ASX ANNOUNCEMENT 6 May 2024

Roe Hills Project, Eastern Goldfields WA

Exceptional rare earth recovery rates of up to 97%

Metallurgical tests on drill samples of rare earths-mineralised clay return very high extraction rates using hydrochloric acid leach

Highlights

- **The tests were conducted on samples from the Black Cat rare earths prospect within Kairos' Roe Hills project**
- **The outstanding results are important because they help demonstrate the economic potential of Black Cat**
- **Total rare earth leach recoveries were exceptionally high at 89.9% to 97.4% for the four composite samples with TREO ranges of 2,072 ppm to 5,685 ppm**
- **Leach tests using a simple hydrochloric acid leach at a moderate concentration of 25g/L HCl within a 24-hour leach time demonstrate no refractory nature to the REE mineralisation that often plagues clay-hosted REE deposits**
- **Simple screen beneficiation results shows the fine fraction (-20µm) carries >70% of the total rare earths (68.2% to 74.8% TREE recovery)**
- **Encouragingly, high-value magnet REE's Nd and Pr (and the valuable REE Sm) preferentially upgrade in the <20 µm size fraction relative to the low value REE's in two of the four samples**
- **Composite samples come from drill holes RHRC136 (36m @ 2,027 ppm TREO from 52m including 16m @ 3,056 ppm TREO from 56m) (Composites 1, 2) and RHRC158 (148m @ 821 ppm TREO from 36m including 40m @ 1,551 ppm TREO from 36m) (Composites 3, 4)**

Kairos Managing Director, Dr Peter Turner said: **"Before we drill for a large resource, we need to make sure we can beneficiate or upgrade the mineralisation to a saleable product for the market and these early tests demonstrate that there are**

no refractory components to the mineralisation that are often seen with clay-hosted REE projects.

"We now have good reason to be very confident with our Roe Hills REE project, with high *in-situ* grades of the clay-hosted mineralisation and large areas interpreted from the gravity results to be underlain by enriched syenites that will be tested in the next round of cost-effective aircore drilling.

"The leaching characteristics are first-class with truly high recovery rates between 90-97% using hydrochloric acid.

"Several samples also show the REEs reporting to the finer fraction of the clays, especially in the valuable rare earths Sm, Nd & Pr. This gives us encouragement to review a second stage of test work".

Kairos Minerals Limited (**ASX:KAI**) is pleased to announce the results of **size analysis** screen beneficiation and **acid leach** sighter testing conducted on selected drill samples from the Black Cat rare earth elements (REE) project, located 120km east of Lynas's REE Processing facility, Kalgoorlie, Western Australia (**Figure 1**).

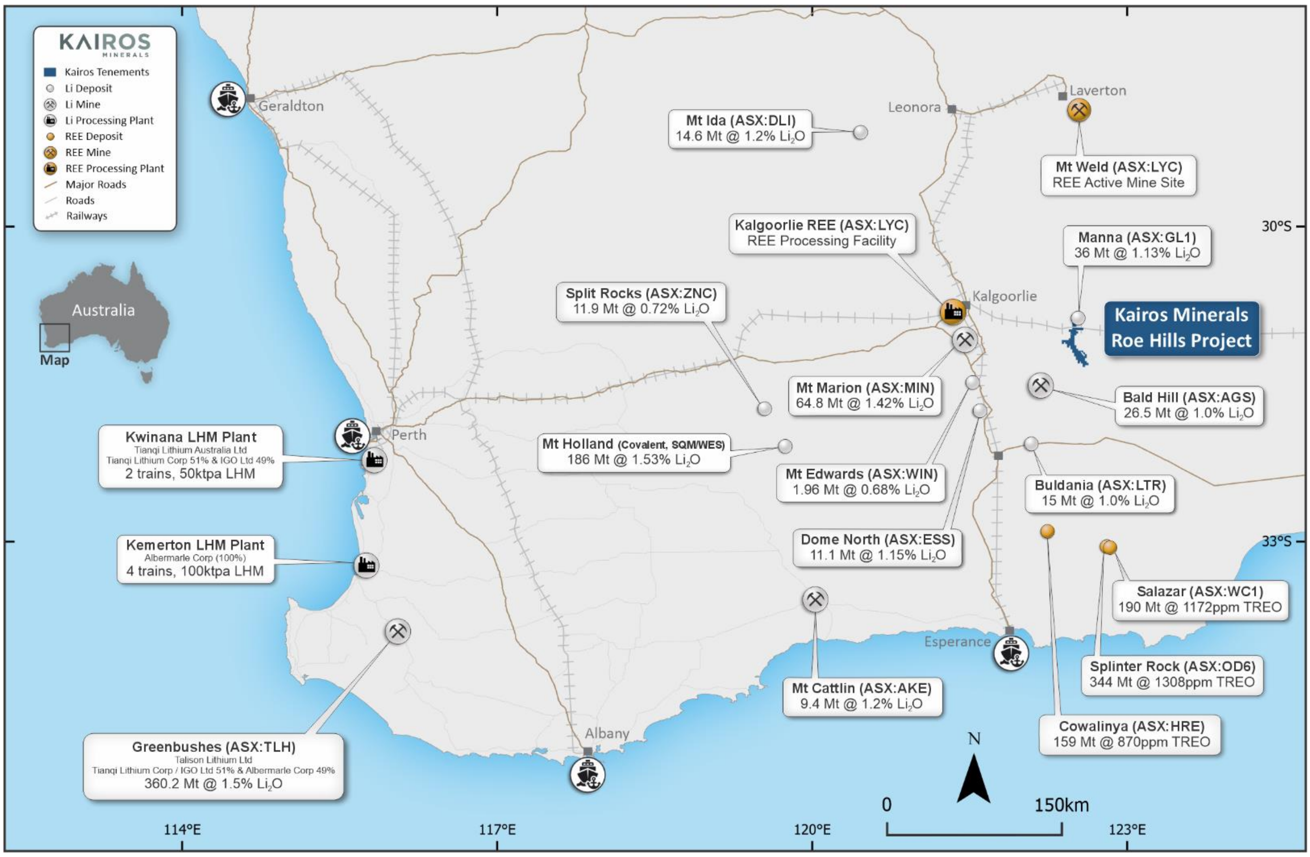

Figure 1. Location of the Roe Hills project in relation to infrastructure and other known REE and lithium deposits and process facilities.

Samples of REE-mineralised lower saprolite clays (**Figure 2**) with representative grade of mineralisation (**Table 2**) were collected and composited from two RC drillholes (RHRC136 & RHRC158 – **Table 1**) from our 2023 campaign[1]. Individual 1m samples were submitted to Independent Metallurgical Operations Pty Ltd (IMO), weighed and composited to form four, 4-metre composite samples (**Table 2**).

Figures 2 and **3** show the location of the metallurgical samples and a cross-section of the sample locations respectively.

