



## **MKANGO RESOURCES LTD.**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS**

**For the nine months ended September 30, 2019**

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 nine months ended September 30, 2019 (the "Financial Statements"), the audited consolidated financial statements for the year ended December 31, 2018 and the accompanying Management's Discussion and Analysis for that fiscal year. The Financial Statements and the accompanying notes have been prepared in accordance with International Financial Reporting Standards ("IFRS") and are prepared in United States dollars unless otherwise stated. This document is dated November 29, 2019.

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 Canadian System for Electronic Document Analysis and Retrieval ("SEDAR") at [www.sedar.com](http://www.sedar.com). 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 set forth 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 "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 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, industry conditions, volatility of commodity prices, currency fluctuations, accuracy of drilling and other exploration 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 exploration licence extensions, operating or technical difficulties in connection with development activities; personnel relations, competition from other industry participants, the lack of availability of qualified personnel or management, availability of drilling 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. Forward-looking statements are based on assumptions management believes to be reasonable, including but not limited to the price of rare earth elements ("REEs" or "rare earths"); the demand for REEs; the ability to carry on exploration and development activities; the timely receipt of any required approvals; the ability to obtain qualified personnel, equipment and services in a timely and cost-efficient manner; the ability to operate in a safe, efficient and effective manner; and the regulatory framework including and not limited to licence approvals, social and environmental matters, and such other assumptions and factors as set out herein. 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.

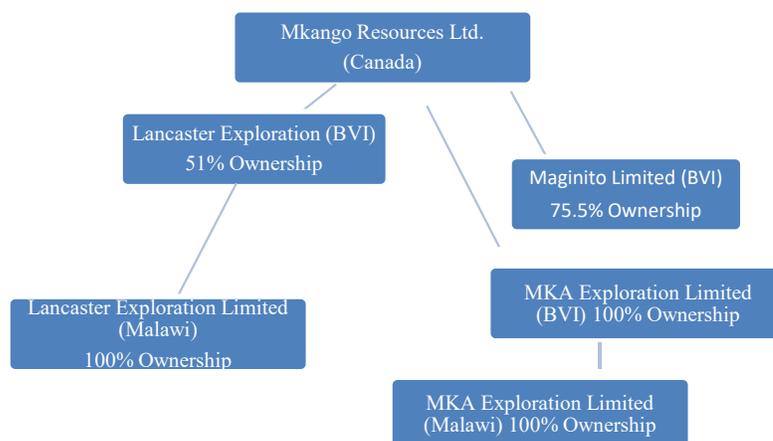
## COMPANY OVERVIEW

Mkango is an exploration and development company focused on rare earths and associated minerals with properties in the Republic of Malawi, Africa, specifically the Songwe Hill rare earths project (“**Songwe Hill**”) within the Phalombe exploration licence (the “**Phalombe Licence**”). Mkango is also pursuing mineral exploration opportunities with three additional properties in the Republic of Malawi, Africa, the Thambani exploration licence (“**Thambani Licence**”), the Chimimbe Hill exploration licence (“**Chimimbe Licence**”) and the Mchinji exploration license (“**Mchinji Licence**”).

The Company’s core strategy is to advance the Songwe Hill project through the feasibility and development phases whilst in parallel advancing complementary downstream opportunities in the rare earths supply chain through Maginito Limited (“**Maginito**”), both in partnership with Talaxis Limited (“**Talaxis**”), a wholly owned subsidiary of Noble Group Limited (“**Noble**”). The current work programme for Songwe Hill is focused on completing a feasibility study (the “**Feasibility Study**”), the initial phases of which included a major diamond drilling programme and publication of an updated mineral resource estimate, in addition to metallurgical optimisation and work in relation to the ongoing Environmental Social Health Impact Assessment (“**ESHIA**”) and Corporate Social Responsibility program.

### 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 Phalombe Licence, the Thambani Licence, the Chimimbe Licence and the Mchinji License are held by Lancaster Exploration Limited (“**Lancaster BVI**”), a company which was incorporated under the laws of the British Virgin Islands (“**BVI**”) on August 3, 2007. Lancaster BVI is 51% owned by Mkango and 49% owned by Talaxis. 100% of the Thambani Licence, the Chimimbe Licence and the Mchinji License are held in trust for Mkango.

Lancaster Exploration Limited (“**Lancaster Malawi**”) was incorporated on May 19, 2011, under the laws of Malawi. Lancaster Malawi is a wholly owned subsidiary of Lancaster BVI and as such, includes a non-controlling interest representing 49% of Lancaster Malawi’s assets and liabilities that are owned by Talaxis.

MKA Exploration Limited (“**MKA Exploration**”) was incorporated under the laws of BVI on July 25, 2018 and under the laws of Malawi (“**MKA Exploration Malawi**”) on May 6, 2019. Both companies are 100% owned by Mkango.

Maginito Limited (“**Maginito**”) was incorporated under the laws of the BVI on January 3, 2018. Maginito is 75.5% owned by Mkango and 24.5% owned by Talaxis. Maginito is focused on downstream opportunities relating to the rare earths supply chain, in particular neodymium alloy powders, magnet and other technologies geared to accelerating growth in the electric vehicle market. This includes a collaboration previously entered into with Metalysis Limited (“**Metalysis**”) discussed below and proposed investment in HyProMag Limited (“**HyProMag**”) announced on September 23, 2019.

### Accounting Treatment

The condensed interim consolidated financial statements include 100% of the assets and liabilities related to Lancaster BVI and include a non-controlling interest representing 49% of Lancaster BVI's assets and liabilities that were owned by Talaxis as at September 30, 2019. The non-controlling interest excludes the Thambani Licence and the Chimimbe licence 100% of which are held in trust for Mkango and the Mchinji Licence 100% owned by MKA Exploration Limited. The condensed interim consolidated financial statements include 100% of the assets and liabilities related to Maginito and include a non-controlling interest representing 24.5% of Maginito's assets and liabilities attributable to Talaxis. Accounting policies are applied consistently throughout all consolidated entities.

## **OVERALL PERFORMANCE AND OUTLOOK**

The Company is focused on advancing the Songwe Hill project in addition to its other projects in Malawi and on downstream opportunities relating to the rare earths supply chain. Highlights for the nine months ended September 30, 2019, include:

- The announcement, on February 4, 2019, of an updated mineral resource estimate for Songwe Hill: 8 Mt grading 1.50% TREO in the Measured category, 12.2 Mt grading 1.35% TREO in the Indicated category and 27.5 Mt grading 1.33% TREO in the Inferred category, applying a base case cut-off grade of 1.0% TREO. This represented a 60% increase in Measured and Indicated tonnage and the first measured resource for the project. The Measured Mineral Resource Estimate comprises 42% of the combined Measured and Indicated Mineral Resource Estimate, indicating a substantial increase in geological confidence to support the completion of the Feasibility Study; and,
- The appointment of SENET, a DRA Global company, as lead engineer and project manager for completion of the Feasibility Study.
- The shipment of a 60 tonne bulk sample to Australia in preparation for metallurgical pilot test work. Potential pilot facilities have been reviewed and a tender process for selection of a flotation pilot facility has commenced.
- The receipt, on March 28, 2019, in accordance with the terms of the Talaxis Agreement, described more fully, below, of £7 million (\$9.1 million) from Talaxis for a further 29% interest in Lancaster BVI, which will fund completion of a Feasibility study for the Songwe Hill project.
- A proposed investment in HyProMag, which is focused on rare earth magnet recycling.
- Mkango commenced an exploration programme in the Thambani Licence focused on further definition of uranium, tantalum and niobium mineralisation in the licence area. In parallel, Mkango continues to evaluate partnership opportunities for the project.
- The Grant of the Mchinji License in Mchinji district, central Malawi, which has potential for nickel-cobalt, gold, base metals, and graphite.

### **Songwe Hill Feasibility Study**

Following receipt of the third tranche of investment from Talaxis, on March 28, 2019, Mkango is well positioned to advance its Songwe Hill project through the feasibility phase against the backdrop of increasing demand for rare earths used in electric vehicles, direct drive wind turbines and other green technologies. The initial phases of the Feasibility Study for Songwe Hill were undertaken in 2018, including a major diamond-drilling programme. On March 21, 2019, Mkango filed an updated NI 43-101 Technical Report for the Songwe Hill Rare Earths Project resource update. On September 9, 2019, Mkango announced the appointment of SENET, a DRA Global company, as lead engineer and project manager for completion of the Feasibility Study. SENET has longstanding experience in project management and in providing detailed multidiscipline engineering, procurement, logistics management, and construction services to the mining, mineral processing, infrastructure and materials handling industries. It has extensive project and construction experience throughout Africa and boasts the largest and most advanced hydrometallurgical process engineering team on the continent.

### **Talaxis Agreement**

In March 2017, Mkango announced a transaction with Talaxis, whereby Talaxis invested £500,000 in Mkango by means of a placing. The placing closed in October 2017, which resulted in Talaxis' ownership of 12.5% in Mkango's

outstanding common shares (“**Shares**”). In addition, Talaxis owns warrants, which could, if exercised, take its ownership to 18.1% of Mkango’s Shares. Talaxis has agreed that it will not exercise warrants if this causes Talaxis to own more than 20% of the Company’s outstanding Shares. In November of 2017, Mkango announced a further transaction with Talaxis (the “**Talaxis Agreement**”), whereby Talaxis agreed to make investments totalling £12 million (\$17.3 million) in Lancaster BVI to fund a Feasibility Study for Songwe Hill, with an option to fund project development, and a further investment totalling £2 million (\$2.8 million) in Maginito (described more fully below) to further advance its downstream strategy.

On January 28, 2018, in accordance with the terms of the Talaxis Agreement, Talaxis invested an initial £5 million (\$7 million) for a 20% interest in Lancaster BVI and a further £1 million (\$1.3 million) for a 24.5% interest in Maginito.

On May 18, 2018, Mkango signed the Songwe Hill Joint Venture Agreement, the Talaxis Investment Agreement and the Cooperation Deed (the “**Definitive Agreements**”) in relation to the Talaxis Agreement.

On March 28, 2019, in accordance with the terms of the Definitive Agreements, Talaxis invested £7 million (\$9.0 million) for a further 29% interest in Lancaster BVI.

Following completion of the Feasibility Study, Talaxis has been granted an option to acquire an additional 26% interest in Lancaster BVI, by arranging funding for project development including funding the equity component thereof. If Talaxis exercises its option, Mkango will retain a 25% interest in Lancaster BVI, which will be free carried to production.

#### **Metalysis Agreement and Maginito Joint Venture**

In March 2017, Mkango entered into a Memorandum of Understanding (“**MOU**”) with Metalysis to jointly research, develop and commercialise novel rare earth metal alloys for use in permanent magnets. In September 2017, Mkango and Metalysis signed a joint venture principles and exclusivity agreement (the “**Metalysis Agreement**”) for the development of advanced alloys using neodymium or praseodymium with other elements for use in permanent magnets. This included joint venture principles for a joint venture (the “**Metalysis Joint Venture**”) to commercialise intellectual property rights for the production of neodymium or praseodymium alloy powders. Under the Metalysis Agreement, Maginito will hold an 85% interest in the Metalysis Joint Venture and Metalysis will receive a 15% free carried interest.

On January 24, 2018, Talaxis invested £1 million (\$1.3 million) in Maginito to acquire a 24.5% interest in Maginito to fund the research and development programme with Metalysis and other complementary downstream opportunities in the rare earths supply chain including the proposed investment in HyProMag announced on September 23, 2019. Payment of an additional £1 million was conditional on completion of a definitive Investment Agreement in respect of Maginito and successful completion of the second phase of the research and development programme with Metalysis, upon which Talaxis would hold a 49% interest in Maginito.

On June 6, 2019, the Company announced that it had been notified by Metalysis that Metalysis had entered administration (receivership). On July 5, 2019, it was reported in the media that Power Resources Group (“**PRG**”) was purchasing Metalysis.

