ASX / MEDIA ANNOUNCEMENT 19 July 2021

RAREX DELIVERS MAJOR RESOURCE UPGRADE AT CUMMINS RANGE RARE EARTHS PROJECT, WA

47% increase in overall tonnes to 18.8Mt and maiden 11.1Mt Indicated Resource confirms that Cummins Range is a high-quality deposit with potential to underpin a long-life rare earths business

HIGHLIGHTS

- **47% increase in overall tonnes to <u>18.8Mt at 1.15% TREO (inc. 0.23% NdPr) + 0.14% Nb_2O_5</u>**
- **High-grade tonnes to <u>6.5Mt at 1.98% TREO (inc. 0.38% NdPr) + 0.21% Nb_2O_5</u>**
- **Maiden Indicated Resource of <u>11.1Mt at 1.3% TREO (inc. 0.27% NdPr) + 0.17% Nb_2O_5</u>**
- **Potential by-product Niobium Resource reported for the first time**
- **Deposit open in multiple directions – both down-dip and along strike**
- **Major new 6,000m growth drill program well underway with RC drilling completed and diamond drilling set to begin shortly**
- **First drill samples dispatched to the laboratory**

RareX Limited (ASX: REE; "RareX" or "the Company") is pleased to advise that it has taken an important step towards the development of a long-life rare earths business after reporting a substantial resource upgrade for its 100%-owned **Cummins Range Rare Earths Project** in the Kimberley region of Western Australia.

The Cummins Range Mineral Resource has grown significantly both in size and quality as a result of successful drilling programs completed last year, firmly establishing the deposit as a high-quality development opportunity in a Tier-1 mining jurisdiction.

QUALITY RESOURCE – GRADE AND SCALE

The resource has increased on the back of the quality work undertaken by the RareX technical team, with the increase stemming both from drilling results from last year and correct specific gravity measurements taken from the current expansionary drill program.

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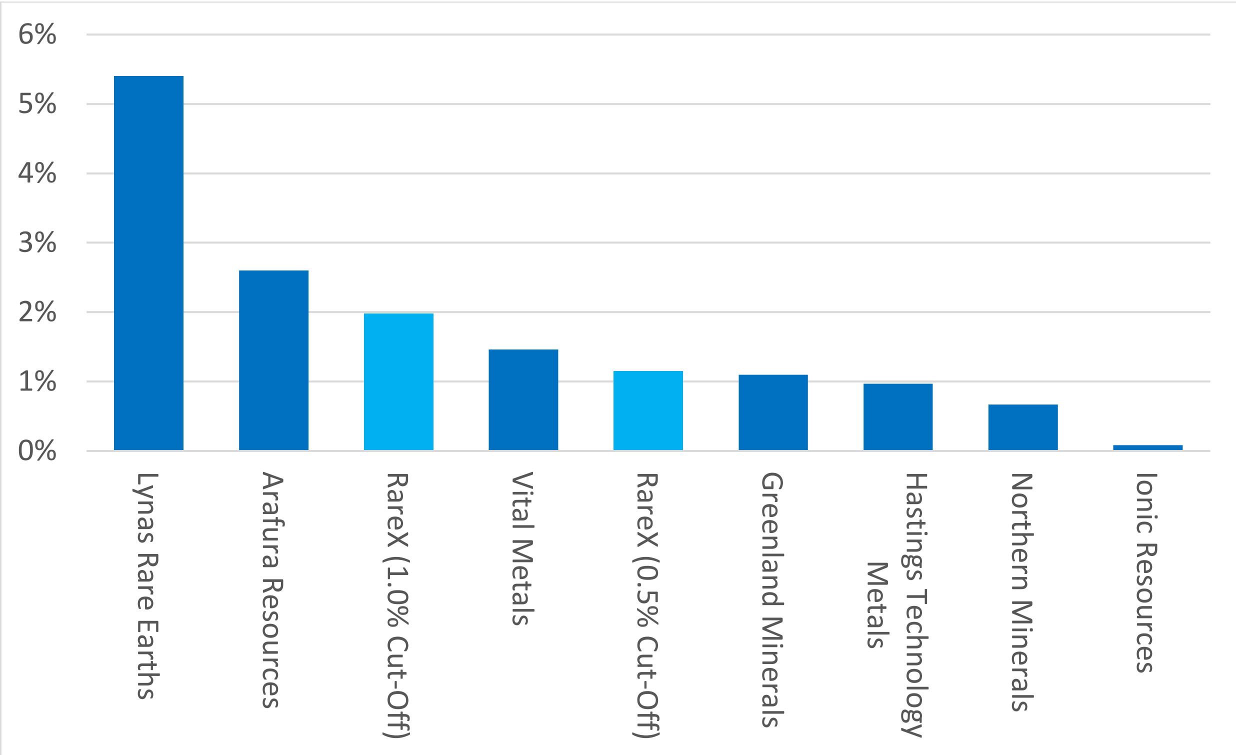

Figure 1: ASX Listed Rare Earths Companies by Grade

The above projects are at various phases of development, some of which have projects that are further advanced than the Company's Inferred and Indicated resource estimates. The Lynas Rare Earths project is currently in production and the remainder of the projects are pre-production. Investors are cautioned that as projects advance towards production, the application of modifying factors may cause revisions of cut off grades which may affect the above comparison. Further information on the peer comparison table is attached at Appendix 1.

