

1 December 2023

## Encouraging beneficiation results for rare earth element (REE) clays at Point Kidman prospect, East Laverton.

### Highlights:

- Initial beneficiation test work results on Point Kidman clay-hosted rare earth element (REE) mineralisation are very encouraging.
- By selectively removing coarse (large) particles from the clay samples, significant potential benefits have been identified:
  - Increased Total REE (TREE) and higher-value Magnet REE (MREE) grades; and
  - Average of 76% TREE recovered in samples less than 106 µm size fraction.
- Significant grade improvement from beneficiation (discarding of the +20 µm size fraction):
  - Increase in head grade from 3,071 ppm TREE to 7,120 ppm TREE (sample 04591)
  - Average TREE grade increase across all samples ~100%.
- Results indicate that a majority of REEs can be recovered in fine fractions, suggesting that simple beneficiation may allow for a substantial reduction in waste processing and reduced reagent consumption in a future process plant design.
- Successful initial leach test results show up to 76% TREE recovery (using 100 g/L HCl).
- Preliminary metallurgical recoveries compare favourably to other known clay-hosted REE deposits in Western Australia.

**MTM Critical Metals Limited (ASX:MTM) (MTM or the Company)** has received the results of preliminary metallurgical test work on four composite drilling samples collected from the Point Kidman REE prospect, at its East Laverton Project in Western Australia.

Basic metallurgical tests including analysis of different size fractions and leach tests were completed to evaluate recovery of REEs from widespread clay-hosted mineralisation identified by previous aircore drilling.

**MTM Managing Director, Mr Lachlan Reynolds, said that the Company was encouraged by the substantial uplift in head grade and rejection of low-grade material that can be achieved by simple particle size separation.**

“Preliminary metallurgical test work on the clay-hosted rare earths at Point Kidman, including beneficiation and leaching, shows that there are significant opportunities to potentially optimise the future processing of the clay-hosted mineralisation. This is a major step forward in proving the economic viability of a rare earth deposit at East Laverton.

“We are very pleased to see that simple beneficiation can achieve up to 100% uplift in rare earth grades, including the valuable magnet rare earth elements such as neodymium and praseodymium.

“Further test work is required, particularly with respect to the leaching of the mineralisation but as our exploration is defining a substantial district scale development of shallow rare earth element mineralisation these results are important for our strategy of resource discovery and delineation.”

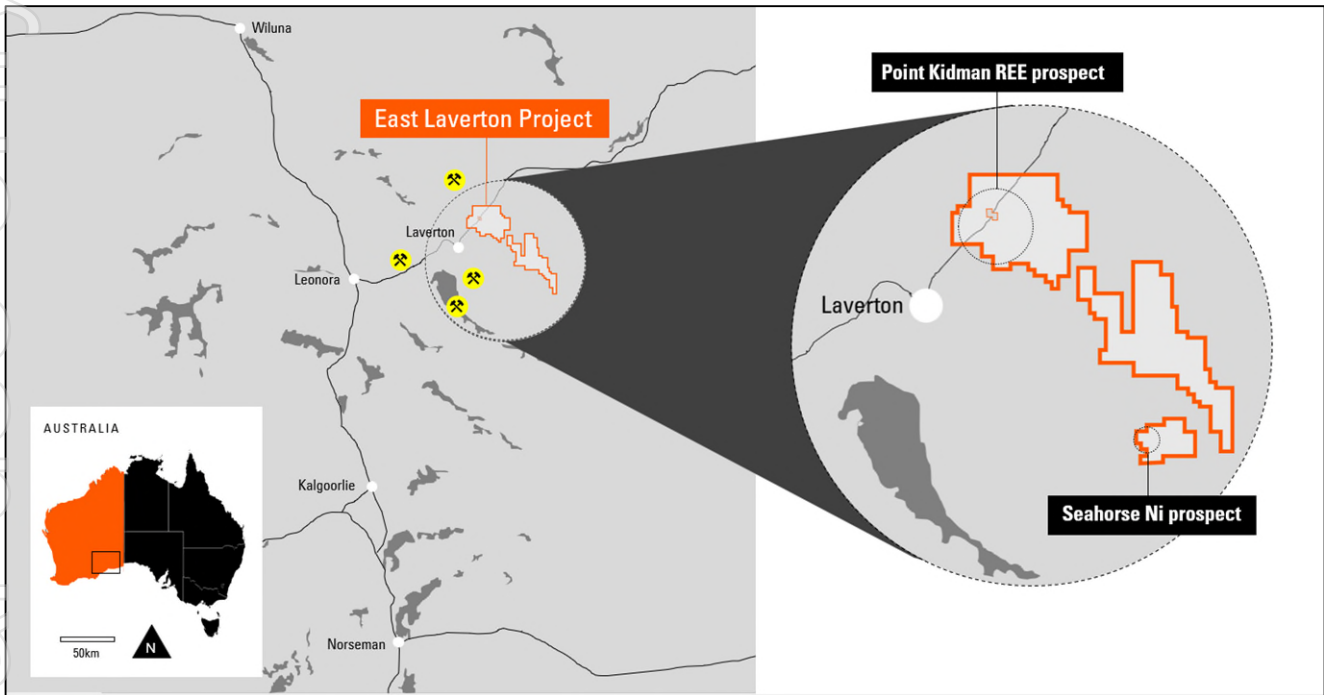


Figure 1: Location map of prospects at the East Laverton Project.