The Company is in contact with PRG to determine if there is a mutually beneficial way forward for the collaboration. However, there is no guarantee that a new agreement, superceding the Metalysis Joint Venture, can be arranged. The Company is also discussing with Talaxis restructuring the agreement in relation to the additional £1m investment into Maginito.

Mkango retains a 75.5% interest in Maginito. Maginito is continuing to evaluate new downstream opportunities relating to the rare earths supply chain.

## **DISCUSSION OF OPERATIONS**

Mkango holds a 51% interest in Lancaster BVI, which holds a 100% interest in three exclusive prospecting licences in southern Malawi, the Phalombe Licence, the Thambani Licence and the Chimimbe Licence. 100% of the Thambani Licence and Chimimbe Licence are held in trust for Mkango. Mkango holds a 100% interest in MKA Exploration Limited BVI which holds a 100% in the Mchinji License Pursuant to the Definitive Agreements, Talaxis has agreed

to fund the Feasibility Study for the development of Songwe Hill, the main exploration target within the Phalombe Licence, and has an option to fund the development of the project.

License	Project	For the nine months ended September 30,	
		2019	2018
Phalombe	<b><i>Songwe Hill project</i></b>		
	Mineral extraction development	\$342,070	\$338,088
	Government fees	52,147	13,764
	ESHIA <sup>(1)</sup>	152,637	177,827
	Drilling programme <sup>(2)</sup>	35,907	2,009,167
	Technical studies	250,442	-
	Consulting fees	188,121	278,941
	Grant refund	(56,228)	-
	Malawi office and camp expenses	97,540	732,714
Thambani	Exploration programme	83,022	878
Chimimbe	Project costs	18,269	2,060
Mchinji	Project costs	4,401	-
Total Malawi project expenditures		1,168,329	3,553,439
	Maginito	25,464	288,516
Total mineral exploration expenses		\$1,193,793	\$3,841,955

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

(2) The Company completed a major diamond drilling programme at Songwe Hill during 2018.

Mkango also holds a 75.5% interest in Maginito, as discussed above.

Exploration and evaluation expenditures are recognized in the condensed interim consolidated statements of comprehensive loss as mineral exploration expenditures pending determination of technical feasibility and commercial viability.

## SONGWE HILL

### Background

The Phalombe Licence covers an area of 849.1 square kilometers ("**sq km**") in southeast Malawi, within which Songwe Hill is the main development target and features carbonatite hosted rare earth mineralization. Songwe Hill was subject to historic exploration programs during the late 1980s. Lancaster BVI was awarded the licence by the Malawi Government on January 21, 2010 and subsequently renewed it, with the most recent renewal on January 21, 2019 being for a further 2 years to January 21, 2021.

The geological units of significance with respect to rare earth mineralization in the Phalombe Licence are intrusions and lavas of the Jurassic/Cretaceous Chilwa Alkaline Province, in which carbonatites are widely present. In addition to the large carbonatitic intrusion at Songwe Hill, numerous smaller carbonatites occur throughout the Province and include dykes, sheets, and volcanic systems such as Nkalonje, which also occurs within the Phalombe Licence area.

### Exploration

Mkango has been exploring and evaluating the Songwe Hill rare earth deposit 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 lithochemical sampling, soil sampling, channel sampling, geological mapping, ground magnetic, density and radiometric surveys, and petrographic/mineralogical analyses.

In particular, detailed geological mapping of Songwe Hill was carried out in 2010 and 2011. The mapping demonstrated that carbonatite outcrops existed over a significantly larger area than had previously been recognized. Mapping further achieved a more precise delineation of the distribution of the main rock types. The mapping

broadened the surface area of known rare earth mineralization significantly beyond the areas identified in previous exploration and identified new areas of rare earth enriched carbonatite.

The results of these activities confirmed the rare earth enrichment initially identified by historical exploration and suggested that the mineralized carbonatites were more widespread than originally identified. Mkango embarked on diamond drilling campaigns in 2011 (“Phase 1”), 2011–2012 (“Phase 2”) and 2018 (“Phase 3”). Mkango also produced a bulk sample after the Phase 3 drilling in 2018.

The Phase 1 programme was successful in confirming the presence of rare earth mineralization first outlined by historical exploration. Eleven of the 13 holes intersected significant zones of rare earth mineralization. Having confirmed the presence of the mineralization, the Phase 1 drilling was expanded to areas not previously tested and demonstrated the extension of rare earth mineralization both laterally and vertically.

The Phase 2 drilling focused on expanding the area of known mineralization, infilling between existing holes and testing the mineralization at depth. All drill holes intersected rare earth mineralization and the maximum depth at which rare earth mineralization was encountered was 350 metres (“m”) below the surface of the hill.

The original resource estimate based on the Phase 1 and Phase 2 drilling programs enabled a maiden resource of 13.2 million tonnes (“Mt”) grading 1.62% total rare earth oxides (“TREO”) in the Indicated category and 18.6mt grading 1.38% TREO in the Inferred category which was announced on October 10, 2012. The Indicated resource estimate formed the basis for a Pre-Feasibility Study completed in 2014, which was subsequently updated in 2015.

### Feasibility Study

Following the receipt of £5 million (\$7 million) by Lancaster BVI on January 24, 2018, pursuant to the transaction with Talaxis, Mkango commenced the Feasibility Study, the initial phases of which comprised an extensive diamond drilling programme, metallurgical optimisation and work in relation to the ongoing ESHIA.

On June 4, 2018, Mkango announced commencement of the major Phase 3 diamond drilling programme at Songwe Hill. The programme was completed in early September 2018 and comprised 91 drill holes totalling 10,900 m of infill, step-out and geotechnical drilling, the latter for the purposes of mine design.

In five press releases between August 21, 2018 and December 3, 2018 ([www.sedar.com](http://www.sedar.com)), Mkango announced the results of all 91 drill holes which, together with a schematic geological map illustrating the location of the drill hole collars and estimated drill hole traces, are available on the Company’s website ([www.mkango.ca](http://www.mkango.ca)).

Approximately 60% of the Phase 3 drill holes were infill holes aimed at better defining the geology and geometry of the mineralized body, to facilitate a better understanding of the geological characteristics and setting of the mineralization, and to refine the geological model as a prelude to re-defining the Mineral Resource. All infill holes intersected significant widths of mineralized carbonatite and breccia. Modelling of the lithologies based on geochemistry confirms that the core of the deposit is a uniformly mineralized carbonatite intrusive with steep sides.

Approximately 30% of the Phase 3 drill holes were step-out holes, aimed at expanding the known Mineral Resource by identifying or better delineating mineralization that is outside the volume of the previously defined Mineral Resource. Most of these holes contained mineralized intersections although not all reached their targeted depths. These holes have resulted in expansion of the estimated Mineral Resources by identifying new areas of mineralized carbonatite beyond the limits of the previous exploration programs.

Oriented core was recovered from 16 of the holes to provide geotechnical information within the Mineral Resource for future mine design.

Forty-nine of the drill holes intersected significant zones of rare earths mineralisation grading above 1% total TREO.

### Selected Drill Results:

<b>PX056</b>	<b>114.8 m grading 1.6% TREO</b> (60.7 – 175.5 m) including <b>30.0 m grading 2.0% TREO</b> (135.0 – 165.0 m). Inclined hole (60 degrees west).
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PX059	63.0 m <sup>1</sup> grading 1.7% TREO (6.0 – 69.0 m), including 23.0 m <sup>2</sup> grading 2.3% TREO (7.0 – 30.0 m), and 15.4 m grading 1.6% TREO (128.0 – 143.4 m). Inclined hole (60 degrees west).
PX073	67.1 m grading 1.6% TREO (8.8 – 75.9 m) including 25.2 m grading 2.0% TREO (45.0 – 70.2 m). Inclined hole (60 degrees west).
PX076	40.2 m grading 1.8% TREO (60.4 – 100.7 m) including 20.0 m grading 2.4% TREO (60.4 – 80.4 m). Inclined hole (60 degrees west).
PX077	51.9 m <sup>3</sup> grading 1.7% TREO (26.2 – 78.0 m). Inclined hole (60 degrees west).
PX081	53.3m <sup>4</sup> grading 2.2% TREO (3.7 – 57.0 m) including 26.8 m grading 3.1% TREO (3.7 – 30.5 m). Inclined hole (60 degrees east).
PX086	73.3 m grading 1.9% TREO (21.5 – 94.8 m). Inclined hole (60 degrees west).
PX087	74.4 m <sup>5</sup> grading 2.1% TREO (16.2 – 90.6 m). Inclined hole (60 degrees west).
PX090	25.7 m <sup>6</sup> grading 3.9% TREO (39.5 – 65.2 m). Inclined hole (60 degrees west).
PX092	74.9 m grading 1.9% TREO (10.1 – 84.9 m) and 51.9 m grading 1.5% TREO (97.6 – 149.5 m EoH). Inclined hole (60 degrees south).
PX093	83.9 m grading 1.9% TREO (1.5 – 85.4 m) including 18.0 m grading 3.0% TREO (21.0 – 39.0 m). Inclined hole (60 degrees west).
PX098	65.0 m <sup>7</sup> grading 1.7% TREO (1.1 – 66.0 m) and 13.1 m grading 1.2% TREO (115.0 – 128.1 m). Inclined hole (60 degrees south).
PX103	165.2 m grading 1.6% TREO (2.6 – 167.8 m). Inclined hole (60 degrees east).
PX107	91.3 m <sup>8</sup> grading 1.3% TREO (23.0 – 114.2 m) including 32.2 m <sup>9</sup> grading 1.9% TREO (82.0 – 114.2 m). Inclined hole (60 degrees east).
PX108	45.8 m grading 1.4% TREO (8.2 – 54.0 m) and 57.3 m grading 1.7% TREO (76.9 – 134.2 m). Inclined hole (60 degrees east).
PX109	53.0 m grading 2.1% TREO (22.0 – 75.0 m) including 22.0 m grading 3.0% TREO (24.0 – 46.0 m). Inclined hole (60 degrees east).
PX113	51.1 m <sup>10</sup> grading 2.2% TREO (4.7 – 55.8 m). Inclined hole (50 degrees north).
PX112	100.9 m grading 3.3% TREO (5.9 – 106.8 m EoH) including 20.5 m grading 4.2% TREO (5.9 – 26.4 m) and 22.2 m grading 4.1% TREO (36.0 – 58.2 m). Inclined hole (60 degrees south).
PX125	104.5 m grading 1.5% TREO (3.5 – 108.0 m) including 51.5 m grading 1.9% TREO (3.5 – 55.0 m). Inclined hole (60 degrees south).

<sup>1</sup> Includes two cavities totaling 5.9m not sampled. <sup>2</sup> Includes a 2.5m cavity not sampled. <sup>3</sup> Includes a 2.7m cavity not sampled. <sup>4</sup> Includes a 3.8m cavity not sampled. <sup>5</sup> Includes a 2.7m cavity not sampled. <sup>6</sup> Includes a 6.3m cavity not sampled. Due to the size of the cavity, the significance of this intersection is uncertain. <sup>7</sup> Includes a 2.3m cavity not sampled. <sup>8</sup> Includes two cavities totaling 2.3m not sampled. <sup>9</sup> Includes a 0.9m cavity not sampled. <sup>10</sup> Includes two cavities totaling 10.0m not sampled. Due to the size of the cavities, the significance of this intersection is uncertain. TREO: total rare earth oxides based on total La<sub>2</sub>O<sub>3</sub>, Ce<sub>2</sub>O<sub>3</sub>, Pr<sub>2</sub>O<sub>3</sub>, Nd<sub>2</sub>O<sub>3</sub>, Sm<sub>2</sub>O<sub>3</sub>, Eu<sub>2</sub>O<sub>3</sub>, Gd<sub>2</sub>O<sub>3</sub>, Tb<sub>2</sub>O<sub>3</sub>, Dy<sub>2</sub>O<sub>3</sub>, Ho<sub>2</sub>O<sub>3</sub>, Er<sub>2</sub>O<sub>3</sub>, Tm<sub>2</sub>O<sub>3</sub>, Yb<sub>2</sub>O<sub>3</sub>, Lu<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>. These intersections are reported as down hole widths and do not necessarily represent true thicknesses and attitude of the mineralized zones, the estimation of which will require further refining of the geological model.