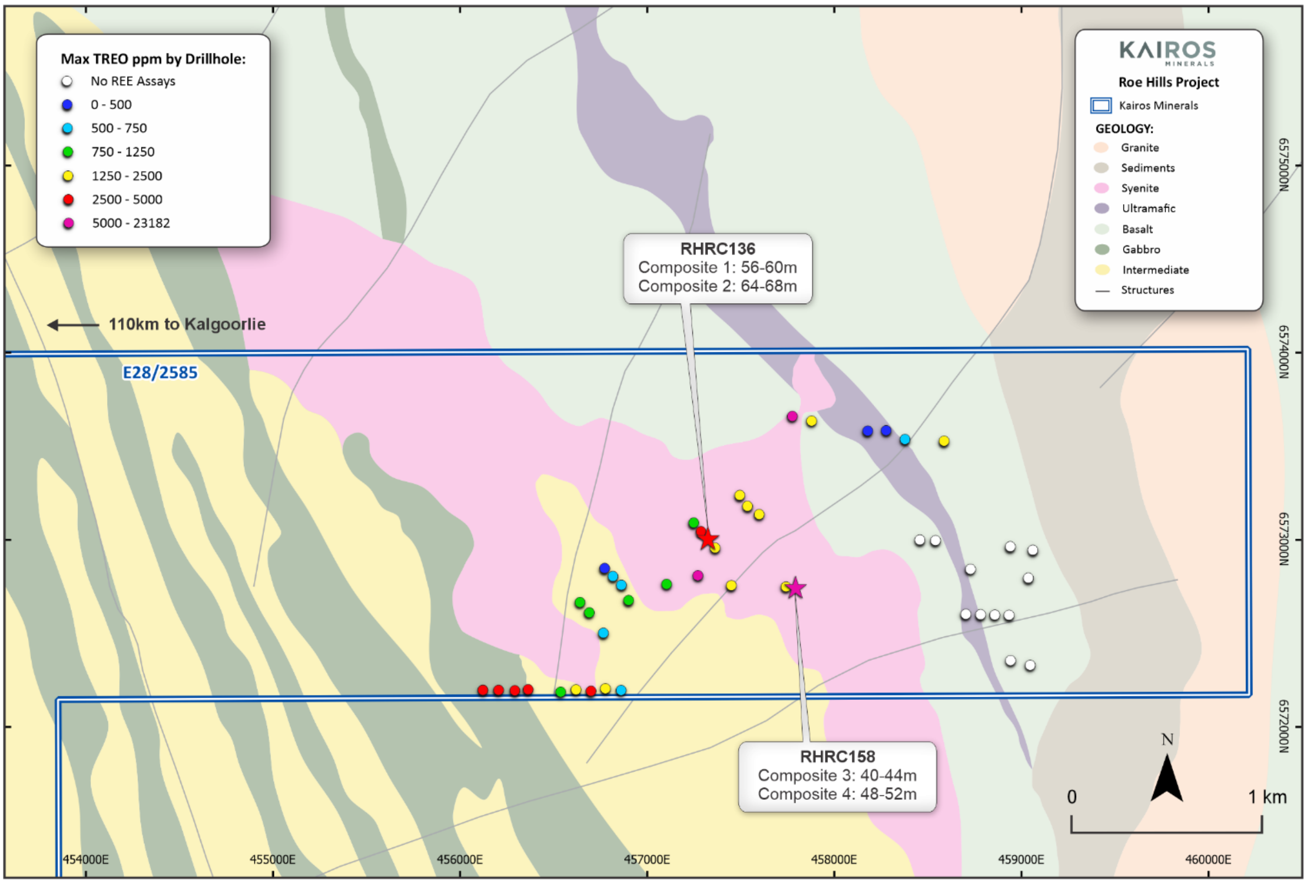

Figure 2: Geology interpretation from drilling data and gravity surveying of the Black Cat REE deposit showing the location of drillholes RHRC136 and RHRC158 from which metallurgical samples were selected and submitted for size analysis and leach testing. The pink indicates the potential ore-source syenites interpreted from the gravity survey that provides significant untested drill targets for future aircore drilling.

[1] see KAI press announcement dated 19 December 2023 entitled 'High-grade assays over large area point to significant rare earths discovery'

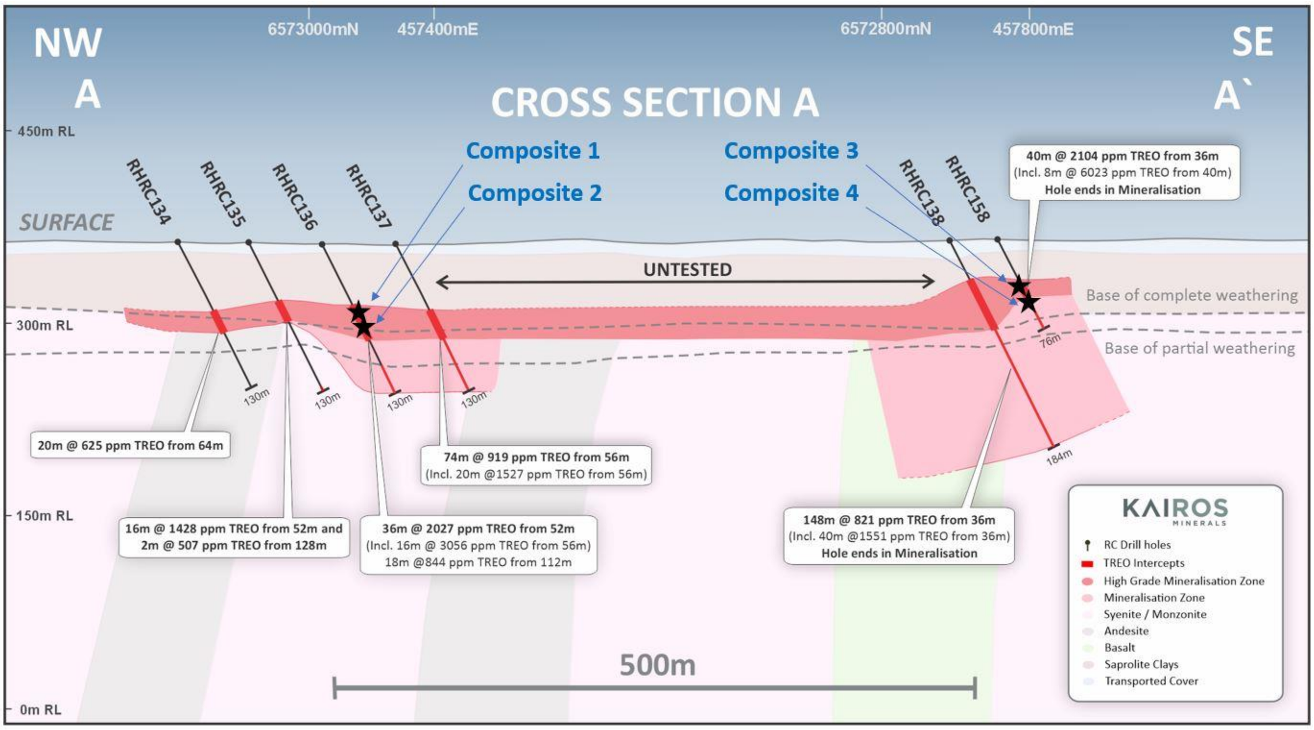

Figure 3: Cross-section through the Black Cat REE deposit showing the location of metallurgical samples collected and submitted for size analysis and leach testing.

Hole ID	Hole Type	Prospect	Easting	Northing	RL	Azimuth (degrees)	Dip (degrees)	Hole Depth (m)
RHRC136	RC	Black Cat	457320	6573001	357	140	-60	130
RHRC158	RC	Black Cat	457786	6572753	359	90	-60	76

Table 1. Drillhole collar information for drillholes with composite test samples.

Hole ID	From (m)	To(m)	Mass (kg)	Composite	Composite Mass (kg)
RHRC136	56	57	0.7	1	4.1
	57	58	0.7		
	58	59	1.7		
	59	60	1.0		
	64	65	1.4	2	4.8
	65	66	0.8		
	66	67	1.1		
	67	68	1.5		
RHRC158	40	41	0.8	3	4.6
	41	42	1.1		
	42	43	1.0		
	43	44	1.7		
	48	49	1.2	4	5.1
	49	50	1.2		
	50	51	1.3		
	51	52	1.4		

Table 2. Details of drillhole composite samples used in size analysis and leach testing.