The overall 46% increase in the deposit is accompanied by a significant high-grade component and the announcement of a maiden Indicated resource of **11.1 million tonnes at 1.34% TREO + 0.17% Nb_2O_5 *(0.5% TREO cut-off)* and 4.9 million tonnes at 2.11% + 0.23% Nb_2O_5 *(1.0% TREO cut-off)*** marking a significant increase in the quality of the resource as well.

Table 1: Cummins Range JORC Resource at 0.5% TREO and 1.0% TREO Cut Off grade

0.5% Cut Off	Tonnes Mt	TREO %	NdPr %	Nb_2O_5 %	HREO ppm
Indicated	11.1	1.34	**0.27**	0.17	830
Inferred	7.7	0.88	**0.18**	0.11	540
Total	18.8	1.15	**0.23**	0.14	711
1.0% Cut Off	Tonnes Mt	TREO %	NdPr %	Nb_2O_5 %	HREO ppm
Indicated	4.9	2.11	**0.41**	0.23	1,150
Inferred	1.6	1.60	**0.31**	0.16	800
Total	6.5	1.98	**0.38**	0.21	1,060

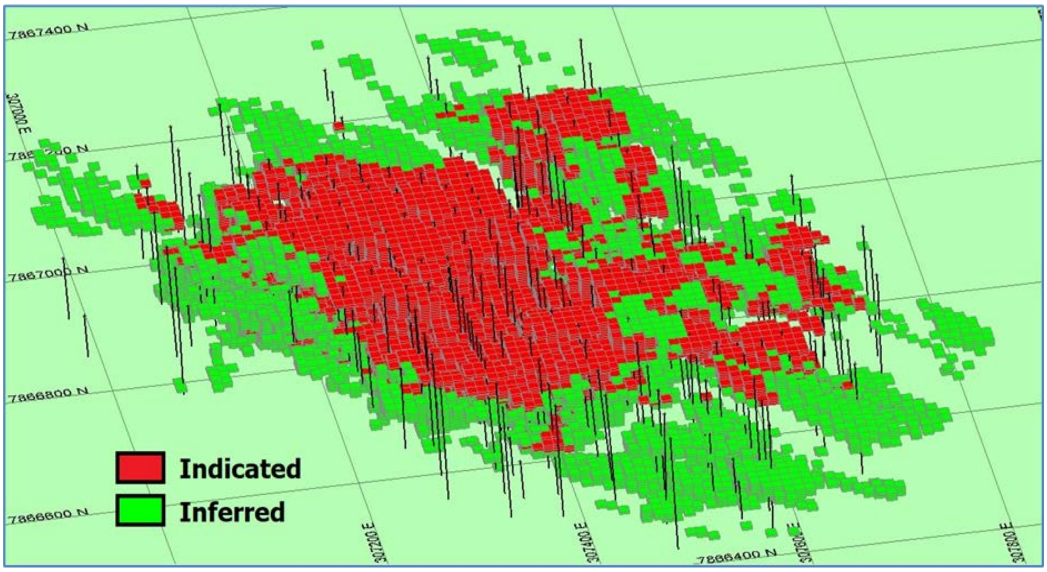

Figure 2: Cummins Range JORC Resource at 0.5% TREO Block Model

TIER-1 LOCATION – WESTERN AUSTRALIA

Cummins Range is located in the mining-friendly state of Western Australia and now has the potential to underpin a standalone rare earth oxide production scenario as well as becoming a supplier of concentrate to third parties within Australia and overseas.

