision in H1 2025 could result in initial revenue from HyProMag USA in H2 2026.

- In late July 2024, Lancaster Exploration Limited, a British Virgin Islands company and Lancaster Exploration Limited, a Malawi company, both 100% owned subsidiaries of Mkango, and the Government of Malawi signed the Mining Development Agreement ("MDA") for the Songwe Hill Rare Earths Project ("Songwe Hill") in Malawi.

- Discussions are ongoing with potential strategic investors, project finance providers, grant funding bodies and other sources, to support recycling scale-up opportunities and further technology roll-out. In parallel, Mkango is undertaking a review of strategic options for its advanced stage Songwe Hill Rare Earth Project in Malawi and the Pulawy Rare Earth Separation Project in Poland. The Feasibility Study for Songwe Hill and subsequent work identified a number of areas for potential cost optimisation, and the Company continues to evaluate these and other cost reduction opportunities in light of the currently weak rare earth market pricing environment.

- On 21 August 2024, the Company conditionally raised gross proceeds of £1.25 million (approximately $1.58 million) through the issuance, on a private placement basis, of 25,000,000 Units of the Company at a price of £0.05 per Unit (approximately $0.063). A Unit consists of one common share of the Company and one warrant. Each warrant will entitle the holder to acquire one common share at a price of £0.07 (approximately $0.089) per common share for a period of three years following the closing of the subscription which is expected to close on or about 5 September 2024. This placing will allow the Company to acquire additional equipment for the 2025 commercial development of HyProMag Limited's ("HyProMag") rare earth magnet recycling operations at Tyseley Energy Park in Birmingham, UK and its recycling operation at Pforzheim, Germany, in addition to increasing working capital.

- On 21 August 2024, EIT RawMaterials provided funding of €200,000 and received a 5.7% interest in Mkango Polska sp. z o.o., currently a 100% held subsidiary of Mkango, developing the Pulawy Rare Earths Separation Project in Poland. This will fund the commencement of process optimisation for the Songwe Hill Rare Earths Project in Malawi, a future source of mixed rare earth carbonate feed for the Pulawy Project.

  The deal is structured as a combination of equity and grant funding. EIT RawMaterials will be issued six new shares in Mkango Polska resulting in a 5.7% interest in Mkango Polska for PLN 300. Concurrently, a grant of €200,000 will be awarded to Mkango Polska by EIT RawMaterials. €150,000 of this grant is payable up front and €50,000 is payable upon final approval of the final project report by no later 30 June 2025.

  A put and call agreement has been entered into between EIT RawMaterials and Mkango, whereby both the equity investment and grant can be converted at either parties' option, into Mkango Shares by no later than 30 November 2024.

  The number of Mkango Shares to be issued to EIT RawMaterials shall be determined by dividing the sum of €200,000 and PLN 300 converted to Canadian dollars by the closing price of a Mkango Share on the TSX-V on the day before the date of conversion, subject to a minimum share price of C$0.115.

- On 29 August 2024, it was announced that HyProMag GmbH ("HyproMag Germany") is participating in the €8 million grant funded GREENE project, of which HyProMag GmbH will receive €350,125.

  GREENE aims to push the boundaries of material science by re-engineering rare earth permanent magnets to become more resource-efficient, whilst offering significant improvements to magnetic performance.

Near-Term Milestones

- Completion of HyProMag USA Feasibility Study is targeted by the end of 2024. The scope of operations comprises a hub and spoke model, with three HPMS spokes and one magnet manufacturing hub located in Texas.

- Full commissioning of the short-loop HPMS recycling plant in the UK and initial commercial sales of NdFeB by HyProMag are targeted for Q1 2025.

- HyproMag Germany first commercial production in Germany is targeted for 2025.

MKANGO OVERVIEW

Mkango is listed on the AIM and the TSX-V. Mkango's corporate strategy is to become a market leader in the production of recycled rare earth magnets, alloys and oxides, through its interest in Maginito, which is owned 79.4 per cent by Mkango and 20.6 per cent by CoTec, and to develop new sustainable sources of neodymium, praseodymium, dysprosium and terbium to supply accelerating demand from electric vehicles, wind turbines and other clean energy technologies.

Maginito holds a 100 per cent interest in HyProMag, a 90 per cent direct and indirect interest (assuming conversion of Maginito's convertible loan) in HyProMag Germany, focused on short loop rare earth magnet recycling in the UK and Germany, respectively, and a 100 per cent interest in Mkango Rare Earths UK Ltd ("**Mkango UK**"), focused on long loop rare earth magnet recycling in the UK via a chemical route.

Maginito and CoTec are also rolling out HyProMag's recycling technology into the United States via the 50/50 owned HyProMag USA joint venture company. HyProMag is also evaluating other jurisdictions, and recently launched a collaboration with Envipro on rare earth magnet recycling in Japan.

Mkango also owns the advanced stage Songwe Hill rare earths project and an extensive rare earths, uranium, tantalum, niobium, rutile, nickel and cobalt exploration portfolio in Malawi, and the Pulawy rare earths separation project in Poland. Mkango is undertaking a review of strategic options relating to these projects in Malawi and Poland.

For more information, please visit www.mkango.ca.

SECOND QUARTER PERFORMANCE

Financial

- Cash at 30 June 2024 of $270,434 compared to $996,782 at 31 December 2023.
- Loss after tax for the three months ended 30 June 2024 of $659,320 compared to $1,085,092 for the three months ended 30 June 2023, mainly as a result of the significant cost cutting measures undertaken during the first half of 2024.

Operations & Corporate Development

- Mkango Rare Earths UK ("Mkango UK") successfully commissioned a pilot plant designed to produce separated magnet rare earths (neodymium/praseodymium and dysprosium/terbium carbonates or oxides) via a long-loop recycling process.
- A non-binding Memorandum of Understanding ("MoU") was signed between HyProMag and Envipro Holdings Inc. ("Envipro") to launch a collaboration on rare earth magnet recycling in Japan and the United Kingdom.Maginito and CoTec further progressed the roll-out of HPMS (Hydrogen Processing of Magnet Scrap) technology into the USA during the quarter by progressing the bankable feasibility study for the USA recycling operations.

OVERVIEW OF THE BUSINESS – RARE EARTH MAGNET RECYCLING AND MANUFACTURING

Mkango's corporate strategy is to become a market leader in the production of recycled rare earth magnets, alloys and oxides, through its interest in Maginito which is owned 79.4 per cent by Mkango and 20.6 per cent by CoTec, and to develop new sustainable sources of neodymium, praseodymium, dysprosium and terbium to supply accelerating demand from electric vehicles, wind turbines and other clean energy technologies.

On 3 August 2023, Maginito completed the acquisition of the remaining interest in HyProMag Ltd which is commercialising the HPMS technology across multiple jurisdictions, including the UK and Germany in 2025, and the United States in 2026. The HPMS technology was developed to provide the solution for liberating NdFeB magnets from end-of-life scrap streams, in a cost effective and energy efficient way. The resulting recycled NdFeB powder is fed back into multiple points of the rare earth supply chain including (short-loop) magnet manufacturing, to produce magnets with a significantly reduced carbon footprint, and (long-loop) chemical processing to produce rare earth carbonates and oxides.

The consideration payable to the selling HyProMag shareholders (the "Vendors") comprised £1,000,000 ($1,271,086 in cash and the issue of 9,742,031 Mkango Shares (the "Consideration Shares") equivalent to £901,138 ($1,145,424) at a price equal per share to 9.25 pence ($0.1176). In addition, up to a further £3 million ($3.8 million) may be payable to the Vendors in four tranches, either in cash or in Mkango Shares (at Mkango's option), conditional upon the achievement by HyProMag of certain production milestones in the period to 30 June 2026. The Consideration Shares are subject to a one-year lock up and the shares which may be issued on milestones will have a six-month lock up (and a statutory hold period applicable in Canada, which will expire four months plus one day after issuance, if any).

Maginito now holds a 100 per cent interest in HyProMag and a 90 per cent direct and indirect interest (assuming conversion of Maginito's convertible loan) in HyProMag Germany, focused on short loop rare earth magnet recycling in the UK and Germany, respectively, and a 100 per cent interest in Mkango UK, focused on long loop rare earth

magnet recycling in the UK via a chemical route. Maginito and CoTec are rolling out HyProMag's recycling technology into the United States via the 50/50 owned HyProMag USA joint venture company.

HyProMag UK

HyProMag was founded in 2018 by the late Professor Emeritus Rex Harris, former Head of The Magnetic Materials Group ("MMG") within the School of Metallurgy and Materials at University of Birmingham ("UoB"), Professor Allan Walton, current Head of the MMG, and two Honorary Fellows, Dr John Speight and Mr David Kennedy, leading world experts in the field of rare earth magnetic materials, alloys and hydrogen technology, with significant industry experience. The HPMS process for extracting and demagnetising NdFeB alloy powders from magnets embedded in scrap and redundant equipment was originally developed within the MMG and subsequently licenced to HyProMag with a royalty of up to 1.5 % payable to UoB. The MMG has been active in the field of rare earth alloys and processing of permanent magnets using hydrogen for over 40 years. Originated by Professor Rex Harris, the hydrogen decrepitation method, which is used to reduce NdFeB alloys to a powder, is now ubiquitously employed in worldwide magnet processing.

HyProMag is establishing short loop recycling facilities for NdFeB magnets at Tyseley Energy Park in Birmingham, UK and other locations, using the patented HPMS process to provide a sustainable solution for the supply of NdFeB magnets and alloys for a wide range of markets including, for example, automotive and electronics. Short loop magnet recycling is expected to have a significant environmental benefit, requiring an estimated 88% less energy versus primary mining to separation to metal alloy to magnet production.