	Element	Units	Composite 1	Composite 2	Composite 3	Composite 4
Heavy Rare Earth Elements (HREE)	Dy	ppm	34.3	32.3	43.5	23.8
	Er	ppm	12.7	11.4	16.5	9.6
	Ho	ppm	5	4.9	7	4.2
	Lu	ppm	1.1	1	1.5	1.2
	Tb	ppm	6.6	6	9.1	4.4
	Tm	ppm	1.9	1.3	2	1.4
	Y	ppm	133.2	113.6	216.4	132.6
	Yb	ppm	10.3	8.5	11.4	9.4
Light Rare Earth Elements (LREE)	Ce	ppm	1,688.1	1,032.7	959.6	279.9
	Eu	ppm	22.9	28.1	38.7	14.5
	Gd	ppm	53.9	56.6	87.9	39.2
	La	ppm	665	765.2	1,584.9	595.5
	Nd	ppm	705.1	919.3	1,288.3	452.2
	Pr	ppm	200.2	263.2	360.1	119.0
	Sm	ppm	98.9	128.9	159.2	57.2
Total Rare Earth Elements	**HREE**	**ppm**	**205**	**179**	**307**	**187**
	LREE	**ppm**	**3,434**	**3,194**	**4,479**	**1,558**
	TREE	**ppm**	**3,639**	**3,373**	**4,786**	**1,744**
Total Rare Earth Oxides	HREO	ppm	251.7	219.3	379.3	230.3
	LREO	ppm	4,121.2	3,803.5	5,306.0	1,841.8
	TREO	ppm	4,372.9	4,022.8	5,685.3	2,072.1

Table 3. Head assay results summary for the four composite samples. Please note rare earth oxides are assumed to be in the following compound forms: La_2O_3, CeO_2, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3 & Y_2O_3.

Head assays were calculated for each composite. Total rare earth element (TREE) grades range from **1,744 ppm** to **4,786 ppm**. Equivalent total rare earth oxide (TREO) grades range from **2,072 ppm** to **5,685 ppm** (**Table 2**).

Sizing analysis (looking at different REE grades within different size fractions of the sample as a means of looking for simple 'sieving' options to upgrade or beneficiate the ore) and **leach tests** (using ammonium sulphate to determine if the ore can be categorised as 'ionic'; hydrochloric acid leaching undertaken to determine efficiency of acid to leach the REEs from the sample) were conducted as part of the preliminary test work.

Sizing Analysis

Sizing analysis was conducted on all four composites to assess the natural deportment of the rare earth elements to different size fractions within each composite clay sample. These individual tests allow for identification of potential beneficiation routes to upgrade the mineralisation prior to leaching by sizing/sieving. A 500g sub split was prepared from each feed sample and screened at 106, 75, 53 and 20 µm. The distribution of rare earths throughout the size fractions of each composite is summarised in **Figure 4**, indicating a large portion of the REEs report to the -20 µm fraction. The distribution of throughout the fractions is presented in **Figure 5**, highlighting an almost identical trend with a large portion of the mass of each composite also reporting to the -20 µm fraction.

The trend provided in **Figure 6** presents the correlation between mass distribution and TREE distribution through the ore. A 100% correlation trend line (red line) has been included in the figure for comparative purposes.

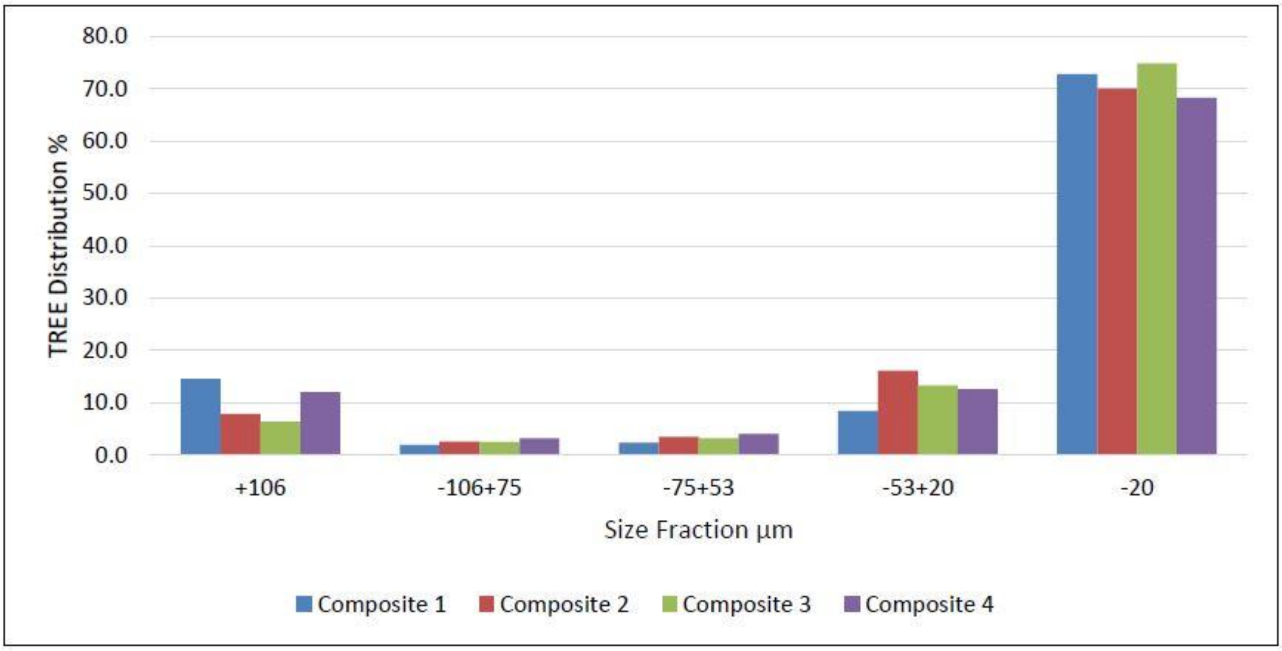

Figure 4. TREE distribution within each size fraction of each composite sample.

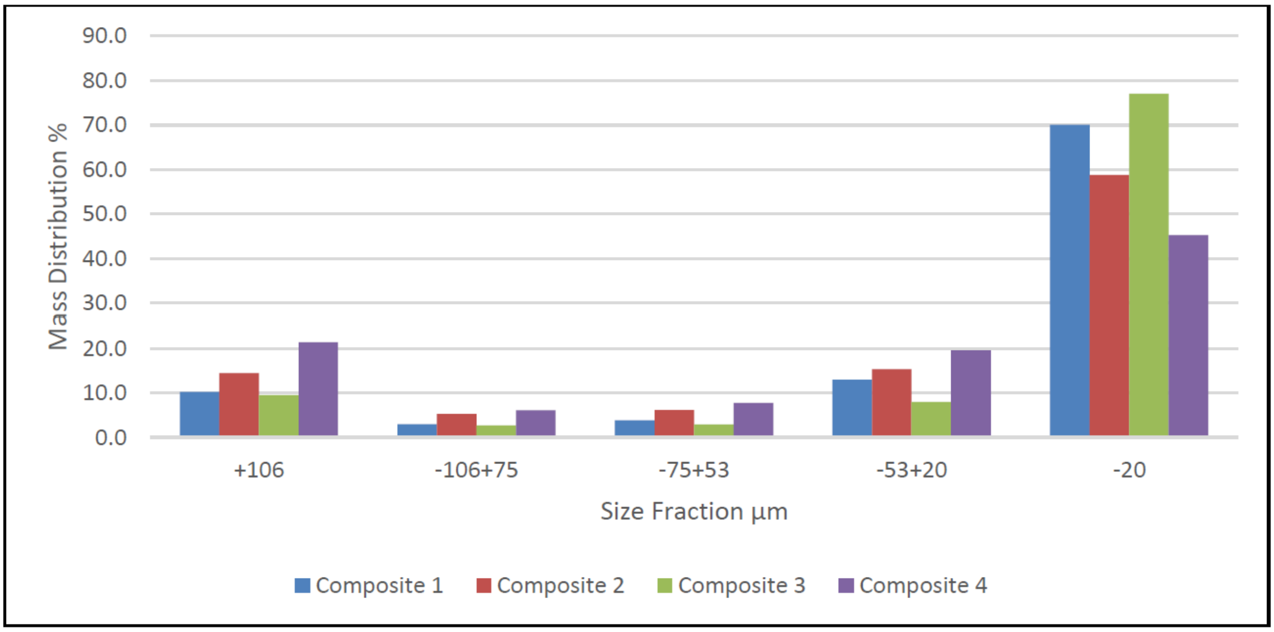

Figure 5. Mass distributions of size fractions for each composite sample.