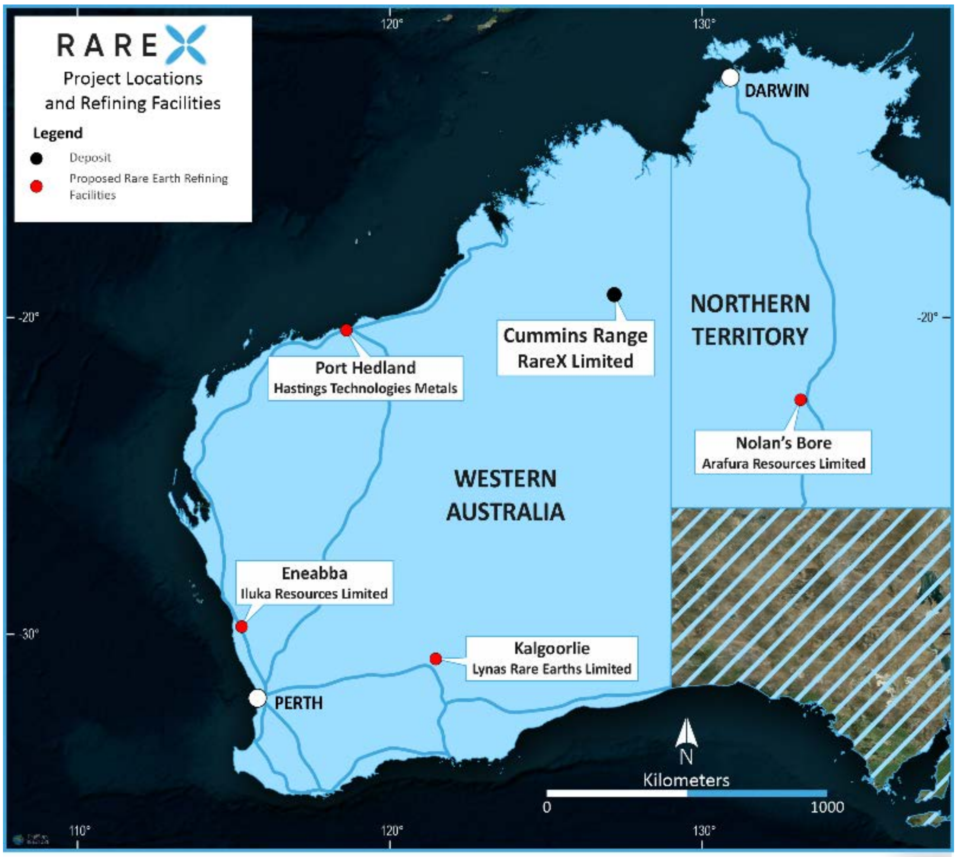

Figure 3: Cummins Range location map and potential refining facilities

COMPETITIVE BASKET PRICE

The main value drivers for the projects are Neodymium (Nd), Praseodymium (Pr), Terbium (Tb), Dysprosium (Dy) and Scandium (Sc). RareX believes the outlook for these metals to be extremely positive over the coming decades.

Prices below are taken from the Shanghai Metals Market and are current as of 13 July 2021 (source: https://www.metal.com/).

Table 2: Cummins Range Basket Price Calculation

Element	Grade ppm	Grade by %	Price \ US$/kg	Basket Price US$/Kg	Basket Price %
LREO					
La_2O_3	3,022	26.3%	1.4	$ 0.4	1.1%
CeO_2	5,319	46.3%	1.4	$ 0.7	2.0%
Pr_6O_{11}	543	4.7%	82.8	$ 3.9	11.6%
Nd_2O_3	1,762	15.3%	81.0	$ 12.4	37.0%
Sub-Total	**10,646**	**92.6%**		**$ 17.3**	**51.6%**
HREO					
Sm_2O_3	210	1.8%	2.1	$ 0.0	0.1%
Eu_2O_3	51	0.4%	30.1	$ 0.1	0.4%
Gd_2O_3	127	1.1%	33.6	$ 0.4	1.1%
Tb_4O_7	14	0.1%	1065.0	$ 1.3	3.9%
Dy_2O_3	60	0.5%	384.0	$ 2.0	5.9%
Ho_2O_3	9	0.1%	108.4	$ 0.1	0.2%
Er_2O_3	18	0.2%	30.5	$ 0.0	0.1%
Tm_2O_3	2	0.0%		$ -	0.0%
Yb_2O_3	10	0.1%	20.8	$ 0.0	0.1%
Lu_2O_3	1	0.0%	948.0	$ 0.1	0.3%
Y_2O_3	212	1.8%	4.9	$ 0.1	0.3%
Sub-Total	**714.1**	**6.2%**		**$ 4.2**	**12.5%**
Sc_2O_3	135.1	1.2%	1026.0	$ 12.1	35.9%
TREO ppm	**11,495**	**100.0%**		**$ 33.6**	**100.0%**

NIOBIUM BY-PRODUCT POTENTIAL

RareX is also reporting for the first time the grade of the attendant Niobium Resource as identified in the drill program from last year.

The global Niobium market is currently ~125kt per annum with a value of circa $5.0bn and is forecast to achieve 6% CAGR between 2020 and 2051. Market growth is expected to be underpinned by a shift toward an increasing use of lightweight high-strength steel alloys in construction, continued use in aircraft engines and additional long-term growth through light weighting in transportation, defense, space applications and use in battery technology.

The current price of Niobium is US$92.65/kg (source: https://www.metal.com/) or approximately three times the Cummins Range basket price, representing an attractive opportunity to capture further value from the Cummins Range resource.

SCOPE FOR GROWTH – DRILLING ONGOING

As outlined in its ASX announcement of 21 June 2021, RareX has recommenced exploration at Cummins Range targeting high-grade mineralisation both along strike and at depth. RareX has recently completed a Reverse Circulation drill program with the initial assessment supporting the revised geological model.

Several drill holes have been drilled towards the north-east and have intersected structures with significant quartz veining and silica-carbonate alteration which are known to host the high grade mineralisation in the main fault. Samples from this initial phase have now been transported to Perth for assaying and results are expected in 1 to 2 months.

The diamond drill rig is scheduled to arrive next week and will test the interpreted high-grade structure at depth. The Main Fault has not been tested below 100 vertical metres with the two deepest holes, CRX0054 and CRX0025 (ended in mineralisation), recording significant mineralisation as shown on Figure 4. This drilling will take place over the next two months with results to be reported when assays are received.