HPMS is a radically new recycling technology that preserves the quality of the original magnets for reprocessing; a far cleaner and more energy efficient process than the traditional dismantling, thermal demagnetisation and cleaning processes and lends itself to automated and efficient processing. The resulting recycled magnets are being made to recognised industrial grades.

The plant at Tyseley Energy Park is being developed together with UoB, with a minimum capacity of 100tpa NdFeB (neodymium, iron, boron). This £4.3 million ($5.47 million) project is being funded by "Driving the Electric Revolution", an Industrial Strategy Fund challenge delivered by UK Research and Innovation. HyProMag will be the primary industrial user and operator of the plant and the exclusive licensee for underlying HPMS technology, developed at the University of Birmingham and now being commercialised by HyProMag. Initial commercial production will be based on 20% capacity utilisation, equivalent to a minimum of 25tpa NdFeB. First production runs were completed in Q4 2023, which follows successful piloting at UoB in 2022 as featured on BBC Midlands News: https://youtube/9P-dsNCffWw. (This link does not form part of this MD&A). Initial commercial sales of NdFeB are targeted for Q1 2025.

For the initial production runs, the recycled raw material feed was derived from wind turbine magnets, voice coil assemblies from hard disk drives and production scrap which was processed through the existing recycling pilot plant at the University of Birmingham, and then transported for short loop magnet manufacture at Tyseley.

The magnets produced at Tyseley were of commercial grade, featuring a square loop with good coercivity (resistance to demagnetisation) and remanence (magnetic strength), which are key measures of magnetic performance.

HyProMag is receiving strong interest for recycled magnets from potential customers, underpinning the transition to commercial operations, and for recycling solutions from original equipment manufacturers ("OEMs"), and automotive and recycling companies looking for a low cost and energy efficient circular solution for magnet recycling that does not require dismantling – HyProMag's patented HPMS technology provides the solution.

Apart from providing feed during the commissioning phase of the Tyseley development, the pilot plant at the UoB has enabled the testing of a broad variety of scrap streams and the production of a wide range of products since its commissioning in 2022, generating operating information to support the scale-up and commercialisation of operations. Furthermore, over 3,000 finished rare earth magnets have been produced to date by HyProMag and the UoB from

recycled HPMS powder produced for project partners and potential customers from the pilot scale equipment, with over 10,000 finished rare earth magnets targeted by the end of the year. These magnets are being tested in a wide range of applications including multiple automotive, aerospace, electronics applications, and others planned, providing valuable marketing and technical information to further support the scale-up and commercialisation of operations.

In addition to the production of finished magnets, the pilot plant has also produced alloys for re-melt testing and chemical processing, maximising the flexibility of the product suite and the ability to process different scrap streams.

HyProMag is participating in a number of other government grant funded projects detailed below.

On 28 May 2020, the Company announced the launch and provided further details of the Innovate UK grant funded project, "Rare-Earth Recycling for E-Machines" ("RaRE") in which HyProMag is a partner. RaRE will for the first time establish an end-to-end supply chain to incorporate recycled rare earth magnets into electric vehicles, whereby recycled magnets will be built into an ancillary electric motor to ultimately support the development of a commercial ancillary motor suite. In addition to HyProMag and UoB, RaRE features a strong set of partners with complementary expertise, comprising Advanced Electric Machines Research Limited, Bentley Motors Limited, Intelligent Lifecycle Solutions Limited and Unipart Powertrain Applications Limited. The total budget for RaRE was £2.6 million ($3.3 million), of which Innovate UK funded £1.9 million ($2.4 million), with RaRE partners funding the £0.7 million ($0.9 million) balance. HyProMag's contribution was fully funded from the £300 k ($382 k) investment made by Maginito in January 2020.

On 30 November 2020, the Company announced that HyProMag and partners, European Metal Recycling Limited ("EMR") and UoB were awarded a grant from the Industrial Strategy Challenge Fund, delivered by UK Research and Innovation, for a new ground breaking project entitled "Rare-Earth Extraction from Audio Products", which investigated ways of recycling rare earth magnets from speakers used in automotive and consumer electronics applications, which account for approximately 20% of the current market for rare earth magnets, according to Adamas Intelligence, and therefore represent a significant opportunity for rare earth magnet recycling. On 30 September 2021, the Company announced the successful completion of the project.

On 14 March 2022, the Company announced that HyProMag and Mkango UK will collaborate with Bowers & Wilkins, EMR, GKN Automotive Innovation Centre, Jaguar Land Rover and UoB in the "Driving the Electric Revolution" challenge at UK Research and Innovation grant funded project, SCREAM.

SCREAM aims to establish a recycled source of rare earth magnets in the UK to provide greater security of supply to UK industry, whilst aiming to achieve a 10% reduction in cost and a significant reduction in environmental impact.

HyProMag will work with UoB to develop a new semi continuous version of the HPMS process and to produce short loop recycled sintered magnets at multiple grades to match the requirements for a range of applications.

HyProMag is collaborating with EMR, the Offshore Renewable Energy (ORE) Catapult, Magnomatics and UoB in a £1.5 million ($1.9 million) project, Re-RE Wind, of which £1 million ($1.3 million) or 67% will be funded by Innovate UK's circular critical materials supply chains (CLIMATES) programme. The budget for HyProMag's portion of the project is circa £350 k ($446 k) of which 70% will be funded by the grant.

These grant funded projects facilitate the transition to commercial production, enabling product testing across a range of applications, whilst broadening potential customer engagement and enhancing financial flexibility.

Minerals Security Partnership

HyProMag's rare earth magnet recycling technology has been selected by the Minerals Security Partnership ("MSP") for support, as one of its key projects. The technology was selected by the MSP given its strong potential to contribute towards the development of responsible critical mineral supply chains.

The MSP was formed in 2022 by 14 governments and aims to ensure adequate supplies of minerals such as rare earths to meet net zero-carbon goals. It aims to support public and private sector investments building diverse, secure, and responsible global critical minerals supply chains. Partner governments include the United Kingdom, the United

States, Australia, Canada, Finland, France, Germany, Japan, India, the Republic of Korea, Norway, Sweden and the European Union.

The MSP promotes responsible growth across the critical minerals sector via a shared commitment to high ESG standards, sustainability and shared prosperity. The MSP partner governments regard the further development of responsible and resilient supply chains to be critically important for an equitable and sustainable energy transition.

MSP is committed to leveraging the collective financial and diplomatic resources of its 14 partners by deepening collaboration between governments, project developers and investors to drive responsible investment in critical minerals projects.

HyProMag Germany

In November 2021, HyProMag established an 80%-owned subsidiary in Germany, HyProMag Germany, to rollout commercialisation of HPMS technology into Germany and Europe. HyProMag Germany is 20% owned (10% following conversion of the German Convertible Loan, as defined below) by Professor Carlo Burkhardt of Pforzheim University, coordinator of the €14m ($15.5m) SusMagPro (www.susmagpro.eu) and €13 million ($14.4 million) REEsilience (www.reesilience.eu) EU funded recycling projects, with approximately 40 partners across the European supply chain.

On 23 November 2022, the Company announced that HyProMag Germany had been awarded grants totaling €3.7 million ($4.1 million) for a new project, entitled "Innovation Centre for Science & Economy Northern Black Forest IZWW", comprising a €2.5 million ($2.8 million) grant from the European Regional Development Fund (ERDF) and a €1.2 million ($1.3 million) grant from the Ministry of Economic Affairs, Labour and Tourism Baden-Württemberg.

The total cost of the German Recycling Project is expected to be €6.1 million ($6.8 million), of which approximately 60% will be funded by the grants, on the basis that for each €1 spent on the project by HyProMag Germany, a further €1.50 contribution can be claimed from the grants. The first phase of the project includes development of a production facility in Baden-Württemberg State with a minimum capacity of 100 tpa NdFeB comprising recycled rare earth sintered magnets, alloys and powders. This will be the first in Germany using the patented HPMS process, with first production targeted for 2025, and a similar size to the £4.3 million ($5.5 million) UK Recycling Project being developed by HyProMag and UoB at Tyseley Energy Park in the UK.

Maginito has entered into a convertible loan (the "**German Convertible Loan**") with HyProMag Germany. Under the terms of the German Convertible Loan, Maginito has granted HyProMag Germany a loan facility for €2.5m (approximately $2.8m) available to be drawn down in accordance with an agreed investment plan and convertible into a 50% interest in HyProMag Germany. This investment by Maginito into HyProMag Germany will contribute to the match funding requirements to unlock the abovementioned grant.

HyProMag Germany is targeting commercial production in 2025.

HyProMag Germany is participating in the €8 million grant funded GREENE project, of which HyProMag Germany will receive €350,125.

The GREENE Project

Rare-earth element (REE) permanent magnets based on Neodymium Iron Boron (Nd-Fe-B) are vital components of high-tech products enabling a green energy future. They are highly valued due to their outstanding properties. They are complex materials consisting of multiple phases and their overall performance is determined by a high remanence, reflected in magnet strength, and a high intrinsic coercivity, making them resistant to demagnetization. Their maximum energy product is thus composed of both remanence and coercivity.

The need to operate at temperatures over 100 °C in applications such as traction motors in electric vehicles means that a high coercivity is usually prioritised over a high remanence, which negatively affects power output linked to remanence. In conventionally sintered magnets, NdFeB grains are microscopic and the regions between the grains are

called grain boundaries. When exposed to a demagnetizing force, demagnetization begins at the grain interfaces with the grain-boundary phase before rapidly spreading, influencing the magnet's coercivity.

GREENE partners aim to push the boundaries of material science by developing Single-Grain Re-Engineered Nd- Fe-B permanent magnets with a new grain-boundary interface, thus allowing for a reduction of REE content. The new GREENE magnets are expected to be more resource-efficient, offering a roughly 20% increase in coercivity, 10% in remanence, and 20% in overall maximum energy product.

