

ASX Release
11 June 2024

Historical data review delivers exciting targets at Khaleesi Niobium Project, with land package expanded

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Highlights

- Interpretation of extensive, detailed historical geophysical data from the recently acquired Khaleesi Niobium Project has delivered **exciting target areas including multiple gravity anomalies**.
- More than **65,000 metres of gold-focused historical air core drilling data** over the Project is being compiled into a database for interrogation:
 - **Few historical holes were assayed for niobium or rare earths mineralisation**
 - Those with data show significant enrichment of **niobium up to 1,000ppm¹**
- A portion of the historical gold-focused air core drill **chips and pulps have been located** and will be sent **for re-assay**.
- RareX has acquired **an additional 336 square kilometres** of potential alkaline complexes to expand its landholding in this **highly prospective region**.
- Exploration heritage agreement negotiations with the Upurli Upurli Nguratja Aboriginal Corporation (UUNAC), through their representatives, the Central Desert Native Title Services (CDNTS), have commenced.

RareX Limited (ASX: REE – **RareX** or the **Company**) is pleased to advise that analysis of high-quality historical exploration data from its recently acquired district-scale **Khaleesi Niobium-Rare Earths Project** in the East Yilgarn region of Western Australia has delivered positive early results, highlighting several exciting anomalies and confirming strong potential for niobium mineralisation.

Based on the strength of these early results, the Company has acquired an additional 336km² land package by direct pegging to further expand its landholding in this highly prospective region.

The Khaleesi Project provides an outstanding exploration opportunity for RareX, complementing the Company's engineering-stage, 100%-owned Cummins Range Rare Earths & Phosphate Project which is progressing through offtake and approvals.

RareX CEO, James Durrant, said: *“Our growing understanding of the geology and geophysics at the Khaleesi Project continues to support our growing excitement for this region, which has now seen the Company move to expand its exploration footprint. Drill targets are emerging and we are looking forward to re-assay some of the historical gold-focused drilling for niobium and rare earths mineralisation. We have also begun working with Central Desert Native Title Services, as the native title service provider for the Upurli Upurli Nguratja Aboriginal Corporation, and look forward to securing an agreement to manage native title heritage over the Khaleesi Project area.”*

¹ ASX Announcement 23 May 2024: RareX acquires district-scale niobium project in the East Yilgarn, WA