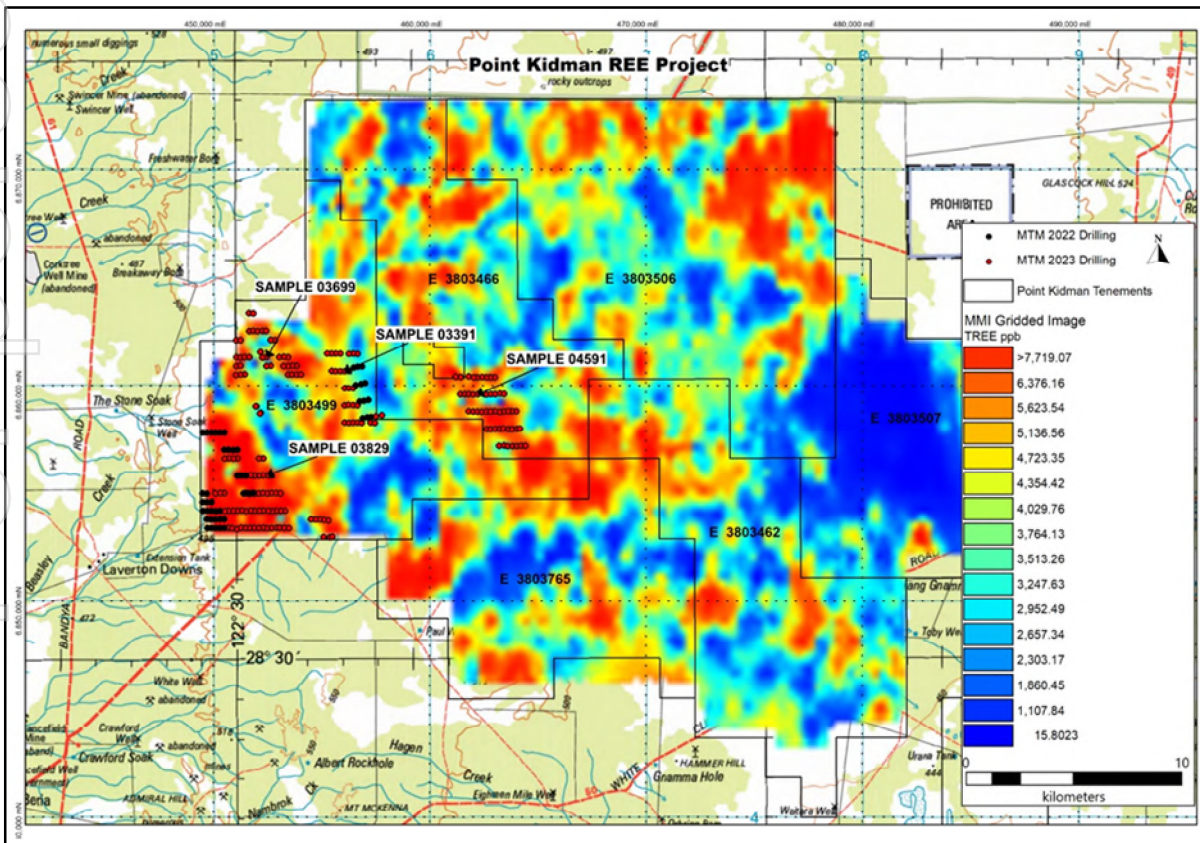


Figure 2: Gridded image of Total REE surface geochemistry results showing the location of MTM drill holes and samples selected for preliminary metallurgical test work.

## Metallurgical Test Work

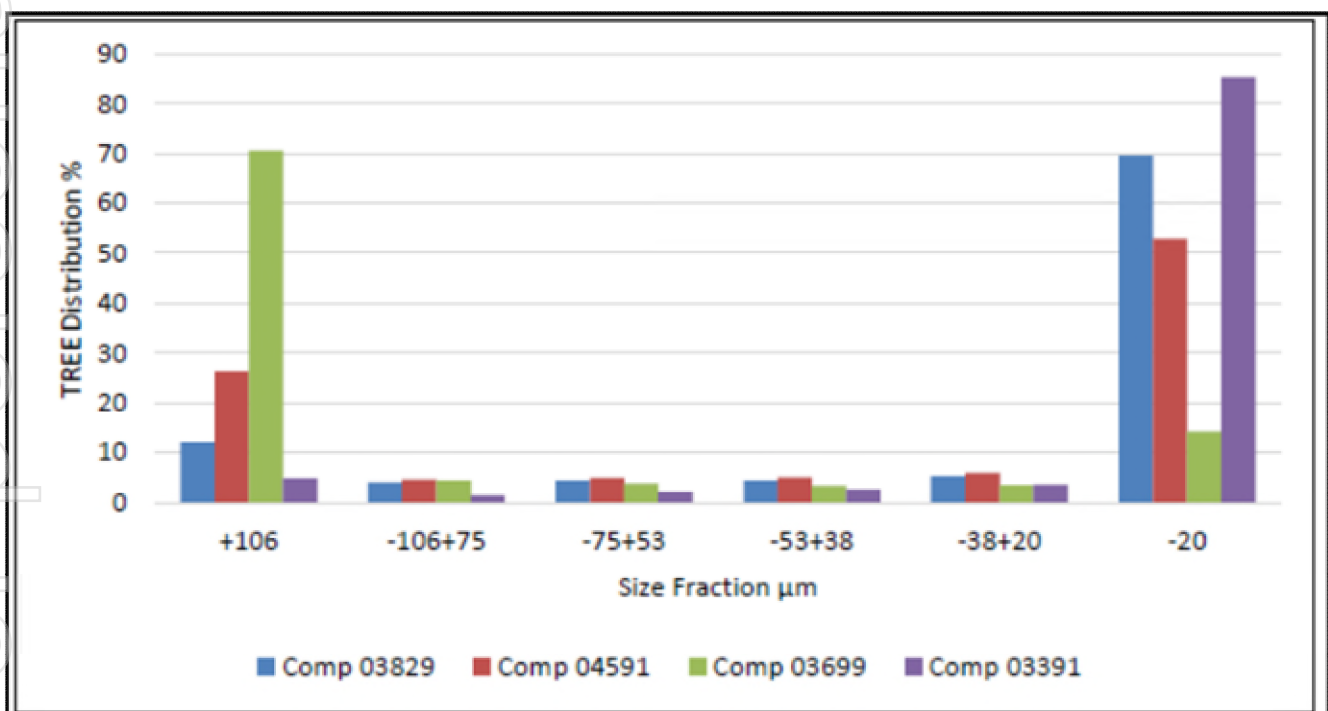
Four composite drilling samples were collected from the Point Kidman REE prospect (Appendix II), from each of the previously drilled areas (see Figure 2 and Appendix I). These samples were sent to Independent Metallurgical Operations Pty Ltd for the preliminary metallurgical test work program.