As a first step, novel grain boundaries and interfaces will be created using micromagnetic simulations and computational thermodynamics. Following an initial testing phase, the technology will then be applied to isolated grains from recycled and fresh streams with the intention of developing a new form of Nd-Fe-B magnet. By the end of the project, the magnet manufacturing system is intended to be set up in an actual operational setting.

To achieve this ambitious undertaking, 15 European partners with outstanding expertise in their respective fields have joined forces, including leading material scientists, magnet manufacturers and recyclers, lifecycle analysis experts as well as end user representatives. Several of them have already cooperated in predecessor projects like SUSMAGPRO, INSPIRES and REEsilience. The project is coordinated by the Slovenian Jožef Stefan Institute.

HyProMag USA

On 2 January 2024, Maginito and CoTec formed a 50/50 joint venture company, HyProMag USA, to roll-out HPMS technology into the United States, with CoTec responsible for funding the feasibility study (**"the USA Feasibility Study")** and development costs, subject to the results of the USA Feasibility Study, which is currently underway. An initial scoping study was completed in October 2023. The proposed operating configuration for the United States operations is a modular, hub and spoke model, with the initial deployment of three HPMS recycling vessels at the spokes and a central hub comprising of rare earth (NdFeB) alloy and magnet manufacturing, subject to the outcome of the USA Feasibility Study.

HyProMag USA has engaged lead engineers BBA USA Inc ("BBA") and PegasusTSI ("Pegasus") to complete the Feasibility Study with targeted completion prior to year-end. BBA and Pegasus successfully completed their onboarding process through visiting key manufacturers in Germany, Poland and the HyProMag Plant in Tyseley UK.

The USA Feasibility Study will be completed by the end of 2024 and will be based on a hub-and-spoke model using three HPMS vessels and one magnet manufacturing hub which will based in Fort Worth, Texas. The USA Feasibility Study will include the completion of sufficient engineering design works to support an AACE Class 3 capital estimate, as well as final site selection to be completed in Q4 2024 and site permitting completed by Q4 2025 in line with the initial project schedule. This targets initial revenue in H2 2026. Environment and permitting studies will be supported by U.S.-based Weston Solutions, Inc.

Following completion of the USA Feasibility Study, CoTec and Mkango will make a joint decision in H1 2025 as to whether HyProMag USA will proceed with the construction of the U.S. Project. CoTec is responsible for funding the Feasibility Study and the project development costs. Funding provided by CoTec would be in the form of shareholder loans to HyProMag USA. With completion of the USA Feasibility Study expected by the end of 2024, a positive production decision in H1 2025 could result in initial revenue from HyProMag USA in H2 2026.

In parallel, HyProMag USA is working on securing U.S. Government funding, U.S. state financial grants and incentives and strategic partnerships with U.S. companies for feed supply and recycled NdFeB magnet offtake.

The targeted production capacity is a minimum of 500 tonnes per annum NdFeB magnets with the option to expand to 800 tpa. Opportunities to produce a range of additional NdFeB alloy products such as alloy powders, pellets and strip cast flakes are also being considered, as well as the recycling of swarf.

Mkango Rare Earths UK Limited

Mkango Rare Earths UK recently commissioned a long-loop recycling pilot plant at Tyseley, which processes NdFeB magnet scrap or swarf to produce rare earth carbonates and oxides via a chemical route.

This complements the short-loop recycling plant currently being commissioned by HyProMag and University of Birmingham also at Tyseley, which processes NdFeB magnet scrap to produce rare earth alloys and magnets

Both long-loop and short-loop recycling technologies are underpinned by the patented HPMS technology developed at University of Birmingham, which liberates magnets from end-of-life scrap streams in a cost effective and energy efficient way to produce a recycled NdFeB alloy powder, which is manufactured into a magnet (via the short loop process) or into a rare earth carbonate or oxide (via the long loop chemical process).

Optimisation of long-loop pilot operations is underway, targeting near-term pilot scale production of the first 50kg batch of rare earth carbonates and oxides, in parallel with completion of scoping studies and evaluation of options to advance long loop recycling via stand-alone development, joint venture or other commercial arrangements. The long-loop recycling route is used to process NdFeB HPMS powder not suitable for short-loop recycling or for the processing of magnet swarf (i.e. the powder produced from grinding and finishing magnets).

The long-loop pilot plant received 70% of its funding from the UKRI's Driving Electric Revolution Challenge, delivered by Innovate UK, as part of the grant-funded project "Secure Critical Rare Earth Magnets for the UK" (SCREAM). Project partners include HyProMag, Bowers & Wilkins, European Metal Recycling (EMR), GKN Automotive, Jaguar Land Rover, and the University of Birmingham.

OVERVIEW OF THE BUSINESS – RARE EARTH MINING AND SEPARATION DEVELOPMENT PROJECTS

Mkango also owns the advanced stage Songwe Hill rare earths project and an extensive rare earths, uranium, tantalum, niobium, rutile, nickel and cobalt exploration portfolio in Malawi, and the Pulawy rare earths separation project in Poland.

In March 2024, Mkango launched a review of strategic options for Songwe Hill and the Pulawy Rare Earth Separation Project, which remains ongoing.

RARE EARTH MINING

Mkango has several properties in the Republic of Malawi, including the Songwe Hill rare earths project and the Nkalonje Hill exploration target, both held within 11 Phalombe retention licences (the "**Phalombe Licences**"). Mkango is also pursuing mineral exploration opportunities with three additional 100% owned properties in Malawi, the Thambani retention licences ("**Thambani Licences**"), the Chimimbe Hill exploration licence ("**Chimimbe Licence**") and the Mchinji exploration licence **("Mchinji Licence")**.

Mkango holds a 100% interest in Lancaster BVI, which holds a 100% interest in 17 exploration licences, 15 of which are held as 5-year retention exploration licences in southern Malawi, the Phalombe Licences, the Thambani Licence and the Chimimbe Licence. Mkango also holds a 100% interest in MKA Exploration Limited BVI which holds a 100% interest in the Mchinji Licence.

The table below splits out the mineral project expenditure into more detail for the six months ending 30 June 2024 and 30 June 2023.

		For the six months ended 30 June	
Licence/Capital Project	**Project**	**2024**	**2023**
Phalombe	***Songwe Hill Project***		
	Metallurgy expenses	14,016	91,149
	Government fees	1,154	2,692
	ESHIA (1)	-	1,613

	Technical studies	-	-
	Consulting fees	-	-
	Malawi office and camp expenses	24,329	79,212
Phalombe total		39,499	174,666
Pulawy Separation Plant Pre-feasibility Study	Consulting fees	-	-
Thambani, Chimimbe, Mchinji and Nkalonje	Mineral project expenditures	26,066	105,545
Total mineral project and research and development expenses		65,565	280,211

(1) Environmental Social Health Impact Assessment and Corporate Social Responsibility expenditures.

Exploration and evaluation expenditure is recognised in the consolidated statement of comprehensive loss as mineral project expenditures. Following the completion of the DFS for Songwe Hill on 5 July 2022, exploration and evaluation expenditure for Songwe Hill is being capitalised in accordance with IFRS 6 and the Company's's accounting policies.

Songwe Hill

Background

The Phalombe Licences are located in southeast Malawi, within which the Songwe Hill is the main development target and features carbonatite hosted rare earth mineralisation. Songwe Hill was subject to historical exploration programs during the late 1980s. Lancaster BVI was awarded the licence by the Malawi government on 21 January 2010 and has subsequently renewed it, with the most recent renewal on 1 June 2021 when the Phalombe Licence was transferred into 11 retention licences covering a total of 250 km^2. Each retention licence is for a 5-year period from 1 June 2021.

Exploration

Mkango has been exploring and evaluating Songwe Hill since January 2010. Following confirmation of the previously investigated enriched zones, exploration focused on identifying the nature and extent of the rare earth mineralized carbonatites and related rocks. Mkango's early exploration activities consisted of litho-geochemical sampling, soil sampling, channel sampling, geological mapping, ground magnetic, density and radiometric surveys, and petrographic/mineralogical analyses, followed by significant diamond drilling to support metallurgical testing and the resource estimate.

Definitive Feasibility Study

In 2018, Mkango commenced the DFS, the initial phases of which comprised an extensive diamond drilling programme, metallurgical optimisation and work in relation to the then ongoing ESHIA, which has since been completed in accordance with IFC Performance Standards and Equator Principles.

On 4 February 2019, Mkango announced an updated Mineral Resource estimate for Songwe Hill: 8 Mt grading 1.50% TREO in the Measured Mineral Resource category, 12.2 Mt grading 1.35% TREO in the Indicated category and 27.5 Mt grading 1.33% TREO in the Inferred Mineral Resource category, applying a base case cut-off grade of 1.0% TREO.

Scientific and technical information in relation to these results and related disclosure, including sampling, analytical, and test data underlying the information, has been approved and verified by Dr. Scott Swinden of Swinden Geoscience Consultants Ltd, who is a "Qualified Person" in accordance with NI 43-101.

Sample preparation and analytical work for the drilling and channel sampling programmes was provided by Intertek-Genalysis Laboratories (Perth, Australia) employing ICP-MS techniques suitable for rare earth analyses and following strict internal Quality Assurance/Quality Control ("QAQC") procedures inserting duplicates, blanks and standards. Internal laboratory QAQC was also completed to include blanks, standards and duplicates.

In terms of other aspects of the DFS, Mkango shipped a 60-tonne bulk sample to Australia for pilot test work. The bulk sample was selected from areas within the previously announced upgraded Measured and Indicated Mineral Resource Estimates, which underpin the DFS.

