



## **MKANGO RESOURCES LTD**

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

**For the years ended December 31, 2016 and 2015**

The following Management’s Discussion and Analysis (“MD&A”) of Mkango Resources Ltd. (“Mkango” or the “Company”) was prepared in accordance with the requirements of National Instrument 51-102, Continuous Disclosure Obligations, and it should be read in conjunction with the consolidated audited financial statements and accompanying notes for the year ended December 31, 2016 (the “Financial Statements”). The results reported herein 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 April 6, 2017.

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

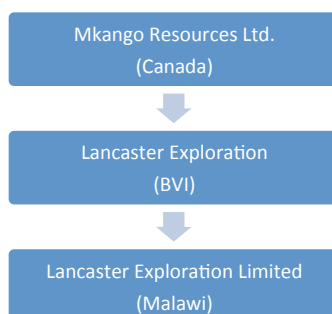
Readers are cautioned that this MD&A contains certain forward-looking statements. Please see the section concerning “Forward Looking Statements” below.

Additional information relating to the Company, including the Company’s Filing Statement, 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 under the symbol MKA and holds an additional listing on the AIM market of the London Stock Exchange.

## FORWARD LOOKING STATEMENTS

Certain disclosures set forth in this MD&A constitute forward-looking statements. 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, may constitute forward-looking information under securities laws. By their nature, forward-looking statements are subject to numerous risks and uncertainties, some of which are beyond Mkango’s control, including the impact of general economic conditions, industry conditions, volatility of commodity prices, currency fluctuations, accuracy of current drill and other exploration results, environmental risks, changes in environmental, tax and royalty legislation, competition from other industry participants, the lack of availability of qualified personnel or management, stock market volatility and ability to access sufficient capital from internal and external sources. 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. Mkango’s actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements or if any of them do so, what benefits that Mkango will derive there from. 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 Phalombe exploration license (“Phalombe License”) and the Thambani exploration license (“Thambani License”). The Company’s headquarters are in Calgary, Alberta, Canada.

Mkango was originally incorporated under the name Alloy Capital Corp. under the laws of the Province of Alberta, Canada. Mkango completed its initial public offering on August 27, 2008 as a Capital Pool Corporation as defined by Policy 2.4 of the TSX Venture Exchange (“Policy 2.4”). On December 20, 2010 Mkango completed its Qualifying Transaction, as defined in Policy 2.4, by acquiring all of the issued and outstanding shares of Lancaster Exploration (“Lancaster BVI”) through a reverse-takeover, which closed on December 20, 2010.

Lancaster BVI was incorporated August 3, 2007 by Memorandum and Articles of Association issued pursuant to the provisions of the British Virgin Island Companies Act. Lancaster BVIs registered office is located at Jayla Place, Wickhams Cay 1, P.O. Box 3190, Road Town, Tortola, British Virgin Islands, VG1110. Lancaster BVI is a wholly owned subsidiary of Mkango.

On May 19, 2011, a third entity, Lancaster Exploration Limited (“Lancaster Malawi”), was incorporated under the laws of Blantyre, Malawi. Lancaster Malawi is a wholly owned subsidiary of Lancaster BVI.

Mkango and its wholly owned subsidiaries are collectively referred to as the “Company” in this MD&A.

## GOING CONCERN

These consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the payment of liabilities in the ordinary course of business. The Company has a working capital surplus of \$782,327 (2015 – deficit \$159,103), negative cash flows from operating activities and has a deficit of \$11,793,281 (December 31, 2015 - \$10,936,373). In addition, the Company has future spending commitments with the Government of Malawi to keep its exploration licences in good standing. If the amount expended is less than the minimum commitment, the shortfall becomes a debt to the Government of Malawi (Note 11). As at December 31, 2016, the licences are in good standing with the Government of Malawi. These factors indicate material uncertainties, which may cast significant doubt on the Company’s ability to continue as a going concern.

The operations of the Company are currently being funded by the net proceeds of an equity placement completed upon listing on the AIM market of the London Stock Exchange (“AIM”) on June 15, 2016, and a second placement which closed on December 30, 2016 (Note 8) and by future equity placements.

Should the Company be unable to continue as a going concern, it may be unable to realize the carrying value of its assets and to meet its liabilities as they become due. These consolidated financial statements do not reflect the adjustments or reclassification of assets and liabilities, which would be necessary if the Company were unable to continue its operations.