### Size Fraction Analysis

Sizing analysis work has demonstrated that the REE mineralised material is highly amenable to upstream beneficiation as the majority of the REEs are apparently hosted in the ultrafine -20 µm (less than 20 micron) size fraction. REE grade can potentially be significantly increased, and waste material removed, by adopting simple mineral beneficiation techniques during processing.

For the sizing analysis, a 500g split was prepared from each of the metallurgical sample composites and was screened at 106, 75, 53, 38 and 20 µm particle size. The distribution of REE throughout the size fractions of each sample is summarised in Figure 3, indicating that a large portion of the REE report to the -20 µm size fraction.

Cumulative passing grades and distributions are summarised in Appendix IV. Overall sizing results indicate that the -20 µm fraction contains more than half of the TREE for all samples except 03699, where the majority of REE was retained in the coarser +106 µm fraction.



**Figure 3:** Total REE distribution in different size fractions for all composite samples.

Screening of the samples at a particle size of +106 µm allow for the following:

- Mass recoveries to the fine fraction (-106 µm) ranging from 22.0% to 62.5%, averaging 45.6%;
- TREE recoveries to the fine fraction ranging from 29.4% to 95.1%, averaging 76.1%;
- Excluding the results from sample 03699, mass recovery averaged 53.4% and TREE recovery averaged 85.6%.

Results indicate minimal difference in the distribution between the HREE and LREE throughout the samples.

Analysis of the different fraction sizes show that removal of coarse size particles substantial increases in TREE grades, with the average grade generally increasing in progressively finer particle sizes (Appendix IV).

An average of ~100% upgrade from the TREE head grade assay and ~75% upgrade from the MREE head grade assay (Appendix III) was achieved in the finest -20 µm fraction (Table 1). The best result achieved was a 132% increase in TREE (sample 04591), where the grade increased from a head grade of 3,071 ppm to 7,120 ppm TREE, albeit with a reduced TREE recovery of 52.9% TREE.

**Table 1:** TREE recovery, grade uplift and mass removed using 'ultrafine' -20 µm size fraction.

-20 µm fraction	Comp Sample 03391	Comp Sample 03699	Comp Sample 03829	Comp Sample 04591
TREE recovery (%)	85.3	14.1	69.6	52.9
TREE grade uplift (%) <sup>1</sup>	110	51	102	132
MREE grade uplift (%) <sup>1</sup>	98	31	103	74
Mass removed (%) <sup>2</sup>	58.5	91.8	65.1	76.1

<sup>1</sup> compared to head grade assay

<sup>2</sup> compared to head sample

## Leaching Analysis

Preliminary metallurgical leaching tests have also been received for the samples of REE-enriched clays from the Pt Kidman prospect. Four leach tests were conducted on each of the composite samples, as summarised in Table 2 and shown in Appendix VI.

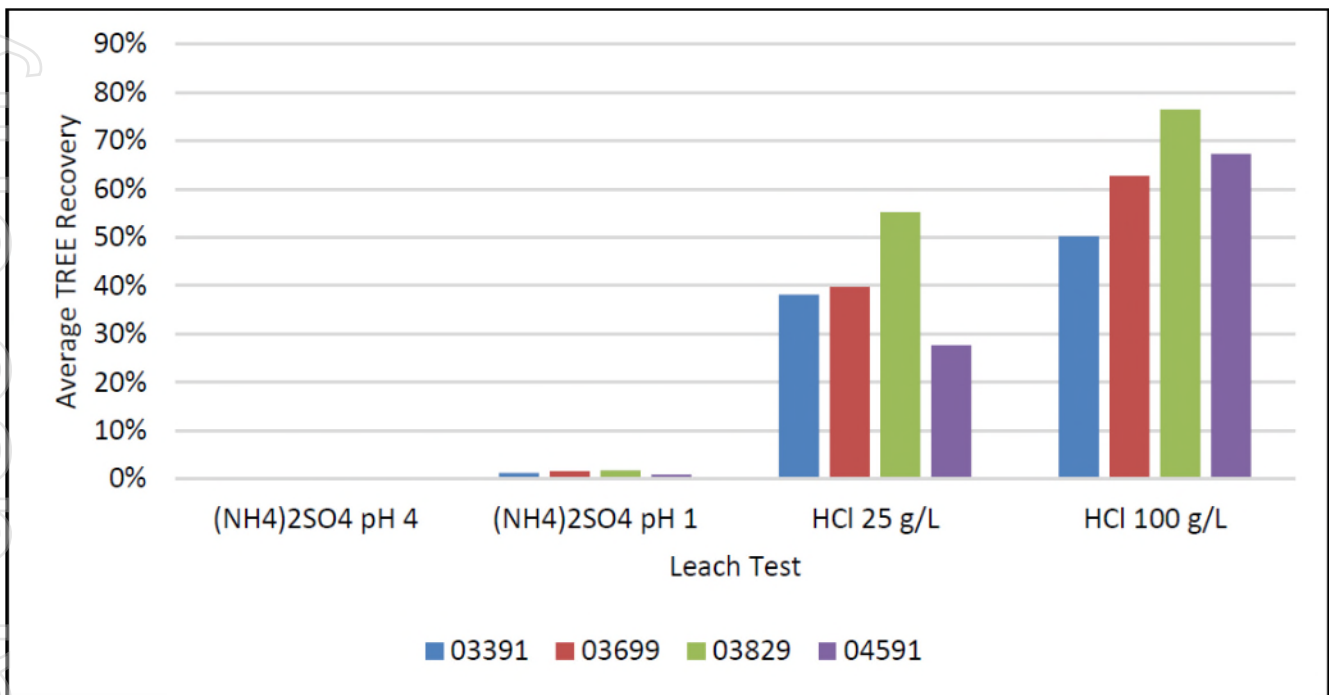
**Table 2:** Summary of leach test regimes

Test	Purpose	Reagents (Lixiviant)	Reagents (Acid)	pH	Temp. (°C)	Time (h)
1	Leach any REE Ionically Exchangeable phase present	1.0M (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> + 1.0M NaCl	H <sub>2</sub> SO <sub>4</sub> to maintain pH at ~4	4	25 (ambient)	6
2	Test if increased temp. and lower pH improve recoveries of the REE Ion Exchange phase	1.0M (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> + 1.0M NaCl	H <sub>2</sub> SO <sub>4</sub> to maintain pH at ~1	1	50	6
3	Test if REEs within the Colloid phase (insoluble oxides or hydroxides) are leachable	1.0M NaCl	25g/t HCl	<1	50	6
4	Test if REE's within the Mineral phase (insoluble oxides or hydroxides) are leachable.	1.0M NaCl	100g/t HCl	~0	50	6

Test results show that significant recovery of REE from the clay can be achieved by leaching in hydrochloric acid (HCl). Recoveries of the REE's using a 100 g/l HCl leach showed average TREE recoveries of up to 76.1%. Leach recoveries for each sample over the four test regimes are shown



below (Figure 4 and Table 2) and summarised in Appendix VI. Elemental recoveries are shown in Figure 5.