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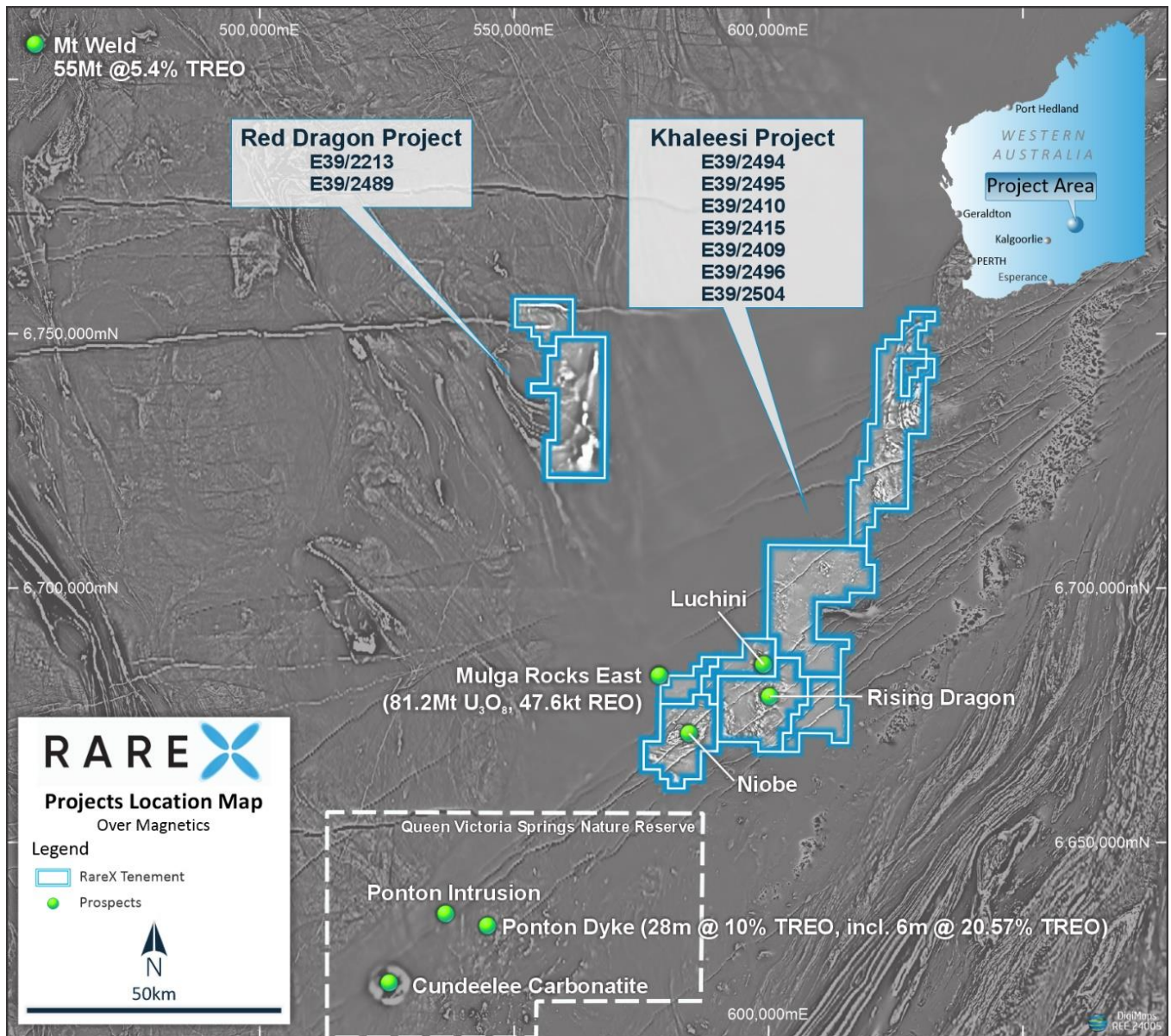


Figure 1. Khaleesi Project location map showing significant Eastern Yilgarn Paleoproterozoic Alkaline Magmatism. The northern most tenement at Khaleesi Project E39/2504, is RareX's recent 336km² land acquisition.

Target Generation

Compilation of AngloGold Ashanti and IGO magnetics and gravity data has been completed and several areas have been identified for targeted exploration. The entirety of the Khaleesi Alkaline Intrusion Complex (KAIC) has had aerial magnetics flown at 100m spacing, with the southern two-thirds of the KAIC also having ground gravity at 400m x 400m spacing. These two detailed surveys (shown in Figures 2 and 3) provide incredible detail over the KAIC before RareX has even put feet on the ground, and is the result of several millions of dollars of Tier-1 exploration company groundwork.

The gravity data has provided additional support for the circular geometry of the complex, with the bulk of the central area of the KAIC being a gravity low and the edges of the KAIC increasing in density. Figure 3 shows several gravity highs (red to white) at variable localities across the KAIC. These anomalies range in size from

1km to 4km and are positioned in a variety of geological settings across the complex, including anomalies on the edges of sub-intrusions, on outer ring structures and proximal to large faults and shear zones. Some of the gravity highs are coincident magnetic highs, however a majority of the gravity highs are in magnetic low areas similar to WA1 Resources' world-class Luni niobium deposit in the West Arunta region.

RareX is compiling data from over 65,000m of historical gold-focused air core drilling on the tenement package. Most of these drilled metres were only assayed for gold-related elements. In recent weeks, RareX has located a portion of the drill chips and pulps from the project area which will be assessed and will likely be re-assayed for target elements.

On completion, the drill database, geological and geochemical data can be added to the geophysical surveys and a geological model can be formed to prioritise exploration areas. Initial priority areas will be in the granted tenement E39/2409 and an update on this area will be provided in coming weeks.