## HIGHLIGHTS

As of December 31,	2016	2015
Cash used by operations	\$ (958,681)	\$ (710,475)
Total comprehensive income (loss)	(856,645)	530,294
Income (loss) per share - basic and diluted	\$ (0.01)	\$ 0.02
Weighted average common shares outstanding	57,157,323	29,929,305
<i>Evaluation and exploration spending:</i>		
Malawi – Mineral exploration expenditures	105,557	133,949
Current assets	951,919	215,944
Current liabilities	(169,592)	(375,047)
Working capital	\$ 782,327	\$ (159,103)

## SUMMARY OF QUARTERLY RESULTS

Total Operations	2016				2015			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Interest income	\$2	\$3	\$-	\$2	\$1	\$ -	\$2	\$5
Expenses	407,685	305,701	224,235	214,863	194,453	163,950	163,982	238,229
Other items	183,580	(92,390)	199,117	(3,337)	-	-	-	-
Warrant fair value loss (gain)	(1,119,538)	178,006	275,861	83,132	144,616	(115,106)	(1,336,185)	15,775
Net income (loss) for period	528,275	(391,314)	(699,213)	(294,656)	(339,068)	(48,844)	1,172,205	(253,999)
Loss per share - basic and diluted	\$0.02	\$(0.01)	\$(0.02)	\$(0.00)	\$(0.00)	\$(0.00)	\$0.01	\$(0.00)
Total assets	980,430	539,997	1,184,254	132,918	252,935	384,714	77,278	75,993
Cash	388,678	491,424	1,121,239	87,774	208,161	328,246	62,303	63,066

The financial data for the 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 December 31, 2016. The financial data is presented in US dollars.

The Company’s principal activities require expenditures which include both exploration and general and administrative expenses.

The Company recognized net income of \$528,275 and a net loss of (\$339,068) for the three months ended December 31, 2016 and 2015, respectively. General and administrative costs of (\$405,891) (2015 - (\$84,668)) were comprised primarily of consulting and professional fees and office expenses required to maintain the on-going operations of the Company. Stock based compensation expense was (\$157,839) for the three months ended December 31, 2016 (2015 - \$32,101) as a result of issuing options on June 15, 2016, whereby the options vest and are expensed over a 24 month period. The mineral exploration expenditures for the three months ended December 31, 2016 was (\$1,794) compared (\$109,785) for the three months ended December 31, 2015. The Company was approved to receive the HiTech AlkCarb grant on February 1, 2016 for an amount of up to €150,000 under the research program led by the Camborne School of Mines, University of Exeter and funded under the European Union's Horizon 2020 Research and Innovation. During the three months ended December 31, 2016, the Company consumed \$247 of the grant funding which resulted in a net refund of costs.

The Company recognized a net loss of (\$391,314) compared to a net loss of (\$48,844) for the three months ended September 30, 2016 and 2015, respectively. The net loss recognized for the three months ended September 30, 2016 was in part, the result of a non-cash (\$178,006) revaluation loss on the Company’s outstanding warrants partially offset by a non-cash \$71,996 foreign exchange gain. In comparison, there was a \$115,106 revaluation gain recognized for the three months ended September 30, 2015 on the Company’s outstanding warrants and a \$3,203 foreign exchange gain for the same period. The mineral exploration expenditures for the three months ended September 30, 2016 were (\$65,475) compared to a refund of \$622 from the South African Department of Trade and Industry (“DTI”) grant for the three months ended September 30, 2015. Stock based compensation expense was (\$163,168) for the three months ended September 30, 2016 (2015 - \$29,788) as a result of issuing options on June 14, 2016, whereby the issuance vests and is expensed over a 24 month period. General and administrative expenses totaled (\$74,418) for the three months ended September 30, 2016 (2015 - \$137,980). The net loss was partially offset by \$20,393 of grant revenue recognized as a result of receiving funds from the HiTech AlkCarb research program.

The Company recognized a net loss of (\$699,213) compared to a net income of \$1,172,205 for the three months ended June 30, 2016 and 2015, respectively. The net loss recognized for the three months ended June 30, 2016 was primarily the result of a non-cash (\$275,861) revaluation loss of the Company’s outstanding warrants and a non-cash (\$199,117) foreign exchange loss due to Sterling depreciation in the wake of the UK’s referendum on EU membership and decision to leave the EU. In comparison, there was a \$1,336,185 revaluation gain recognized for the three months ended June 30, 2015 on the Company’s outstanding warrants and a \$38,702 foreign exchange gain for the same period. The mineral exploration expenditures for the three months ended June 30, 2016 was (\$31,003)

compared to \$46,316 for the three months ended June 30, 2015. Stock based compensation expense was (\$165,005) for the three months ended June 30, 2016 (2015 - \$47,182) as a result of issuing options on June 14, 2016, whereby the issuance vests and is expensed over a 24 month period. General and administrative expenses totaled (\$28,228) for the three months ended June 30, 2016 (2015 - \$109,178).