**Figure 4:** Leach test average TREE Recoveries for all composite samples.

**Table 2:** Average REE leaching recoveries for each sample, for a range of leaching regimes.

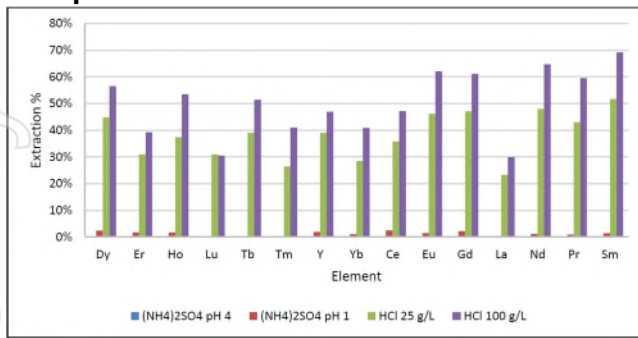
Composite Sample 03391					Composite Sample 03699			
Leach Solution	Amm. Sulphate pH 4	Amm. Sulphate pH 1	HCl 25g/L	HCl 100g/L	Amm. Sulphate pH 4	Amm. Sulphate pH 1	HCl 25g/L	HCl 100g/L
TREE (AVE)	0.06%	1.28%	38.14%	50.25%	0.19%	1.62%	39.17%	62.17%

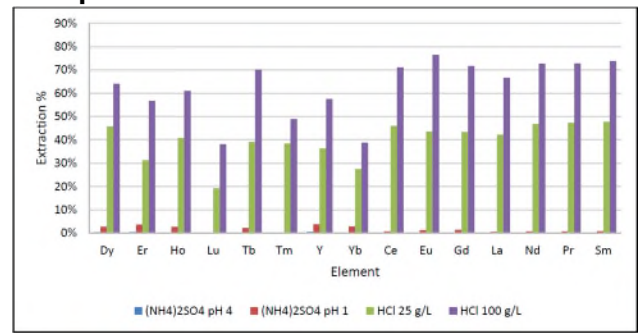
Composite Sample 03829					Composite Sample 04591			
Leach Solution	Amm. Sulphate pH 4	Amm. Sulphate pH 1	HCl 25g/L	HCl 100g/L	Amm. Sulphate pH 4	Amm. Sulphate pH 1	HCl 25g/L	HCl 100g/L
TREE (AVE)	0.08%	1.85%	55.15%	76.45%	0.07%	0.91%	27.61%	67.23%

Work has shown that the majority of mineralisation is not associated with ionic clays as evidenced by the low recoveries achieved by the first two test utilising ammonium sulphate. The REE's are instead likely contained within colloidal (ultrafine) REE particles, oxidised rare earth carbonate or rare earth oxide minerals. Recovery of these REE's can be achieved via acid leaching, requiring higher acid concentrations. These results are comparable with the majority of known REE clays projects in Western Australia.

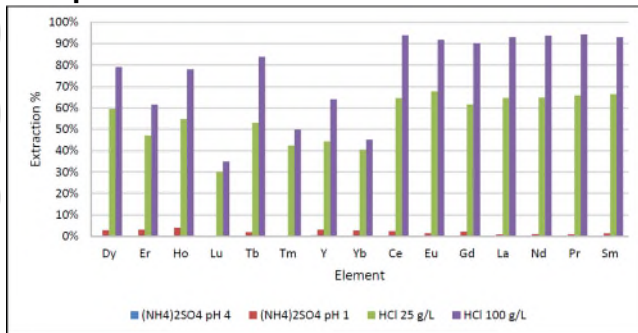
### Composite 03391



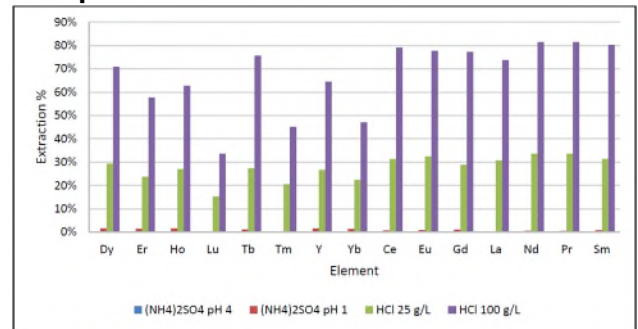
### Composite 03699



### Composite 03829



### Composite 04591



**Figure 5:** Summary of elemental REE recoveries for each composite sample, for the different leaching regimes.

### Further Work

Only a small part of the extensive Pt Kidman prospect area has been tested with drilling and more than 200 km<sup>2</sup> area has critical metal prospectivity based on the recent geochemical soil sampling completed by the Company.

The next phase of target generation is currently underway, ahead of a further campaign of drilling where the Company's focus will be on identifying further contiguous zones of higher-grade REE mineralisation that could form the basis of a substantial resource.

Further metallurgical test work will also be undertaken to characterise the recovery of the REEs from within the identified mineralised areas and determine if there are zones that have potential for both beneficiation and for higher recoveries. The reported test results are non-optimised and there remains significant potential for improvement in recovery and acid consumption.