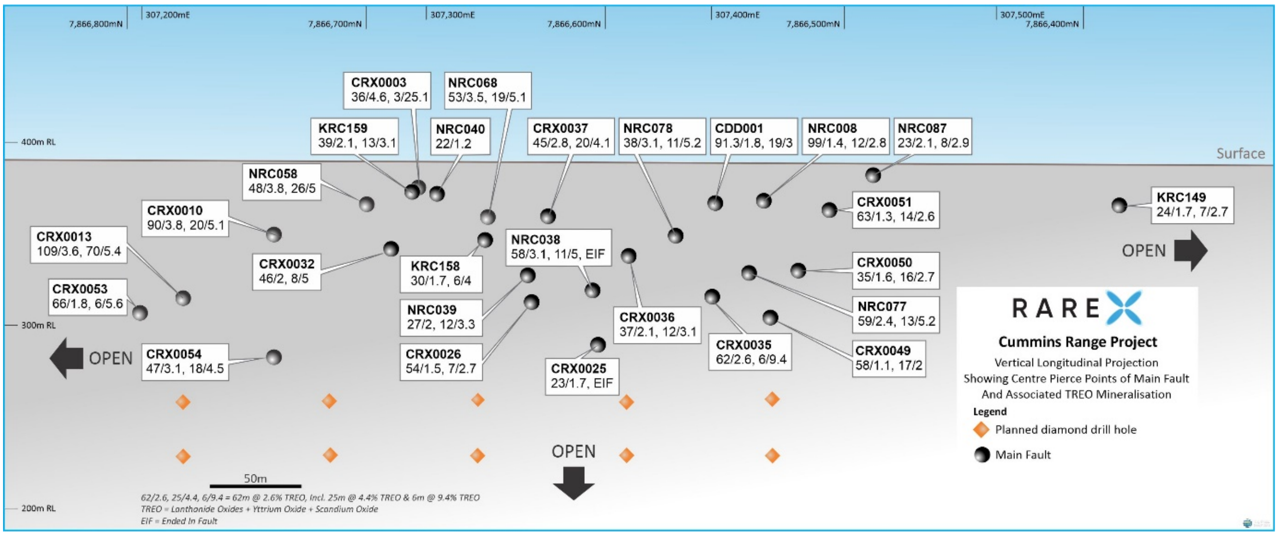

Figure 4: Main Fault Vertical Long Projection

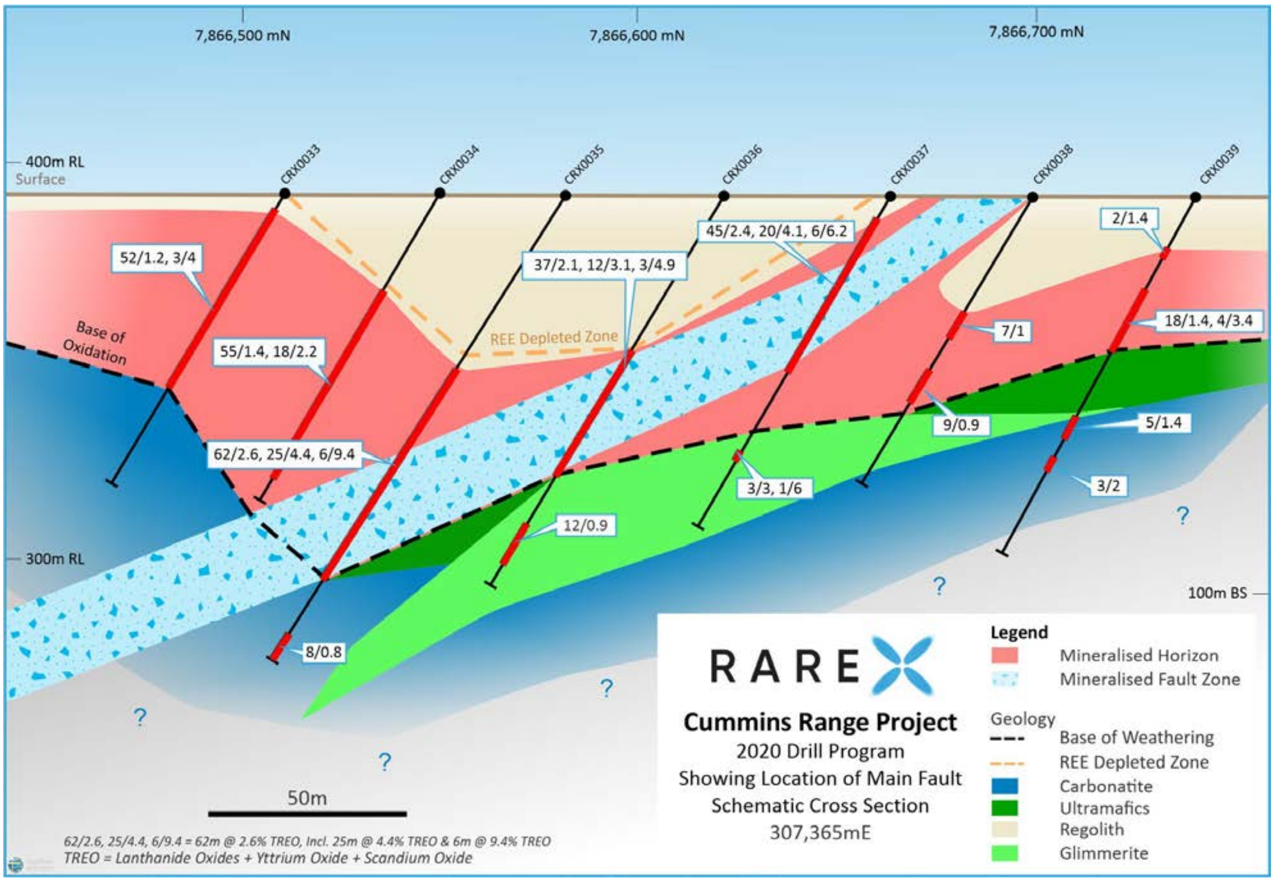

Figure 5: Main Fault Schematic Cross Section

MANAGEMENT COMMENT

RareX Managing Director, Jeremy Robinson, said: "*Achieving a resource upgrade of this magnitude is a fantastic result which reflects the great work undertaken by the RareX technical team over the past year. The resource has increased in grade and scale, and now clearly sits at the forefront of rare earth development projects on the ASX.*

"Apart from the overall 47% increase in tonnage, we have also posted a sizeable increase in high-grade tonnes and a very significant maiden Indicated Resource of 11.1Mt which will be available for conversion to ore reserves as part of upcoming economic studies.