Potential pilot plant facilities were reviewed through a detailed tender process and ALS Metallurgy in Perth, Australia was selected. On 24 February 2021 the Company announced the commencement of flotation pilot test plant work.

On 5 July 2022, the Company announced the results of the DFS for Songwe Hill.

Highlights of the DFS included the following:

- $559.0 million post-tax net present value (NPV), using a 10% nominal discount rate, with an internal rate of return (IRR) of 31.5%, payback period of 2.5 years from full production (5 years from start of capital expenditure) and post-tax life-of-operations nominal cash flow of $2.1 billion.
- The DFS is for 100% of Songwe on a stand-alone basis.
- Songwe is confirmed as one of the very few rare earths projects globally to have reached the DFS stage, with a full ESHIA completed in compliance with IFC Performance Standards and the Global Industry Standard for Tailings Management (2020) ("GISTM") adopted for design and management of the tailings storage facility.
- Long operating life of 18 years, with mining assumed to commence 24 months from securing development financing. Production averages 5,954 tpa TREO for the first five years of full production, including 1,953 tpa of neodymium and praseodymium oxides, and 56 tpa of dysprosium and terbium oxides, in a mixed rare earth carbonate ("MREC") grading 55% TREO, generating nominal EBITDA of $215 m per year.
- Neodymium, praseodymium, dysprosium and terbium are critical for the low-carbon transition, as they are critical components of permanent magnets for electric vehicles, wind turbines and a wide array of electronic devices.
- Initial capital expenditure (capex) of $277 m (excluding a $34 m contingency) is required for the development of mine, mill, flotation and hydrometallurgy plants, tailings storage facility, and related project infrastructure in Malawi.

During the week of 27 June 2022, the Company hosted site visits to Songwe Hill for a number of major commercial and development banks.

The Feasibility Study for Songwe Hill and subsequent work identified a number of areas for potential cost optimisation, and the Company continues to evaluate these and other cost reduction opportunities in light of the currently weak rare earth market pricing environment.

On 26 January 2023, the Malawi Environmental Protection Agency ("MEPA") approved the ESHIA for Songwe Hill. The approval of the ESHIA is a significant achievement and an important milestone in the MDA approval process. As the MEPA approval is a precursor requirement for the granting of a mining licence, this achievement is expected to unlock significant stakeholder value and future investment for the development of Songwe Hill. On 10th November 2023 the Hon Minister Monica Chang'anamuno MP and her team from the Ministry of Mines visited the Songwe Hill project.

Scientific and technical information in relation to flotation piloting and metallurgy has been approved and verified by Nicholas Dempers Pr.Eng (RSA) Reg. No 20150196, FSAIMM of SENET (a DRA Global Group Company), who is a "Qualified Person" in accordance with National Instrument 43-101 -- Standards of Disclosure for Mineral Projects.

In late July 2024, Lancaster Exploration Limited, a British Virgin Islands company and Lancaster Exploration Limited, a Malawi company, both 100% owned subsidiaries of Mkango, and the Government of Malawi signed the MDA for the Songwe Hill Project in Malawi.

Key components of the MDA include:

- 5% royalty of gross revenue

- 30% corporate tax rate
- 10% non-diluting equity interest in the Project to the Malawi Government
- Exemption from customs and excise duties – Lancaster will be exempted from Export Duty, Import Duty, Import Excise and Import VAT on imports and exports of capital goods as provided in the applicable law
- 10 year stability period
- 10 year tax loss carry forward
- Community development expenditure is an allowable tax deduction

The company is currently reviewing strategic options for the project.

On 21 August 2024, EIT RawMaterials provided funding of €200,000 which will fund the commencement of process optimisation for the Songwe Hill Rare Earths Project in Malawi, a future source of mixed rare earth carbonate feed for the Pulawy Project.

Other targets in Phalombe Licences

Apart from Songwe Hill, there are two other identified hypabyssal systems in the Phalombe Licence, namely Nkalonje Hill and Namangale. In both cases, the World Bank Survey indicates strong thorium radiometric anomalies coincident with the intrusive rocks, which, similar to Songwe Hill, are expressed as steep hills rising above the surrounding plain.

Based on work to date, the highest priority of the targets within the Phalombe Licence is the above mentioned Nkalonje Hill hypabyssal system, where outcrop is largely fenite (altered country rock) with occasional carbonatite, with the potential for underlying and larger zones of mineralised carbonatite.

Nkalonje Hill

Background

Nkalonje Hill is located 23 km by road (14 km straight line) north-west of Songwe Hill within the Company's Phalombe Licences. Nkalonje Hill is approximately 95 km by road from Blantyre. Paved roads run from Blantyre to within 19 km of Nkalonje Hill.

On 7 April 2022, the Company announced the completion of initial sampling and ground geophysics at Nkalonje Hill and the identification of drill targets. Highlights included:

- Carbonatite dyke sample assay grades of up to 5.92% TREO (median 2.96%).
- Mapping and geophysics result confirmation that the major geological features of Nkalonje Hill are those of an alkali silicate-carbonatite intrusive complex, similar to Songwe Hill.
- Identification of a primary shallow drilling target beneath exposed mineralised dykes in addition to a secondary deeper drilling target.
- Geological mapping and geophysics data for Nkalonje Hill confirms the presence of previously mapped nepheline syenite, breccia and carbonatite.
- The ground geophysics data support the geological interpretation of a ring complex structure, as seen at Songwe Hill, and at other carbonatite vents in Malawi. The overall diameter of this structure is approximately 1.7 km and comprises an outer ring of nepheline syenite and a central vent of breccia.
- The breccia body is approximately 0.9 km in diameter and comparable in lateral extent to Songwe Hill.
- Mapping to date has identified eight carbonatite dykes reaching 4 meters in width and traceable at surface up to 90 meters along strike.
- Two different carbonatite types are noted at Nkalonje Hill: (1) calcite carbonatite and (2) a banded ferroan calcite carbonatite.

- Assay results for 12 calcite carbonatite and 17 ferroan calcite carbonatite grab samples returned total rare earth oxide (TREO) grades of up to 5.92%, with a median value of 2.96% in the ferroan calcite carbonatite, suggesting concentration of the REE in the more evolved carbonatite phases.

The similarities between Nkalonje Hill and Songwe Hill, and the high TREO grades from the assay results, demonstrate a strong case for further investigation. In the long term, the close proximity of Nkalonje Hill to Songwe provides a good potential source of additional feedstock for processing at Songwe Hill.

Mchinji

The Company has a 100% interest in the Mchinji Licence in respect of an area of 868.69 km^2 in the Mchinji District, Malawi. Mkango is evaluating the Mchinji deposit in the context of geophysical data produced by an airborne geophysical survey which was part of a $25 million World Bank funded nationwide airborne geophysical programme (the "**World Bank Survey**"). Exploration is focused on rutile, gold, base metals, nickel-cobalt and graphite.

On 4 July 2019, MKA Exploration BVI was granted the Mchinji Licence by the Malawi Minister of Natural Resources, Energy and Environment in respect of an area of 868.69 km^2 in the Mchinji district, Malawi, which is adjacent to licences with known mineral potential including the Chimimbe Hill licence, a nickel-cobalt licence to the south.

The Mchinji Licence runs for a three-year term, after which it can be renewed twice for a further two-year period with a 50% reduction in the Mchinji Licence area required with each renewal. Exploration is focusing on rutile, gold, base metals, nickel-cobalt and graphite.

Mkango has completed reconnaissance shallow soil sampling and an auger programme in the Mchinji Licence with results announced in September 2020. The results confirmed the presence of rutile plus anatase (both naturally occurring mineral forms of TiO_2 mineralisation. Early-stage results show geological similarities to saprolite-hosted rutile mineralisation recently discovered on the adjoining Sovereign Metals licence to the east.

On 3 November 2020, the Company announced the commencement of an extensive hand-auger drilling and soil sampling programme to identify rutile prospects within the Mchinji licence. The drill programme was to follow up the reconnaissance work announced on 15 September 2020.

The Company announced the completion of the drilling programme on 3 December 2020, which was followed by mineral processing test work on the samples. Mkango retains a 100% interest in the Mchinji license and is currently evaluating strategic options, including opportunities for joint ventures and other potential avenues to create value.

Chimimbe Hill

Exploration at Chimimbe Hill has identified a number of areas with potential for laterite and saprolite hosted nickel, cobalt, chrome, rutile, gold and base metals and other mineralisation. Mkango retains a 100% interest in the Chimimbe Hill license and is currently evaluating strategic options, including opportunities for joint ventures and other potential avenues to create value.

Thambani Uranium Licences

Background

Lancaster BVI was granted the Thambani Licence by the Malawi Minister of Natural Resources, Energy and Environment on 10 September 2010 in respect of an area, which was originally 468 km^2 in Thambani, Mwanza District, Malawi. Exploration has identified a number of areas with potential for uranium ("U"), tantalum ("Ta"), niobium ("Nb"), zircon and corundum.

The licence was originally issued by the Malawi government on a three-year basis and was subsequently renewed on 10 September 2015 for an additional two-year term when the Company requested a reduction in the Thambani Licence area to the current 136.9 km^2. The Thambani Licence was renewed for a further two years to 10 September 2019 and was subsequently renewed for an additional two years to 10 September 2021. The Company has subsequently been granted four (4) retention licences for a period of five years to 19 October 2026.