Drill holes PX072, PX073, PX078, PX079, PX080, PX083, PX084, PX085, PX088, PX089, PX090, PX091, PX093, PX094, PX095, PX109, PX114, PX118, PX119, PX120, PX121, PX122, PX123 and PX124 were step-out holes focused on testing north and north-west extensions of the mineralisation. Of these 24 drill holes, 19 intersected broad zones of mineralisation. The mineralised intersection in PX113 indicates the extension of the higher grade carbonatite zone located in the north-east as indicated on the accompanying geological map on the Company's website, to the north under cover. Drill holes PX038, PX039, PX040 and PX041 were step-out drill holes, focused on testing extensions of mineralisation to the south. The intersections in PX039 and PX040 further indicate that mineralisation may extend to the south. The remaining drill holes were focused on infill zones in the previous exploration/resource area defined by drill holes PX001 to PX035. Intersections of broad zones of mineralisation, as opposed to narrow veins or dykes, continue to support the concept of a bulk tonnage, open pit mining operation with low mining costs.

The full set of the above results and breakdown of TREO values can be found in Appendix A of this report.

Laboratory assay data was used to produce a 3D model based on geochemical coding that is reflective of the main mineralization, and that is objective, repeatable, and provides a consistent and meaningful illustration of the distribution of rare earth mineralization in the context of the geological setting.

The principal geochemical discriminators of the lithological variation were found to be aluminium, silicon, potassium, and calcium. Calcium was used as the final indicator, which gave a good separation with the same accuracy and resolution as if all four discriminators had been used.

The geological model constructed from the geochemistry provides a good framework within which to interpret the geology of the deposit. This is a heterogeneous geological environment that is not easily interpreted from lithological observations of drill hole core and outcrop samples alone. The model provides an estimate of the shape and extent of the carbonatite and is considered a useful tool to describe the shape of the main ore body. The model was also applied to validate the indicator approach that was used to estimate the carbonatite proportion in each cell of the resource block model.

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

The updated base case Mineral Resource Estimate equates to a 60% increase in the Measured and Indicated Resource tonnage and a 48% increase in the Inferred Resource tonnage versus the base case 2012 Mineral Resource Estimate, which formed the basis for the 2015 Pre-Feasibility study. The Mineral Resource is open at depth. The combined Measured and Indicated Mineral Resource Estimate, totalling 21 Mt grading 1.41% TREO, will form the basis of the updated mine plan for the ongoing feasibility study, which will evaluate a bulk tonnage, open pit mining operation focused on broad zones of near surface and outcropping rare earths mineralisation. The updated resource supersedes the 2012 Mineral Resource Estimate, and therefore renders the mining and economic information in the 2015 Pre-Feasibility study obsolete. Updated mining and economic information will be generated as part of the ongoing Feasibility Study based on the new resource.

The Measured Mineral Resource Estimate comprises 42% of the combined Measured and Indicated Mineral Resource Estimate, indicating a substantial increase in geological confidence to support the completion of the Feasibility Study.

The majority of the previously delineated near surface Inferred Mineral Resource Estimate has been upgraded to either the Measured or Indicated categories, achieving a key objective of the 2018 drill programme. Approximately 95% of the Measured and Indicated Mineral Resource Blocks are at a depth of less than 160 m below the surface of the hill, indicating that the majority will be accessible by open pit mining.

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 National Instrument 43-101, Standards of Disclosure for Mineral Projects.

Sample preparation and analytical work for the drilling and channel sampling programmes are being 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 Feasibility Study, metallurgical optimisation is underway at laboratories in Australia. The work programme was scaled up following receipt of the Talaxis funding and is focused on flotation and hydrometallurgy. Mkango has shipped a 60 tonne bulk sample to Australia in preparation for metallurgical pilot test work. Potential pilot facilities have been reviewed and a tender process for selection of a flotation pilot facility has commenced.

The ESHIA is underway and is being completed in accordance with World Bank Standards and Equator Principles.

#### **Other targets in the Phalombe Licence**

On August 9, 2016, Mkango announced the results of an airborne geophysical survey (the "Survey") covering approximately two thirds of the Phalombe Licence. The Survey was part of a \$25 million World Bank funded nationwide airborne geophysical programme. The airborne radiometric survey highlights a number of exploration targets within the Phalombe Licence. Songwe Hill was not covered by the Survey.

Apart from Songwe Hill, there are two other identified hypabyssal systems in the Phalombe Licence, namely Nkalonje and Namangale. In both cases, the 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. Thorium radiometrics are known as a highly effective tool for rare earths exploration and the carbonatite at Songwe Hill is also characterized by a thorium radiometric anomaly, identified through previous geophysical surveys. Unlike Songwe Hill, the Nkalonje and Namangale hypabyssal systems do not feature large areas of outcropping carbonatite, the host rock for rare earths at Songwe Hill. However, both contain outcrops of carbonatite veins and dykes suggesting that there is potential for identifying a carbonatite body below surface. Other prospects within the Phalombe Licence include the Mantrap and Knoll prospects.

A map showing the thorium radiometric anomalies superimposed on a topographic map, indicating local infrastructure, and the locations of Nkalonje and Namangale can be accessed via the following link: [http://www.mkango.ca/i/maps/Results-of-Airborne-Radiometric-Survey-\(Th\)-on-Topo-Aug.jpg](http://www.mkango.ca/i/maps/Results-of-Airborne-Radiometric-Survey-(Th)-on-Topo-Aug.jpg).

In 2016, Songwe Hill and the Nkalonje, Mantrap and Knoll prospects were visited by a large delegation of international and Malawian geology and geophysics experts in connection with the €5.4 million HiTech AlkCarb research program led by the Camborne School of Mines, the University of Exeter and funded under the European Union's Horizon 2020 Research and Innovation program in which the Company (through Lancaster BVI) is an industry partner. The scope of the research project encompasses building exploration expertise in hi-tech raw materials as well as improving and developing interpretation of geophysical and down hole data. Of particular relevance to Mkango is the opportunity to better understand the potential for large but unexposed mineralised bodies of carbonatite (the host rock for rare earth mineralisation) on either a prospect or regional scale.

Based on work to date, the highest priority of such targets within the Phalombe Licence is the abovementioned Nkalonje hypabyssal system, where outcrop is largely fenite (altered country rock) with occasional carbonatite but where there may also be potential for underlying and larger zones of mineralised carbonatite.

Mkango retains, through its holding in Lancaster BVI, a 51% interest in the Phalombe Licence.

## **THAMBANI, MWANZA DISTRICT**

### **Background**

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

The licence was originally issued by the Malawi Government on a three-year basis and was subsequently renewed on September 10, 2015 for an additional two-year term when the Company requested a reduction in the licence area to the current 136.9 sq km. The licence was renewed for a further 2 years to September 10, 2019 and was subsequently renewed for an additional 2 years to September 10<sup>th</sup> 2021.

The exploration activities conducted during 2011 and 2012 included acquisition of Landsat7 and ASTER satellite imagery for the 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<sub>3</sub>O<sub>8</sub>, on both Thambani East Ridge and West Ridge. During the year ended December 31, 2014, the Company continued to progress the geological exploration studies on the Thambani project area, data analysis and geological modeling.

Mkango completed a trenching program 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<sub>3</sub>O<sub>8</sub>, 3.25 % Nb<sub>2</sub>O<sub>5</sub> in soil and up to 0.42 % U<sub>3</sub>O<sub>8</sub>, 0.78 % Nb<sub>2</sub>O<sub>5</sub> and 972 ppm Ta<sub>2</sub>O<sub>5</sub> in rock chips, notably higher than results from the 2013 reconnaissance surface geochemical sampling program. Results associated with the 10 best U<sub>3</sub>O<sub>8</sub> assays are summarized in the table below.

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

**Assays from the 10 highest- U<sub>3</sub>O<sub>8</sub> samples from the Thambani trenching program**

Trench No.	Profile	Sample No	From (m)	To (m)	Rock type	U <sub>3</sub> O <sub>8</sub> Ppm	Nb <sub>2</sub> O <sub>5</sub> ppm	Ta <sub>2</sub> O <sub>5</sub> ppm
C3	A	U3622	0.5	1	Soil	47,094	32,462	45
C3	A	U3623	1	1.5	Soil	1,057	735	59
T11	C	U3508	0.5	1	Decomposed Feldspathic	4,231	7,805	743
T11	C	U3509	1	1.5	Decomposed Feldspathic	2,539	6,619	911
T11	B	U3505	0.5	1	Decomposed Feldspathic	2,369	5,424	972
T15	A	U3554	1	1.5	Feldspathic rock	1,657	4,346	67
T15	A	U3553	0.5	1	Feldspathic rock	1,616	3,754	431
T15	E	U3565	0.5	1	Feldspathic rock	1,553	3,525	41
T14	D	U3549	1.5	2	Feldspathic rock	1,432	3,034	434
T19	C	U3604	1	1.5	Feldspathic rock	1,367	5,525	675

### Airborne Geophysical Survey

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

The airborne survey confirms the presence of the previously-identified uranium radiometric anomaly referred to above 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, is located to the south of these anomalies and has 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 licence area, which also yielded very encouraging results from previous geochemical sampling, were not covered by this 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:

[http://www.mkango.ca/i/maps/Results\\_of\\_Airborne\\_radiometric\\_survey\\_on\\_topo\\_U\\_July.jpg](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 kilometer (“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:

[http://www.mkango.ca/i/maps/Results\\_of\\_Airborne\\_magnetic\\_survey\\_on\\_topo\\_July\\_2016.jpg](http://www.mkango.ca/i/maps/Results_of_Airborne_magnetic_survey_on_topo_July_2016.jpg)

In May 2017, Mkango announced the results of the latest work program on the Thambani Licence. Assay results from 85 rock grab samples returned high grade uranium, tantalum and niobium values, ranging up to 3.3 % U<sub>3</sub>O<sub>8</sub>, 1.9 % Ta<sub>2</sub>O<sub>5</sub> and 6.0 % Nb<sub>2</sub>O<sub>5</sub>. 35 of the samples graded above 500ppm U<sub>3</sub>O<sub>8</sub> and 24 graded above 1,000ppm U<sub>3</sub>O<sub>8</sub>. Results associated with the twenty best U<sub>3</sub>O<sub>8</sub> assays are summarised in the table below. Grab samples are selective samples and are not necessarily representative of the mineralization hosted on the property.