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

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## About MTM Critical Metals Limited

MTM Critical Metals Limited is an exploration company which is focused on searching for rare earth elements (REE), gold, lithium, nickel, and base metals in the Goldfields and Ravensthorpe districts of Western Australia and in the Abitibi region of the Province of Québec. The Company holds over 3,500km<sup>2</sup> of tenements in three prolific and highly prospective mineral regions in Western Australia and has an option to acquire, through an earn-in arrangement, a 100% interest in 2,400 ha of exploration rights in Québec, Canada. The East Laverton Projects is made up of a regionally extensive package of underexplored tenements prospective for REE, gold and base metals. The Mt Monger Gold Project comprises an area containing known gold deposits and occurrences in the Mt Monger area, located ~70km SE of Kalgoorlie and immediately adjacent to the Randalls gold mill operated by Silver Lake Resources Limited. The Ravensthorpe Project contains a package of tenements in the southern part of Western Australia between Esperance and Bremer Bay which are prospective for a range of minerals including REE, lithium, nickel and graphite. The Pomme Project in Québec is a known carbonatite intrusion that is enriched in REE and niobium and is considered to be an extremely prospective exploration target adjacent to a world class REE resource (Montviel deposit). Priority drilling targets have been identified in all project areas and the Company is well funded to undertake effective exploration programs. The Company has an experienced Board and management team which is focused on discovery to increase value for Shareholders.

## Competent Person's Statement

The information in this announcement that relates to Exploration Results is based on and fairly represents information compiled by Mr Lachlan Reynolds. Mr Reynolds is the Managing Director of MTM Critical Metals Limited and is a member of both the Australasian Institute of Mining and Metallurgy and the Australasian Institute of Geoscientists. Mr Reynolds has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Reynolds consents to the inclusion in this announcement of the matters based on information in the form and context in which they appear.

## Previous Disclosure

The information in this announcement is based on the following MTM Critical Metals Limited (formerly Mt Monger Resources Limited) ASX announcements, which are all available from the MTM Critical Metals Limited website [www.mtmcriticalmetals.com.au](http://www.mtmcriticalmetals.com.au) and the ASX website [www.asx.com.au](http://www.asx.com.au).

- 15 May 2023, Drilling confirms further rare earth element mineralisation and increased potential at East Laverton
- 21 June 2023, Metallurgical test work initiated on REE-enriched clays at East Laverton
- 11 October 2023, East Laverton Project soil survey defines extensive new rare earth and nickel targets

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original ASX announcements and that all material assumptions and technical parameters underpinning the relevant ASX announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original ASX announcements.

## Cautionary Statement Regarding Values & Forward-Looking Information

The figures, valuations, forecasts, estimates, opinions and projections contained herein involve elements of subjective judgment and analysis and assumption. MTM Critical Metals does not accept any liability in relation to any such matters, or to inform the Recipient of any matter arising or coming to the company's notice after the date of this document which may affect any matter referred to herein. Any opinions expressed in this material are subject to change without notice, including as a result of using different assumptions and criteria. This document may contain forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "expect", and "intend" and statements that an event or result "may", "will", "should", "could", or "might" occur or be achieved and other similar expressions. Forward-looking information is subject to business, legal and economic risks and uncertainties and other factors that could cause actual results to differ materially from those contained in forward-looking statements. Such factors include, among other things, risks relating to property interests, the global economic climate, commodity prices, sovereign and legal risks, and environmental risks. Forward-looking statements are based upon estimates and opinions at the date the statements are made. MTM Critical Metals undertakes no obligation to update these forward-looking statements for events or circumstances that occur subsequent to such dates or to update or keep current any of the information contained herein. The Recipient should not place undue reliance upon forward-looking statements. Any estimates or projections as to events that may occur in the future (including projections of revenue, expense, net income and performance) are based upon the best judgment of MTM Critical Metals from information available as of the date of this document. There is no guarantee that any of these estimates or projections will be achieved. Actual results will vary from the projections and such variations may be material. Nothing contained herein is, or shall be relied upon as, a promise or representation as to the past or future. MTM Critical Metals, its affiliates, directors, employees and/or agents expressly disclaim any and all liability relating or resulting from the use of all or any part of this document or any of the information contained herein.

## APPENDIX I – Drill Hole Details Summary

Hole ID	Type	North MGA	East MGA	RL (m)	Depth (m)	Dip (°)	Azimuth (°)
23ELAC012	AC	6860657	456062	518	45	-90	000
23ELAC059	AC	6861300	452446	518	36	-90	000
23ELAC068	AC	6855808	452506	508	52	-90	000
23ELAC141	AC	6859583	462214	516	27	-90	000

## APPENDIX II – Metallurgical Sample Details Summary

Hole ID	Composite Sample ID	Depth (m)	Average Grade			
			LREE ppm	HREE ppm	TREE ppm	MREE ppm
23ELAC012	Comp 03391	24 – 28	863	39	901	165
23ELAC059	Comp 03699	20 – 24	1,309	49	1,358	332
23ELAC068	Comp 03829	28 – 32	499	63	562	125
23ELAC141	Comp 04591	20 – 24	3,225	116	3,341	646

## APPENDIX III – Composite Sample Head Assay Results Summary

	Element	Units	Comp 03391	Comp 03699	Comp 03829	Comp 04591
Heavy Rare Earth Elements (HREE)	Dy	ppm	6	8	9	15
	Er	ppm	3	3	4	7
	Ho	ppm	1	1	2	2
	Lu	ppm	0	0	1	1
	Tb	ppm	1	2	2	3
	Tm	ppm	0	1	1	2
	Y	ppm	26	34	37	69
	Yb	ppm	2	3	3	5
Light Rare Earth Elements (LREE)	Ce	ppm	388	639	236	1,450
	Eu	ppm	3	4	4	9
	Gd	ppm	9	14	13	29
	La	ppm	277	293	130	854
	Nd	ppm	120	224	94	437
	Pr	ppm	41	72	26	142
	Sm	ppm	15	29	17	49
<b>Total HREE</b>		<b>ppm</b>	<b>40</b>	<b>52</b>	<b>57</b>	<b>102</b>
<b>Total LREE</b>		<b>ppm</b>	<b>853</b>	<b>1,275</b>	<b>520</b>	<b>2,969</b>
<b>Total Rare Earth Elements</b>		<b>ppm</b>	<b>893</b>	<b>1,327</b>	<b>578</b>	<b>3,071</b>
<b>Total MREE</b>		<b>ppm</b>	<b>168</b>	<b>306</b>	<b>131</b>	<b>597</b>

HREE (Heavy Rare Earth Element) grade includes Dy, Er, Ho, Lu, Tb, Tm, Y and Yb.