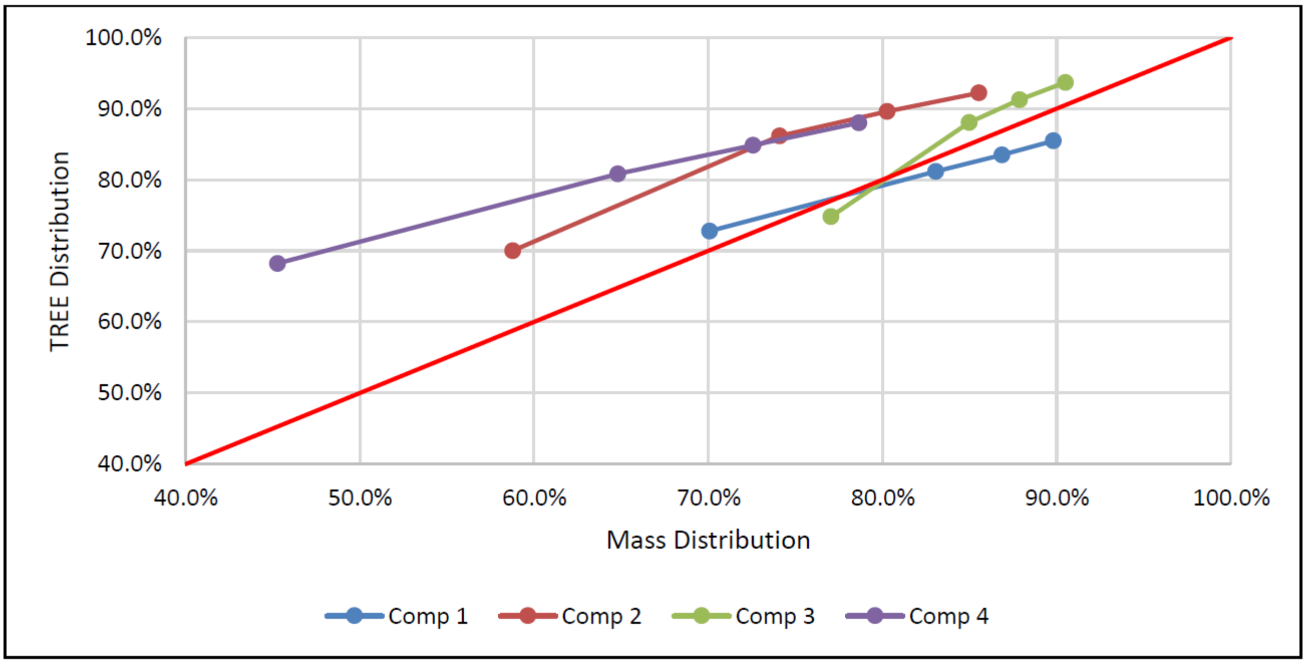

Figure 6. Composite Mass versus TREE distribution. Composites 2 and 4 show a positive trend of 'enriched' TREE distribution relative to their Mass distribution and could be considered encouraging results for possible beneficiation through sizing.

These results highlight that for Composites 1 and 3, the rare earth elements report evenly within the size fractions (ie., there is no size fraction with elevated TREE concentrations – sitting close to and parallel to the red line in **Figure 6**) whereas Composites 2 and 4 show an overall increase in TREE distribution in the finer fractions (106 µm and below, sitting above the red line in **Figure 6**). Future testwork will investigate the reasonable assumptions that some of the mineralisation may respond to size fraction beneficiation ahead of leaching.

The data presented in **Figures 4-6** are described and tabulated below.

Cumulative passing grades and distributions are summarised in **Table 4** to **Table 7** presenting the cumulative mass and total rare earths reporting to the fines of each size fraction. Overall sizing results indicate the following:

- The -20µm fraction contains more than 68% of the total rare earths (TREE) for all samples (ranging from 68.2% to 74.8%);

- Screening the samples at a size of 106µm allows for the following:
  - Mass recoveries to the fine fraction ranging from 78.6% to 90.5%, averaging 86.1%
  - TREE recoveries to the fine fraction ranging from 85.5% to 93.7%, averaging 89.8%
- Screening the samples at a size of 75µm allows for the following:
  - Mass recoveries to the fine fraction ranging from 72.6% to 87.9%, averaging 81.9%

  - TREE recoveries to the fine fraction ranging from 83.5% to 91.3%, averaging 87.3%
- Screening the samples at a size of 53μm allows for the following:
  - Mass recoveries to the fine fraction ranging from 64.8% to 85.0%, averaging 76.7%
  - TREE recoveries to the fine fraction ranging from 80.8% to 88.0%, averaging 84.0%
- Screening the samples at a size of 20μm allows for the following:
  - Mass recoveries to the fine fraction ranging from 45.3% to 77.0%, averaging 62.8%
  - TREE recoveries to the fine fraction ranging from 68.2% to 74.8%, averaging 71.4%
- Results indicate minimal difference in distribution between the HREE and LREE's throughout the samples.

Size Fraction	Mass	HREE		LREE		TREE	
μm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
-106	89.8%	187	92.0%	2,631	85.0%	2,819	85.5%
-75	86.8%	190	89.9%	2,658	83.1%	2,848	83.5%
-53	83.0%	192	87.3%	2,702	80.7%	2,895	81.2%
-20	70.1%	203	77.7%	2,873	72.4%	3,076	72.8%
Calc Head		183		2,779		2,962	

Table 4. Composite 1 cumulative passing grade & distribution by size fraction

Size Fraction	Mass	HREE		LREE		TREE	
μm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
-106	85.5%	196	93.9%	3,189	92.1%	3,385	92.2%
-75	80.3%	202	91.0%	3,304	89.5%	3,506	89.6%
-53	74.1%	209	86.7%	3,442	86.1%	3,651	86.1%
-20	58.8%	205	67.3%	3,536	70.2%	3,741	70.0%
Calc Head		179		2,962		3,140	

Table 5. Composite 2 cumulative passing grade & distribution by size fraction

Size Fraction	Mass	HREE		LREE		TREE	
μm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
-106	90.5%	324	92.8%	4,940	93.7%	5,264	93.7%
-75	87.9%	323	89.8%	4,959	91.3%	5,281	91.3%
-53	85.0%	320	86.0%	4,950	88.2%	5,269	88.0%
-20	77.0%	295	72.0%	4,643	75.0%	4,938	74.8%
Calc Head		316		4,769		5,085	

Table 6. Composite 3 cumulative passing grade & REE distribution by size fraction

Size Fraction	Mass	HREE		LREE		TREE	
µm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %	Grade ppm	Dist %
-106	78.6%	209	86.4%	1,807	88.2%	2,017	88.0%
-75	72.6%	217	82.8%	1,890	85.1%	2,107	84.8%
-53	64.8%	229	78.1%	2,018	81.1%	2,247	80.8%
-20	45.3%	269	63.9%	2,447	68.7%	2,716	68.2%
Calc Head		190		1,612		1,802	

Table 7. Composite 4 cumulative passing grade & distribution by size fraction

An assessment of the individual REE's reveals that some of the higher value elements such as Nd, Pr and Sm upgrade to different extents than the lower value element Ce. Upgrade ratios achieved for the REE's throughout the four composites are shown in **Table 8** to **Table 11** below, determined based on the cumulative passing grades and calculated head grades presented in the above results. These results indicate the following:

- Whilst Composite 1 reports no real upgrade in TREE (1.04 times upgrade), the high value elements (Nd, Pr and Sm) reported a 1.2 times upgrade to the -20µm fraction. The Ce reported a reduced grade (0.8 times upgrade), contributing to the low TREE upgrade due to the high Ce content of the sample;
- Composite 2 reports an average 1.24 times upgrade for the high value elements to the -20µm fraction, whilst the Ce has a lower 1.08 times upgrade;
- Composite 3 indicates no significant change in REE grades throughout the fractions;
- Composite 4 indicates upgrade ratios ranging from 1.46 to 1.52 for the high value REE's whilst the Ce upgrades within this range at 1.49.