The exploration activities conducted during 2011 and 2012 included acquisition of Landsat7 and ASTER satellite imagery for the Thambani Licence area, systematic ground radiometric surveys to confirm and detail previously-known airborne anomalies, reconnaissance geological mapping and litho-geochemical sampling programs. The work has identified a number of potential uranium targets over the Thambani Massif, which is mainly composed of nepheline syenite gneiss, forming two prominent ridges known as Thambani East Ridge and West Ridge. Historical airborne radiometric surveys and ground radiometric survey programs carried out by Mkango have revealed two distinct uranium anomalies occurring along the two ridges. A strong uranium anomaly, measuring approximately 3 km by 1.5 km, occurs along the length of the Thambani East Ridge with a north-south trend and a second uranium anomaly, measuring approximately 1.5 km by 0.4 km along the western foot of the West Ridge possibly coincident with the contact between the nepheline syenite body and the biotite-hornblende gneisses to the west.

Initial results from follow up reconnaissance geochemical sampling conducted in 2013 returned locally anomalous uranium values, ranging up to 1,545 ppm U_3O_8, on both Thambani East Ridge and West Ridge. During the year ended 31 December 2014, the Company continued to progress the geological exploration studies on the Thambani project area, data analysis and geological modeling.

Mkango completed a trenching programme across the Thambani Massif primarily focused on two sites of historical uranium exploration, known as the Chikoleka and Little Ngona targets. An initial set of nine trenches, selected on the basis of anomalous ground radiometric results, have been re-examined and geochemically sampled across profiles from soil/overburden into bedrock.

The first set of assay results of 142 soil and rock chip samples returned variably anomalous U, Nb and Ta values in most trenches, ranging up to 4.70 % $U_3O_8$8, 3.25 % Nb_2O_5 in soil and up to 0.42 % U_3O_8, 0.78 % Nb_2O_5 and 972 ppm Ta_2O_5 in rock chips, notably higher than results from the 2013 reconnaissance surface geochemical sampling programme.

Preliminary mineralogical studies carried out on six rock samples from the Little Ngona River and Chikoleka targets, using Scanning Electron Microscopy at the Natural History Museum London, indicate that pyrochlore group minerals, mainly betafite, are the principal carriers of U, Nb and Ta for these samples.

Airborne Geophysical Survey

On 12 July 2016, Mkango announced results of the airborne geophysical survey covering approximately two thirds of its Thambani Licence. As with the Phalombe Licence, this survey was part of a $25 million World Bank funded nationwide airborne geophysical programme flown at 250 m spacings.

The World Bank Survey confirmed the presence of the previously identified uranium radiometric anomaly, referred to previously, along the western flank of the Thambani East Ridge. The Little Ngona prospect, which previously yielded very encouraging uranium, niobium and tantalum values from geochemical sampling, is located at the northern end of this anomaly.

Further discrete uranium anomalies orientated approximately east-west, are located to the south of these anomalies and are yet to be investigated in detail. The previously identified uranium radiometric anomalies on the West Ridge and Chikoleka prospect in the north-west of the Thambani Licence area, which also yielded very encouraging results from previous geochemical sampling, were not covered by the World Bank Survey.

A map showing the uranium radiometric anomalies superimposed on a topographic map, indicating local infrastructure, and a digital elevation model can be accessed via the following link (This link does not form part of this MD&A): http://www.mkango.ca/i/maps/Results_of_Airborne_radiometric_survey_on_topo_U_July.jpg

The airborne survey also highlighted a number of magnetic anomalies not previously identified, including a 2.3 km linear magnetic high anomaly along the Thambani East Ridge, a further 1 km by 0.5 km magnetic high anomaly located to the north along the Thambani East Ridge, a magnetic low anomaly approximately co-incident with the abovementioned east–west orientated uranium anomaly and anomalies in a number of other locations. These areas require further investigation to determine the significance of the magnetic anomalies and whether they are related to mineralisation or geological features.

A map showing the magnetic anomalies superimposed on a topographic map, indicating local infrastructure, and a digital elevation model can be accessed via the following link (This link does not form part of this MD&A):

http://www.mkango.ca/i/maps/Results_of_Airborne_magnetic_survey_on_topo_July_2016.jpg

During 2019, Mkango commenced a subsequent exploration programme focused on further definition of uranium, tantalum and niobium mineralisation in the licence area. Results were as follows:

Assay results from 128 rock samples collected during the 2019 exploration programme returned uranium, tantalum and niobium values ranging up to 0.74% U_3O_8, 0.41% Ta_2O_5 and 3.24% Nb_2O_5. Of the total, 43 graded above 500 ppm U_3O_8, of which 13 graded above 1,000 ppm U_3O_8; all but one of these 43 samples were in-situ rock samples. Results associated with the ten best U_3O_8 assays are summarised in the table below, nine of which are grab samples from outcrop (prefixed G-) and one a hand-auger sample of highly weathered rock in a trench (prefixed T-).

The objective of the programme was to identify new areas of outcropping mineralisation through further geological reconnaissance and sampling, guided by handheld spectrometer. Sampling was focussed on the uranium anomalies identified by previous airborne and ground radiometric surveys, including areas where previous sampling gave encouraging results. The aims of the sampling were to better delineate the mineralised zones and to localise future drill sites to test the downdip extension of surface mineralisation. Field observations and sampling results suggest that mineralisation occurs in zones that are conformable with gneissic banding.

The 2019 sampling programme was focused on radiometric uranium anomalies associated with the Thambani Massif, a body of nepheline-bearing syenite gneiss which dominates the north-eastern part of the licence. Previous work has shown the uranium anomalies to be associated with niobium and tantalum mineralisation.

Two suites of samples were collected: 1) in-situ grab samples from outcrop; and 2) extremely friable, highly weathered rock from trenches that were manually excavated to approximately 10 m long, 1.5 m wide and 2 m deep, and oriented west to east across the regional strike of the gneissic foliation. Grab samples are selective and are not necessarily representative of the mineralisation on the property.

A location map and sampling maps can be found at https://mkango.ca/projects/thambani (This link does not form part of this MD&A)

A total of 58 surface grab samples were collected, 54 of which were from outcrop associated with the prominent radiometric anomaly along the western slope of the Thambani East Ridge, and four from outcrop in the Supe River.

Ten trenches were excavated by hand over radiometric anomalies. Three of these (the Western Trenches) were spaced 25 m apart, immediately adjacent to a pit where the highest grades were encountered in 2017. The seven other trenches were excavated over radiometric anomalies at widely separated locations on the lower slope of the Thambani East Ridge. In all of the trenches, highly weathered nepheline syenite gneiss was encountered below a bouldery soil horizon approximately 0.5 m thick. The westward dip of the banded gneiss observed in outcrop on the ridges was recognisable in the trenches despite strong weathering.

In the Western Trenches, 70 samples were collected, 61 of which were horizontal channel samples of 2 m length collected along each wall in all of the three trenches. Five similar samples were collected in one trench at the foot of the Thambani East Ridge.

This programme provides new information on the nature, disposition and grade ranges of mineralisation in the Thambani Massif. Sampling of mainly fresh samples on the Thambani East Ridge indicates that the U-Ta-Nb mineralisation occurs within the gneissic bands, and surface observations indicate that it may occur in conformable zones. This provides a target for shallow drilling on the down-dip extension of the surface showings.

Mkango retains a 100% interest in the Thambani License and is currently evaluating strategic options, including opportunities for joint ventures and other potential avenues to create value.

Scientific and technical information contained in this section has been approved and verified by Dr. Scott Swinden of Swinden Geoscience Consultants Ltd, who is a “Qualified Person” in accordance with NI 43-101.

RARE EARTH SEPARATION

On 7 June 2021, the Company announced that Mkango and Grupa Azoty PULAWY had agreed to work together towards development of the Pulawy Separation Plant in Poland. The Pulawy Separation Plant will process the purified mixed rare earth carbonate derived from Songwe Hill into separated rare earth oxides.

Mkango Polska was established and is headed by a highly experienced Country Director for Poland, Dr Jarosław Pączek, together with rare earth separation experts, Carester, and a strong team of technical advisors and engineers.

Grupa Azoty PULAWY (Warsaw Stock Exchange: ZAP) is part of the Grupa Azoty Group, the European Union's second largest manufacturer of nitrogen and compound fertilizers, and a major chemicals producer. Its products are exported to over 20 countries around the world, including Europe, the Americas and Asia.

Mkango Polska and Grupa Azoty PULAWY have signed an exclusive lease option agreement for a site adjacent to Grupa Azoty PULAWY's large scale fertiliser and chemicals complex at Pulawy, which provides excellent infrastructure, access to reagents and utilities on site, and an attractive operating environment, resulting in a highly competitive operating cost position for the Pulawy Separation Plant, based on scoping studies to date.

Located within a Polish Special Economic Zone, the site provides excellent access to European and international markets. Production from the Pulawy Separation Plant will strengthen Europe's security of supply for rare earths used in electric vehicles, wind turbines and other green technology and strategic applications, and aligns with European initiatives to create more robust, diversified supply chains.