**Assays from the 20 highest grade U<sub>3</sub>O<sub>8</sub> samples from the 2017 Thambani sampling programme**

Sample no.	U <sub>3</sub> O <sub>8</sub> ppm	U <sub>3</sub> O <sub>8</sub> %	Ta <sub>2</sub> O <sub>5</sub> ppm	Ta <sub>2</sub> O <sub>5</sub> %	Nb <sub>2</sub> O <sub>5</sub> ppm	Nb <sub>2</sub> O <sub>5</sub> %
U3141	32590	3.26	19029	1.9	59200	5.92
U3183	31812	3.18	15224	1.52	60055	6.01
U3136	10131	1.01	4845	0.48	32478	3.25
U3111	8826	0.88	4191	0.42	14871	1.49
U3127	5468	0.55	3084	0.31	15138	1.51
U3135	5265	0.53	2747	0.27	13183	1.32
U3122	5250	0.52	2431	0.24	10820	1.08
U3125	4518	0.45	2028	0.2	8461	0.85
U3115	4352	0.44	2221	0.22	9789	0.98
U3121	4191	0.42	2390	0.24	13585	1.36
U3137	3988	0.4	1896	0.19	8707	0.87
U3124	3952	0.4	2100	0.21	9600	0.96
U3168	3664	0.37	2022	0.2	7137	0.71
U3129	3562	0.36	1625	0.16	6469	0.65
U3176	3264	0.33	1905	0.19	5864	0.59
U3131	2768	0.28	1293	0.13	5314	0.53
U3133	2231	0.22	1235	0.12	5971	0.6
U3118	2163	0.22	1330	0.13	3838	0.38
U3172	1749	0.17	1351	0.14	3924	0.39
U3119	1741	0.17	916	0.09	4592	0.46

The main objectives of the programme were to confirm previously identified high-grade mineralisation at the Little Ngona target, ground-truth new geophysical targets and complete further reconnaissance sampling along the East and West Ridges. New areas of high-grade uranium, tantalum and niobium mineralisation were identified at the foot of the West Ridge and on the East Ridge. Most significantly, a radiometric high at the foot of the West Ridge yielded two of four highest grade samples of this phase of exploration. The average grades for the 85 samples were 1,892 ppm U<sub>3</sub>O<sub>8</sub>, 1,029 ppm Ta<sub>2</sub>O<sub>5</sub> and 4,562 ppm Nb<sub>2</sub>O<sub>5</sub>. The median grades for the 85 samples were 343 ppm U<sub>3</sub>O<sub>8</sub>, 222 ppm Ta<sub>2</sub>O<sub>5</sub> and 958 ppm Nb<sub>2</sub>O<sub>5</sub>. The ranges of grades for the 85 samples were 1 – 32,590 ppm U<sub>3</sub>O<sub>8</sub>, 2 – 19,029 ppm Ta<sub>2</sub>O<sub>5</sub> and 0 – 60,055 ppm Nb<sub>2</sub>O<sub>5</sub>.

During 2019, Mkango commenced an exploration programme focused on further definition of uranium, tantalum and niobium mineralisation in the licence area. In parallel, Mkango continues to evaluate partnership opportunities for the project.

Mkango currently retains a 100% interest in the Thambani Licence.

## **CHIMIMBE HILLS, MCHINJI DISTRICT**

On November 14, 2017, Lancaster BVI was granted the Chimimbe Licence by the Malawi Minister of Natural Resources, Energy and Environment in respect of an area of 98.48 sq km around Chimimbe Hill, Mchinji district,

Malawi. Exploration has identified a number of areas with potential for laterite and saprolite hosted nickel, cobalt, chrome and other mineralization.

The Chimimbe Licence runs for a period of three years and is renewable for further periods of two years thereafter if the terms and conditions of the licence have been met.

Mkango will re-evaluate the Chimimbe Hill deposit in the context of geophysical data produced by the recent World Bank airborne geophysical survey of Malawi, recent infrastructure developments in the region, potential synergies with Songwe Hill and the Thambani uranium-tantalum-niobium project, options relating to sulphuric acid and/or alternative reagents supply and potential by-products, as well as opportunities to produce nickel and cobalt products for the battery electric vehicle market.

Mkango retains a 100% interest in the Chimimbe Licence.

## **MCHINJI, MCHINJI DISTRICT**

On July 4, 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 sq km in the Mchinji district, Malawi, which is adjacent to licences with known mineral potential including the Company's Chimimbe Hill 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 licence area required with each renewal.

Mkango will re-evaluate the Mchinji deposit in the context of geophysical data produced by the recent World Bank airborne geophysical survey of Malawi completed in 2016. Exploration will focus on nickel-cobalt, gold, base metals and graphite opportunities.

Mkango retains a 100% interest in the Mchinji Licence.

## **MAGINITO**

Maginito was incorporated on January 3, 2018 in the BVI and is focused on downstream opportunities in the rare earths supply chain, in particular rare earth alloy, magnet and other technologies geared to accelerating growth in the electric vehicle market.

On January 24, 2018, Talaxis invested £1 million (\$1,269,500) to receive a 24.5% interest in Maginito. The use of proceeds included expenditures under an agreement with Metalysis focused on advanced alloys using neodymium or praseodymium with other elements for magnet development. Payment of an additional £1 million was conditional on completion of a definitive Investment Agreement in respect of Maginito and successful completion of the second phase of the research and development programme with Metalysis, upon which Talaxis would hold a 49% interest in Maginito.

On June 6, 2019, the Company announced that it had been notified by Metalysis that Metalysis had entered administration (receivership). On July 5, 2019, it was reported in the media that Power Resources Group ("PRG") was purchasing Metalysis.

The Company is in contact with PRG to determine if there is a mutually beneficial way forward for the collaboration. However, there is no guarantee that a new agreement, superceding the Metalysis Joint Venture, can be arranged. The Company is also discussing with Talaxis restructuring the agreement in relation to the additional £1m investment into Maginito.

Mkango retains a 75.5% interest in Maginito. Maginito is continuing to evaluate new downstream opportunities relating to the rare earths supply chain including the proposed investment in HyProMag Limited, which was announced on September 23, 2019, whereby. Maginito signed an investment term sheet and one year exclusivity agreement with HyProMag, a private company focused on rare earth magnet recycling. Consistent with Maginito's strategy, the rationale for the transaction includes potential synergies, such as blending of primary production originating from Songwe with recycled production from HyProMag, as well as enhanced marketing flexibility and access to downstream markets for rare earth permanent magnets, which are critical materials for electric vehicles, wind turbines, consumer electronics and other technology applications:

HyProMag has licenced a patented process for extracting and demagnetising neodymium iron boron (“NdFeB”) alloy powders from magnets embedded in scrap and redundant equipment named HPMS (Hydrogen Processing of Magnet Scrap, the “Technology”). This was originally developed within the Magnetic Materials Group (“MMG”) at the University of Birmingham (“UoB”).

Subject to completion of definitive agreements and due diligence, Maginito will invest £300,000 for an initial 25% interest in HyProMag and provide a £200,000 convertible loan facility, both of which will be fully funded from Maginito’s existing cash resources. Maginito will have an option to increase its interest in HyProMag to up to 49%, and the first right to supply any primary rare earth raw materials for blending with recycled materials, if required, and to market the magnetic end products.

The founding directors of HyProMag, comprising Professor Emeritus Rex Harris, former Head of the MMG, Professor Allan Walton, current Head of the MMG, and two Honorary Fellows, Dr John Speight and Mr David Kennedy, are leading world experts in the field of rare earth magnetic materials, alloys and hydrogen technology, and have significant industry experience.

Further details will be provided on the Transaction and on HyProMag following completion of due diligence and the execution of definitive agreements. In consideration for exclusivity, Maginito paid £20,000 to HyProMag.

## SELECTED CONSOLIDATED FINANCIAL INFORMATION

During the nine months ended September 30, 2019, the Company was focused on advancing the Songwe Hill project in addition to its other projects in Malawi. 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 September 30, 2019, 2018 and 2017:

As at September 30,	2019	2018	2017
Total assets	10,253,300	4,778,043	1,303,329
Total non-current liabilities	-	1,377,130	1,885,302
Shareholders’ equity (deficit) of parent	20,187,080	(8,315,701)	(12,680,762)

#### Total assets

Total assets were \$10,253,300 as at September 30, 2019 as compared to \$4,778,043 as at September 30, 2018. Total assets increased by \$5,475,257, primarily due to a \$4,230,879 increase in the amount of cash held:

At January 1, 2019, the Company had an opening cash position of \$2,400,702. Cash received during the nine months ended September 30, 2019 was \$10,823,340. This was comprised from three sources. First, on March 28, 2019, \$9,073,052 was received from Talaxis representing the third tranche of investment in Lancaster BVI. Secondly, \$1,674,476 was received when warrants of the Company were exercised. Thirdly, \$75,812 was received when stock options were exercised. Operational consumption of cash was \$3,120,590 and the effect of exchange rate changes on cash was a reduction of \$21,763 during the period for a closing cash position of \$10,075,665.

In comparison, at January 1, 2018, the Company had an opening cash position of \$691,276. Cash received during the nine months ended September 30, 2018 was \$8,886,731. This was comprised from two sources. First, during January 2018, \$8,284,027 was received from Talaxis for its investments in Lancaster BVI and Maginito. Secondly, \$602,704 was received when warrants of the Company were exercised. Operational consumption of cash was \$4,361,181, use of funds to purchase assets was \$83,909 and the effect of exchange rate changes on cash was a reduction of \$611,221 during the period for a closing cash position of \$4,521,696.

Total assets were \$4,778,043 as at September 30, 2018 as compared to \$1,303,329 as at September 30, 2017. Total assets increased by \$3,474,714, primarily due to a \$6,378,677 increase in the amount of cash held:

Please refer to the discussion above regarding the change in cash position reported at September 30, 2018.

In comparison, at January 1, 2017, the Company had an opening cash position of \$388,678. Cash received during the nine months ended September 30, 2017 was \$535,315 for a share placement, which closed on December 30, 2016. Operational consumption of cash was \$647,856 and the effect of exchange rate changes on cash was an decrease of \$49,702 during the period for a closing cash position of \$338,976.

Total non-current liabilities

Total non-current liabilities were nil as at September 30, 2019 as compared to \$1,377,130 as at September 30, 2018. The change was due to the warrant valuation reported for each period. As at September 30, 2018, there were 31 million warrants outstanding, which were held by common shareholders. These were valued at \$1,377,130. As at September 30, 2019, all the warrants have expired and therefore have a nil value.

Total non-current liabilities were \$1,377,130 as at September 30, 2018 as compared to \$1,885,302 as at September 30, 2017. Total non-current liabilities decreased by \$508,172. The change was due to a \$255,864 increase in the value of outstanding warrants. This was offset by a decrease of \$350,331 in the value of the deferred management salaries because this liability was reclassified from non-current to current liabilities for the year ended December 31, 2017.

Total shareholders' equity (deficit) of parent

Total shareholders' equity was \$20,187,080 as at September 30, 2019 compared to a deficit of \$8,315,701 as at September 30, 2018. The \$28,502,781 increase is due to the accounting treatment of the Talaxis investments. Cash investments of \$9,073,052 and \$8,284,027 were received during the nine months ended September 30, 2019 and September 30, 2018, respectively. A non-controlling interest balance was established at the date of each investment. The opening balance was based on the investor's proportionate share of the net assets held by the investee just prior to the date of each investment. Funds in excess of the net asset valuation were used to reduce the retained earnings of the parent company, which created a shareholders' surplus.

Total shareholders' deficit was \$8,315,701 as at September 30, 2018 compared to a deficit of \$12,680,762 as at September 30, 2017. The \$4,365,061 decrease as at September 30, 2018, is primarily due to the accounting treatment of the \$8,284,027 Talaxis investment received during the nine months ended September 30, 2018, for its investments in Lancaster BVI and Maginito. In comparison, there were no investment funds received during the period ended September 30, 2017. Mkango's deficit was reduced to create a shareholders' surplus, as a result of the investment received from Talaxis. A non-controlling interest balance was established at the date of the investment, January 24, 2018. The opening balance was based on the investor's proportionate share of the net assets held by the investee just prior to the date of the investment. Funds in excess of the net asset valuation were used to reduce the deficit of the parent company, which created a shareholders' surplus.

**Summary Results of Operations**

The following financial data is derived from the Company's condensed interim consolidated financial statements as at September 30, 2019, 2018 and 2017:

	Nine months ended September 30,		
	2019	2018	2017
Interest income	\$ 93	\$ 936	\$ 114

Mineral exploration	1,168,329	3,553,439	239,496
Other expenditures*	1,009,842	2,355,814	648,099
<b>Total net loss</b>	<b>2,178,078</b>	<b>5,908,317</b>	<b>887,481</b>
<b>Total net loss attributable to non-controlling interest</b>	<b>971,870</b>	<b>985,417</b>	<b>-</b>
Basic and diluted loss per share	\$ (0.010)	\$ (0.055)	\$ (0.011)
Weighted average number of common shares (basic and diluted)	121,199,093	108,230,080	83,912,472
Distributions or Dividends	\$ Nil	\$ Nil	\$ Nil

\* Other expenditures represents all other expenditures, other than Mineral exploration expenditures, disclosed in the statements of comprehensive loss and includes non-cash items.