"Importantly, we believe that there is enormous scope to grow the resource further, both in overall size and grade. We have seen some very encouraging indications from the recent expansionary drilling and we are really looking forward to seeing what the upcoming diamond drilling will reveal."

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Information provided pursuant to ASX Listing Rule 5.8.1

Geology and geological interpretation

The mineralisation at Cummins Range is hosted in the weathered portion of the underlying carbonatite intrusion with the deposit outcropping in multiple locations leading to a potential very cheap open pit mining scenario. The underlying carbonatite intrusion contains both carbonatite and pyroxenite units with occasional massive glimmerite.

The Cummins Range REO resource occurs within the Cummins Range carbonatite complex which is a 2.0km diameter near-vertical diatreme pipe that has been deeply weathered, but essentially outcropping with only thin aeolian sand cover in places. The diatreme pipe consists of various mafic to ultramafic rocks with later carbonatite intrusions. The primary ultramafic and carbonatite rocks host low to high grade rare earth elements with back ground levels of 1000-2000ppm TREO and high grade zones up to 8% TREO. The current resource sits primarily within the oxidised/weathered zone which reaches to 120m below the surface. Metallurgical studies by previous explorers show the rare earth elements are hosted by monazite which is a common and favourable host for rare earth elements.

The geological interpretation of the Mineral Resource Estimate is largely based on the weathering profile. Weathering surfaces representing the bottom of complete oxidation (BOCO) and top of fresh rock (TOFR) have been modelled using geological logging from the 235 RC drill holes. The REE mineralisation has been interpreted to be a product of intensive weathering of the host rock resulting in the formation of generally horizontal zones of REE enrichment. Faulting has been identified within the resource area with deeper weathering profiles modelled along these project fault zones. Enrichment of REE mineralisation is also apparent along these fault zones and the resultant deeper weathering profiles.

Sampling and sub-sampling techniques

Navigator Reverse Circulation (RC) drilling utilised 3m drill rods coupled to a 5.25" diameter downhole hammer. Samples were collected by the driller's offsiders in green plastic bags from the cyclone and split into calico bags over a 9:1 riffle splitter.

Details of the KRE sampling and sub-sampling procedures are not known but sampling was conducted on 1m intervals.

For the 2020 Rarex drilling, the entire 1m bulk sample was split with a riffle splitter to the appropriate size (~3kg). This sample was then submitted for assay.

Drilling techniques

The Mineral Resource Estimate has been based on 235 RC holes totalling 20,476m. The table below summarises the drilling campaigns completed on the Cummins Range deposit. No air-core or Rotary Air Blast (RAB) holes have been used in the Mineral Resource Estimate. In addition, the two diamond core holes (DDH) drilled by CRA Exploration in 1984 were not used in the estimation as the REE assays from the CRA diamond drilling did not correlate with the assays from later drilling campaigns.

Table 3: Summary of Cummins Range Drilling Program

Company	Hole Type	No of Holes	Metres	Year Drilled
CRA Exploration	Air-Core	94	2,341	1982-1983
	RAB	26	302	1978
	RC			
	DDH	2	804	1984
Navigator	Air-Core	148	4,510	2007
	RAB			
	RC	93	9,293	2007
	DDH			
Kimberley Rare Earth	Air-Core			
	RAB			
	RC	77	4,229	2011
	DDH			
RareX Ltd	Air-Core			
	RAB			
	RC	65	6,954	2020
	DDH			
TOTAL	Air-Core	242	6,851	
	RAB	26	302	
	RC	235	20,476	
	DDH	2	804	

Criteria used for classification

Resource classification was based on number of drill holes used for the estimate and the average distance of the composites used. In the oxide and transitional zones a minimum of four drill holes with an average distance of less than 50m from the composites used was used to define Indicated resources. Inferred resources where those resources estimated outside of the Indicated parameters.

Sample analysis method

The RareX 2020 drilling samples were analysed by Nagrom. The following techniques were used:

- 28 elements were assayed for using peroxide fusion with a ICP-OES and ICP-MS finish
- 14 elements were assayed for using four acid digest with a ICP-OES and ICP-MS finish

In addition to internal checks by Nagrom, RareX incorporates a QA/QC sample protocol utilizing prepared standards, blanks and duplicates for 8% of all assayed samples.

Kimberley Rare Earth Ltd samples were assayed by Intertek-Genalysis Perth using sodium peroxide fusion Ni crucible/ICP-MS methods.

The Navigator RC drilling program m split samples underwent a peroxide fusion (DX) digest followed by ICP-OES and ICPMS analysis at Genalysis Laboratories (Perth) for a suite of 41 elements.

Estimation methodology

Cummins Range was estimated using Ordinary Kriging. Variogram models were constructed for three domains with two main variables in each domain. The three domains are Oxide, Transitional and fresh. The two variables are HREO (Heavy Rare Earth Oxides) and LREO (Light Rare Earth Oxides). In additional to these two main variables, variogram models were also constructed for other variables summarized in the table below.