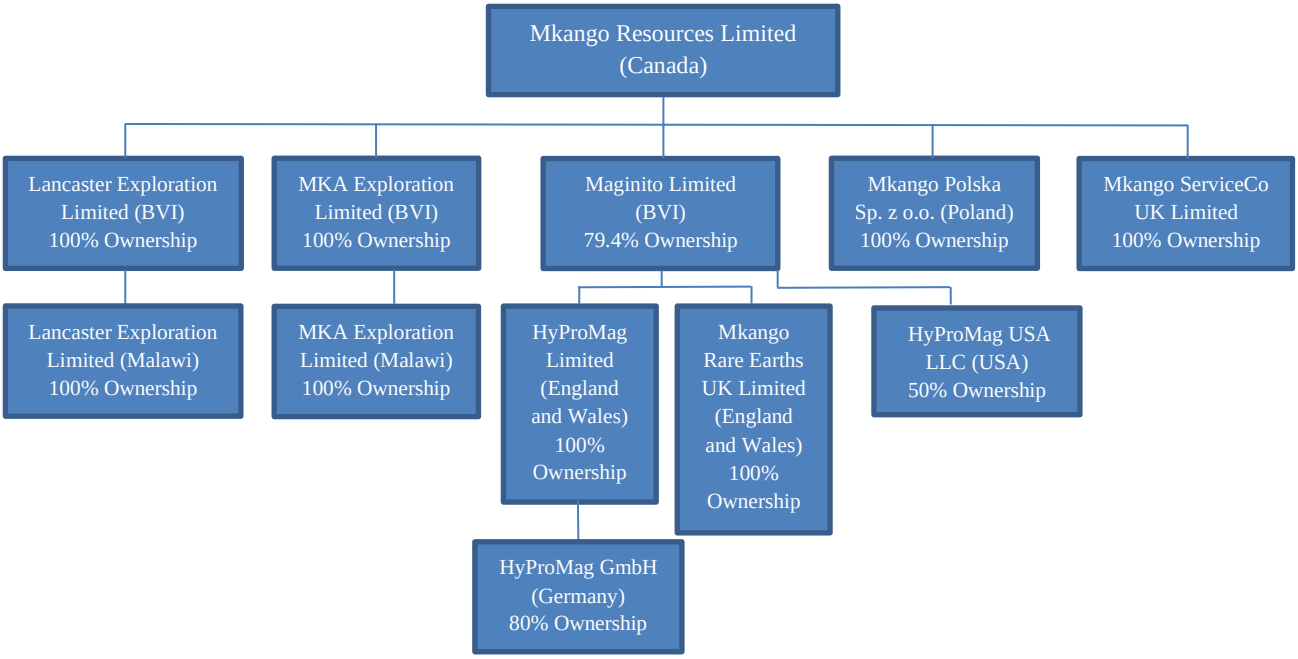
Development of the Pulawy Separation Plant is expected to bring significant benefits, including:

- Higher value-added products with increased margins – targeting 2,000 tpa of separated neodymium (Nd)/praseodymium (Pr) oxides, and 50 tpa dysprosium (Dy) and terbium (Tb) oxides in a heavy rare earth enriched carbonate.
- Greater integration – plant development fully underpinned by sustainably sourced, purified mixed rare earth carbonate from Songwe Hill's operations, with other synergies being evaluated.
- Increased marketing flexibility with a broader range of potential customers – future opportunities to produce and market separated heavy rare earths.
- Catalyst for regional growth and the green transition – potential for further downstream developments and related businesses, including renewables, creating additional jobs in the region.
- Engagement with financial institutions is underway to accelerate development, and additional strategic partnerships, downstream developments and marketing opportunities are being evaluated.

Mkango is undertaking a review of strategic options relating to the project.

CORPORATE STRUCTURE

The Company is incorporated in the province of British Columbia, Canada. The Company's registered office is Suite 2900, 550 Burrard Street, Vancouver, British Columbia, Canada, V6C 0A3. The Company's current structure as at the date of this report is as follows:



The Phalombe Licence, the Thambani Licence and the Chimimbe Licence, in Malawi, are held by Lancaster Exploration Limited ("**Lancaster BVI**"), a company which was incorporated under the laws of the British Virgin Islands ("**BVI**") on 3 August 2007. Lancaster BVI is 100% owned by Mkango.

Lancaster Exploration Limited ("**Lancaster Malawi**") was incorporated on 19 May 2011, under the laws of Malawi. Lancaster Malawi is a wholly owned subsidiary of Lancaster BVI.

MKA Exploration Limited ("**MKA Exploration**") was incorporated under the laws of the BVI on 25 July 2018 and is wholly owned by Mkango. MKA Exploration's wholly owned subsidiary, MKA Exploration Limited ("**MKA Exploration Malawi**") was incorporated under the laws of Malawi on 6 May 2019. The Mchinji Licence in Malawi is held by MKA Exploration.

Maginito was incorporated under the laws of the BVI on 3 January 2018 and is 79.4% owned by Mkango. Maginito is focused on developing green technology opportunities in the rare earths supply chain, encompassing neodymium (NdFeB) magnet recycling as well as innovative rare earth alloy, magnet and separation technologies. This includes its investment in HyProMag as discussed below. The remaining 20.6% of Maginito is owned by CoTec.

Mkango Polska was incorporated under the laws of Poland and 100% ownership was acquired by the Company on 22 March 2021. Mkango Polska is developing the Pulawy Separation Plant in Poland, working with Grupa Azoty PULAWY. The Pulawy Separation Plant is expected to process the purified mixed rare earth carbonate derived from Songwe Hill into separated rare earth oxides.

Mkango UK was incorporated on 23 June 2021 under the laws of England and Wales. Mkango UK is 100% owned by Maginito and was established to further develop the Company's rare earths strategy in the UK.

HyProMag was incorporated on 19 July 2018 under the laws of England and Wales. HyProMag is 100% owned by Maginito. HyProMag is focused on the extraction and demagnetisation of NdFeB magnets embedded in scrap and redundant equipment using the HPMS process.

HyProMag Germany was incorporated on 3 November 2021 under the laws of Germany. HyProMag Germany is 80% owned by HyProMag, with the remaining 20% owned by Professor Carlo Burkhardt of Pforzheim University. HyProMag Germany has sublicensed HPMS from HyProMag for use in Germany. Maginito, pursuant to the German Convertible Loan, has the right to acquire 50% of HyProMag Germany.

Mkango ServiceCo UK Limited ("**Mkango ServiceCo**") was incorporated on 9 December 2022 under the laws of England and Wales. Mkango ServiceCo was set up to house corporate costs in London.

On 2 January 2024, Maginito and CoTec incorporated a 50/50 joint venture company, HyProMag USA LLC ("HyProMag USA"), to roll-out the HPMS technology into the United States, with CoTec responsible for funding the feasibility study and development costs, subject to the results of the feasibility study.

SELECTED CONSOLIDATED FINANCIAL INFORMATION

Information discussed herein reflects the Company as a consolidated entity.

Financial Position

The following financial data is derived from the Company's consolidated statements of financial position as at 31 December 2023, 2022 and 2021 (restated):

As at 31 December	2023	2022	2021 (restated)*
Total assets	9,293,371	1,526,901	5,263,167
Total equity	4,561,306	(1,166,116)	4,004,595

*****On 29 October 2021, 4,000,000 Restricted Share Units were granted to Alex Lemon and Will Dawes. The vesting period was originally determined as 244 days. As such, the share option charge relating to this grant was fully expensed in FY2021 and FY2022. During the year ended 31 December 2022, management identified that the vesting period was incorrect and should have been ten years and so the 2021 comparatives were restated.

Total assets

Total assets were $9,293,371 as at 31 December 2023 as compared to $1,526,901 as at 31 December 2022. Total assets increased by $7,766,470 as a result of the acquisition of HyProMag Limited which included the fair value of the HPMS technology intangible asset as well as goodwill.

Total assets were $1,526,901 as at 31 December 2022 as compared to $5,263,167 as at 31 December 2021 (restated). Total assets decreased by $3,736,266 as a result of the loss for the year, which was primarily driven by expenditures relating to completion of the Songwe Hill DFS.

As at 1 January 2023, the Company had an opening cash position of $493,703. Cash received during the year ended 31 December 2023 was $6,490,494 from the proceeds relating to an equity raise in February 2023 together with CoTec's investment into Maginito (both direct investment into Maginito for a 10% interest in Maginito and through advance notes to Mkango which were subsequently converted into a further 10.6% interest in Maginito). Cash used in operations was $3,558,422 and cash of $1,001,554 was spent on exploration and evaluation intangible assets and property, plant and equipment. Furthermore, the net cash component relating to the HyProMag acquisition was $1,040,057. The effect of exchange rate changes on cash was a decrease of $387,363 during the year for a closing cash position of $996,782.

As at 1 January 2022, the Company had an opening cash position of $4,446,850. Cash received during the year ended 31 December 2022 was $1,826,219 from the proceeds relating to the CoTec investment into Mkango. Cash used in operations was $5,138,521 and cash of $196,367 was spent on exploration and evaluation intangible assets and

computer equipment. The effect of exchange rate changes on cash was a decrease of $837,212 during the year for a closing cash position of $493,703.

Total shareholders' equity

Total shareholders' equity was $4,561,306 as at 31 December 2023 compared to ($1,166,116) as at 31 December 2022. The increase of $5,727,422 is largely due to the proceeds relating to an equity raise in February 2023 together with CoTec's investment into Maginito.

Total shareholders' equity was ($1,166,116) as at 31 December 2022 compared to $4,004,595 as at 31 December 2021. The decrease of $5,170,711 is largely due to the loss attributable to common shareholders of $5,985,963 which is made up of expenditure on the Songwe Hill DFS and general corporate costs.

RESULTS OF OPERATIONS

Summary Results of Operations

The following financial data is derived from the Company's consolidated financial statements as at 31 December 2023, 2022 and 2021 (restated):

	Year ended 31 December		
	2023	2022	2021 (restated)
Mineral project and research and development expenditures	(358,542)	(2,402,070)	(6,013,085)
General and administrative expenses* (restated in FY2021)	(4,134,980)	(3,470,482)	(3,135,979)
Other items**	254,475	(113,411)	(177,924)
Income tax deferred tax credit	59,097	-	-
Total net loss after tax	(4,179,025)	(5,985,963)	(9,326,988)
Total net loss attributable to non-controlling interest	(122,926)	-	(2,925,511)
Total net loss attributable to the common shareholders	(4,057,025)	(5,985,963)	(6,401,477)
Basic and diluted loss per share	$ (0.017)	$ (0.028)	$ (0.042)
Weighted average number of common shares (basic and diluted)	238,757,233	215,088,397	153,119,372
Distributions or Dividends	$ Nil	$ Nil	$ Nil

** Other expenditures represent all other expenditures, other than mineral project and research and development expenditure, disclosed in the statement of comprehensive loss and includes non-cash items.*

*** Other items are share of associated company losses, gains on the revaluation of options, embedded derivative fair value adjustments, interest income and finance expense.*

The net loss after tax for the year ended 31 December 2023 was $4,179,025 compared to the net loss reported for the year ended 31 December 2022 of $5,985,693. The net loss decreased by $1,928,938 for the comparable periods. The significant items contributing to the change include:

- Decreased mineral project expenditure of $2,043,528 as a result of the Songwe DFS being completed during 2022.
- General and administrative expenses, including share-based payments, increased by $664,498, as a result of HyProMag UK and HyProMag Germany costs being included from 2 August 2023, being the HyProMag acquisition date.