The net loss for the nine months ended September 30, 2019 was \$2,178,078 compared to the net loss reported for the nine months ended September 30, 2018 of \$5,908,317. Net loss decreased by \$3,730,239 for the comparable periods. The significant items contributing to the change include:

1. The Maginito research and development expenses decreased by \$263,052 as no significant payments were required during the period to advance the collaborative research programme with Metalysis.
2. An \$842,981 decrease in warrant revaluation expense for the nine months ended September 30, 2019 because all outstanding warrants have expired.
3. A \$144,599 decrease in foreign exchange loss, which resulted from the revaluation of cash balances held in currencies other than the US dollar at the end of the period.
4. A \$2,385,110 decrease in exploration expenses resulting from the significant costs incurred during the nine months ended September 30, 2018 when the Songwe Hill project-drilling program was underway. The program ended during 2018, therefore, only decommissioning costs were incurred during the nine months ended September 30, 2019.
5. A \$145,361 decrease in general and administrative expenses was realized for the period ended September 30, 2019.

The net loss for the nine months ended September 30, 2018 was \$5,908,317 compared to the net loss reported for the nine months ended September 30, 2017 of \$887,481. Net loss increased by \$5,020,836 for the comparable periods. The significant items contributing to the change include:

1. General and administrative expenses were \$662,112 higher for the nine months ended September 30, 2018 as a result of an increase to salaries and activities related to negotiating and preparing the Talaxis definitive agreements.
2. Mineral exploration expenditures were \$3,313,943 higher for the nine months ended September 30, 2018 as the Company undertook the drilling program for the Songwe Hill project during that period.
3. A \$761,752 increase in foreign exchange loss, which resulted from the revaluation of cash balances held in currencies other than the US dollar at the end of the period.
4. A \$35,227 decrease in the valuation of warrants resulting from a decrease in the number of outstanding warrants as a result of some warrants expiring and being exercised.

## RESULTS OF OPERATIONS

The selected period information and summary of financial results below is derived from and should be read in conjunction with the Company's condensed interim consolidated financial statements for the nine months ended September 30, 2019.

## 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 September 30, 2019:

Total Operations Attributable to common shareholders	2019			2018				2017
	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4
Interest income	\$2	\$2	\$67	\$(126)	\$106	\$64	\$766	\$(105)

Expenses	441,567	442,795	662,267	1,447,454	2,159,919	1,159,075	750,756	556,759
Other items	107,196	154,976	115,185	(197,969)	79,217	635,496	7,860	315,206
Warrant fair value loss (gain)	3,038	(450,299)	(270,446)	(452,955)	13,395	(21,137)	139,255	769,745
Net income (loss) for period	(551,799)	(147,470)	(506,939)	(796,655)	(2,252,425)	(1,773,370)	(897,105)	(1,641,815)
Loss per share - basic and diluted	\$(0.005)	\$(0.001)	\$(0.004)	\$(0.021)	\$(0.022)	\$(0.015)	\$(0.008)	\$(0.018)

The financial data for the eight periods reported have been prepared 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 September 30, 2019. The financial data does not include the non controlling interest (“NCI”) share of net loss for the period. The financial data is presented in US dollars. The Company’s principal activities require expenditures which include both exploration and general and administrative expenses.

### THIRD QUARTER 2019 COMPARED TO THIRD QUARTER 2018

The Company recognized a net loss attributable to common shareholders of \$551,799 and \$2,252,425 for the three months ended September 30, 2019 and 2018, respectively. The decrease of \$1,700,626 in net loss attributable to common shareholders for the three months ended September 30, 2019 compared to the same period in 2018 reflects the increase in the non-controlling interest in Consolidated Lancaster from 20% to 49% and is comprised of a decrease of \$135,655 in general and administrative expenses, a decrease of \$174,391 in foreign exchange loss, a decrease of \$1,777,682 in mineral exploration expenses and an increase of \$60,019 of stock based compensation expense. The decrease in mineral exploration expenses is due to exploration activities and the ESHIA which were undertaken in Malawi and work in relation to the feasibility study for the three months ended September 30, 2018. In comparison, very little exploration activity was undertaken during for the three months ended September 30, 2019. The increase in unrealized foreign exchange loss was due to the Company’s holdings of foreign denominated currencies in bank accounts, which were revalued for reporting purposes as at the end of each reporting period.

### SECOND QUARTER 2019 COMPARED TO SECOND QUARTER 2018

The Company recognized a net loss attributable to common shareholders of \$147,470 and \$1,773,370 for the three months ended June 30, 2019 and 2018, respectively. The decrease of \$1,625,900 in net loss attributable to common shareholders for the three months ended June 30, 2019 compared to the same period in 2018 is comprised of a decrease of \$21,137 in warrant revaluation expense, an increase of \$313,157 in general and administrative expenses, an increase of \$455,602 in foreign exchange loss, an increase of \$820,258 in mineral exploration expenses and an increase of \$27,194 of stock based compensation expense. The decrease in the warrant revaluation expense is a result of all the outstanding warrants held by common shareholders either expiring or being exercised for the three months ended June 30, 2019. The increase in mineral exploration expenses is due to exploration activities and the ESHIA underway in Malawi and work in relation to the feasibility study for the three months ended June 30, 2018. In comparison, very little exploration activity was undertaken during for the three months ended June 30, 2019. The increase in unrealized foreign exchange loss was due to the Company’s holdings of foreign denominated currencies in bank accounts, which were revalued for reporting purposes as at the end of each reporting period.

### FIRST QUARTER 2019 COMPARED TO FIRST QUARTER 2018

The Company recognized a net loss attributable to common shareholders of \$506,939 and \$897,105 for the three months ended March 31, 2019 and 2018, respectively. The decrease of \$390,166 in net loss attributable to common shareholders for the three months ended March 31, 2019 compared to the same period in 2018 is comprised of a \$409,701 decrease in warrant revaluation expense, a \$277,855 decrease in the Maginito research and development expense, offset by an increase of \$132,361 in foreign exchange loss and an increase of \$102,622 in mineral exploration expenses. The decrease in the warrant revaluation expense is a result of the following: 1,136,363 warrants were exercised, 5,420,867 warrants expired and the time to expiry decreased. The remaining warrants held by common shareholders are scheduled to expire on June 15, 2019. The Maginito research and development expense is significantly lower for the three months ended March 31, 2019 because no additional funding was required to advance the collaborative research work with Metalysis. The increase in mineral exploration expenses is due to exploration activities and the ESHIA underway in Malawi and work in relation to feasibility study for the three months ended March 31, 2018. In comparison, very little exploration activity was undertaken during for the three months ended

March 31, 2019. The increase in unrealized foreign exchange loss was due to the Company's holdings of foreign denominated currencies in bank accounts, which were revalued for reporting purposes as at the end of each reporting period.

## RELATED PARTY TRANSACTIONS AND BALANCES

- a) Leo Mining Exploration Ltd. ("Leo Mining") is considered related by virtue of common directors and officers who have an ownership in, and exercise significant influence over, both companies. The Company and Leo Mining have formalized their relationship with respect to services provided by Leo Mining. A written agreement sets out the types of services, which may be provided, and the costs associated with such services. The Company repays the disbursements made by Leo Mining on its behalf. During the nine months ended September 30, 2019, the Company had incurred costs of \$45,843 (September 30, 2018 - \$57,620) for administrative services. As of September 30, 2019, the Company has an outstanding payable to Leo Mining in the amount of \$7,328 (September 30, 2018 - \$11,817). The amount is unsecured and due on demand.
- b) Talaxis is considered an insider as it holds more than 10% of the shares of the Company. Transactions and balances with Talaxis are disclosed throughout the consolidated financial statements.
- c) Zenith Advisory Services Pty Ltd. ("Zenith") is considered a related party because a Director of the Company is a principal of Zenith. Transactions and balances with Zenith are disclosed throughout the consolidated financial statements. During the nine months ended September 30, 2019, the Company has incurred costs of \$183,530 (September 30, 2018 - \$169,883) for advisory services related to the Talaxis investments. As of September 30, 2019, the Company has an outstanding payable of \$4,000 to Zenith (September 30, 2018 - nil). Any outstanding liabilities due will be unsecured, due on demand and non-interest bearing.
- d) The Company incurred costs of \$404,774 (September 30, 2018 - \$481,313) for key management fees and director fees for the nine months ended September 30, 2019. The non-executive Directors of the Company are each entitled to a fee of \$16,000 per year and the Chairman of the Board is entitled to a fee of \$40,000 per year. As of September 30, 2019, the Company has an outstanding payable due to directors and officers of \$23,977 (September 30, 2018 - \$26,000). The current liabilities due to related parties are unsecured, due on demand and non-interest bearing. The Company recorded a gain on deferral of related party consulting fees at the time of the initial deferral and upon deferral of each monthly amount. Accretion was recorded at an effective interest rate of 20% of the consulting fees payable. During the period ended May 31, 2019, the remainder of the deferred consulting fees were paid to the Executive Directors. The following table provides a reconciliation of amounts reflected in the condensed interim consolidated financial statements for the nine months ended September 30, 2019 and 2018:

September 30,	2019	2018
Balance, beginning of period	\$ 235,616	\$ 448,380
Consulting fees paid during the period (d)	(237,042)	(244,970)
Accretion	-	32,699
Foreign exchange loss	1,426	(493)
Balance, end of period	\$ -	\$ 251,720
Due to related parties with common directors (a)	7,328	11,817
Due to key management and directors (d)	23,977	168,826
Total due to related parties	\$ 31,305	\$ 432,363

## EXPENDITURES

	For the nine months ended		Change	For the three months ended		Change
	September 30,			September 30,		
Total expenses attributable to common shareholders and NCI	2019	2018		2019	2018	
<i>General and administrative</i>						
Audit and tax management	28,259	18,450	9,809	2,414	3,170	(756)

Legal fees	108,850	63,743	45,107	39,376	12,103	27,273
Director and Officer salaries	364,220	505,741	(141,521)	82,541	235,957	(153,416)
Salaries and consulting fees	165,645	196,296	(30,652)	77,759	110,011	(32,252)
Office	190,788	147,213	43,575	102,065	33,680	68,385
Travel	49,752	93,636	(43,884)	12,370	51,649	(39,279)
Shareholder compliance	67,036	94,830	(27,794)	13,809	19,418	(5,609)
<b>Sub total - General and administrative</b>	<b>974,549</b>	<b>1,119,910</b>	<b>(145,361)</b>	<b>330,335</b>	<b>465,989</b>	<b>(135,654)</b>
<b>Mineral exploration expenditures</b>						
<b>Songwe Hill Project</b>						
Mineral extraction development	342,070	338,088	3,982	155,777	238,971	(83,194)
Government fees	52,147	13,764	38,383	(215)	1,882	(2,097)
ESHIA	152,637	177,827	(25,190)	40,630	104,159	(63,529)
Grant refund	(56,228)	-	(56,228)	-	-	-
Drilling programme	35,907	2,009,167	(1,973,260)	-	1,340,766	(1,340,766)
Technical studies	250,442	-	250,442	97,915	-	97,915
Consulting fees	188,121	278,941	(90,820)	3,840	69,790	(65,950)
Malawi office and camp expenses	97,540	732,714	(635,174)	23,052	434,272	(411,220)
Thambani project	83,022	878	82,144	83,022	-	83,022
Mchinji project	4,401	-	4,401	4,401	-	4,401
Chimimbe project	18,269	2,060	16,209	3,735	-	3,735
<b>Sub total - Mineral exploration</b>	<b>1,168,329</b>	<b>3,553,439</b>	<b>(2,385,110)</b>	<b>412,158</b>	<b>2,189,840</b>	<b>(1,777,682)</b>
<b>Research and development</b>						
Maginito research and development	25,464	288,516	(263,052)	20,805	7,144	13,661
<b>Sub total - Research and development</b>	<b>25,464</b>	<b>288,516</b>	<b>(263,052)</b>	<b>20,805</b>	<b>7,144</b>	<b>13,661</b>
<b>Other Expenses</b>						
Share-based payments	174,175	83,730	90,445	76,832	16,813	60,019
Accretion	-	32,699	(32,699)	-	1,828	(1,828)
Depreciation	18,840	12,572	6,268	6,280	3,038	3,242
AIM listing expense	72,391	68,029	4,361	23,774	16,474	7,300
Foreign exchange (gain) loss	455,891	618,845	(162,954)	235,306	60,915	174,391
Warrant revaluation	(711,468)	131,513	(842,981)	9,277	13,395	(4,118)
<b>Total Expenses</b>	<b>\$2,178,171</b>	<b>\$5,909,254</b>	<b>\$(3,731,083)</b>	<b>\$1,114,767</b>	<b>\$2,775,436</b>	<b>\$(1,660,669)</b>

