

ASX ANNOUNCEMENT

ASX : CHW 24 September 2024

PIPELINE OF 47 CARBONATITE TARGETS IDENTIFIED AT LAKE CHILWA PROJECT

KEY POINTS

- High resolution aeromagnetics and radiometrics were flown over the entire Lake Chilwa Project, with the interpretation also assessing the rare earth elements (REE) and niobium potential of the project
- There are over 12 known carbonatites mapped surrounding or within the project area at Lake Chilwa¹
- The geophysical interpretation of the aeromagnetic and radiometric data has 46 targets that may represent carbonatites or alkaline intrusives plus one (1) dyke, which may be sources for rare earth elements and niobium mineralisation measuring approximately a 21 kilometre strike.
- Targets including the dyke, cover an area of approximately 3 l km² in total,
 highlighting the prospectivity of the region

OVERVIEW

Chilwa Minerals Limited (ASX: CHW) ("Chilwa" or the "Company") is pleased to announce that, following the announcement of the HMS geophysical interpretation, it now provides details of the REE-related interpretation of the aeromagnetic and radiometric surveys completed at the Chilwa Project in southeast Malawi.

Chilwa's primary focus has been on the definition and expansion of the mineral sand resources at Lake Chilwa, however early drilling results and a review of the regional geology has highlighted the REE and niobium prospectivity within the project, both for primary and clay-hosted mineralisation.

The Company's geophysical consultants, Geo Focus Ltd, have interpreted the new surveys and highlighted a number of features that may represent targets for REE mineralisation. Forty seven (47) geophysical features/anomalies have been identified, with the majority in the bottom half of the project area.

Chilwa Island is a known carbonatite. Other ring shaped targets have been identified in the Southern Extension Area and Mpyupyu Area that require ground truthing.

Chilwa's Managing Director, Cadell Buss, commented:

"The early (untargeted) drill results and the new geophysical interpretation give us significant confidence to commence a parallel exploration stream focused on the rare earth and niobium potential at the Chilwa Project.

"We already know that the region is fertile for rare earth mineralisation with projects at various stages of development and the parental melt for the carbonatite was derived from an ancient depleted sub-continental mantle source, similar to the one that generated the carbonatites melts at Kangankunde. (Lindian Resources project)².

"Approximately 600 carbonatites have been discovered globally³, and given the amount of targets that have now been identified, the prospectivity of the Chilwa Project has significantly increased and diversified into a multi commodity asset and we expect that the positive news flow generated by the Project will increase over the next 6-12 months."

² 1994. A Simonetti & K Bell; Isotopic and Geochemical Investigation of the Chilwa Island Carbonatite Complex, Malawi.



¹ Refer to ASX announcement 17th July 2024

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Refer to WA1 presentation 27 September 2023 Corporate presentation - Canaccord Genuity Latam Conference pg 8

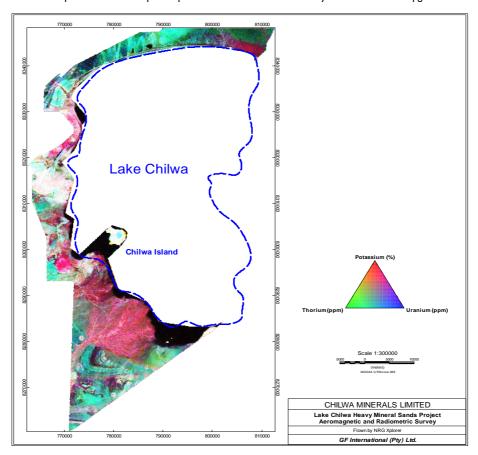


Figure I: Chilwa Minerals Project – Area of Aeromagnetic and Radiometric Surveys. Image shown is the K-Th-U ternary image as an RGB composite

Background

Chilwa Minerals Limited engaged New Resolution Geophysics (NRG) to carry out a high resolution XPlorer magnetic and radiometric survey over both EL0671-22 and EL0672-22 between the 25th of May and the 8th of June 2024.

The aircraft used to conduct the survey was a Aérospatiale AS 350B1 Ecureuil using a line spacing of 100m x 1000m.

Calibration measures were preformed and tested during the survey. For magnetic data calibration this included completing a figure of merit, lag and parallax control. Radiometric data calibration included a Thorium source test carried out daily and altimeter calibration which was completed at the start of each survey.

Geophysical Interpretation of REE Potential

Given the large scale of the project area, the geophysical interpretation has been undertaken on subset areas, as shown in Figure 2 below. Four of the interpreted areas are discussed in further detail below, highlighting the REE potential and targets in each.