The net loss for the year ended 31 December 2022 was $5,985,963 compared to the restated net loss reported for the year ended 31 December 2021 of $9,326,988. The net loss decreased by $3,341,025 for the comparable periods. The significant items contributing to the change include:

- Decreased mineral project expenditure of $3,611,015 as a result of the DFS being completed during the year.
- General and administrative expenses, including share-based payments, increased by $334,503.

The selected period information and summary of financial results below is derived from and should be read in conjunction with the Financial Statements.

Summary Of Quarterly Financial Results

The following is selected financial data from the company's quarterly financial statements for the last eight quarters ending with the most recently completed quarter, being the quarter ended 30 June 2024.

On 29 October 2021, 4,000,000 Restricted Share Units were granted to Alex Lemon and Will Dawes. The vesting period was originally determined as 244 days. As such, the share option charge relating to this grant was fully expensed in Q4 2021, Q1 2022 and Q2 2022. During Q4 2022, management identified that the vesting period was incorrect and should have been ten years. The previously reported quarterly information in the table below has been updated to reflect for the adjustment which impacts 2022 Q3:

	2024		2023				2022	
	Q2	**Q1**	**Q4**	**Q3**	**Q2**	**Q1**	**Q4**	**Q3**
Expenses	(662,035)	(1,018,279)	(1,157,065)	(1,291,048)	(1,131,616)	(913,793)	(848,345)	(1,040,544)
Other items	2,715	(42,594)	149,687	(295,541)	46,524	353,804	185,256	(72,910)
Net loss after tax for period	(659,320)	(1,025,258)	(948,282)	(1,586,589)	(1,085,092)	(559,988)	(663,089)	(1,113,454)

The financial data for the eight periods reported have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and interpretations issued by the International Financial Reporting Interpretations Committee. The Company's principal activities require expenditures which include both exploration and general and administrative expenses.

Expenses increased in Q3 and Q4 2023 compared to Q1 and Q2 2023 as a result of share option charges relating to the award of share options and HyProMag Limited and HyProMag Germany expenses being consolidated into the Company's results following the HyProMag acquisition. Expenses were higher in Q1 2024 compared to the corresponding period in 2023 as a result of HyProMag Limited and HyProMag Germany expenses being consolidated into the Company's results following the HyProMag acquisition as well as the amortisation of the HPMS technology asset acquired as part of the HyProMag acquisition. Expenses are lower in Q2 2024 compared to Q1 2024 as a result of cost cutting initiatives recently undertaken by the Company.

RELATED PARTY TRANSACTIONS AND BALANCES

Leo Mining and Exploration Ltd. ("Leo Mining") is considered related by virtue of common directors and officers, namely William Dawes, Alexander Lemon and Shaun Treacy. Leo Mining pays certain costs such as rental on behalf of Mkango. Mkango reimburses Leo Mining for these costs.

As of 30 June 2024, the Company owed Leo Mining an amount of $7,763 (31 December 2023: $12,431). The amount is unsecured and due on demand.

CoTec Holdings ("CoTec") is considered a related party as it has a 20.6 per cent interest in Maginito.

As of 30 June 2024, CoTec owed the Company $20,356 (31 December 2023: $120,133) relating to costs incurred by the Company in the roll-out of HPMS technology into the United States. CoTec are responsible for these costs.

The amounts due to related parties were as follows:

	30 June 2024	31 December 2023
Due to key management and directors	158,666	49,323
Due to related parties with common directors (Leo Mining)	7,763	12,431
Total due to related parties	**166,429**	**61,754**

The amounts due from related parties were as follows:

	30 June 2024	31 December 2023
CoTec/HyProMag USA	20,356	120,133
Total due from related parties	**20,356**	**120,133**

EXPENDITURES

Total expenses attributable to common shareholders and non-controlling interest	Quarter ended 30 2024	Quarter ended 31 March 2024	Quarter ended 30 June 2024
General and administrative			
Audit and tax management	81,371	12,652	74,899
Legal fees	(22,896)	146,260	114,865
Salaries and consulting fees	202,803	256,001	458,659
Rent, storage, telephone and insurance	28,414	122,944	81,532
Travel	10,298	17,452	35,672
AIM listing expense	39,415	29,523	29,272
Share-based payments	54,933	51,938	202,632
Depreciation	60,730	42,593	2,188
Amortisation	132,733	132,733	-
Investor relations and marketing	37,454	44,749	48,458
HyProMag UK	45,822	57,479	-
HyProMag Germany	(33,443)	53,633	-
Mkango Rare Earths UK	(275)	107,981	-
Sub total - General and administrative	637,359	977,390	1,048,177
Mineral project expenditures			
Songwe Hill Project			
Metallurgy expenses	14,016	-	(61,402)
Government fees	793	361	262
ESHIA	-	-	807
Technical studies	-	-	-
Consulting fees	-	-	-
Malawi office and camp expenses	9,426	14,903	79,212
REE Separation Plant Pre-feasibility Study	-	-	-
Thambani, Mchinji and Chimimbe projects	441	25,625	64,560
Sub total - Mineral projects	24,676	40,889	83,439
Interest income	-	-	(5)
Finance Expense	35,571	35,712	-
Share of associated company's losses	-	-	12,794
Fair value losses	-	-	5,315
Fair value adjustment – embedded derivative	-	-	(50,643)
Foreign exchange (gain) loss	(2,672)	6,882	(13,985)
Sub total – Other items	32,899	42,594	(46,524)
Total Expenses net of interest income	**694,934**	**1,060,873**	**1,085,092**

Three months ended 30 June 2024 compared to the three months ended 31 March 2024

Total expenses decreased by $365,939 from $1,060,873 for the three months ended 31 March 2024 to $694,934 for the three months ended 30 June 2024, primarily as a result of the following:

a) General and administrative: General and administrative expenses were $340,031 lower for the three months ended 30 June 2024 compared to the three months ended 31 March 2024 mainly due to cost-cutting measures as well as the receipt of government grant claims relating to expenditure in prior periods.

b) Mineral Projects: Mineral project expenses for the three months ended 30 June 2024 were $16,213 less than for the three months ended 31 March 2024 due to less activity in Malawi.

c) Foreign Exchange: The foreign exchange gain for the three months ended 30 June 2024 was $2,672. The foreign exchange loss for the three months ended 31 March 2024 was $6,882.

Three months ended 30 June 2024 compared to the three months ended 30 June 2023

Total expenses net of interest income decreased by $390,158 from $1,085,092 for the three months ended 30 June 2023 to $694,934 for the three months ended 30 June 2024, as a result of the following:

a) General and administrative: General and administrative expenses were $410,818 lower for the three months ended 30 June 2024 compared to the three months ended 30 June 2023. This was mainly due to cost-cutting measures across corporate expenses (in particular salaries and legal fees). Furthermore, the share-based payments expense relating to previous share options had been fully expensed in the prior year due to old share options having fully vested.

b) Mineral Projects: Mineral project expenses were $58,763 lower for the three months ended 30 June 2024 compared to the three months ended 30 June 2023 due to less activity in Malawi.

c) Foreign Exchange Loss: The foreign exchange gain for the three months ended 30 June 2024 was $2,672. The foreign exchange gain for the three months ended 30 June 2023 was $13,985.

DISCLOSURE CONTROLS AND PROCEDURES

In connection with National Instrument 52-109 (Certificate of Disclosure in Issuer's Annual and Interim Filings) ("**NI 52-109**"), the chief executive officer and chief financial officer of the Company have filed Form 52-109FV1 – *Certificate of Annual Filings - Venture Issuer Basic Certificate* with respect to the financial information contained in the Financial Statements for the three and six months ended 30 June 2024 and this accompanying MD&A (together, the "**Filings**").

In contrast to the full certificate under NI 52-109, the Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures and internal control over financial reporting, as defined in NI 52-109. For further information the reader should refer to the Venture Issuer Basic Certificate filed by the Company with the Annual Filings on SEDARplus at www.sedarplus.ca/landingpage.

COMMITMENTS

The Company holds four exploration licences and 11 retention licences in Malawi with commitments to pay annual licensing fees and to meet spending commitments for exploration expenses throughout the life of the licences. As of the date of this report, all licences were in good standing with the Malawi government.

The Company is continuing to meet the terms and conditions of its four exploration and 11 retention licences as well as the ESHIA for the Songwe Rare Earth project.

ISSUED AND OUTSTANDING SHARE INFORMATION

As at the date of this report, the Company has 268,453,574 Shares, 600,000 broker warrants, 18,233,333 stock options and 8,612,024 restricted share units in issue.

OFF BALANCE SHEET ARRANGEMENTS

The Company is not party to any off-balance sheet arrangements or transactions.

ACCOUNTING POLICIES AND ESTIMATES

Management is required to make judgments, assumptions and estimates in the application of IFRS that have a significant impact on the financial results of the Company. Details outlining Mkango's accounting policies are contained in the notes to the Financial Statements.