The Company recognized a net loss of (\$294,656) and (\$253,999) for the three months ended March 31, 2016 and March 31, 2015, respectively. The difference in the net loss when compared to the prior year was the result of higher mineral exploration expenditures. The mineral exploration expenditures for the three months ended March 31, 2015 were reduced to a refund of \$21,530 as the result of receiving a \$104,728 refund through the DTI grant program. In comparison, mineral exploration expenditures for the three months ended March 31, 2016 were (\$27,679). The Stock based compensation expense was (\$8,698) for the three months ended March 31, 2015 (2015 - \$63,573) as a result of issuing options on May 30, 2014, whereby the issuance vests and is expensed over a 24 month period. General and administrative expenses were (\$175,846) for the three months ended March 31, 2016 (2015 - \$180,993).

The Company's cash balance as at December 31, 2016 was \$388,678 (December 2015 - \$208,161).

## DISCUSSION OF OPERATIONS

Mkango holds, through its wholly owned subsidiary Lancaster Exploration Limited, a 100% interest in two exclusive prospecting licenses in southern Malawi, the Thambani Licence and the Phalombe Licence.

The main exploration target in the Phalombe licence is the Songwe Hill rare earths deposit, which features carbonatite hosted rare earth mineralisation and was subject to previous exploration in the late 1980s. Mkango completed an updated pre-feasibility study for the project in November 2015.

Mkango is focused on further optimising the Songwe project with a view to maximising efficiency and reducing costs, thereby providing a strong platform both for entering into partnerships, marketing and off-take arrangements.

The main exploration targets in the Thambani licence are uranium, niobium and tantalum. In January 2015, Mkango announced the first set of assay results of 142 soil and rock chip samples from 9 trenches, which returned variably anomalous uranium, niobium and tantalum 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. In July 2016, the Corporation announced the results of an airborne geophysical survey covering approximately two thirds of the licence area, highlighting a number of significant radiometric and magnetic anomalies.

The Company's strategy is to further advance the projects via research collaborations, marketing and off-take agreements, joint ventures, financial and strategic partnerships.

In December 2016, the Company entered into a collaboration agreement with Noble Resources International, which will also allow Noble to acquire up to a 12.5% interest in Mkango.

Noble is one of world's largest commodity traders and the largest in Asia, with a presence throughout the region. It is listed on the Singapore Stock Exchange with a market capitalization of approximately US\$1.8 billion.

Under the key terms of the Agreement, Noble will provide the following services to Mkango:

- Identifying the optimal markets and counterparties for Mkango's future rare earths production;
- Identifying the best strategy for the Project's product mix given the international market for different rare earths concentrates and separated rare earths oxides, and advising Mkango on the way forward;
- Identifying the optimal logistics route to take the Project's production to market;
- Introductions to potential strategic partners to finance development of the Project; and
- Assistance in market-related discussions with key stakeholders, including Mkango's financial, technical and legal advisers, prospective investors and lenders and relevant government agencies associated with the Project.

Noble will also have the right to negotiate a marketing services agreement for rare earths produced by the Project.

In connection with the agreement, Mkango issued 12 million common share purchase warrants to Noble, aligning Noble's interests with those of Mkango's shareholders. Each whole warrant will entitle Noble to acquire one common share of the Company at a price of 6.6 pence for a period of two years following the date of the agreement.

## 1. SONGWE HILL

The Phalombe License covers an area of 849.1 square kilometers ("sq km") in southeast Malawi. The main exploration target in the license area is the Songwe Hill deposit, which features carbonatite hosted rare earth mineralization and was subject to previous exploration programs in the late 1980s. Lancaster was awarded the license on January 21, 2010.

The Phalombe License runs for a period of three years and is renewable for further periods of two years and two years thereafter if the terms and conditions of the Phalombe License have been met. The license was renewed for a further two years on January 21, 2017. The Company requested that the licence area be reduced to the current area of 849.1 sq km. The license has been renewed for a further 2 years to January 21, 2019. The Company is continuing to meet the terms and conditions of the license and provides updates to Malawi's Ministry of Mining on a regular basis regarding progress on its work program.

Management believes that all necessary permits for Lancaster's current phase of the exploration program have been obtained.