LREE (Light Rare Earth Element) grade includes Ce, Eu, Gd, La, Nd, Pr and Sm.

TREE (Total Rare Earth Element) grade includes all the elements above.

MREE (Magnet Rare Earth Element) grade includes Dy, Tb, Nd, and Pr.



## APPENDIX IV – Size Fraction Analysis Results Summary

### Composite 03391 Cumulative Passing Grade & Distribution

Size Fraction	Mass	HREE		LREE		TREE	
		Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
µm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
-106	62.5	55	92.0	1,331	95.3	1,387	95.1
-75	57.4	58	89.2	1,428	93.9	1,486	93.7
-53	52.1	59	81.6	1,543	92.0	1,602	91.6
-38	47.1	56	70.7	1,663	89.7	1,719	88.9
-20	41.5	55	60.7	1,818	86.4	1,873	85.3

### Composite 03699 Cumulative Passing Grade & Distribution

Size Fraction	Mass	HREE		LREE		TREE	
		Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
µm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
-106	22.0	77	33.6	1,670	29.3	1,747	29.4
-75	17.6	84	29.3	1,774	24.8	1,858	25.0
-53	14.0	89	24.9	1,879	21.0	1,968	21.1
-38	11.5	83	18.8	1,932	17.6	2,014	17.7
-20	9.2	72	13.1	1,937	14.1	2,009	14.1

### Composite 03829 Cumulative Passing Grade & Distribution

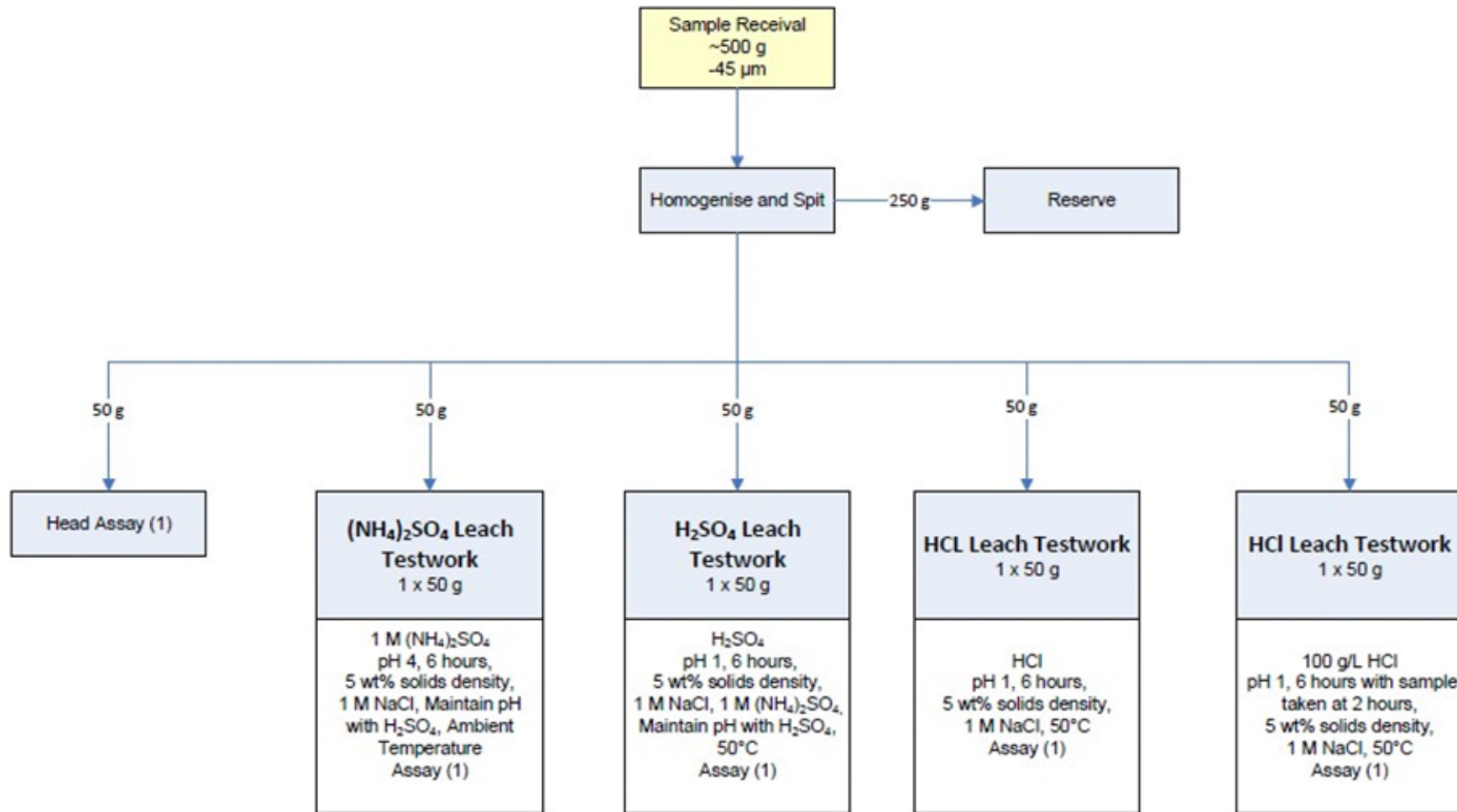
Size Fraction	Mass	HREE		LREE		TREE	
		Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
µm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
-106	56.2	93	84.8	820	88.3	913	88.0
-75	49.1	101	80.3	895	84.2	996	83.8
-53	43.0	107	74.4	970	80.0	1,077	79.4
-38	38.8	108	67.7	1,021	75.8	1,129	75.0
-20	34.9	105	59.3	1,061	70.9	1,166	69.6

### Composite 04591 Cumulative Passing Grade & Distribution

Size Fraction	Mass	HREE		LREE		TREE	
		Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
µm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
-106	41.5	186	74.3	5,531	73.7	5,717	73.7
-75	36.2	200	69.8	5,945	69.1	6,145	69.1
-53	31.5	207	62.7	6,347	64.2	6,554	64.1
-38	27.7	193	51.6	6,653	59.2	6,846	58.9
-20	23.9	175	40.2	6,945	53.4	7,120	52.9