RISK FACTORS

Environmental Risk
The Company is subject to substantial environmental requirements at all its operations, including its project at Songwe Hill, the Pulawy Separation Plant**,** the UK Recycling Projects, the German Recycling Project and the potential US recycling projects being undertaken by Maginito.

The current and anticipated future operations and exploration activities of the Company in Malawi, Poland, the UK, Germany and the US require permits from various governmental authorities and such operations are and will be governed by local laws and regulations governing various elements of the mining industry and industrial developments including, without limitation, land use, the protection of the environment, prospecting, development, production, exports, taxes, labour standards, occupational health, waste disposal, toxic substances, and other matters. Globally, environmental legislation is evolving towards stricter standards and enforcement, more stringent environmental impact assessments of new mining projects and increasing liability exposure for companies and their directors and officers.

Climate change poses transitional and physical risks to global society.

There is no assurance that future environmental regulations will not adversely affect the Company's operations.

Macroeconomic Risk
From a macroeconomic perspective, ongoing global market uncertainty has led to a significant reduction in risk appetite with respect to funding investment into mining companies and startup companies in general. The ability for the Company to access capital through traditional means may be significantly diminished, with the possible long-term result that projects may take longer to develop or may not be developed at all.

Commercial and Technological Viability Risks
The Company does not currently produce rare earth elements from Songwe Hill. Some of the factors that affect the financial viability of a given mineral deposit include its size, grade and proximity to infrastructure and the realizable value of the minerals extracted. These factors include, but are not limited to, government approval for mining licences and exploration licence extensions applications, government regulations, taxes, royalties, land tenure, land use, environmental protection and reclamation and closure obligations. All or some of these factors may have an impact on the economic viability of Songwe Hill.

The technical and commercial viability of the recycling businesses, the HPMS process and the chemical recycling process being developed by Mkango UK have not yet been utilized for commercial production and is subject to the various risks of scaling up processes that have been successfully tested at bench and pilot scale. The development of the recycling business also requires that the Company obtain sufficient scrap at a reasonable price to make its projects viable. There is no guarantee that it can secure the quantity and quality of scrap required. The recycling businesses face a number of competitors developing their own rare earths recycling technologies. While the Company believes that these technologies are not competitive with its patented HPMS technology, many of these competitors will compete with Mkango for rare earth scrap.

Geopolitical Risk
The Company has interests in properties that are located in the developing country of Malawi, in addition to UK, Poland, Germany (and are proposed for the US). The Company's projects may be affected in varying degrees by political instability and government regulations relating to foreign investment and the mining, refining and recycling industries. Changes, if any, in mining or investment policies or shifts in political attitude in Malawi may adversely affect the Company's operations in Malawi and Poland. Operations may be affected in varying degrees by government regulations with respect to, but not limited to, restrictions on production, price controls, export controls, currency remittance, direct and indirect taxes, tax assessments, royalties, expropriation of property, foreign investment, maintenance of claims, environmental legislation, land use, land claims of local people, water use and mine safety. Failure to comply with applicable laws, regulations, and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory of judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions.

There is no assurance that ongoing and future geopolitical issues and conflicts will not adversely affect the Company's operations.

Resource and Reserve Risk
Estimates of reserves and resources are inherently uncertain. There is a degree of uncertainty attributable to the calculation of reserves, resources and corresponding grades being mined or dedicated to future production. Until reserves or resources are actually mined and processed, the quantity of reserves or resources and grades must be considered as estimates only. In addition, the quantity of reserves or resources may vary depending on rare earth prices, operating costs and mining efficiency. Any material change in the quantity of reserves, resources or grade may affect the economic viability of Songwe Hill.

Price Risks
Rare earth oxide, metal, alloy and magnet prices have been subject to considerable price volatility, over which companies have little control, and a material decline in these prices could result in a significant decrease in the Company's future anticipated revenues. The mining, refining and recycling industries have inherent business risks and there is no assurance that products can continue to be produced at economical rates or that in the case of mining produced reserves will be replaced.

Readers are cautioned that the foregoing is a summary only of certain risk factors and is not exhaustive and is qualified in its entirety by reference to, and must be read in conjunction with the additional information on these and other factors that could affect Mkango's operations and financial results that are included in reports on file with Canadian securities regulatory authorities and may be accessed through on SEDARplus at www.sedarplus.ca/landingpage.

FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

Determination of fair values

Financial assets and liabilities have been classified into the following categories: (i) fair value through profit or loss and, (ii) amortised costs. Each category has a defined basis of measurement. If a category is measured at fair value, any changes in fair value is recognised in the consolidated financial statements of comprehensive loss.

In establishing fair value, the Company uses a fair value hierarchy based on levels defined below:

- Level 1 - quoted prices in active markets for identical assets or liabilities;
- Level 2 - inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly; and
- Level 3 - inputs for the asset or liability that are not based on observable market data.

The carrying value of cash, government and other receivables, accounts payable and accrued liabilities, and amounts due to related parties, approximates the fair value due to their short-term nature and maturity.

Financial risk management

The Company's management monitors and manages the financial risks relating to the operations of the Company. These include foreign currency, interest rate, liquidity and credit risks.

Foreign currency risk

The functional and presentation currency of the Company is the US dollar. The Company enters into transactions denominated in the CAD, the US dollar, the Euro, the GBP, the Australian dollar, the South African Rand and Malawian Kwacha. The Company raises its equity in the CAD, and the GBP, and then purchases the US dollar, the Australian dollar, the South African Rand, the Euro and the Malawian Kwacha to settle liabilities. The Company minimizes exposure to foreign exchange loss by converting funds to the appropriate currencies upon receipt of funding based on the expected use of the various foreign currencies. The Company's exposure to foreign

currency risk as at 30 June 2024 and 31 December 2023, is most significantly influenced by the following cash amounts held in foreign currencies (amounts shown in US dollars):

	30 June 2024	31 December 2023
Cash:		
Canadian Dollar	852	882
United States Dollar	6,642	7,637
Pound Sterling	157,403	768,781
Euro	97,955	214,557
Malawian Kwacha	7,504	4,845
Australian Dollar	78	80
	270,434	996,782

A 5% reduction in the value of the CAD, Euro, GBP, MWK and AUD in comparison to the USD would cause a change in net loss of approximately $13,190 (31 December 2023: $49,457).

Interest-rate risk

The Company's exposure to interest-rate risk relates primarily to its cash at bank. However, the interest-rate risk is expected to be minimal. The Company does not presently hedge against interest rate movements.

Liquidity risk

Liquidity risk includes the risk that, as a result of the Company's operational liquidity requirements:

a) The Company will not have sufficient funds to settle a transaction on the due date;

b) The Company will be forced to dispose of financial assets at a value which is less than the fair value; or,

c) The Company may be unable to settle or recover a financial asset at all.

The Company's operating cash requirements including amounts projected to complete the Company's existing capital expenditure program are continuously monitored and adjusted as input variables change. As these variables change, liquidity risks may require the Company to conduct equity issuances or obtain other forms of financing. The Company manages its liquidity risk by maintaining adequate cash and is actively seeking additional funding to improve its exposure to liquidity risk. The Company continually monitors its actual and forecast cash flows to ensure that there are adequate reserves to meet the maturing profiles of its financial liabilities.

The following table outlines the maturities of the Company's financial liabilities as at 30 June 2024:

	Contractual Cash Flows	Less than 1 Year	Greater than 1 Year
Accounts payable and accrued liabilities	679,927	679,927	-
Due to related parties	166,429	166,429	-

The following table outlines the maturities of the Company's financial liabilities as at 31 December 2023:

	Contractual Cash Flows	Less than 1 Year	Greater than 1 Year
Accounts payable and accrued liabilities	590,990	590,990	-
Due to related parties	61,754	61,754	-

Credit risk

The Company's principal financial assets are cash. The credit risk on cash is limited because the majority are deposited with banks with high credit ratings assigned by international credit-rating agencies.

Financial instruments by category

Financial Assets

	Fair value through profit or loss		Amortised cost	
	30 June 2024	**31 December 2023**	**30 June 2024**	**31 December 2023**
Cash	-	-	270,434	996,782
Receivables	-	-	62,704	147,174
Total financial assets	**-**	**-**	**333,138**	**1,143,956**
Financial liabilities				
Trade and other payables	-	-	846,356	652,744
Loans and borrowings	-	-	-	-
Derivatives	-	-	-	-
Total financial liabilities	**-**	**-**	**846,356**	**652,744**

LIQUIDITY AND CAPITAL RESOURCES

As of 30 June 2024 the Company had net current liabilities of $2,726,242 (including current contingent consideration of $2,385,245 if certain milestones are met relating to the HyProMag acquisition which can be settled through shares or cash at the election of the Company.) and retained earnings deficit attributable to the shareholders of the Company of $48,110,489 (31 December 2023 - $46,585,867). On 21 August 2024, the Company conditionally raised gross proceeds of £1.25 million (approximately $1.58 million) through the issuance, on a private placement basis, of 25,000,000 Units of the Company at a price of £0.05 per Unit (approximately $0.063).

DIRECTORS AND OFFICERS

William Dawes, Director and Chief Executive Officer
Alexander Lemon, Director and President (Sustainability Committee)
Derek Linfield, Non-Executive Chairman of the Board of Directors (Remuneration Committee)
Shaun Treacy, Non-Executive Director (Audit Committee Chair, Remuneration Committee)
Susan Muir, Non-Executive Director (Remuneration Committee Chair, Audit Committee, and Corporate Secretary)
Philipa Varris, Non-Executive Director (Sustainability Committee Chair, Audit Committee, Remuneration Committee)
Robert Sewell, Chief Financial Officer