Size Fraction µm	Ce	Nd	Pr	Sm	Total HREE	Total LREE	Total TREE
-106	0.78	1.06	1.06	1.06	1.02	0.95	0.95
-75	0.78	1.08	1.08	1.08	1.04	0.96	0.96
-53	0.77	1.11	1.11	1.11	1.05	0.97	0.98
-20	0.80	1.19	1.20	1.19	1.11	1.03	1.04

Table 8. Composite 1 cumulative passing upgrade ratios by size fraction

Size Fraction µm	Ce	Nd	Pr	Sm	Total HREE	Total LREE	Total TREE
-106	0.95	1.13	1.13	1.13	1.10	1.08	1.08
-75	0.96	1.18	1.18	1.18	1.13	1.12	1.12
-53	0.98	1.23	1.23	1.23	1.17	1.16	1.16
-20	1.08	1.24	1.24	1.23	1.15	1.19	1.19

Table 9. Composite 2 cumulative passing upgrade ratios by size fraction

Size Fraction µm	Ce	Nd	Pr	Sm	Total HREE	Total LREE	Total TREE
-106	1.03	1.04	1.04	1.04	1.03	1.04	1.04
-75	1.04	1.04	1.04	1.04	1.02	1.04	1.04
-53	1.05	1.04	1.04	1.04	1.01	1.04	1.04
-20	1.02	0.96	0.97	0.96	0.93	0.97	0.97

Table 10. Composite 3 cumulative passing upgrade ratios by size fraction

Size Fraction µm	Ce	Nd	Pr	Sm	Total HREE	Total LREE	Total TREE
-106	1.06	1.13	1.13	1.13	1.10	1.12	1.12
-75	1.11	1.18	1.19	1.17	1.14	1.17	1.17
-53	1.19	1.26	1.27	1.24	1.20	1.25	1.25
-20	1.49	1.51	1.52	1.46	1.41	1.52	1.51

Table 11. Composite 4 cumulative passing upgrade ratios by size fraction

Leach Testing

Two leach tests were performed on each composite sample to assess the potential rare earth recoveries achievable over varied conditions, with each sample undergoing leach tests using hydrochloric acid (HCl) at a 25g/L concentration and 50°C temperature, and ammonium sulphate at an ambient temperature and pH of 4.

Results of the leach testing returned higher than expected leach recoveries of REE's, with HCl leaching averaging a **93% recovery** (**ranging from 89.9% to 97.4%**) over the four composites. Total rare earth element (TREE) leach recovery characteristics over 24 hours for the four Roe Hills composites are summarised in **Figure 7**. This figure also shows a lack of leach performance to ammonium sulphate, suggesting that the clay-hosted REEs at Roe Hills are not 'ionic' in nature. However, the leaching by hydrochloric acid is very impressive and provides the impetus for further work.

In addition to highly encouraging recoveries, the susceptibility of the materials to leaching by HCl indicates that the mineralisation is unlikely to be hosted within resistate minerals such as Monazite and Bastnaesite; minerals that typically require heat processing via cracking to ensure leaching. **Indeed, the rate and high leaching characteristics proves that there are no refractory components impeding leaching that so often plagues clay-hosted REE deposits**.

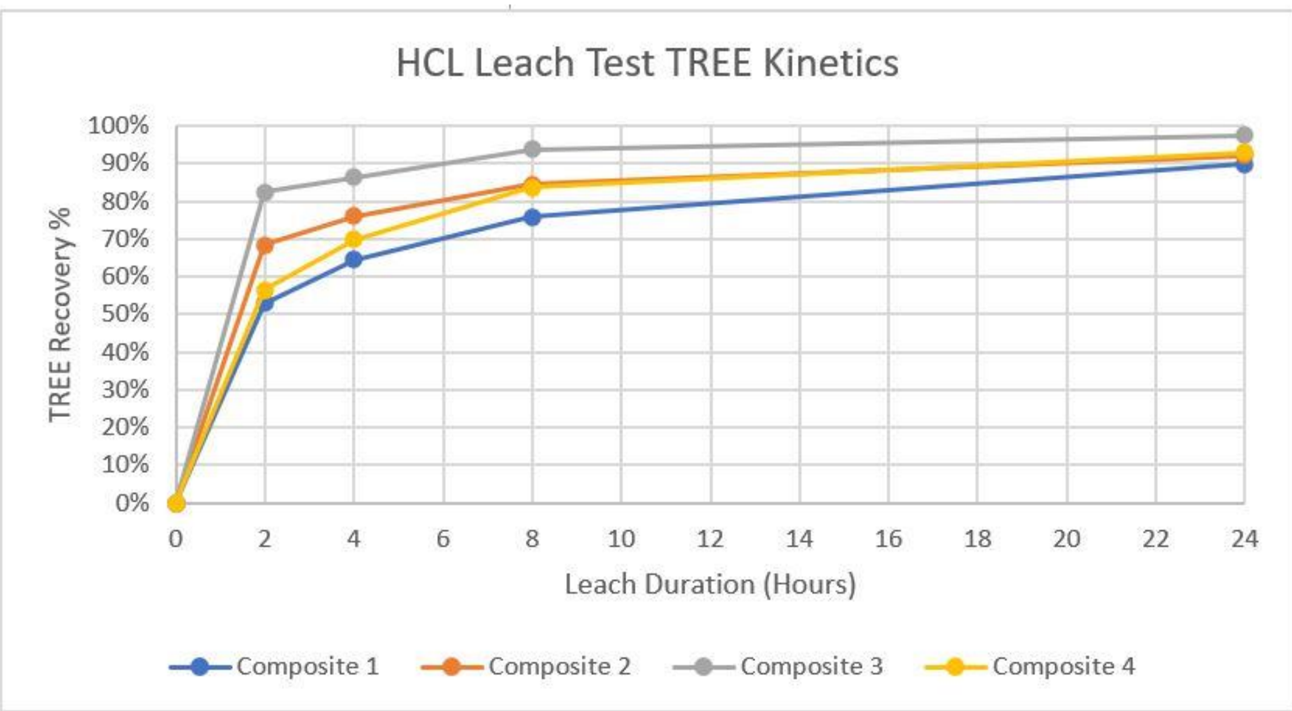

Figure 7. Chart showing leach test results for four composite samples from Black Cat in HCl at 25g/L concentration and 50°C temperature over 2, 4, 8 and 24 hours.