### Nine months ended September 30, 2019 compared to the nine months ended September 30, 2018

Total expenses include those attributable to both the common shareholders and to the NCI. Total expenses decreased by \$3,731,083 from \$5,909,254 for the nine months ended September 30, 2018 to \$2,178,171 for the nine months ended September 30, 2019, as a result of the following:

- General and administrative:** General and administrative expenses were \$145,361 lower for the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018. There was a \$141,521 reduction in expenses attributable to Director and officer compensation primarily as a result of a retirement payment made to two former Directors during the period ended September 30, 2018. Salaries and consulting fees were \$30,652 lower due to a reclassification of two consultants fees to mineral exploration expenditures for the period ended September 30, 2019. Travel expenses were \$43,884 lower for the nine months ended September 30, 2019 as a result of less activity at the Malawi project site and shareholder compliance fees were \$27,794 lower for the nine months ended September 30, 2019. These decreases in expenditures were offset by a \$98,491 increase in audit, legal and office expenses.
- Mineral Exploration:** Mineral exploration expenses were \$2,385,110 lower for the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018. Expenses to advance a number of key components for the bankable feasibility study were higher for the nine months ended September 30, 2019. The mineral extraction-process research expenses were \$3,982 higher. The ESHIA expenses were \$25,190 lower. The technical studies expenses were \$250,442 higher and the Malawi government fees were \$38,383 higher, compared to those expenses reported for the nine months ended September 30, 2018. The company is focusing on these work efforts in order to complete the Feasibility Study. These expenses were offset by a \$1,973,260 decrease in drilling programme expenses, a \$635,174 decrease in Malawi office and

camp expenses and a \$90,820 decrease in project consulting fees for the nine months ended September 30, 2019. Operational activity was higher during the nine months ended September 30, 2018 due to the major drilling program undertaken in Malawi. In comparison, the Company only incurred decommissioning of drilling equipment expenses for the nine months ended September 30, 2019 in relation to drilling and Malawi camp costs. The company incurred \$102,754 additional expenses as it began to advance its exploration work on the Thambani, Mchinji and Chimimbe license areas for the nine months ended September 30, 2019. The company recognized a use of grant funds for expenditures incurred related to the HiTech AlkCarb program, which decreased mineral exploration expenses by \$56,228 for the nine months ended September 30, 2019.

- c) Research and Development: Research and development expenses were \$263,052 lower for the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018. The expenses were lower because no additional payments were required during the period to advance the collaborative research programme.
- d) Warrant Revaluation: The warrant revaluation expense decreased by \$842,981 for the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018. The value of the warrants decreased because all the outstanding warrants held by common shareholders expired during the nine months ended September 30, 2019.
- e) Foreign Exchange Loss: The foreign exchange loss for the nine months ended September 30, 2019 was \$162,954 lower than the expense recognized for the nine months ended September 30, 2018 due to a decrease in cash held by the Company in foreign currencies, which were revalued at the end of each period for reporting purposes.

### **Three months ended September 30, 2019 compared to the three months ended September 30, 2018**

Total expenses decreased by \$1,660,669 from \$1,114,767 for the three months ended September 30, 2019 to \$2,775,436 for the three months ended September 30, 2018, as a result of the following:

- a) General and administrative: General and administrative expenses were \$135,654 lower for the three months ended September 30, 2018 compared to the three months ended September 30, 2019. Legal and office expenses were slightly higher for the three months ended September 30, 2019. These increases were offset by a \$153,416 reduction in Director and Officer compensation and a \$32,252 reduction in salaries and consulting fees. During the three months ended September 30, 2018, expenses were higher as a result of activities undertaken to complete the definitive agreements with Talaxis and activities required to support the drilling program in Malawi.
- b) Mineral Exploration: Mineral exploration expenses were \$1,777,682 lower for the three months ended September 30, 2019 compared to the three months ended September 30, 2018. The mineral extraction-process research expenses were \$83,194 lower and the technical studies expenses were \$97,915 higher, compared to those expenses reported for the three months ended September 30, 2018. The company is focusing on these work efforts in order to complete the Feasibility Study. The Malawi government fees were \$2,097 lower as license fees paid every two years became due during the three months ended September 30, 2019. These expenses were offset by a \$497,479 decrease in drilling programme expenses and a \$411,220 decrease in Malawi office and camp expenses for the three months ended September 30, 2019. Operational activity was higher during the three months ended September 30, 2018 due to the major drilling program undertaken in Malawi. In comparison, the Company only incurred decommissioning of drilling equipment costs for the three months ended September 30, 2019. The company incurred \$91,158 additional expenses as it began to advance its exploration work on the Thambani, Mchinji and Chimimbe license areas for the three months ended September 30, 2019.
- c) Research and Development: Research and development expenses were \$13,661 higher for the three months ended September 30, 2019 compared to the three months ended September 30, 2018. The expenses were administrative in nature.
- d) Warrant Revaluation: The warrant revaluation expense decreased by \$4,118 for the three months ended September 30, 2019 compared to the three months ended September 30, 2018. The value of the warrants decreased because all the outstanding warrants held by common shareholders were expired as of September 30, 2019.

- e) Foreign Exchange Loss: The foreign exchange loss for the three months ended September 30, 2019 was \$174,391 higher than the expense recognized for the three months ended September 30, 2018 due to an increase in cash held by the Company in foreign currencies, which were revalued at the end of each period for reporting purposes.

## **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 a Venture Issuer Basic Certificate with respect to the financial information contained in the condensed interim consolidated financial statements for the three and nine months ended September 30, 2019 and this accompanying MD&A (together, the "Interim 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 Certificates filed by the Company with the Interim Filings on SEDAR at [www.sedar.com](http://www.sedar.com).

## **COMMITMENTS**

The Company holds four licenses in Malawi with commitments to pay annual licensing fees and to meet spending commitments for exploration expenses every two years. As of the date of this report, all licenses were in good standing with the Malawi government.

The Company is continuing to meet the terms and conditions of its four exploration licences and provides updates to Malawi's Ministry of Mining on a regular basis regarding progress of its work programs.

## **ISSUED AND OUTSTANDING SHARE INFORMATION**

As at the date of this report, the Company has 133,000,721 Common Shares and 13,200,000 warrants issued. The Company has 13,025,000 stock options issued.

## **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 consolidated audited financial statements for the year ended December 31, 2018.

## **RISK FACTORS**

### *Environmental Risk*

The Company is subject to substantial environmental requirements. The current and anticipated future operations and exploration activities of the Company in Malawi require permits from various governmental authorities and such operations and exploration activities are and will be governed by local laws and regulations governing various elements of the mining industry 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. There is no assurance that future environmental regulations will not adversely affect the Company's operations.

### *Exploration and Commercial Viability Risk*

The Company does not currently produce rare earth elements from Songwe Hill where the Company is currently engaged in a Feasibility Study. While the Company has produced a Pre-feasibility Study, there is no assurance that

the Feasibility Study will demonstrate the commercial viability of the project. 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.

#### *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. The ability for mining companies 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.

#### *Foreign Countries and Political Policy Risk*

The Company has interests in properties that are located in the developing country of Malawi. The Company's mineral exploration may be affected in varying degrees by political instability and government regulations relating to foreign investment and the mining industry. Changes, if any, in mining or investment policies or shifts in political attitude in Malawi may adversely affect the Company's operations. 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 or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions.

#### *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.

#### *Mining Risks*

The mining industry has been subject to considerable price volatility, over which companies have little control, and a material decline in the price of rare earth elements could result in a significant decrease in the Company's future anticipated revenues. The mining industry has inherent business risks and there is no assurance that products can continue to be produced at economical rates or that 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 the SEDAR website ([www.sedar.com](http://www.sedar.com)).

## **FINANCIAL INSTRUMENTS AND RISK MANAGEMENT**

All financial instruments are initially recognized at fair value on initial recognition of the instrument. Measurement in subsequent periods depends on whether the financial instrument has been classified as fair value through profit or loss ("FVTPL"), held for trading, loans and receivables, financial assets available-for-sale, financial assets held-to-maturity, and other financial liabilities.

Financial assets and financial liabilities classified as FVTPL are measured at fair value with changes in fair value recognized in net earnings or loss. Financial assets, available-for-sale, are measured at fair value, with changes in fair

value recognized in other comprehensive income. Financial assets held-to-maturity, loans and receivables and other financial liabilities are measured at amortized cost using the effective interest method of amortization.

Cash is designated as FVTPL and is measured at carrying value, which approximates fair value due to the short-term nature of these instruments. Accounts receivable is designated as loans and receivables. Accounts payable and accrued liabilities and due to related parties are designated as other financial liabilities.

The fair value of cash, accounts receivable, accounts payable and amounts due to related party approximates the carrying value. Financial instruments and share-based payment transactions are measured at fair value. The main financial risks affecting the Company are discussed below:

#### Fair values

Financial assets and liabilities have been classified into categories that determine their basis of measurement and for items measured at fair value, whether changes in fair value are recognized in the consolidated statement of comprehensive loss. Those categories are fair value through profit or loss; loans and receivables; and, for most liabilities, other financial liabilities.

In establishing fair value, the Company used 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.

Cash are measured at level 1; warrant derivative financial instruments are measured at level 2.

The carrying value of accounts receivable, subscriptions receivable, accounts payable and accrued liabilities and current liabilities due to related parties, approximates the fair value due to their short-term nature and maturity. Warrants with an exercise price in a currency other than the functional currency are recorded as a derivative liability and carried at fair value.

The Company has issued share purchase warrants to common shareholders, exercisable for common shares. The exercise price of the share purchase warrants is fixed in British Pounds Sterling and the functional currency of the Company is the US dollar. Therefore, warrants are considered a derivative, as a variable amount of cash in the Company's functional currency will be received on exercise. The category "Warrants issued" below does not include warrants issued to brokers and agents since they fall under the scope of IFRS 2, share-based payments.

The value of the warrants outstanding to common shareholders decreased for the nine months ended September 30, 2019 as a result of warrants either expiring or being exercised. As of September 30, 2019 there are no longer any warrants outstanding to common shareholders.

The fair value of each warrant issued is determined at each reporting period using the Black-Scholes pricing model. In order to determine the fair value of the Company's outstanding warrants assumptions are made with regards to the future value of the risk free interest rate, the Company's share price volatility, the Company's share price and the foreign exchange rate. Therefore, the fair value of the outstanding warrants is an estimate.

	Weighted Average Exercise Price (GBP)	Weighted Average Years Remaining	Number of Warrants	Amount
Balance at December 31, 2017	£ 0.066	1.27	41,775,799	\$ 1,698,267
Warrants exercised	0.066	1.05	(7,555,679)	(521,458)
Warrants expired	-	-	(5,864,758)	-
Foreign exchange effect	-	-	-	(63,246)
Realized fair value change at December 31, 2018	-	-	-	166,032

Unrealized fair value change at December 31, 2018	-	-	-	(487,474)
Balance at December 31, 2018	£ 0.066	0.40	28,355,362	\$ 792,121
Warrants exercised	0.066	0.21	(20,081,533)	(96,012)
Warrants expired	-	-	(8,273,829)	-
Foreign exchange effect	-	-	-	15,359
Realized fair value change	-	-	-	(32,131)
Unrealized fair value change	-	-	-	(679,337)
Balance at September 30, 2019	-	-	-	\$ -

Non-current and current liabilities due to related parties that constitute a deferred payment are initially recorded at fair value, which is determined by discounting the liability using an applicable market rate.