Table 4: Variogram Model Variables

Variable	Name
HREO	Heavy Rare Earth Oxide
LREO	Light Rare Earth Oxide
U_3O_8	Triuranium Octoxide
ThO_2	Thorium Dioxide
CaO	Calcium Oxide
Al_2O_3	Alumina
Fe_2O_3	Iron Oxide
P_2O_5	Phosphorous Pentoxide
Nb_2O_5	Niobium Pentoxide
Sc_2O_3	Scandium Trioxide
SrO	Strontium Oxide
MgO	Magnesium Oxide
Y_2O_3	Yttrium Trioxide

The resource reporting used the following definitions when categorizing REOs.

Table 5: Classification of Rare Earth Oxides

TREO	LREO	HREO	Oxide Species	Element
			La_2O_3	Lanthanum
			CeO_2	Cerium
			Pr_6O_{11}	Praseodymium
			Nd_2O_3	Neodymium
			Sm_2O_3	Samarium
			Eu_2O_3	Europium
			Gd_2O_3	Gadolinium
			Tb_4O_7	Terbium
			Dy_2O_3	Dysprosium
			Ho_2O_3	Holmium
			Er_2O_3	Erbium
			Tm_2O_3	Thulium
			Yb_2O_3	Ytterbium
			Lu_2O_3	Lutetium
			Y_2O_3	Yttrium
			Sc_2O_3	Scandium

Each of the 14 REOs and the 11 other variables were modelled separately. A one pass estimation strategy was used. The drilling is on a relatively regular grid of 20m X 40m in the main mineralized portion of the deposit. A multi pass strategy was not deemed necessary due to the relatively consistent sample support throughout the deposit. Each of the 14 REO were modelled separately and as a check the TREO was also modelled separately. This enabled a check to be made by adding up the individual REO to ensure this reconciled with the modelled TREO.

The block size is 10m X, 10m Y, 2.5m Z with no sub blocks applied. The block size is half of the nominal drill spacing for the main part of the deposit. Kriging Neighbourhood Analysis was used to aid in determining modelling parameters.

Table 6: Search Extents and number of composites

Domain	Major	Minor	Semi-major	Min comps	Max comps	Min holes
Oxide	200	40	10	10	35	3
Transitional	200	40	10	10	35	3
Fresh	300	70	50	5	35	1

Top cuts were not deemed necessary. Cumulative Log Frequency graphs and co-efficients of variation were used to determine top cuts.

Bulk density measurements are based on down-hole geophysical logging. An Auslog Gamma, Caliper and Density, D605 sonde was used to survey 13 RC holes at Cummins Range. The holes were all drilled by Rarex in 2020 or 2021. The density measurements were all calibrated and reported as dry bulk density measurements. Six of the holes have assay data available and these were used to obtain regression data for the relationship between TREO and density. There is a relationship between TREO and density and this was applied to the oxide and transitional zones where there was sufficient data. For grades above 5,000ppm TREO the formula, Bulk Density =0.000001 X TREO ppm + 2.6098 was used. For grades less than 5,000 ppm TREO, Bulk Density = .0001 X TREO ppm + 2.0976 was applied. For the primary, fresh zone a density of 2.796t/m^3 was applied based on limited results in the fresh rock. Densities from 48m were correlated with diamond hole CDD001, stored in the Geological Survey of WA Core Library. Chips from CDD001 were available for the pre-collar from 0m to 48m an also confirm the density characteristics of the weathered material.