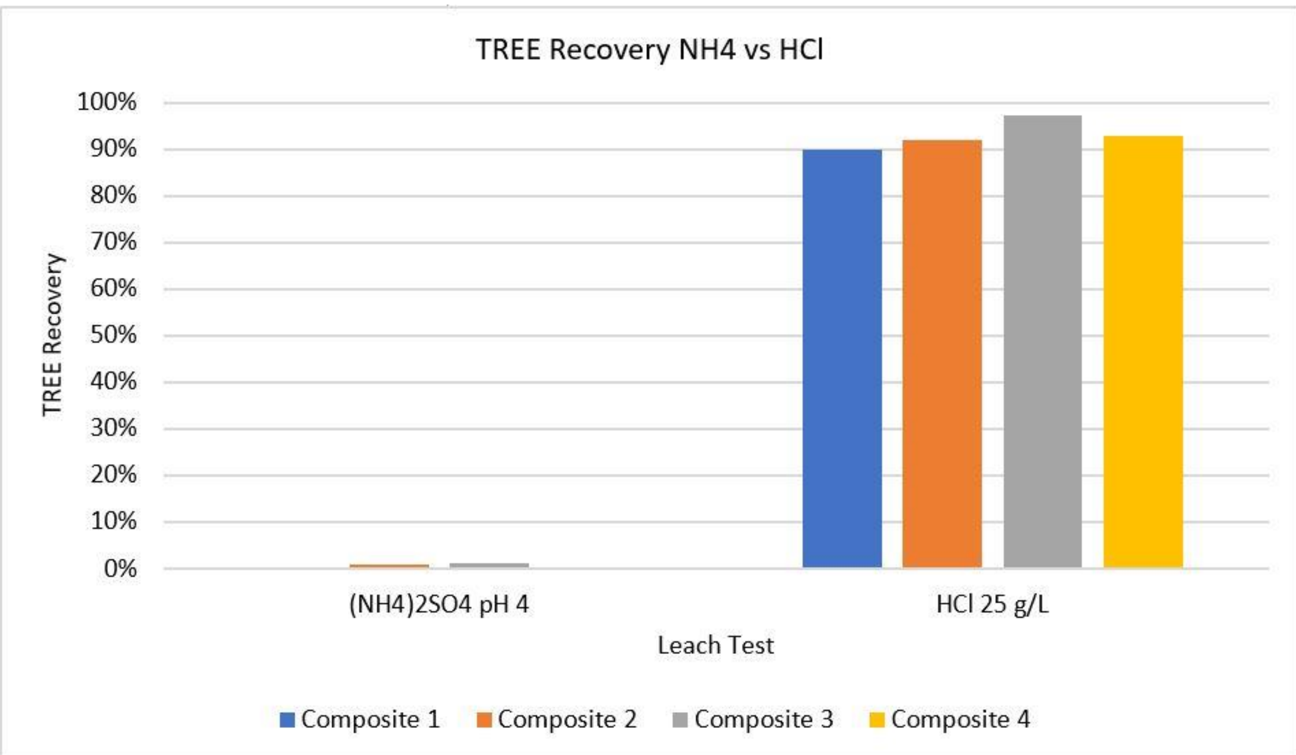

Figure 8. A summary chart of the total rare earth leach recoveries after 24 hours achieved for the four Roe Hills composites.

Recommendations

Based on the test work completed to date on the Roe Hills mineralisation, IMO have recommended the following:

- Conduct further HCl leach testing at reduced HCl concentrations to determine if the REE's can be more economically recovered, i.e. less reagents used to reduce leaching costs; and
- Conduct froth flotation test work to assess the potential upgrades achievable for the mineralisation.

Next Steps

- Investigate additional metallurgical test work as recommend by IMO and others
- Heritage surveys to be arranged ahead of a potential 8,000m aircore program at Black Cat and surrounding targets
- Continuation of field mapping and sampling on the southern part of the Roe Hills tenement package to identify potential lithium-bearing pegmatites in areas previously only explored for nickel and gold.
- A campaign of auger soil sampling has been planned to extend southwards on the tenement package in conjunction with the field mapping, targeting lithium, gold and REE's.

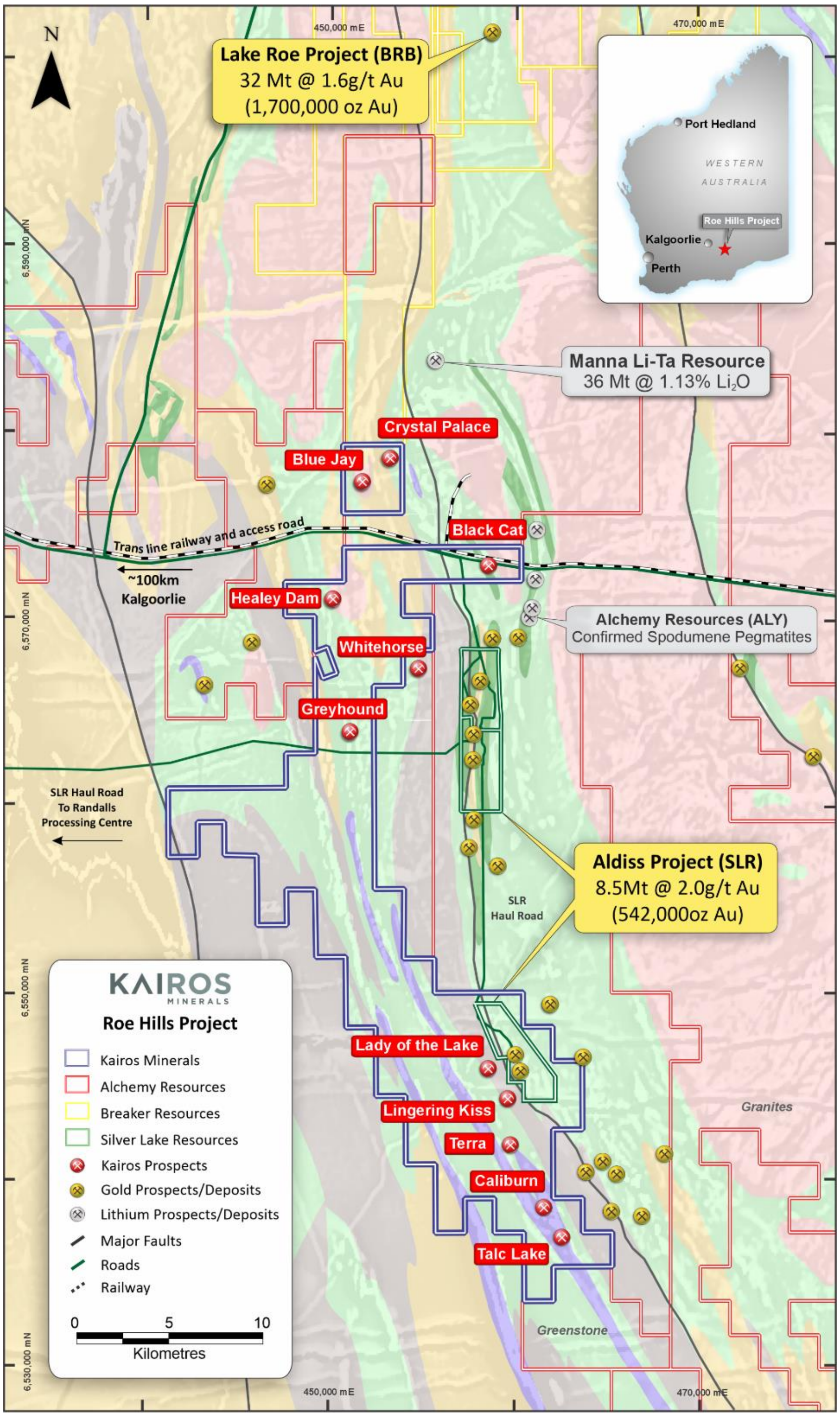

Figure 9. Kairos' Roe Hills tenements in relation to neighbouring companies overlain on a magnetic image highlighting interpreted granites. Lithium mines and advanced projects with resources are shown with quoted mineral resources.