Based on the region's strong prospectivity, RareX has acquired an additional 336 square kilometres in tenement E39/2504, adjoining the Khaleesi Project to the north (Figure 1). This tenement captures additional areas that are likely alkaline intrusion complexes and may have potential for niobium-rare earth mineralising systems.

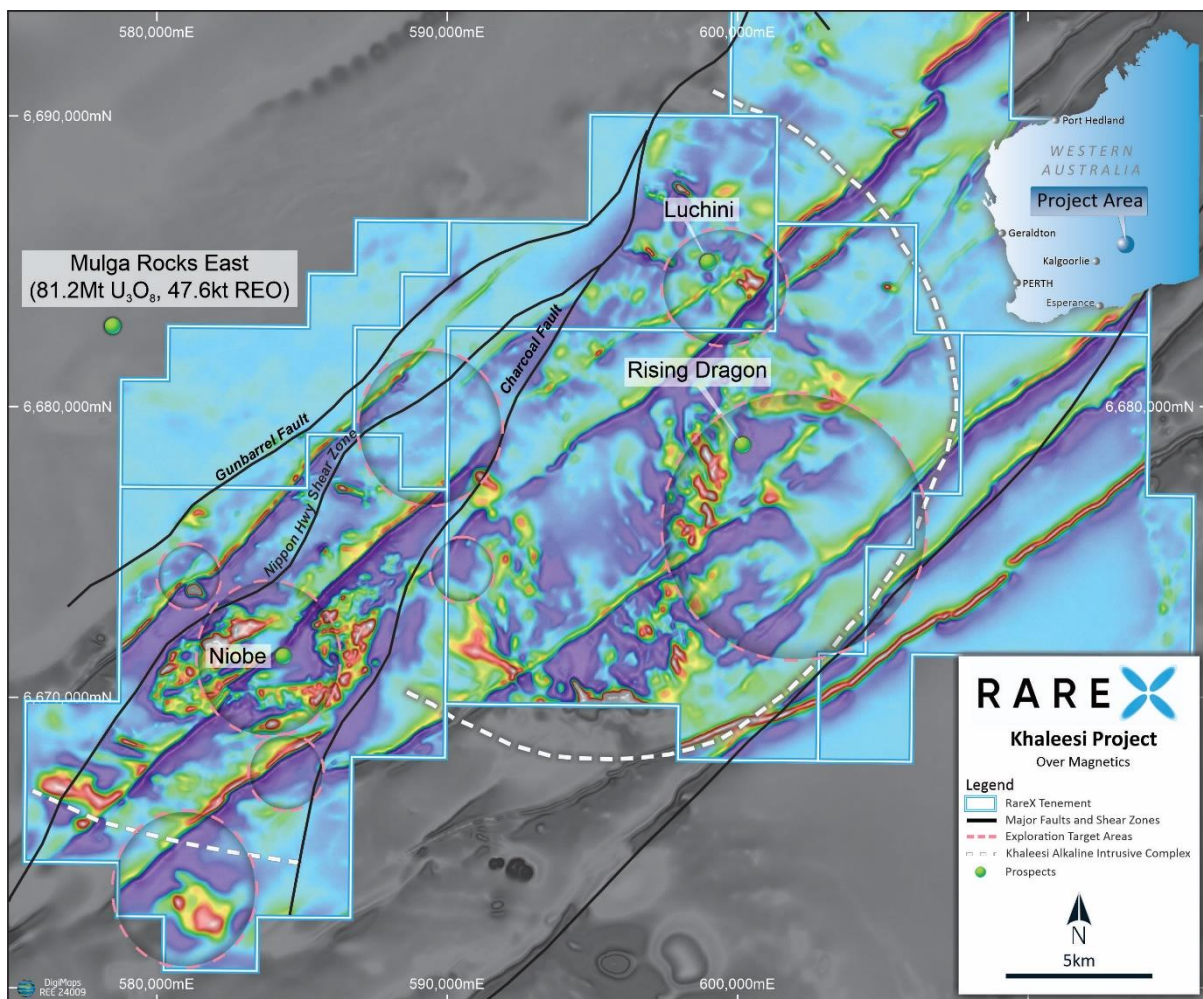


Figure 2. Total Magnetic Image of Khaleesi Alkaline Intrusive Complex. Colouring is rainbow style, white and red areas are gravity highs and purple areas are gravity lows. Aerial Magnetic survey over the entire project is at a 100m line spacing. Initial exploration targets are shown in pink dashed circles.