#### Credit risk

Credit risk is the risk of loss associated with counterparty's inability to fulfill its payment obligations. The Company's credit risk is primarily attributable to cash, receivables and the receipt of the second tranche of financing from Talaxis under the Agreement and the receipt of the remainder of the grant funding from the University of Exeter.

#### Concentration risk

The majority of the Company's cash is held by one major international bank. Deposits held with this bank may exceed the amount of insurance provided on such deposits. Generally these deposits may be redeemed upon demand and bear minimal risk.

#### Foreign currency rate risk

The functional and reporting currency of the Company is the United States dollar. The Company enters into transactions denominated in Canadian dollars, the United States dollar, the British sterling, the Australian dollar, South African rand and Malawian kwacha. The Company raises its equity in British sterling and Canadian dollars and then purchases Euros, British sterling, United States dollars, Australian dollar, South African Rand and Malawi Kwacha funds 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 September 30, 2019 and 2018, is most significantly influenced by the following cash amounts held in foreign currencies (amounts shown in US dollars):

	September 30, 2019	September 30, 2018
Cash:		
Canadian dollars	\$ 77,464	\$ 27,884
United States dollars	2,783,069	7,836
British Sterling	4,243,363	4,478,574
Euro	544,276	850
Malawi Kwacha	9,412	6,552
Australian dollar	2,418,081	-
Warrants – derivative financial instruments	-	(1,377,130)
Due to related parties	(31,305)	(432,363)

\$ 10,044,360	\$ 2,712,203
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The value of cash held by the Company has been adjusted for the valuations of derivative financial instruments and amounts due to related parties.

A 5% reduction in the value of the Canadian dollar, Euro and British sterling in comparison to the United States dollar would cause a net loss of approximately \$367,000. A 5% change in the value of the Malawian Kwacha in relationship to the United States dollar would not cause a material change in net loss.

#### Liquidity Risk

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

- The Company will not have sufficient funds to settle a transaction on the due date;
- The Company will be forced to sell financial assets at a value which is less than what they are worth; or
- 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 and the Feasibility Study are continuously monitored and adjusted as input variables change. As these variables change, liquidity risks may necessitate the Company to conduct equity issues or obtain project debt financing.

The Company has in the past relied on equity financings to fund its activities. However, given the Definitive Agreements, the Company does not anticipate the need to raise additional equity capital in the short term. Should it, however, need to raise additional funds and while it has been successful in raising funds in the past, there is no guarantee that adequate funds will be available in the future.

The following table outlines the maturities of the Company's liabilities as at September 30, 2019:

	Contractual Cash Flows	Less than 1 Year	Greater than 1 Year
Accounts payable and accrued liabilities	\$ 142,603	\$ 142,603	\$ -
Due to related parties	\$ 31,305	\$ 31,305	\$ -

#### Capital Risk

The Company's objective when managing capital is to maintain a flexible capital structure which will allow it to execute its capital expenditure program, which includes expenditures in mining activities which may or may not be successful. The Company has no externally imposed capital requirements. Prior to the Talaxis transaction, the Company depended on equity placements to remain solvent. Should it need to do so again in the future, cash from these placements may or may not be available depending on market or other conditions.

## **LIQUIDITY AND CAPITAL RESOURCES**

As of September 30, 2019, the Company had a working capital surplus of \$9,974,790 (September 30, 2018 – \$3,566,312) and retained earnings surplus attributable to the shareholders of the Company of \$20,187,080 (September 30, 2018 \$5,908,927).

The operations of the Company are currently being funded by cash received from the following sources:

1. \$9,073,052 of investment proceeds received from Talaxis by Lancaster BVI, on March 28, 2019.
2. The exercise of 1,620,000 stock options during January 2019 for total cash consideration of \$75,812.
3. Proceeds received upon the exercise of warrants, for total cash consideration of \$1,687,093.

As of September 30, 2019, the Company no longer has outstanding warrants held by common shareholders as set out in this table:

	Weighted Average Exercise Price (CAD)	Weighted Average Exercise Price (GBP)	Weighted Average Years Remaining	Number of Warrants

Warrants at December 31, 2017	\$	0.39	£	0.066	1.27	41,775,799
Warrants exercised		0.15		0.066	1.05	(7,555,679)
Warrants expired		0.15		-	-	(5,864,758)
Warrants at December 31, 2018	\$	0.39	£	0.066	0.40	28,355,362
Warrants exercised		-		0.066	-	(20,081,533)
Warrants expired		-		-	-	(8,273,829)
Warrants at September 30, 2019		-		-	-	-

There are 13,200,000 advisory warrants held by Talaxis and Zenith, which remain outstanding as of the date of this report.

In addition, the Company has received €92,200 from the University of Exeter to advance the HiTech AlkCarb program, as of the date of this report. The Company expects to receive up to a total of €168,553. Expenses associated with building exploration expertise in hi-tech raw materials, improving and developing interpretation of geophysical and down-hole data have qualified for use of the grant funding.

While investments by Talaxis are in subsidiaries of Mkango, the Company has agreed with Talaxis that certain expenses of Mkango will be reimbursed by funds held by Lancaster BVI and Maginito in return for Mkango's management of the subsidiaries.

Therefore, the Company expects that funding received from Talaxis, funds received from the exercise of warrants, funds received from the exercise of stock options and from the University of Exeter grant, will be sufficient to fund Mkango's operations in the near term.

The Company's consolidated cash balance at September 30, 2019 was \$10,075,665 (September 30, 2018 - \$4,521,696).

Other than as disclosed herein, the Company is not aware of any trends, uncertainties, demands, commitments or events, which are reasonably likely to have a material effect on the Company's business, financial condition or results of operations.

## **DIRECTORS AND OFFICERS**

William Dawes, Director and Chief Executive Officer

Alexander Lemon, Director and President

Derek Linfield, Chairman of the Board of Directors

Shaun Treacy, Director (Audit Committee Chairman)

Sandra du Toit, Director (Audit Committee, Remuneration Committee)

Susan Muir, Director (Audit Committee, Corporate Secretary and Remuneration Committee Chairman)

Adrian Reynolds, Director (Remuneration Committee)

Sandra Evans, Chief Financial Officer

## **APPENDIX A**

The full set of TREO results for the Songwe Hill exploration program are as follows:

Drill Hole	From m	To m	Interval m	La <sub>2</sub> O <sub>3</sub> ppm	Ce <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>2</sub> O <sub>3</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	TREO %	
PX039	122.9	142.0	19.2	4,394	7,467	756	2,432	323	82	188	22	96	15	35	5	29	5	440	1.6%	
PX040	28.0	43.0	15.0	5,020	7,061	645	2,006	303	90	239	33	164	28	67	9	47	6	844	1.7%	
PX045a	9.8	30.9	21.1	2,006	4,148	495	1,833	309	89	217	27	127	20	47	6	33	5	547	1.0%	
PX050	8.0	161.0	153.0	2,790	5,578	643	2,353	344	87	214	26	128	21	51	7	40	5	607	1.3%	
including	96.0	126.0	30.0	4,370	8,097	890	3,132	430	108	267	32	149	24	57	8	53	7	654	1.8%	
including	137.9	161.0	23.2	3,687	7,162	808	2,899	415	105	254	31	145	24	55	7	42	5	651	1.6%	
PX053	25.0	61.0	36.0	3,461	6,442	683	2,309	365	98	236	27	117	18	39	4	22	3	492	1.4%	
	74.4	94.6	20.2	(i)	2,920	5,507	585	1,972	288	72	169	20	95	15	38	5	24	3	469	1.2%
(i) Includes 2.1m cavity not sampled.																				
PX054	23.4	182.0	158.7	2,733	5,233	582	2,097	322	86	205	24	113	18	44	6	34	5	521	1.2%	
including	45.8	102.3	56.6	3,315	6,337	703	2,489	355	95	226	28	133	22	51	6	36	5	611	1.4%	
PX055	21.4	47.5	26.2	3,921	6,592	676	2,282	332	85	193	21	92	15	35	5	28	4	425	1.5%	
	67.7	103.2	35.5	2,627	5,470	626	2,258	328	89	214	26	119	19	44	5	30	4	520	1.2%	
PX056	60.7	175.5	114.8	3,951	7,339	799	2,784	404	105	243	28	124	20	47	6	32	4	570	1.6%	
including	135.0	165.0	30.0	5,463	9,096	920	3,003	392	101	232	26	116	18	43	5	29	4	516	2.0%	
PX057	9.0	39.7	30.7	3,696	6,496	714	2,334	327	82	188	21	93	15	36	4	23	3	407	1.4%	
PX058	29.5	71.0	41.6	2,885	5,784	636	2,208	311	83	190	21	97	15	36	4	23	3	421	1.3%	
PX059	6.0	69.0	63.0	(i)	3,980	7,314	785	2,617	392	112	279	36	173	29	76	10	57	8	879	1.7%
including	7.0	30.0	23.0	(ii)	5,890	9,922	1,012	3,237	469	138	358	47	227	38	100	13	76	10	1,171	2.3%
	128.0	143.4	15.4	4,122	7,352	778	2,645	370	94	212	25	121	20	49	6	36	5	604	1.6%	
(i) Includes 5.9m cavity not sampled.																				
(ii) Includes 2.5m cavity not sampled.																				
PX063	4.4	21.4	17.0	2,951	6,117	698	2,540	359	100	239	32	168	29	71	8	51	7	838	1.4%	
	96.4	109.8	13.4	(i)	3,908	8,548	1,000	3,703	558	135	292	29	126	20	46	5	33	5	616	1.9%
(i) Includes 5.5m cavity not sampled.																				
PX066	61.8	134.2	72.4	3,122	5,703	620	2,110	301	81	196	23	112	18	44	5	33	4	510	1.3%	
including	99.0	122.6	23.6	4,147	7,328	776	2,530	337	90	219	26	127	20	50	6	40	5	576	1.6%	
PX067	6.0	128.8	122.8	3,237	5,661	598	2,105	312	85	197	22	99	15	37	5	29	4	452	1.3%	
including	44.0	70.8	26.8	4,119	7,791	858	3,039	429	112	250	27	120	19	46	6	39	6	564	1.7%	