Composite			Composite 1		Composite 2		Composite 3		Composite 4	
Test			$(NH_4)_2SO4$ pH 4	HCl 25 g/L	$(NH_4)_2SO4$ pH 4	HCl 25 g/L	$(NH_4)_2SO4$ pH 4	HCl 25 g/L	$(NH_4)_2SO4$ pH 4	HCl 25 g/L
Conditions:										
Composite			Comp 1 <20um	Comp 1 <20um	Comp 2 <20um	Comp 2 <20um	Comp 3 <20um	Comp 3 <20um	Comp 4 <20um	Comp 4 <20um
Temperature		˚C	Ambient	50	Ambient	50	Ambient	50	Ambient	50
Test		#	1	5	2	6	3	7	4	8
Element Extractions:										
Heavy Rare Earth Element Extractions (HREEs)	Dy	%	0.4%	85.3%	1.2%	88.9%	2.0%	91.2%	0.6%	85.4%
	Er	%	0.4%	81.5%	1.5%	85.5%	2.2%	88.0%	0.8%	78.7%
	Ho	%	0.4%	83.6%	1.6%	87.8%	2.0%	89.6%	0.9%	83.0%
	Lu	%	0.8%	72.3%	0.7%	73.7%	2.4%	70.9%	0.5%	67.9%
	Tb	%	0.5%	88.0%	1.1%	92.1%	1.7%	92.5%	0.5%	87.4%
	Tm	%	0.6%	78.6%	0.5%	72.6%	2.9%	80.5%	0.8%	71.9%
	Y	%	0.4%	85.3%	1.4%	84.9%	1.9%	92.3%	0.7%	83.9%
	Yb	%	0.6%	74.1%	1.4%	74.4%	2.7%	73.3%	1.1%	71.4%
Light Rare Earth Element Extractions (LREEs)	Ce	%	0.3%	97.5%	0.4%	82.8%	0.8%	98.6%	0.6%	96.0%
	Eu	%	0.4%	88.0%	1.1%	94.5%	1.1%	95.0%	0.4%	89.1%
	Gd	%	0.4%	89.9%	1.2%	94.4%	1.3%	95.5%	0.5%	89.4%
	La	%	0.2%	84.2%	0.7%	95.3%	1.0%	98.1%	0.3%	95.0%
	Nd	%	0.3%	89.2%	0.8%	95.8%	0.9%	97.3%	0.3%	92.6%
	Pr	%	0.3%	88.0%	0.7%	95.4%	0.9%	97.5%	0.3%	93.2%
	Sm	%	0.3%	88.8%	0.9%	94.8%	1.0%	95.9%	0.3%	89.8%
Total Recoveries	HREE	%	0.4%	84.5%	1.4%	85.3%	1.9%	90.9%	0.7%	83.1%

Composite			Composite 1		Composite 2		Composite 3		Composite 4	
Test			$(NH_4)_2SO4$ pH 4	HCl 25 g/L	$(NH_4)_2SO4$ pH 4	HCl 25 g/L	$(NH_4)_2SO4$ pH 4	HCl 25 g/L	$(NH_4)_2SO4$ pH 4	HCl 25 g/L
	LREE	%	0.3%	90.3%	0.7%	92.5%	0.9%	97.8%	0.3%	93.9%
	TREE	%	0.3%	89.9%	0.7%	92.1%	1.0%	97.4%	0.4%	92.9%
Calculated Head Grade	HREE	ppm	211	241	220	258	309	369	276	324
	LREE	ppm	2,962	3,281	3,666	4,200	4,880	5,687	2,497	2,941
	TREE	ppm	3,173	3,522	3,886	4,457	5,189	6,056	2,773	3,265
Assay Head Grade	HREE	ppm	203	203	205	205	295	295	269	269
	LREE	ppm	2,873	2,873	3,536	3,536	4,643	4,643	2,447	2,447
	TREE	ppm	3,076	3,076	3,741	3,741	4,938	4,938	2,716	2,716
Kinetics:										
HREE	2 Hr Recovery	%	0%	51%	1%	72%	1%	78%	0%	54%
	4 Hr Recovery	%	0%	63%	1%	79%	1%	83%	1%	66%
	8 Hr Recovery	%	0%	74%	1%	84%	1%	89%	1%	76%
	24 Hr Recovery	%	0%	84%	1%	85%	2%	91%	1%	83%
LREE	2 Hr Recovery	%	0%	53%	1%	68%	0%	83%	0%	57%
	4 Hr Recovery	%	0%	65%	1%	76%	0%	87%	0%	70%
	8 Hr Recovery	%	0%	76%	1%	85%	0%	94%	0%	84%
	24 Hr Recovery	%	0%	90%	1%	93%	1%	98%	0%	94%
TREE	2 Hr Recovery	%	0%	53%	1%	68%	0%	82%	0%	57%
	4 Hr Recovery	%	0%	64%	1%	76%	0%	86%	0%	70%
	8 Hr Recovery	%	0%	76%	1%	85%	0%	94%	0%	84%
	24 Hr Recovery	%	0%	90%	1%	92%	1%	97%	0%	93%

Composite		Composite 1		Composite 2		Composite 3		Composite 4	
Test		$(NH_4)_2SO4$ pH 4	HCl 25 g/L	$(NH_4)_2SO4$ pH 4	HCl 25 g/L	$(NH_4)_2SO4$ pH 4	HCl 25 g/L	$(NH_4)_2SO4$ pH 4	HCl 25 g/L
TREE Residue Grade	ppm	3,164	355	3,859	352	5,138	160	2,762	233

Table 11. Leach test data and results for the 4 composite samples from Roe Hills.

About Kairos Minerals

Kairos Minerals (ASX:KAI) owns 100% of the flagship 1.6 Mozs **Mt York Gold Project** that was partially mined by Lynas Gold NL between 1994 and 1998. Kairos has recognised that the resource has significant potential to grow further from its current 1.62 Moz base with significant exploration potential existing within the Mt York project area. Pre-feasibility work will progress rapidly underpinned by the resource expansion work that will collect important information for metallurgical test work, mining, and process engineering to determine viability and optimal pathway to develop a sustainable, long-lived mining project. Current resources at a 0.5 g/t Au cut-off grade above 325m depth are shown in the table below.

Deposit	Indicated			Inferred			Total		
	Tonnes (MT)	Au (g/t)	Ounces (kozs)	Tonnes (MT)	Au (g/t)	Ounces (kozs)	Tonnes (MT)	Au (g/t)	Ounces (kozs)
Main Trend	20.25	1.06	690	22.83	0.95	697	43.08	1.00	1385
Iron Stirrup	1.28	1.72	70	0.71	1.54	35	1.99	1.66	106
Old Faithful	2.17	1.07	75	2	0.81	52	4.17	0.95	127
Total	**23.7**	**1.10**	**835**	**25.54**	**0.95**	**784**	**49.24**	**1.02**	**1618**

Kairos's 100%-owned Roe Hills Project, located 120km east of Kalgoorlie in WA's Eastern Goldfields, comprises an extensive tenement portfolio where the Company's exploration work has confirmed the potential for significant discoveries of high-grade gold, nickel, cobalt, lithium, and rare earth mineralisation. Kairos has recently discovered significant high-grade REE mineralisation at Black Cat within enriched lower saprolite clays overlying fertile REE-bearing syenite intrusions.

This announcement has been authorised for release by the Board.