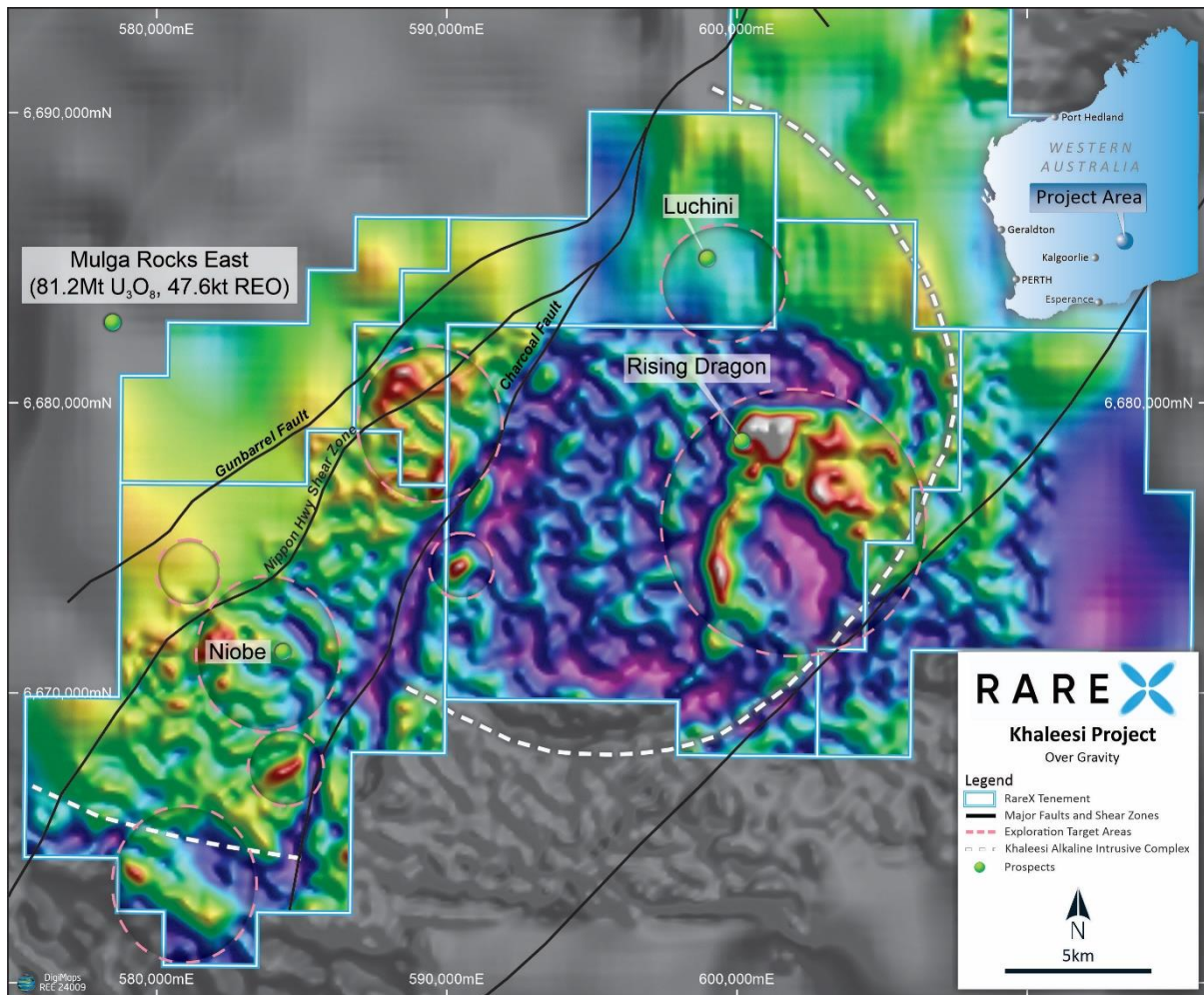


Figure 3. Gravity Image of Khaleesi Alkaline Intrusive Complex. Colouring is rainbow style. White and red areas are gravity highs and purple areas are gravity lows. Areas shown in high definition are 400m x 400m ground gravity grid. The blurred areas are 500m (EW) x 2000m (NS) or 2.5km x 2.5km grid. Initial exploration targets are shown in pink dashed circles.

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

Competent Person's Statement

The information in this report that related to Exploration Results is based on, and fairly reflects, information reviewed and compiled by Mr Guy Moulang. Mr Guy Moulang is a full-time employee of RareX Limited and is a Member of the Australian Institute of Geoscientists and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Guy Moulang consents to the disclosure of the information in this report in the form and context in which it appears.

About RareX Limited – ASX: REE

RareX is a critical minerals company specialising in rare earths and niobium in hard rock carbonatites.

The **exploration** focus of the business is on the new Khaleesi Project in the East Yilgarn which is a district-scale, elevated-niobium, alkaline intrusive complex - a breeding ground for mineralised carbonatites. Data from Tier-1 exploration programs with elevated niobium values suggests a highly fertile system.

The Company's **engineering** and commercial focus is on offtake and approvals at the mid-study-level, Cummins Range Project (+\$330M NPV₈ post-tax*) - a carbonatite hosted rare earth and phosphate project, containing magnet grade rare earths and battery grade phosphates and technically Australia's largest undeveloped rare earths project.

RareX have been curating a portfolio of carbonatite related prospects within which the newly acquired Khaleesi Project represents the exploration flagship. RareX will continue to develop and optimise its portfolio.

RareX maintains material investments in Kincora Copper (ASX:KCC), Cosmos Exploration (ASX:C1X) and Canada Rare Earth Corporation (LL.V).

For further information on the Company and its projects visit www.rarex.com.au

* The forecast financial information was released on 22 August 2023. The Company confirms that the material assumptions underpinning the production target and forecast financial information continue to apply and have not materially changed

Appendix 1: JORC Tables

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> No drilling results have been reported in this announcement.
Drilling techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.). 	<ul style="list-style-type: none"> No drilling results have been reported in this announcement.
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No drilling results have been reported in this announcement
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No drilling results have been reported in this announcement

<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>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.</i> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • No drilling results have been reported in this announcement
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>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.</i> • <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> • No drilling results have been reported in this announcement
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • No drilling results have been reported in this announcement
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • All coordinates are in GDA94 MGA Zone 51 • Accurate topographic control is poor. The terrain is flat and for mineral exploration the public topographic maps and DTM from aerial magnetic surveys are sufficient.
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <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> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • Aerial magnetic survey was flown on 100m line spacing. This is detailed enough to establish a degree of continuity for magnetic interpretations. • The southern two thirds of the gravity image (Figure 3) is 400m x 400m grid and the remainder of the image is either 500m (EW) x 2000m (NS) or