PX070	5.0	51.6	46.6		5,228	8,218	785	2,502	318	83	192	21	93	14	30	3	19	3	364	1.8%
	78.4	201.3	123.0		5,186	8,463	824	2,587	305	77	173	19	82	12	27	3	18	2	330	1.8%
including	78.4	122.0	43.7		8,194	12,954	1,212	3,596	350	81	173	17	75	11	25	3	18	2	303	2.7%
PX072	12.6	28.4	15.8		3,364	6,889	773	2,693	405	104	247	28	121	18	41	5	25	3	532	1.5%
	93.9	147.8	53.9		2,358	4,684	525	1,886	301	77	179	20	94	16	39	5	27	4	486	1.1%
PX073	8.8	75.9	67.1		4,024	7,255	790	2,740	401	103	232	25	114	19	43	5	28	4	507	1.6%
including	45.0	70.2	25.2		5,278	8,924	948	3,159	439	110	241	24	106	17	36	4	21	3	438	2.0%
PX076	60.4	100.7	40.2		5,618	8,453	789	2,458	311	80	183	22	98	15	33	4	24	3	404	1.8%
including	60.4	80.4	20.0		7,432	11,021	1,020	3,106	372	93	209	24	108	16	36	4	25	3	434	2.4%
PX077	27.8	78.0	50.2		5,081	7,864	733	2,266	284	75	178	22	99	16	34	4	22	3	415	1.7%
PX078	6.0	28.3	22.3		3,214	5,866	621	2,144	332	86	207	24	117	19	44	5	29	4	517	1.3%
	76.2	144.4	68.3		5,114	8,386	832	2,745	366	90	205	22	103	17	39	5	27	3	482	1.8%
including	125.1	144.4	19.4		9,581	14,066	1,306	4,063	500	119	250	24	98	14	32	4	20	3	403	3.0%
PX080	5.7	109.8	104.1	(i)	3,118	5,426	578	2,018	316	82	189	21	94	15	34	4	25	3	406	1.2%
including	33.6	87.6	54.1	(i)	3,854	6,669	709	2,453	377	96	217	24	102	16	37	5	28	4	438	1.5%
(i) Includes 2.1m of core loss not sampled.																				
PX081	3.7	57.0	53.3	(i)	6,530	10,274	979	3,058	377	97	243	29	137	22	52	6	36	4	638	2.2%
including	3.7	30.5	26.8		9,531	14,108	1,290	3,863	440	108	269	32	144	24	56	7	39	5	684	3.1%
(i) Includes 3.8m cavity not sampled.																				
PX083	31.0	73.2	42.2		2,338	4,551	521	1,961	330	92	228	28	134	21	49	6	31	4	619	1.1%
PX086	21.5	94.8	73.3		4,503	8,452	903	3,098	431	115	272	32	158	26	61	7	43	5	731	1.9%
PX087	16.2	90.6	74.4	(i)	5,731	9,603	981	3,234	410	107	247	30	143	23	53	6	36	4	630	2.1%
(i) Includes 2.7m cavity not sampled.																				
PX088	47.0	100.7	53.7		1,894	3,988	486	1,919	355	94	225	27	132	22	53	6	35	4	639	1.0%
PX089	54.3	88.5	34.2		2,215	4,270	465	1,694	285	80	195	23	110	18	42	5	29	4	491	1.0%
PX090	39.5	65.2	25.7	(i)	12,424	18,649	1,670	4,792	512	138	324	39	167	25	56	7	41	6	631	3.9%
(i) Includes 6.3m cavity not sampled. Due to size of cavity, the significance of this intersection is uncertain.																				
PX092	10.1	84.9	74.9		5,133	8,693	859	2,749	374	97	229	26	116	17	39	5	28	4	482	1.9%
	97.6	149.5	51.9		3,376	6,493	708	2,472	375	99	232	26	120	19	49	7	46	6	576	1.5%
PX093	1.5	85.4	83.9		5,070	8,720	892	2,948	394	104	243	29	132	21	51	7	40	5	592	1.9%
including	21.0	39.0	18.0		8,914	14,033	1,348	4,171	472	115	255	28	118	18	41	5	33	5	474	3.0%
PX094	25.0	100.7	75.7	(i)	3,363	5,652	567	1,876	284	81	204	24	112	18	43	5	32	4	482	1.3%
including	67.0	79.0	12.0		6,336	9,822	928	2,828	385	112	282	33	147	23	52	6	38	5	593	2.2%
(i) Includes 8.5m cavity not sampled.																				

<b>PX095</b>	<b>60.0</b>	<b>82.9</b>	<b>22.9</b>	(i)	2,116	4,470	510	1,880	273	73	175	21	108	19	47	6	34	4	539	<b>1.0%</b>
(i) Includes 2.0m cavity not sampled.																				
<b>PX098</b>	<b>1.1</b>	<b>66.0</b>	<b>65.0</b>	(i)	3,682	7,400	836	2,942	428	112	278	35	168	29	73	10	55	8	872	<b>1.7%</b>
	<b>115.0</b>	<b>128.1</b>	<b>13.1</b>		3,013	5,409	579	1,974	306	84	213	27	124	20	46	6	29	4	568	<b>1.2%</b>
(i) Includes 2.3m cavity not sampled.																				
<b>PX100</b>	<b>94.6</b>	<b>100.7</b>	<b>6.1</b>		10,223	17,450	1,815	6,064	765	172	360	35	140	20	45	6	30	4	616	<b>3.8%</b>
<b>PX101</b>	<b>36.6</b>	<b>42.3</b>	<b>5.7</b>		2,981	6,306	746	2,771	493	131	322	36	148	21	43	5	29	4	560	<b>1.5%</b>
<b>PX102</b>	<b>8.7</b>	<b>36.0</b>	<b>27.3</b>		2,730	6,487	789	2,869	342	78	163	17	76	11	25	3	14	2	335	<b>1.4%</b>
	<b>75.0</b>	<b>110.3</b>	<b>35.3</b>		2,096	5,170	671	2,623	381	96	217	26	130	22	51	6	28	3	658	<b>1.2%</b>
<b>PX103</b>	<b>2.6</b>	<b>167.8</b>	<b>165.2</b>		3,512	6,903	788	2,809	412	111	263	31	144	23	55	7	45	6	658	<b>1.6%</b>
<b>PX104</b>	<b>1.9</b>	<b>47.0</b>	<b>45.1</b>	(i)	2,562	5,388	617	2,273	338	96	230	28	139	22	52	7	38	5	618	<b>1.2%</b>
	<b>95.6</b>	<b>135.0</b>	<b>39.4</b>		3,122	5,206	527	1,794	277	80	189	21	99	15	35	4	25	4	433	<b>1.2%</b>
(i) Includes 5.0m cavity not sampled.																				
<b>PX105</b>	<b>3.8</b>	<b>79.5</b>	<b>75.7</b>		2,711	5,036	550	1,963	312	86	199	24	112	18	43	5	27	4	523	<b>1.2%</b>
<b>PX106</b>	<b>51.9</b>	<b>67.5</b>	<b>15.7</b>		2,579	5,090	562	1,968	294	81	192	23	108	17	40	5	25	3	478	<b>1.1%</b>
	<b>79.7</b>	<b>109.0</b>	<b>29.3</b>		2,036	4,451	527	1,952	317	87	209	25	121	21	51	7	39	5	604	<b>1.0%</b>
<b>PX107</b>	<b>23.0</b>	<b>114.2</b>	<b>91.3</b>	(i)	3,041	5,727	632	2,258	336	95	232	29	140	23	60	8	48	6	700	<b>1.3%</b>
	<b>82.0</b>	<b>114.2</b>	<b>32.2</b>	(ii)	4,624	8,375	911	3,176	457	125	300	37	168	27	70	10	53	7	827	<b>1.9%</b>
(i) Includes 2.3m cavity not sampled.																				
(ii) Includes 0.9m cavity not sampled.																				
<b>PX108</b>	<b>8.2</b>	<b>54.0</b>	<b>45.8</b>		3,553	6,243	656	2,234	360	106	261	32	149	24	58	7	45	7	705	<b>1.4%</b>
	<b>76.9</b>	<b>134.2</b>	<b>57.3</b>		4,774	7,740	761	2,417	333	90	205	23	102	15	34	4	24	3	418	<b>1.7%</b>
<b>PX109</b>	<b>22.0</b>	<b>75.0</b>	<b>53.0</b>		6,078	9,518	896	2,790	348	88	204	23	97	15	33	4	22	3	391	<b>2.1%</b>
<b>including</b>	<b>24.0</b>	<b>46.0</b>	<b>22.0</b>		8,845	13,770	1,285	3,962	477	121	280	31	130	19	41	5	27	3	512	<b>3.0%</b>
<b>PX110</b>	<b>9.2</b>	<b>22.4</b>	<b>13.2</b>		6,648	9,822	965	2,852	348	88	204	24	109	18	39	4	22	3	451	<b>2.2%</b>
	<b>85.0</b>	<b>100.7</b>	<b>15.7</b>		4,927	9,588	1,102	3,601	475	117	270	31	148	25	58	7	41	5	676	<b>2.1%</b>
<b>PX111</b>	<b>7.0</b>	<b>42.0</b>	<b>35.0</b>		2,893	6,042	683	2,504	443	128	312	38	169	25	53	6	30	4	657	<b>1.4%</b>
	<b>69.5</b>	<b>115.9</b>	<b>46.4</b>		3,666	6,542	670	2,313	357	97	232	26	111	17	40	5	33	4	476	<b>1.5%</b>
<b>PX112</b>	<b>5.9</b>	<b>106.8</b>	<b>100.9</b>		10,530	15,038	1,357	4,067	455	114	279	32	137	22	49	6	35	4	606	<b>3.3%</b>
<b>including</b>	<b>5.9</b>	<b>26.4</b>	<b>20.5</b>		14,172	19,387	1,698	4,949	518	131	323	37	160	25	58	7	39	5	719	<b>4.2%</b>
<b>including</b>	<b>36.0</b>	<b>58.2</b>	<b>22.2</b>		13,856	19,053	1,655	4,776	495	121	289	31	128	19	41	5	28	4	522	<b>4.1%</b>
<b>PX113</b>	<b>4.7</b>	<b>55.8</b>	<b>51.1</b>	(i)	5,458	9,720	993	3,572	474	124	289	34	165	26	64	8	44	6	772	<b>2.2%</b>
(i) Includes 10.0m cavity not sampled.																				
<b>PX114</b>	<b>56.0</b>	<b>100.7</b>	<b>44.7</b>	(i)	3,762	6,498	663	2,194	319	80	186	21	98	15	34	4	22	3	409	<b>1.4%</b>
(i) Includes two cavities totaling 9.3m not sampled.																				

PX115	2.7	17.7	15.0		2,365	4,945	564	2,107	316	84	195	23	107	18	42	5	31	4	522	1.1%
	46.3	61.0	14.8		2,468	5,132	583	2,180	350	96	221	26	116	18	42	5	29	4	493	1.2%
PX116	57.3	66.0	8.7		4,426	9,933	1,205	4,615	752	189	397	40	166	24	52	6	33	5	720	2.3%
PX118	4.4	91.0	86.6		3,236	5,889	595	1,919	304	81	192	23	107	18	42	5	31	4	509	1.3%
including	46.0	91.0	45.0		3,715	6,777	681	2,170	328	86	200	23	108	18	41	5	30	4	497	1.5%
	120.9	151.6	30.7	(i)	2,248	4,667	497	1,842	346	95	228	27	133	22	52	6	33	4	640	1.1%
(i) Includes 2.2m cavity not sampled.																				
PX119	14.8	64.8	50.0		3,389	6,119	640	2,135	292	76	178	20	95	16	39	5	28	4	422	1.3%
including	14.8	24.6	9.8		8,483	12,932	1,184	3,347	334	84	193	22	98	15	34	4	23	3	380	2.7%
PX120	3.1	42.7	39.6		2,631	5,272	572	2,010	284	75	175	20	90	14	34	4	25	3	380	1.2%
PX121	60.0	95.5	35.5		3,598	6,143	655	2,218	336	89	212	24	113	17	40	5	28	4	487	1.4%
PX122	84.0	106.8	22.8	(i)	3,639	5,899	586	1,934	273	74	172	21	100	16	37	5	27	3	431	1.3%
(i) Includes two cavities totaling 4.2m not sampled.																				
PX123	75.9	100.8	24.9		2,304	4,657	513	1,807	248	61	135	15	67	11	28	4	19	3	331	1.0%
PX124	24.7	58.8	34.1		2,748	5,520	604	2,120	279	73	166	21	107	19	51	7	40	5	556	1.2%
PX125	3.5	108.0	104.5		4,244	6,599	630	1,989	272	77	187	24	113	18	40	5	26	3	475	1.5%
including	3.5	55.0	51.5		5,416	8,469	807	2,505	313	85	205	27	135	22	51	6	34	4	609	1.9%
Drill holes PX038, PX041, PX044, PX051, PX084, PX085 and PX091 did not intersect significant zones of mineralisation grading above 1% TREO																				

*These intervals are reported as down hole widths and do not necessarily represent true thicknesses and attitude of the mineralised zones, the estimation of which requires further refining of the geological model.*