Peter Turner
Managing Director

Zane Lewis
Non Executive Director

For Investor Information please contact:
Paul Armstrong – Read Corporate
0421 619 084

COMPETENT PERSON STATEMENT:

The information in this report that relates to Exploration Results is based on information compiled and reviewed by Mr Mark Falconer, who is a full-time employee of Kairos Minerals Ltd and who is also a Member of the Australian Institute of Geoscientists (AIG). Mr Falconer has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' (the JORC Code 2012). Mr Falconer has consented to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The information in this document that relates to metallurgical test work is based on, and fairly represents, information and supporting documentation reviewed by Mr Peter Adamini, BSc (Mineral Science and Chemistry), who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Adamini is a full-time employee of Independent Metallurgical Operations Pty Ltd, who has been engaged by Kairos Minerals Limited to provide metallurgical consulting services. Mr Adamini has approved and consented to the inclusion in this document of the matters based on his information in the form and context in which it appears.

Appendix A - JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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.* • *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.*	• Leach and sizing test work was completed on RC drill samples. Primary geochemical assay results of the drilling samples were reported previously. • Selected 1m samples were submitted to Independent Metallurgical Operations Pty Ltd (IMO) for screen beneficiation sizing test work and leach testing. • 1m samples were collected from a cone splitter at the drill rig during drilling and composited into four separate samples by IMO, each representing a 4m down hole interval. • Samples were selected from mineralised lower saprolite clays and are considered representative of the deposit.
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).*	• RC drilling was conducted using a 5 ½ inch bit and face sampling hammer.
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.* • *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.*	• RC samples were visually assessed for recovery. • The RC samples selected for the test work were all logged as dry with full recoveries. • Samples were collected directly from the cone splitter at the drill rig. • No sample bias has been identified.

Criteria	JORC Code explanation	Commentary
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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All RC chips were geologically logged by company geologists using the Kairos .Minerals logging scheme and were entered in to the companies acQuire database. • Logging of RC chips records colour, lithology, grain size, structure, mineralogy, alteration, weathering and various other features of the samples. • All holes were logged in full. • All RC chips were photographed in labelled chip trays.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *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.*	• 1m RC samples were sampled using a cone splitter mounted on the drill rig cyclone, with an average 2.0kg to 2.5kg sample collected directly into a numbered calico bag. >95% of samples were collected dry. • The quality of RC samples was ensured through monitoring of sample volumes and by regular cleaning of the cyclone and cone splitter on the drill rig. • Sample sizes are considered appropriate for the material sampled. • 1m samples collected at the drill rig were subsequently composted into 4m composites by IMO for beneficiation and leaching test work. • A 500g sub-split of the composite samples were used for sizing analysis.
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.* • *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.* • *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.*	• Head assay analysis was performed using lithium borate fusion with ICP-MS and ICP-OES finish and included internal laboratory standards and blanks. • Sizing analysis was performed by screening at 106, 75, 53 and 20µm. • Two leach tests were conducted on the <20µm portion of each composite sample. Each sample underwent separate leach tests with hydrochloric acid at 50°C and ammonium sulphate at ambient temperature and pH of 4.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification,*	• Composite sample head grades were within 5% of original sample grades previously reported using a 4-acid digestion with ICP-MS and ICP-OES finish. • All assay data is stored in an electronic

Criteria	JORC Code explanation	Commentary
	data storage (physical and electronic) protocols. • *Discuss any adjustment to assay data.*	database hosted by acQuire and managed by the company's database consultant.
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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• RC collar locations were set out and picked up using handheld GPS, with an accuracy of +/- 5m in both easting and northing. • Downhole surveys were completed on all drill holes using a Reflex Sprint IQ Gyroscope survey instrument with measurements recorded every 5m. • All location data is recorded in GDA94 MGA Zone 51. • Topographic control is through a digital elevation model generated off regional SRTM elevation data on 30m centers.
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.* • *Whether sample compositing has been applied.*	• Samples for sizing and leaching testwork were selected from consecutive 1m intervals within mineralised lower saprolite material and composited into 4m composites. • Samples were selected from two separate drill holes situated approximately 500m apart from similar horizons in the lower saprolite over similar fresh rock parent geology.
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.* • *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.*	• Mineralisation is generally sub-horizontal within flat-lying lower saprolite clays. • Sampling was conducted at 1m intervals down -60° angled holes. • No sampling bias has been identified.
Sample security	• *The measures taken to ensure sample security.*	• All samples were collected in the field at the project site in number-coded calico bags and placed within secure, labelled polyweave bags by company field personnel. • All samples were delivered directly to IMO in Perth for analysis
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audit or review of the sizing or leaching test work has been conducted.

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Section 2 Reporting of Exploration Results

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.*	• The Roe Hills project consists of eighteen granted Exploration Licenses: E28/1935, E28/2117, E28/2118, E28/2548, E28/2585, E28/2594, E28/2695, E28/2696, E28/2697, P28/1292-P28/1300 inclusive. • E28/2585 partially overlaps with Hampton Location 16 privately owned land north of the trans-australian railway line. The mineral rights to the upper 45.72 metres of Location 16 belong to the private land owners. • Kairos is not aware of any existing impediments nor of any potential impediments which may impact ongoing exploration and development activities at the project site.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Broad reconnaissance exploration for gold has been conducted on the northern and western parts of tenement E28/2585 in the past by Poseidon Exploration (1990), Normandy Exploration (1995) and Integra Mining (2009) in the form of shallow RAB/Aircore drilling.
Geology	• *Deposit type, geological setting and style of mineralisation.*	**Regional Geology** • The Roe Hills project lies across granite-greenstones of the Archean Yilgarn Craton, with the local geology at Roe Hills consisting of a north-south trending ultramafic-mafic-volcaniclasic sequence intruded by granites. • The mineralisation targets are intrusion/shear zone-hosted Au deposits, spodumene-bearing LCT pegmatite deposits (lithium), and rare earth element (REE) mineralisation associated with enriched granites and syenite. • The Black Cat REE deposit consists of sub-horizonal REE mineralisation hosted in lower saprolite clays overlying and adjacent to weathered REE-bearing syenite intrusions.
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*	• Drillhole collar locations and associated material information for reported drillhole testwork are provided in the tables and figures included in this announcement • Additional drillhole information not material to this announcement is included

Criteria	JORC Code explanation	Commentary
	○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole 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.*	in a previous announcement dated 23 December 2023
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.*	• Multi-element data for rare earth elements have been converted to stoichiometric oxides using element-to-stoichiometric conversion factors listed in the table below: (see table below)
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').*	• All mineralisation widths for exploration holes are reported as down hole lengths. • True widths of mineralisation are not known at this stage
Diagrams	• *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.*	• Appropriate plans and sections are included in this announcement that show the locations of the samples selected for size beneficiation and leach test work

Element ppm	Conversion Factor	Oxide Form
Ce	1.2284	CeO_2
Dy	1.1477	Dy_2O_3
Er	1.1435	Er_2O_3
Eu	1.1579	Eu_2O_3
Gd	1.1526	Gd_2O_3
Ho	1.1455	Ho_2O_3
La	1.1728	La_2O_3
Lu	1.1371	Lu_2O_3
Nd	1.1664	Nd_2O_3
Pr	1.2082	Pr_6O_{11}
Sc	1.5338	Sc_2O_3
Sm	1.1596	Sm_2O_3
Tb	1.1762	Tb_4O_7
Tm	1.1421	Tm_2O_3
Y	1.2699	Y_2O_3
Yb	1.1387	Yb_2O_3

Criteria	JORC Code explanation	Commentary
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.*	• The information reported in this announcement is considered fair, balanced, and provided in context. • All relevant information has been included in this announcement
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.*	• All meaningful and material exploration data has been included in the body of this document.
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.*	• Additional metallurgical testwork on the samples used in this announcement have been proposed by IMO to Kairos Minerals and is currently being considered. • Mapping and sampling of areas with potential for REE-bearing intrusions and lithium-bearing pegmatites is currently underway across the Roe Hills project. • An aircore drill program has been planned to expand the footprint of REE mineralisation at Black Cat and is currently being considered pending further metallurgical test work • An auger soil sampling program has been planned to extend south of the previous auger soil program completed during 2023