Songwe is accessible by road from Zomba, the former capital, and Blantyre, the principal commercial town of Malawi. Total travel time from Zomba is approximately 2 hours, which will reduce as infrastructure continues to be upgraded in the area. Songwe is a volcanic vent that is expressed as a steep-sided hill rising some 230m above the surrounding plain.

The drilling programs completed in 2011 and 2012, focused on an area measuring approximately 350 by 100 meters comprising rare earth enriched carbonatite, carbonatite breccia and fenite lithologies, largely exposed at surface. A total of 25 holes were completed in the 2012 Stage 2 program for a total of approximately 4,860 meters to a maximum vertical depth of approximately 350 meters. The Stage 2 program was designed to complement the 13 hole, 2,000 meter Stage 1 drilling program and systematic channel sampling completed in 2011.

On November 22, 2012, Mkango filed a Technical Report (the "Report") for its maiden NI 43-101 mineral resource estimate entitled, *NI 43-101 Technical Report and Mineral Resource Estimate for the Songwe Hill Rare Earth Element (REE) Project, Phalombe District, Republic of Malawi*, authored by Scott Swinden, PhD, PGeo and Michael Hall, Pr.Sci.Nat., MAusIMM. The Report's mineral resource estimates, as previously announced, are summarized below. For further details of the mineral resource estimates including breakdowns thereof, please refer to the Report, which is available at [www.sedar.com](http://www.sedar.com).

Cut-off grade	<i>In-situ</i> Indicated Mineral Resource estimate	<i>In-situ</i> Inferred Mineral Resource estimate
1.0% TREO	13.2 mt grading 1.62% TREO	18.6 mt grading 1.38% TREO
1.5% TREO	6.2 mt grading 2.05% TREO	5.1 mt grading 1.83% TREO

*TREO – total rare earth oxides including yttrium. In-situ - no geological losses applied. mt - million tonnes*

On July 10, 2013, the Company announced a base case metallurgical flow sheet for the Songwe Hill rare earth project and that proof of concept test work on a bench scale had demonstrated that the flow sheet has potential to produce a high grade mixed rare earth carbonate or hydroxide product.

During the year ending December 31, 2013, the Company was focused on scoping metallurgical test work, environmental studies and commencement of the pre-feasibility study, in addition to regional exploration.

During the year ended December 31, 2014, the Company continued to progress the environmental and social impact studies, flow sheet optimization and metallurgical test work, process plant engineering design work, mining studies and other activities related to the pre-feasibility study. This culminated in the Company announcing the results of the pre-feasibility study on September 23, 2014. The pre-feasibility study was subsequently updated with the results announced on November 9, 2015.



The updated pre-feasibility Study (the Study) indicates a US\$345 million after-tax net present value (NPV), using a 10% nominal discount rate, and 37% after-tax internal rate of return (IRR) for the Songwe Hill Rare Earth Project (the Project), based on rare earth oxide (REO) prices equivalent to a total rare earth basket price for Songwe Hill of US\$59.8 per kg REO. The basket price reflects the selective removal of a large proportion of the cerium during the hydrometallurgical process, which enhances the value of the product mix.

Initial capital expenditure (Capex) of US\$216m, including a contingency of US\$20m, is among the lowest in the rare earth sector.

Cash operating costs average US\$13.0 per kg REO for the first 5 years of production and US\$16.4 per kg REO for the life of mine. The Study assumes an additional cost of US\$10.0 per kg REO to account for the cost or discount associated with toll separation or the sale of a mixed chemical concentrate.

The Study is based on an open pit operation, using contract mining, with a mine life of 18 years commencing in 2018. There is potential to significantly expand production or the mine life and for a lower strip ratio given the large additional Inferred Resource and potential to expand the Mineral Resource.

This first phase of development envisages production of a high grade, cerium depleted, purified chemical concentrate for toll treatment or sale, with annual production of approximately 2,840 tonnes per year of REO in concentrate.

Based on the input parameters in the updated Study the Probable Mineral Reserve Estimate remains unchanged at 8.5 million tonnes grading 1.60% TREO using a cut-off grade of 1.0% TREO as reported in September 2014.

Mkango's strategy for Songwe is to further optimise the project with a view to maximising efficiency and reducing costs, thereby providing a strong platform both for entering into partnerships, marketing and off-take arrangements.

On July 26, 2016, Mkango announced that it has secured a two-year exclusive option and right to acquire, on commercially standard terms, the worldwide licence for a technology to produce high strength (up to 30%) hydrochloric acid ("HCL") from calcium chloride feed streams (the "Technology") using sulphuric acid, applicable in rare earths processing and other potential industrial applications. The Technology has been developed by Dr. Thomas Feldmann and Professor George Demopoulos of McGill University in Montreal, Canada.