Table I- Geophysical interpretation subset areas

Name	Number
Мруируи Area	П
Namasalima	5
Mposa	3
Southern Extension	28
Total	47

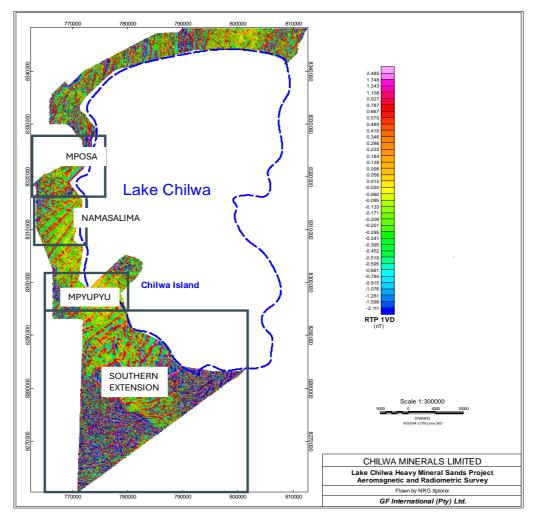


Figure 2: Outline of the four interpreted areas in this announcement

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Southern Extension Area

The Southern Extension Area represents the largest subset area interpreted by the geophysical consultants. Eight Thorium-rich intrusions have been outlined in black in the west and SW that may represent alkaline intrusives or carbonatites. In addition, one circular feature has been circled in blue in the south. This is a concentrically zoned intrusion and is a high priority carbonatite target, measuring 700m across.

In the east near the fault, a dyke-cluster has been highlighted. These cross-cut the stratigraphy and are planned to be ground-truthed (Figure 3).

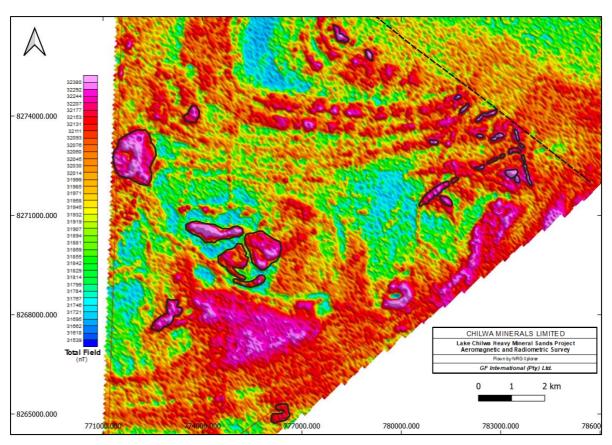


Figure 3: Southern Extension Area showing the position of the REE anomalies, over Total Field magnetics

In the northern end of the Southern Extension Area, a concentric REE target, potentially representing a carbonatite, has been interpreted with a diameter of ~ 1.5 km. This is a high order anomaly that will be ground truthed over the coming month.



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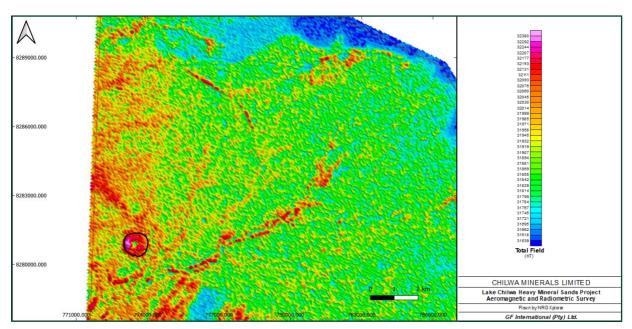


Figure 4: New REE ring target at Southern Extension Area, shown on Th+U grid

Мруируи Area

The Mpyupyu area is located just to the southwest of Chilwa Island, a known carbonatite in the area. Mpyupyu has a number of Th-rich anomalies that represent primary targets but may also be the source of clay-hosted REE mineralisation.

Included in the targets is a large syenite hill (shown in pink) that has a diameter of 2km that will be ground truthed with rock chip sampling in the coming month.