		2.5km x 2.5km grid. The 400m x 400m grid is sufficient to establish exploration targets.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Magnetic surveys have been flown east-west at an high angle to the strike of the Albany Fraser Belt • Gravity survey is on a grid and there is no biased
<i>Sample security</i>	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • No sampling by RareX has been completed
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • Geophysics consultants Resource Potentials have acquired, compiled and audited all the available geophysical data.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • E39/2409 granted tenement. Purchased from Beau Resources Ltd on the 21 May 2024. Has a royalty of 2%. • E39/2410 pending tenement. Purchased from Beau Resources Ltd on the 21 May 2024. Has a royalty of 2%. Access agreements with Narnoo Mining Pty Ltd to be signed prior to grant of tenement. • E39/2415 pending tenement. Purchased from Beau Resources Ltd on the 21 May 2024. Has a royalty of 2%. Access agreements with Narnoo Mining Pty Ltd to be signed prior to grant of tenement. • E39/2470 pending tenement. No royalty. • E39/2494 pending tenement. No royalty. • E39/2495 pending tenement. No royalty. • E39/2504 pending tenement. No royalty. • Heritage agreements for all tenements are currently being negotiated.
Exploration done by other parties	<ul style="list-style-type: none"> • Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> • Little exploration of note was completed on the project area prior to the discovery of Tropicana Gold deposit in 2005 which is located 100km to

		<p>the north east along strike. After the discovery of Tropicana, Anglo Gold Ashanti pegged large portions of the Northern Foreland unit and completed systematic surface geochemistry, geophysics, and AC drilling over hundreds of square kilometres and is still active in the area. During this period Luchini gold prospect was discovered in 2012 on the northern quadrant of the Khaleesi alkaline intrusion complex (KAIC) with best intersection of 10m @ 1.83g/t Au. Anglo formed a joint venture with IGO in 2015 over the eastern half of the Khaleesi project exploring for magmatic Ni-Cu deposits similar to Nova-Bollinger 200km to the south west in the Albany Fraser Belt. In 2016 400m x 400m gravity was completed over most of the KAIC, several square kilometres of moving loop EM, and 2000m of AC drilling led to the discovery of Red Dragon Ni-Cu-Co prospect within the KAIC. Rising Dragon was drilled with EIS funded RC (7 holes) and diamond (3 holes) drilling in 2016. A weakly mineralised magmatic Ni-Cu sulphide intrusion was drilled down to 400m. In 2018-2022 Fortescue Metals explored the project for Au and conducted magnetics, surface sampling and AC drilling. An age date was also completed by UWA on the KAIC with a likely magmatic crystallisation of ca 2000 Ma which is the same age as Mt Weld and Ponton.</p>
<p>Geology</p>	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • The Khaleesi alkaline intrusive complex (KAIC) is located on the western edge of the Albany Fraser Belt in the Northern Foreland metagranite unit. The Northern Foreland unit is interpreted to be reworked Yilgarn Craton granites. The project is located adjacent to the Mulga Rocks uranium-rare earths-base metals deposits in the Canning Basin. Reprocessing of the magnetics data by Resource Potentials has identified a 20km intrusion complex with ring features evident on the northern boundary and internal features which may represent sub-intrusions. Geochemical characteristics of the fresh diamond drill core

		<p>from Rising Dragon also offers further support for the alkaline intrusion complex, or A type felsic intrusion, including highly elevated niobium, (Na+K)/Al >1, and negative Eu anomalies on rare earth chondrite plots. Alkaline Intrusive complexes are favourable environments for Nb-REE mineralised carbonatite intrusions and Nb-REE mineralised Syenites and granites.</p>
Drillhole information	<ul style="list-style-type: none"> • A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> ○ easting and northing of the drillhole 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. 	<ul style="list-style-type: none"> • No drilling results have been reported in this announcement.
Data aggregation methods	<ul style="list-style-type: none"> • In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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. 	<ul style="list-style-type: none"> • No data aggregation methods have been completed.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • 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 (e.g. 'downhole length, true width not known'). 	<ul style="list-style-type: none"> • No drilling results have been reported in this announcement.
Diagrams	<ul style="list-style-type: none"> • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should 	<ul style="list-style-type: none"> • Relevant diagrams are presented in the body of this report.

	<i>include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Reported exploration results are considered balanced.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The project area has had extensive geophysical surveys, surface geochemical sampling, and AC drilling. RareX is currently compiling all the data. Further details will be announced when data has been processed.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. 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. 	<ul style="list-style-type: none"> Compile data sets from historic reports. Mapping, geochemical surveys, infill geophysics. AC drilling program. The project is still being assessed and further details on exploration program specifics will be announced in the near future.