## APPENDIX VI – Leach Test Work Flowsheet



## APPENDIX VII – Leach Test Results Summary

### Composite 03391 Average REE Leach Recovery Results

Leach Test #	Test 1	Test 2	Test 3	Test 4
	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> pH 4	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> pH 1	HCl 25 g/L	HCl 100 g/L
Average HREE Recovery (%)	0.03	1.13	34.6	45.0
Average LREE Recovery (%)	0.09	1.44	42.1	56.2
Average TREE Recovery (%)	0.06	1.28	38.1	50.2

### Composite 03699 Average REE Leach Recovery Results

Leach Test #	Test 1	Test 2	Test 3	Test 4
	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> pH 4	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> pH 1	HCl 25 g/L	HCl 100 g/L
Average HREE Recovery (%)	0.18	2.24	34.8	54.4
Average LREE Recovery (%)	0.20	0.91	45.3	72.2
Average TREE Recovery (%)	0.19	1.62	39.7	62.7

### Composite 03829 Average REE Leach Recovery Results

Leach Test #	Test 1	Test 2	Test 3	Test 4
	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> pH 4	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> pH 1	HCl 25 g/L	HCl 100 g/L
Average HREE Recovery (%)	0.08	2.21	46.4	62.0
Average LREE Recovery (%)	0.08	1.44	65.1	92.9
Average TREE Recovery (%)	0.08	1.85	55.1	76.4

### Composite 04591 Average REE Leach Recovery Results

Leach Test #	Test 1	Test 2	Test 3	Test 4
	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> pH 4	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> pH 1	HCl 25 g/L	HCl 100 g/L
Average HREE Recovery (%)	0.11	1.10	24.0	57.2
Average LREE Recovery (%)	0.04	0.69	31.7	78.7
Average TREE Recovery (%)	0.07	0.91	27.6	67.2

## APPENDIX VIII - JORC Compliance Tables

### Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Conventional Aircore (AC) drilling was used to obtain representative 1 metre samples of approximately 1.5kg using a rig-mounted cyclone and cone splitter.</li> <li>The remaining material from each metre was collected from the cyclone as a bulk sample of approximately 15-20kg.</li> <li>1 metre drilling samples were screened with a handheld XRF instrument to identify samples for assaying.</li> <li>In the laboratory, samples are riffle split if required, then pulverised to a nominal 85% passing 75 microns to obtain a homogenous sub-sample for assay.</li> <li>Sampling was carried out under MTM's standard protocols and QAQC procedures and is considered standard industry practice.</li> <li>Composite samples were prepared by using a scoop to combine 1 metre samples into 4 metre composites.</li> <li>Composite samples for metallurgical test work were collected as per Appendix II. Each sample was approximately 1.5kg.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Aircore drilling was completed using standard industry methods.</li> <li>Drilling used a 90mm drill bit to refusal, usually saprock to fresh rock.</li> <li>Aircore is considered to be an appropriate drilling technique for saprolitic clay.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>AC drill samples recoveries were assessed visually but not recorded. Samples are not considered to be materially biased, given the nature of the geology and sampling method.</li> <li>Recoveries remained relatively consistent throughout the program and are estimated to be 100% for 95% of drilling.</li> <li>Poor (low) recovery intervals were logged and entered into the drill logs.</li> <li>The cone splitter was routinely cleaned and inspected during drilling.</li> <li>Care was taken to ensure calico samples were of consistent volume.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Logging	<ul style="list-style-type: none"> <li>• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>• AC samples were logged geologically on a one metre interval basis, including but not limited to: recording colour, weathering, regolith, lithology, veining, structure, texture, alteration and mineralisation (type and abundance).</li> <li>• Logging was at a qualitative standard appropriate for AC drilling and is not suitable to support future Mineral Resource estimation.</li> <li>• Representative material was collected from each AC drill sample and stored in a chip tray. These chip trays were transferred to a secure Company storage facility located in Kalgoorlie.</li> <li>• All holes and all relevant intersections were geologically logged in full.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>• 1m interval samples were submitted to the analytical laboratory for sample preparation.</li> <li>• &gt;95% of the samples were dry in nature.</li> <li>• AC drilling samples were weighed, dried and pulverized to 85% passing 75 microns. This is considered industry standard and appropriate.</li> <li>• MTM has its own internal QAQC procedure involving the use of certified reference materials (standards), blanks and field duplicates which account for approximately 5% of the total submitted samples.</li> <li>• The sample sizes are considered appropriate for the style of mineralisation previously recorded for the area.</li> <li>• Sub-sampling techniques more metallurgical test work are described in the body of the report and Appendices.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>• 1m drilling samples have been submitted for a multi-element assay technique (ME-MS61L) using multi-acid (4 acid) digestion with an ICP-MS and ICP-AES finish; and rare earth elements with a multi-element technique (MS61L-REE) using a multi-acid digestion (HF-HNO<sub>3</sub>-HClO<sub>4</sub>), HCl leach followed by ICP-MS analysis.</li> <li>• The assay techniques are considered appropriate and are industry best standard.</li> <li>• The techniques are considered to be a near total digest, only the most resistive minerals are only partially dissolved.</li> <li>• An internal QAQC procedure involving the use of certified reference materials (standards), blanks and duplicates accounts for approximately 5% of the total submitted samples.</li> </ul>

Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> <li>• The certified reference materials used have a representative range of values typical of low, moderate and high grade gold mineralisation. Standard results for drilling demonstrated assay values are both accurate and precise. Blank results demonstrate there is negligible cross-contamination between samples. Duplicate results suggest there is reasonable repeatability between samples.</li> <li>• Metallurgical test work was undertaken by an independent metallurgical consultant (IMO Pty Ltd). Test work completed is preliminary and considered to be industry standard for clay-hosted REE mineralisation</li> <li>• Metallurgical samples were assayed using a lithium borate fusion method for a multi-element suite including Ba, Ce, Cr, Cs, Dy, Er, Eu, Ga, Gd, Hf, Ho, La, Lu, Nb, Nd, Pr, Rb, Sm, Sn, Sr, Ta, Tb, Th, Tm, U, V, W, Y, Yb and Zr.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Significant intersections have been verified by the Company's database manager.</li> <li>• No dedicated twin holes have yet been drilled for comparative purposes.</li> <li>• Primary data was collected on paper log sheets and then transferred to digital logging hardware and software using in-house logging methodology and codes.</li> <li>• Logging data was sent to the Perth based office where the data was validated and entered into an industry standard master database maintained by the MTM database administrator.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole collar locations have been surveyed using handheld GPS with an accuracy of approximately <math>\pm 3</math> metres.</li> <li>• Downhole surveys were not undertaken.</li> <li>• The grid system used for location of all drill holes as shown in tables and on figures is MGA Zone 51, GDA94.</li> <li>• Topographic control is based on handheld GPS, suitable for current stage of exploration.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole spacing is variable, as shown in diagrams in the body of the announcement.</li> <li>• Sample spacing and distribution is not considered sufficient to consider the metallurgical samples as representative of the REE mineralisation.</li> <li>• Drill hole samples were collected on 1m intervals and composited over 4m to prepare the composite sample for metallurgical test work.</li> </ul>

Criteria	JORC Code Explanation	Commentary
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The orientation of drilling and sampling is not anticipated to have any significant biasing effects.</li> <li>• The drill holes reported in this announcement are vertical and are interpreted to have intersected the mineralised structures approximately perpendicular to their dip.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample chain of custody is managed by MTM.</li> <li>• Sampling is carried out by MTM field staff.</li> <li>• Samples are transported to a laboratory in Kalgoorlie by MTM employees.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audit or review has been completed by an external party and is not warranted at the current stage of exploration.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The mineral tenements relevant to this announcement are granted exploration licences E38/3466 and E38/3499.</li> <li>• Exploration licences E38/3466, E38/3499 are held 49% by Tevel Pty Ltd (Tevel) and 51% by MTM Critical Metals.</li> <li>• MTM Critical Metals has executed an earn-in and joint venture agreement with Tevel that entitles the Company to earn up to a 75% interest in the tenements.</li> <li>• The tenements are secure and there are no known impediments to obtaining a licence to operate in the area.</li> <li>• The tenements are covered by the Nyalpa Pirniku native title claim WAD91/2019. MTM Critical Metals and Tevel have completed a Heritage Protection Agreement to allow access for exploration activities.</li> <li>• The tenements are located on the Laverton Downs and White Cliffs pastoral stations.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The tenements contain extensive sedimentary cover and there has been minimal exploration in the area either by exploration companies or government geological surveys. Earliest exploration within the region was for diamonds, nickel and uranium, with only a limited number of drill holes targeting gold mineralisation.</li> <li>Reconnaissance exploration activities including geophysical data interpretation and surface geochemical sampling, have identified a number of rare earth element anomalies requiring further follow up work. A number of early-stage exploration programs including shallow RAB and aircore drilling have been completed in the Pt Kidman prospect area.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The tenement area is located within the poorly understood Burtville Terrane on the eastern edge of the Eastern Goldfields Superterrane. Interpreted geology comprises predominantly Archaean granite gneiss with relatively narrow remnant greenstone units. The area contains limited outcrop, with the bedrock geology predominantly concealed by younger transported cover.</li> <li>The area is on the eastern fringe of the Yilgarn Craton, surrounded by existing and emerging world class gold camps. To the west, the +25 Moz Au Laverton Greenstone Belt is home to Sunrise Dam (10 Moz Au), Wallaby (8 Moz Au) and Granny Smith (2.5 Moz Au) and a suite of other nearby deposits. Gold production from the belt is estimated to be in excess of 28 Moz Au. Lying to the east of the area is the Yamarna Greenstone Belt, hosting the 6 Moz Au granitoid-hosted Gruyere deposit, whilst the 7.5 Moz Au granite gneiss-hosted Tropicana deposit is located in the Albany-Fraser Province to the southeast.</li> <li>Limited previous exploration within the Point Kidman project area has identified light rare earths (LREE) mineralisation hosted by laterite clays and strongly weathered granites associated with Archaean granitoid terrane. Aircore drilling intersected anomalous LREE mineralisation (Ce, La, Nd, Pr and Sm) in reconnaissance aircore drill holes over a wide area. Very widely spaced Geological Survey of Western Australia (GSWA) rock chip samples in the area have returned anomalous REEs and indicates the size of the anomalous REE fingerprint in the region is much larger than the area drilled to date.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>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, including Easting and northing of the drill hole collar, Elevation or RL (Reduced Level – elevation above sea level in</li> </ul>	<ul style="list-style-type: none"> <li>All material information is summarised in Appendix I and in the Tables and Figures included in the body of the announcement.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<p>metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth plus hole length.</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>	
Data aggregation methods	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Length-weighted average grades are reported.</li> <li>• No maximum grade truncations have been applied.</li> <li>• Total rare earth element (TREE) values were derived by the simple addition of grades for cerium (Ce), dysprosium (Dy), erbium (Er), europium (Eu), gadolinium (Gd), holmium (Ho), lanthanum (La), lutetium (Lu), neodymium (Nd), praseodymium (Pr), samarium (Sm), terbium (Tb), thulium (Tm), yttrium (Y) and ytterbium (Yb).</li> <li>• Heavy rare earth element (HREE) values include Dy, Er, Ho, Lu, Tb, Tm, Y and Yb.</li> <li>• Light rare earth element (LREE) values include Ce, Eu, Gd, La, Nd, Pr and Sm.</li> <li>• Magnet rare earth element (MREE) values include Dy, Tb, Nd, and Pr.</li> <li>• No metal equivalent values are reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• 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').</li> </ul>	<ul style="list-style-type: none"> <li>• No mineralisation widths or intercept lengths are reported.</li> <li>• The mineralisation is assumed to be subhorizontal in orientation so true width and intercept length is approximately equal.</li> <li>• Further drilling is required to determine the geometry of the mineralisation with respect to the drill hole angle.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to Figures included in the body of the announcement.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Representative reporting of all metallurgical test work results is included in the body of the announcement.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Other substantive exploration data	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical test work results are included in the body of the announcement and Appendices.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Further drilling may be undertaken for infill and extension of the known exploration prospects.</li> <li>Further metallurgical test work, using representative sampling, will be required to constrain the metallurgical characteristics of the REE mineralisation.</li> </ul>