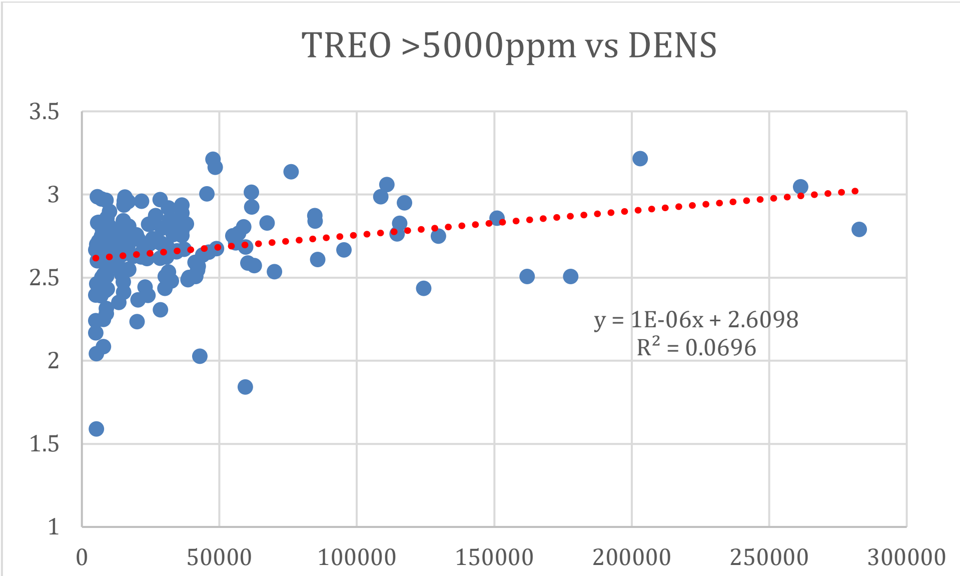

Figure 6: Density vs TREO > 5,000ppm grade

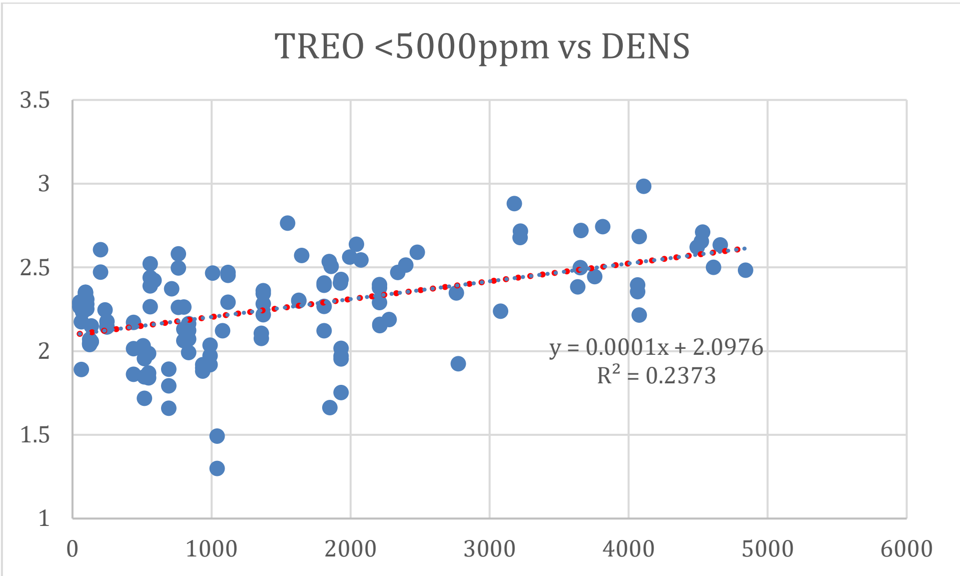

Figure 7: Density vs TREO < 5,000ppm grade

The average density for oxide and transitional mineralisation is 2.62 t/m³. Figure 8 shows tray one for diamond hole CDD001. This was logged as strongly weathered when CRA drilled and logged the hole in 1984. Check density measurements by the water immersion method returned dry bulk density measurements of 2.8t/m³ at 49m and 3.5 t/m³ at 59.8m. These measurements correlate with the recent down-hole density measurements.

Figure 8: Diamond hole CDD001 Tray 1 48.0m to 62.2m

While the original calibration data is no longer available for the density work carried out by Kimberley Rare Earths (KRE) in 2012 it would appear that the densities used underestimated the true values. The 2012 KRE model used 1.517t/m³ for oxide, 2.148t/m³ for transitional and 2.319t/m³ for fresh rock. These values resulted in an under-estimation of the density and therefore tonnes used in the 2012 KRE model.

Cut-off grade

The reported cut-off grades of 0.5% and 1.0% TREO are considered appropriate for a potential open mining scenario. This compares to MRE's for other comparable Rare Earth deposits; Hastings Technology Yangibaba Project 0.24% TREO[1] and Northern Minerals Browns Creek 0.15% TREO[2].

Mining and metallurgical methods and parameters

No specific mining or metallurgical methods or parameters were incorporated into the modelling process. Material from the current drilling campaign will be utilized in a full suite of metallurgical test-work.

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

For further information, please contact:

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[1] Hastings Technology Metals Ltd Release 5 May 2021 'Measured and Indicated Mineral Resource Tonnes up by 54%'
[2] Northern Mineral Release 28 September 2018 'Mineral Resource and Ore Reserve Update'

Competent Persons' Statements

The information in this report that relates to Mineral Resources is based on information compiled by Richard Maddocks, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy. Richard Maddocks is a consultant to Auralia Mining Consulting. Richard Maddocks has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Richard Maddocks consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information for Exploration Results for drilling used in the Mineral Resource Estimate, including JORC Table 1, section 1 (Sampling Techniques and Data) and section 2 (Reporting of Exploration Results), is extracted from reports entitled, 'Globally Significant Maiden JORC 2012 Resource of 13 Million Tonnes at 1.13% TREO' created on 15 October 2019 and 'Exceptional Wide High-Grade Intercept at Cummins Range: 90m at 3.8% TREO and 0.3% Nb2O5' created on 19 October 2020, and Bonanza Rare Earths and Niobium Grades Continue at Cummins Range: 70m at 5.35% TREO and 0.64% Nb2O5', created on 27 October 2021, and 'More Outstanding Drilling Results Confirm Potential for High-Grade Resource at Cummins Range' created on 17 November 2021, and 'Further Strong Assays From Cummins Range Highlight Depth Extensions and Primary Potential Ahead of Resource Upgrade', created on 17 December 2021. These reports are available to view on the Rarex website at https://www.rarex.com.au or on the ASX website under the Rarex ticker code of REE. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.'