Mkango's processing flowsheet for Songwe incorporates a HCL gangue leach step, producing calcium chloride in solution. The HCL will be regenerated using the calcium chloride feed stream, supplemented with additional calcium chloride, together with sulphuric acid produced from sulphur at a plant on-site. This means that the import of large quantities of liquid HCL will not be required, effectively being replaced by the import of solid sulphur and calcium chloride, therefore bringing significant potential cost and logistical benefits. The production of a gypsum by-product for sale in Malawi and elsewhere will also be investigated.

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

Apart from Songwe, there are two other identified vent systems in the Phalombe licence, Nkalonje and Namangale. In both cases, the Survey indicates strong thorium radiometric anomalies coincident with the vents, which, similar to Songwe, 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 Songwe Hill carbonatite is also characterized by a thorium radiometric anomaly, identified through previous geophysical surveys. Unlike Songwe Hill, the Nkalonje and Namangale vent 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 may be potential for 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 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 project

led by the Camborne School of Mines, University of Exeter and funded under the European Union's Horizon 2020 Research and Innovation program in which Mkango (through its wholly owned subsidiary, Lancaster Exploration) is an industry partner. The scope of the research project encompasses building exploration expertise in hi-tech raw materials, improving and developing interpretation of geophysical and downhole 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 include the summit of Songwe hill (which lies outside and to the south of the Indicated and Inferred Mineral Resource Estimate at Songwe) and the abovementioned Nkalonje vent system, where, in both cases outcrop is largely fenite (altered country rock) with occasional carbonatite, but there may be potential for underlying and larger zones of mineralised carbonatite. Rare earth mineralisation and mineral assemblages for both the fenite and carbonatite will be evaluated in the context of the geophysics covering the areas, to further assess their potential as future drill targets.

## **2. THAMBANI, MWANZA DISTRICT**

Lancaster was granted an additional exploration license 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<sup>2</sup> in Thambani, Mwanza District, Malawi. Exploration has identified a number of areas with potential for uranium, zircon, corundum and niobium.

The Thambani License runs for a period of three years and is renewable for further periods of two years and two years thereafter if the terms and conditions of the Thambani License have been met. The license was renewed for a further two years on September 10, 2015 when the company requested a reduction in the license area to the current 136.9 sq km. The Company is continuing to meet the terms and conditions of the license and provides updates to Malawi's Ministry of Mining on a regular basis regarding progress on its work program.

The exploration activities conducted during 2011 and 2012 included acquisition of Landsat7 and ASTER satellite imagery for the license 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 occurs on the West Ridge along the western contact of the nepheline syenite body with the eastern biotite-hornblende gneisses.

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 and West ridges. 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 9 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>308</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

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

The new 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.

A further discrete uranium anomaly, orientated approximately east-west, is located to the south of this anomaly and has yet to be investigated in detail. The previously-identified uranium radiometric anomaly 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 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.

The magnetic high anomalies provide an excellent focus for future exploration for niobium - tantalum, because columbite, a niobium - tantalum mineral, has previously been shown to be closely associated with magnetite and/or ilmenite at Thambani.

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)

## PROPERTY AND EQUIPMENT

Property and equipment include computer and office equipment and a vehicle that was purchased in Malawi for use in the camp.

	Cost	Accumulated Depreciation	Net Book Value
Balance at December 31, 2014	\$ 10,020	\$ (6,214)	\$ 3,806
Disposal of asset	(9,732)	6,099	(3,633)
Additions	42,124	-	42,124
Depreciation	-	(5,306)	(5,306)
Balance at December 31, 2015	\$ 42,412	\$ (5,421)	\$ 36,991
Additions	2,377	-	2,377
Depreciation	-	(10,857)	(10,857)
Balance at December 31, 2016	\$ 44,789	\$ (16,278)	\$ 28,511

## CURRENT LIABILITIES

Current liabilities include trade payables, accruals and amounts due to related parties. The Company had current liabilities totaling \$169,592 as at December 31, 2016. The current liabilities are comprised of the following:

Current Liabilities	December 31, 2016
Related party costs	28,926
Accounts payable and accrued liabilities:	
General administrative costs	56,780
AIM listing costs	42,594
Legal fees	8,330
Malawi project costs	5,610
Grant received in advance	27,352
Total current liabilities at December 31, 2016	\$169,592