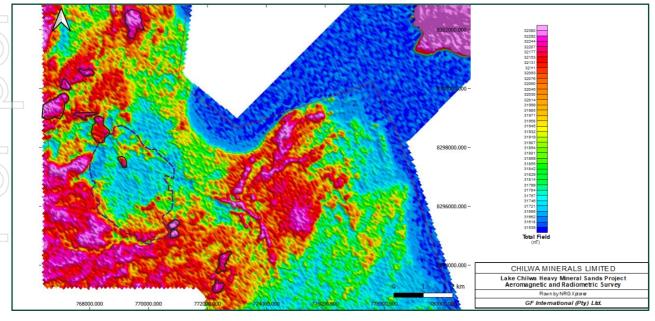


Figure 5: Mpyupyu Area showing Chilwa Island in NE, syenite hill in pink and various high-Th targets in purple, over Thorium count image

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Namasalima Area

There are five isolated Th-rich anomalies that have been identified in the Namasalima Area, potentially representing alkaline intrusions. These are medium priority targets that will be ground truthed during September-October.

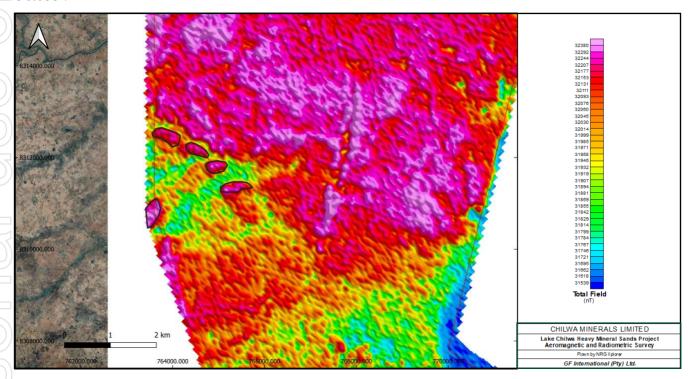


Figure 6: Namasalima REE target area, shown over a Thorium count image

Mposa Area

The Mposa Area is the current focus for the mineral sands focused sonic drill program. Preliminary analysis of the rare earth potential of the area has involved a limited analysis of the clay and silty portions of some of the holes. The positive results from this work crystallised the decision to increase the focus on rare earths across the whole project.

Within the Mposa Area, there are two Th-rich anomalies in close proximity to the HMS sonic drilling area. The first anomaly is located ~2km to the west of the HMS drilling, whilst there is another anomaly directly north of the existing mineral resource outline for Mposa.

Given the positive assay results already received in the area, both of these anomalies are considered to be high priority targets for assessment as potential primary sources of the mineralisation in the clays.

The large dyke feature running in a North- East direction will also be a priority target.

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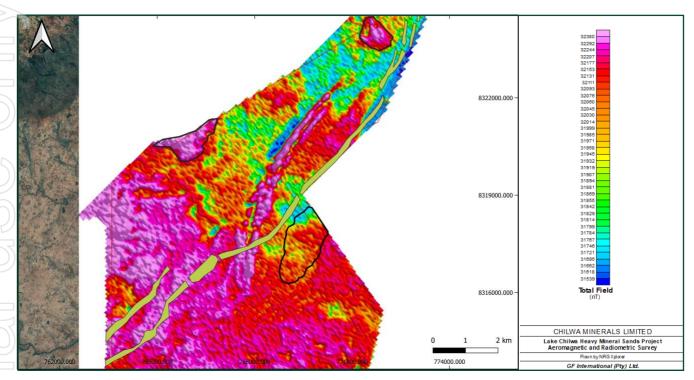


Figure 7: Mposa area mineral resource (yellow) and REE anomalies in purple, shown over a Thorium count image

Next Steps

The mineral sands potential at Chilwa occurs in the top 12-15m of material, however drilling early in the program identified that the oxidised clay materials extend to nearly 50m below surface in some locations. Field XRF analysis of the clays indicated anomalous REE readings. At this point, the Company recognised that it would be more efficient to use sonic drilling for the shallower HMS targets and test the underlying clay and bedrock targets using diamond drilling.

The next phase of the REE program involves validating the various REE anomalies through mapping and geochemical sampling, scheduled for the next 4-6 weeks. The diamond drill rig purchased is currently stationed at the Zalewa camp in Malawi (refer to ASX announcement dated 11 December 2023) and will be deployed once the geology team pinpoints the primary target.

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AUTHORISATION STATEMENT This update has been authorised to be give

This update has been authorised to be given to ASX by the Board of Chilwa Minerals Limited.

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-ENDS-

JORC 2012 Inferred Mineral Resource Estimate

A Mineral Resource Estimate (MRE) for the Project has been classified and reported in accordance with the JORC code (2012). The Mineral Resource Estimate has been classified as Inferred and at a 1.0 % THM cut-off contains 2.4 Mt of THM. The MRE is allocated across the Project deposits in **Table 1** below.