## RELATED PARTY TRANSACTIONS

- 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. Generally the Company repays the disbursements made by Leo Mining on its behalf. During the year ended December 31, 2016, the Company had incurred costs of \$25,862 (2015 - \$53,869) for administrative services. As of December 31, 2016 the Company has an outstanding payable to Leo Mining in the amount of \$26,959 (2015 – \$29,974). The amount is unsecured and due on demand. Interest of 2% may be incurred on the outstanding amount annually; however this has been waived since 2013.
- Digby Wells Environmental (“Digby”), by virtue of a common director, is considered a related party. During the year ended December 31, 2016, the Company has incurred costs of \$9,934 (2015 – \$8,402) for environmental services. As of December 31, 2016, there was no outstanding payable to Digby (2015 – \$6,587).
- The Company incurred costs of \$426,386 (2015 - \$394,981) for key management and director fees and related costs for the year ended December 31, 2016. Included in current liabilities due to related parties at December 31, 2016 was \$1,967 (2015 - \$156,782). The current liabilities due to related parties are unsecured, due on demand and non-interest bearing.

	2016	2015
Consulting fees	\$ 258,311	\$ 302,149
Share-based awards	168,075	92,832
Total key management compensation	\$ 426,386	\$ 394,981

- d) On March 6, 2016, the Board of Directors resolved that each director will be entitled to a payment of £1,000 per meeting, only payable upon a change of control of the Company. No amount has been accrued in the consolidated financial statements, as the amounts are contingent liabilities, payable only upon a change of control of the Company. As at December 31, 2016, they amount payable in the event of a change of control amounted to £35,000.
- e) On May 12, 2016, the Company entered into new consulting agreements (the “Agreement”) with its CEO and President (the “Executive Directors”) whereby a total of £145,618 (approximately \$210,435), comprising deferred consulting fees payable to the Executive Directors accrued since March 2015, will only become payable on the earlier of, a change of control, termination of the Agreement, or May 12, 2018. In terms of consulting fees that are unpaid going forward, a total of £112,000 (approximately \$145,894), has been accrued as of December 31, 2016, but shall not be payable until the earlier of (a) a Change of Control; (b) any termination of the agreement; (c) May 12, 2018; or (d) such time that funds are reasonably available. Consulting fees of approximately, £14,000 (\$17,270) will continue to accrue monthly under the Agreement. The Company recorded a gain on deferral of related party consulting fees at the time of initial deferral and upon deferral of each monthly amount. Accretion is recorded at an effective interest rate of 20% up to the estimated maturity date of the consulting fees payable under the Agreement. The following table provides a reconciliation of amounts reflected in the consolidated financial statements as at and for the year ended December 31, 2016:

	2016
Initial deferral of consulting fees	\$ 210,435
Consulting fees	145,894
Gain on deferral of consulting fees	(108,292)
Accretion	23,523
Foreign exchange gain	(28,463)
Balance at December 31, 2016	\$ 243,097

## EXPENDITURES

	For the years ended		Variance
	December 31,		
	2016	2015	
<b>General and administrative</b>			
Audit and tax management	\$35,000	\$38,155	(3,155)
Legal fees	5,841	19,448	(13,607)
Director's salaries (unpaid and accrued)	225,849	-	225,849
Salaries and consulting fees	112,225	388,428	(276,203)
Other general and administrative costs	153,212	107,883	45,329
Travel	9,232	11,073	(1,841)
Shareholder compliance & investor relations	-	36,006	(36,006)
<b>Sub total - General and administrative</b>	<b>541,360</b>	<b>600,993</b>	<b>(59,634)</b>
<b>Malawi exploration expenditures</b>			
Environmental studies	9,049	28,237	(19,188)
Mineral extraction development	22,137	72,684	(50,547)
Ground rental fee	13,989	2,751	11,238
Consulting fees & salaries	7,153	71,720	(64,567)
Grant refund	(20,640)	(104,728)	84,088
Malawi office and camp expenses	38,467	59,601	(21,134)
Technical review and analysis	35,402	63,285	(27,883)
<b>Sub total - Mineral exploration</b>	<b>105,557</b>	<b>193,550</b>	<b>(87,993)</b>
<b>Other Expenses</b>			
Stock option expense	494,710	108,442	386,268
Accretion	23,523	-	23,523
Depreciation	10,857	5,306	5,551
Listing expense	451,596	-	451,596
Gain on deferral of related party consulting fees	(108,292)	-	(108,292)
Loss on sale of asset	-	951	(951)
Foreign exchange (gain) loss	(79,857)	(148,628)	68,771
Warrant revaluation	(582,539)	(1,290,900)	708,361
<b>Total Expenses</b>	<b>\$856,914</b>	<b>\$(530,286)</b>	<b>\$1,387,200</b>

Total expenses increased by \$1,387,200 from a profit of \$530,286 to a loss of (\$856,914) for the years ended December 31, 2016 and 2015, respectively, primarily as a result of the following:

- General and administrative expenses for the years ended December 31, 2016 and 2015 were \$541,360 and \$600,993, respectively.  
Impact: (\$59,634) decrease in expenses.
- Mineral Exploration: Mineral exploration expenses were \$105,557 and \$193,550 for the years ended December 31, 2016 and 2015, respectively.  
Impact: (\$87,993) decrease in expenses.
- Gain on deferral of related party consulting fees: Two officers have agreed to defer payment of their consulting fees. A gain of \$108,992 was recognized to fair value the deferred management consulting fees.

- Impact: (\$108,992) decrease in expenses.
- d) Warrants: The warrant revaluation for the outstanding warrants resulted in a \$582,539 and \$1,290,900 gain for the years ended December 31, 2016 and 2015, respectively.  
Impact: \$708,361 increase in expenses.
- e) Stock Option Expense: The stock option expense recognized for the year ended December 31, 2016 was \$494,710 compared to the \$108,442 expense recognized at December 31, 2016. New stock options were granted on June 15, 2016 and are being expensed as they vest over a 24-month period with the majority of the expenses recognized during the first year of the vesting period.  
Impact: \$386,268 increase in expenses.
- f) Foreign exchange: The foreign exchange for the years ended December 31, 2016 and 2015 was a gain of \$79,857 and \$148,628, respectively.  
Impact: \$68,771 increase in expenses.
- g) Depreciation: The depreciation for the year ended December 31, 2016 and 2015 was an expense of \$10,857 and \$5,306, respectively.  
Impact: \$5,551 increase in expenses.

## LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2016, the Company had a working capital surplus of \$782,327 (December 31, 2015 – deficit (\$159,103)).

The Company completed its Qualifying Transaction on December 20, 2010 and raised \$5,631,076, net of share issue costs. The Company raised a further \$2,114,650, net of share issue costs, as of December 31, 2013 through a second equity issue. The Company raised a further \$1,806,075, net of share issue costs, through a third equity issue, which closed in two tranches on March 24, 2014 and April 3, 2014. The Company raised a further \$785,896, net of share issue costs, through an equity issue, which closed July 31, 2015 and on October 20, 2015, the Company raised \$194,267, net of share issue costs, through an equity issue. On June 15 and December 30, 2016 the Company raised a total of \$1,141,312 net of share issue costs, in connection with its listing on AIM and a further placing. The operations of the Company are currently being funded by the net proceeds of these fund raisings.

The Company's strategy is to further advance the projects via research collaborations, marketing and off-take agreements, joint ventures, financial and strategic partnerships.

Since the Company does not expect to generate any revenue in the near future, and in the absence of a joint venture or partnership to further fund exploration and development of the assets, it must continue to rely upon existing cash resources, potential research funding or grants and the sale of its equity and/or debt securities to fund its operations. There can be no assurance that such financing will continue to be available to the Company in the amount required at any particular time or for any period or, if available, it can be obtained on terms satisfactory to the Company. The circumstances that could affect the company's ability to secure such funding that are reasonably likely to occur are, without limitation include the state of the capital markets and the prevailing market prices for commodities, in particular the prevailing market prices for REE. The outlook in relation to these factors could change at any time and negatively affect the Company's operations and business. 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.

## COMMITMENTS

The Company was granted the Phalombe Licence for the Songwe property on January 21, 2010. The license was issued by the Malawi Government on a three-year basis, originally, and has subsequently been renewed with the most recent renewal on January 21, 2017 for a further 2 years to January 21, 2019. The future spending commitments for the exploration rights with the Government of Malawi are 150,000,000 Kwacha over two years (foreign exchange rate MWK718):

Exploration commitments, 2 years	\$ 208,914
Ground rent, 2 years	25,977
<b>Total commitment, 2 years</b>	<b>\$ 234,891</b>

On September 10, 2010, the Company was granted an additional exploration licence by the Malawi Minister of Natural Resources, Energy and Environment in respect of an area of 468 km<sup>2</sup> in Thambani, Mwanza District, Malawi. The license was issued by the Malawi Government on a three-year basis, originally, and has subsequently been renewed with the most recent renewal on September 10, 2015, for an additional two years when the Company requested a reduction in the license area to the current 136.9 sq km. The future spending commitments for exploration expenses with the Government of Malawi are 25,000,000 Kwacha over two years (foreign exchange rate MWK718):

Exploration commitments, 2 years	\$ 34,819
Ground rent, 2 years	4,188
<hr/> Total commitment, 2 years	<hr/> \$ 39,007

The Company is continuing to meet the terms and conditions of its two exploration licenses and provides updates to Malawi's Ministry of Mining on a regular basis regarding progress of its work programs. If the amount expended is less than the minimum commitment, the shortfall becomes a debt to the Government of Malawi.