Table 2 Inferred Mineral Resources at 1.0% THM as at 31 July 2022 (Refer IPO Prospectus 5th April 2023)

Deposit	Volume (million m³)	Tonnes (million t)	Dry Density (t/m³)	Gangue (%)	Ilmenite (%)	Slimes (%)	THM (%)	Zircon (%)
Bimbi	1.5	2.6	1.7	0.7	4.3	15.3	5.3	0.3
Northeast Bimbi	3.6	6.1	1.7	0.3	2.2	15.9	2.7	0.1
Mposa (Main)	11.7	19.4	1.7	0.7	3.2	11.7	4.3	0.4
Mposa (North)	0.6	1.0	1.7	0.3	1.4	8.3	1.9	0.2
Mpyupyu (dune)	2.0	3.5	1.7	1.2	5.7	15.3	7.1	0.2
Mpyupyu (flat)	9.5	16.4	1.7	0.5	2.9	15.4	3.6	0.2
Nkotamo	0.1	0.2	1.5	1.1	3.0	28.3	4.2	0.2
Halala	6.0	8.9	1.5	0.9	2.6	9.8	3.7	0.2
Beacon	0.4	0.6	1.5	0.6	1.8	17.7	2.5	0.1
Namanja West	2.0	2.9	1.5	0.8	2.3	14.7	3.3	0.2
Total	37.5	61.6	1.6	0.7	3.0	13.3	3.9	0.3

- Estimates of the Mineral Resource were prepared by AMC Consultants (UK) Limited (AMC).
- In situ, dry metric tonnes have been reported using varying densities and slime cut-off per deposit.
- Material below 30% slimes for Halala, 20% slimes for Bimbi, Northeast Bimbi and Mpyupyu (dune and flat) and 25% slimes for Mposa Main and Mposa North. All other deposits are a stated using 30% slimes cut-off.
- Tonnages and grades have been rounded to reflect the relative uncertainty of the estimates and resultant confidence levels used to classify the estimates. As such, columns may not total.
- Estimates of the Mineral Resource have been constrained by ultimate pit shells to demonstrate Reasonable Prospects for Eventual Economic Extraction
- Estimates are classified as Inferred according to JORC Code.

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Forward Looking Statements and Important Notice

This announcement may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although Chilwa believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved where matter lay beyond the control of Chilwa and its Officers. Forward looking statements may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein.

Compliance Statement

The information in this announcement that relates to Mineral Resource estimates were first disclosed under JORC Code 2012. The information was extracted from the Company's previous **ASX** announcement "Project Mineral Resource estimate: 3 July 2023 'Prospectus' (dated 5 April 2023).

The announcement is available to view on the Company's website https://www.chilwaminerals.com.au/. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement, and, in the case of reporting of Ore Reserves and Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which any Competent Person's findings are presented have not been materially modified from the original market announcement.

Competent Person Statement

The information in this report that relates to exploration results based on, and fairly represents, information and supporting documentation prepared by Mr Serikjan Urbisinov, who is a Member of the Australian Institute of Geoscientists. Mr Urbisinov is an employee of AMC Consultants Pty Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Urbisinov confirms there is no potential for a conflict of interest in acting as a Competent Person and has provided his prior written consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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APPENDIX A – JORC TABLE 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Chilwa Minerals Limited engaged with New resolution geophysics (NRG) to carry out a high resolution XPlorer magnetic and radiometric survey over both EL0671-22 and EL0672-22 between the 25th of May and the 8th of June 2024.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	
	Aspects of the determination of mineralisation that are Material to the Public Report.	
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	The results received in this announcement are of Airbourne Geophysics and no drilling was undertaken for these results
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples.	No drill sample recovery was necessary relating to this announcement as no drilling was undertaken for these results

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Criteria	JORC Code explanation	Commentary
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	No logging was necessary for these sets of results as there was no drill sample recovery and no drilling as these results are specifically related to airborne data collection.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	There was no sub-sampling techniques used for these results as there was no drilling or sample recovery techniques used in this set of results
sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	techniques used in this set of results
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	
	Whether sample sizes are appropriate to the grain size of the material being sampled.	
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Calibration measures were preformed and tested during the survey. For magnetic data calibration this included completing a figure of merit, lag and parallax
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	control. Radiometric data calibration included a Thorium source test carried out daily and altimeter calibration which was completed at the start of each survey.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory	

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Criteria	JORC Code explanation	Commentary
	checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes.	No holes were twinned in these results as no drilling, sample recovery or logging was applied. These results are specifically related to airborne data collection.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	
4 2	Discuss any adjustment to assay data.	
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	No drilling was undertaken for these results and therefor location of data points is not applicable to this set of results.
	Specification of the grid system used. Quality and adequacy of topographic control.	
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The aircraft used to conduct the survey was a Aérospatiale AS 350B1 Ecureuil using a line spacing of 100m x 1000m.
	Whether sample compositing has been applied.	
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	No samples were collected relating to this announcement as all data relates to airborne data collection.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	The measures taken to ensure sample security.	Refer point above. No samples were collected for the purpose of this announcement.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits have been undertaken to date. It is the Competent Person's opinion that the results presented in this press release are indicative only and that additional assay work, with an independent

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Criteria	JORC Code explanation	Commentary
		QAQC program as well as mineralogical test work must be completed.

1.1 Section 2 Reporting of Exploration Results

`	the preceding section also apply to this section.)	
Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	On 27 September 2022, Chilwa Minerals Africa Limited (Chilwa) was granted Exploration Licence EL 0670/2 allowing them to explore for HMS deposits over an area of 865.896km². The licence is valid for three years, with an option to extend the term in accordance with Section 119 of the (Malawian) Mines and Minerals Act (Act number 8 of 2019). Chilwa engaged Savjani and Company (Savjani), a Malawian legal firm, who have their chambers in Blantyre, Malawi, to review the tenement status. AMC has had sight of the legal opinion as provided by Savjani, who notes that the ELs are in good standing and that there are no known impediments to operate in the area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Academic research into the deposition of the HMS deposits around Lake Chilwa have been undertaken since the 1980's. Limited work has been undertaken to determine the presence of REE bearing minerals in the HMS mineralisation known to occur in and around Lake Chilwa, only summary results are available for review.
		Exploration of the HMS mineralisation in the lake Chilwa area has been undertaken by various government concerns and companies, commencing with Claus Brinkmann between 1991 and 1993 as part of an initiative by the German Government to aid mineral development in Malawi.
		Millennium Mining Limited (MML) concluded exploration work in the area, focusing on the northern deposits of Halala and Namanja during the early 2000s.
		In 2014, Tate Minerals (Tate) undertook a desktop review of the work undertaken by Claus Brinkmann and entered into a Joint Venture agreement with Mota-Engil Investments (Malawi) Limited (MEIML) to

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Criteria	JORC Code explanation	Commentary
		explore EL 0572/20, an EL that contains the current target area.
		In August 2015, MEIML commenced a drilling programme on the Mpyupyu, Halala, Mposa, and Bimbi targets. This work was completed in November 2015.
		The Competent Person is unaware of any exploration work having been undertaken to determine the presence of REE and Nb mineralisation in the Lake Chilwa HM deposits. Reaseach, both academic and commercial, has been undertaken on the carbonatites and nepheline syenite's in the region and within the EL (Chisi Island)
Geology	Deposit type, geological setting and style of mineralisation.	Lake Chilwa is a closed, saline lake, which formed as a result of tectonic activities along the East African Rift.
		The lake previously drained to the north, but the mouth eventually silted up and the lake was subsequently completely closed off. A 25 km long sand bar formed along the north shore of the lake, closing off the drainage to the north.
		The Lake Chilwa (Project) HMS targets consists of beach and dune deposits located on palaeostrandline deposits that were deposited and preserved through several cycles of lake level fluctuations and stable periods.
		The main HM deposits are located on a very distinct strandline where the conditions of sediment supply, lake level, and hydrological were favourable for the formation and preservation of the sand deposits.
		Sediment, including HMs, were eroded and supplied by several streams and rivers flowing into the lake from surrounding basement gneiss and alkaline intrusion complexes.
		The HM characteristics of each deposit are determined by the provenance rock types of rocks. Some deposits have local point sources contributing to the HM assemblage.

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Criteria	JORC Code explanation	Commentary
		Given the presence of carbonatites and nepheline syenite in the region, there is potential for REE containing minerals to occur in the HMS deposits.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - downhole length and interception depth - hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	For the purposes of this announcement no drill hole information is required. All information in this release pertains to data collected from air surveys.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	There are no grades reported in this announcement, therefor cut of grades are not relevant.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	No drilling was undertaken for the purposes of this specific announcement. No samples were collected or assayed – therefore there is no mineralisation reported.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any	See main body of the press release

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Criteria	JORC Code explanation	Commentary
	significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All relevant information has been included in this press release and is considered to represent a balanced report.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples — size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	The results released in this announcement related specifically to airborne geophysics as per the details above. Any reference to other exploration data is from previous announcements and has been referenced in the body of the announcement.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Groundwork to commence to map and categorise identified anomalies.