## **ISSUED AND OUTSTANDING SHARE INFORMATION**

As at the date of this report, the Company has 83,912,472 Common Shares and 59,474,997 warrants issued. The Company has 7,000,000 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, 2016.

## **BUSINESS RISKS**

Readers are cautioned that the following 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)).

The Company is presently pursuing direct investments in international mining projects. There is no assurance that exploration prospects will be granted in foreign jurisdictions where the Company is making applications, nor is there assurance the exploration efforts will be successful. If the Company is successful in obtaining exploration prospects in foreign jurisdictions, additional capital will be required to execute the exploration programs.

Rare earth element and related mineralogy exploration, development, production and marketing operations inherently have a number of business risks and uncertainties, including the uncertainty of finding new reserves, the volatility of commodity prices, operational risks, the cost of capital available to fund exploration and development programs, regulatory issues and taxation, and the requirements of new environmental laws and regulations.

The Company manages these risks by contracting competent professional staff, following sound operating practices and the prudent issuance of equity to fund capital expenditures so that debt does not become a burden. Extensive geological, geophysical, engineering and environmental analyses are performed before committing to the drilling of new prospects. These analyses are used to ensure a suitable balance between risk and reward. The Company conducts its operations in a manner consistent with environmental regulations as stipulated applicable local legislation. Mkango is committed to meeting its responsibilities to protect the environment wherever it may operate and anticipates making increased capital and operating expenditures as a result of the increasingly stringent laws relating to the protection of the environment. Mkango's operations are subject to the risks normally associated with



the mining industry. The Company is committed to respecting the safety of its personnel, the environment and the communities where it has operations.

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. Fluctuations in currency and exchange rates and changes in production are daily risks in the mining industry.

## FINANCIAL INVESTMENTS 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 and cash equivalents are designated as FVTPL and are measured at carrying value, which approximates fair value due to the short-term nature of these instruments. Accounts receivable are 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 and cash equivalents, accounts receivable, accounts payable and amounts due to related party approximates the carrying value. The Company does not hold any other financial instruments. The main financial risks affecting the Company are discussed below:

### Fair values

The Company's cash and cash equivalents and accounts receivable and current liabilities are approximated by their carrying values due to the short-term nature of the items.

### Concentration risk

The majority of the Company's cash and cash equivalents are 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 the Canadian Dollar, the British Sterling, the United States dollar, South African Rand and the local currency in Malawi (Kwacha). The Company raises its equity in British Sterling and the Canadian dollar and then purchases Canadian dollar, British Sterling, United States dollar, South African Rand and Malawi Kwacha funds to settle liabilities, as required.

As at December 31, 2016 and 2015, the following cash balances were held by the Company:

	2016	2015
Cash and cash equivalents:		
Canadian dollars	\$ 155	\$ 205,749
United States dollars	6,594	-
British Sterling and Euros	380,588	-
Malawi Kwacha	1,341	553
Warrants – derivative financial instruments	(1,009,367)	(609,700)
Due to related parties	(243,097)	-
	<u>\$ (863,786)</u>	<u>\$ (403,398)</u>

A 5% reduction in the value of British Sterling in comparison to the United States dollar will have an approximately \$43,000 effect on the Company's cash balance. A 5% change in the value of the Malawi Kwacha in relationship to the United States dollar would not cause a material change in net income (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 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.

#### 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. Therefore, the Company monitors the level of risk incurred in its capital expenditures to balance the proportion of debt and equity in its capital structure. The Company has no externally imposed capital requirements. The Company currently depends on equity financings to remain solvent. Cash from these financings may or may not be available depending on market or other conditions.

### **DIRECTORS AND OFFICERS AS AT DECEMBER 31, 2016**

William Dawes, Director and Chief Executive Officer

Alexander Lemon, Director and President

Derek Linfield, Chairman of the Board of Directors

David Berg, Audit Committee Chairman, Director and Corporate Secretary

Adrian Reynolds, Director (Audit Committee)

Eugene Chen, Director (Audit Committee)

Sandra Evans (*formerly Beaulieu*), Chief Financial Officer