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Appendix 1: ASX Listed Rare Earths Companies Resources

Company	Grade	Resource Category			Location	Stage	Source
		Measured & Indicated	Inferred	Total			
Lynas Rare Earths	5.400%	29.5	25.9	55.4	WA	Production	https://lynasrareearths.com/wp-content/uploads/2019/05/190522-Clarification-of-Mineral-Resource-and-Ore-Reserve-Figures-1931834.pdf
Arafura Resources	2.600%	34.9	21	55.9	NT	Pre-Production	https://wcsecure.weblink.com.au/pdf/ARU/02387631.pdf
RareX (1.0% Cut-Off)	*1.980%*	*4.9*	*1.6*	*6.5*	WA	*Pre-Production*	*this release*
Vital Metals	1.460%	17.6	77.2	94.8	Canada	Pre-Production	https://vitalmetals.com.au/portfolio/nechalacho-project/
RareX (0.5% Cut-Off)	*1.150%*	*11.1*	*7.7*	*18.8*	AUS	*Pre-Production*	*this release*
Greenland Minerals	1.100%	451	559	1010	Greenland	Pre-Production	https://ggg.gl/assets/Uploads/Presentations/2020/16e8cc7762/20200303_PDAC-Greenland-Session.pdf
Hastings Technology Metals	0.970%	21.1	6.3	27.4	WA	Pre-Production	https://www.investi.com.au/api/announcements/has/b07ebf9d-03c.pdf
Northern Minerals	0.670%	4.6	4.7	9.3	WA	Pre-Production	https://northernminerals.com.au/browns-range/resource-and-exploration/
Ionic Resources	0.084%	9.5	65.1	74.6	Uganda	Pre-Production	https://ionicre.com.au/makuutu-uganda/

Appendix 2: JORC Table Section 1-3

Cummins Range 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.*	2007-2012 Drilling Samples were collected from RC drilling techniques. Samples were collected on 1m intervals after going through a cyclone and riffle splitter. Samples are considered representative with no inherent sampling issues or bias. 2020 Drilling The RC drill rig used a 5 ½ inch diameter hammer. Each 1m bulk sample was collected in a plastic bag. Each metre was analysed with a portable XRF, and recovery and geology logs were completed. Sample interval selection was based on geological controls and mineralization. Each 1m bulk sample was split with a riffle splitter to the appropriate size. Samples varied in length from 1m to 4m.
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 completed over three campaigns. Navigator Resources drilled 93 angled RC holes to an average depth of 100m in 2007. In 2011 Kimberley Rare Earth (KRE) drilled 77 angled RC holes to an average depth of 60m and in 2020 RareX drilled 65 angled RC drill holes to an average of 110m
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.*	All samples are RC samples. The 2007-2012 samples were collected as both 4m composites for initial assaying and 1m samples for follow up assaying of anomalous zones. Dry 4m composites were spear sampled using a PVC tube and wet 4m composites were samples with an aluminium scoop. The 1m 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.	were collected via a 1:9 riffle splitter. Most holes had good sample recovery although a limited number of holes encountered high ground water inflow and karst type weathering in void formations at depth exceeding 40m. Difficult drilling conditions including binding clays, voids and water flow in several holes curtailed a component of the planned drilling resulting in a reduced program over the central resource area. The 2020 infill drill program used a larger and more capable rig which resulted in good recoveries in most of the drilling with an averaged of greater than 90% sample recovery. Mineralised areas were sampled at 1m intervals and 2m, 3m and 4m composites were used in less mineralised areas.
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.*	Logging of all holes was carried out on 1m intervals using both quantitative and qualitative descriptions. The recorded details included; lithology, grainsize, weathering, colour, alteration, sulphide quantity and type, structure and veining.
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.*	2007-2012 Samples were collected on 1m intervals after going through a cyclone and riffle splitter. Samples are considered representative with no inherent sampling issues or bias. 2020 Splits from the cone splitter on the drill rig were not used. The entire 1m bulk sample was split with a riffle splitter to the appropriate size. Samples varied in length from 1m to 4m. This sampling technique is better than industry standards and is appropriate for this style of mineralisation and for resource estimation.

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.*	The Navigator drilling was assayed by Genalysis in Perth. The 4 metre composite samples underwent a 4 acid digest followed by ICP-OES (inductively coupled plasma mass spectrometry) analysis. The 1m split samples underwent a peroxide fusion digest followed by ICP-OES and ICP-MS analysis. All samples were assayed for a large suite of elements including rare earth elements. QAQC testing was limited to intra-laboratory testing. KRE assayed their samples at Genalysis/Intertek in Perth. Samples were assayed for 14 lanthanides as well as Y, Th, U, Al, Si, P, Mg, Fe, Ca, Ga, Hf, Nb, S, Sc, Ta, Ti and Zr using sodium peroxide fusion, nickel crucible/ICP-MS techniques. RareX analysed their samples at Nagrom. 28 elements were assayed for using peroxide fusion with ICP-OES and ICP-MS finish. 14 elements were assayed for using four acid digest with ICP-OES and ICP-MS finish. In addition to internal checks by Nagrom, RareX incorporates a QA/QC sample protocol utilizing prepared standards, blanks and duplicates for 8% of all assayed samples. All assay results are reported to RareX in parts per million (ppm). RareX geological staff then convert the parts per million to ppm oxides using the below element to stoichiometric oxide conversion factors. La_2O_3 1.1728, CeO_2 1.2284, Pr_6O_{11} 1.2082, Nd_2O_3 1.1664, Sm_2O_3 1.1596, Eu_2O_3 1.1579, Gd_2O_3 1.1526, Dy_2O_3 1.1477, Ho_2O_3 1.1455, Er_2O_3 1.1435, Tm_2O_3 1.1421, Yb_2O_3 1.1387, Lu_2O_3 1.1371, Sc_2O_3 1.5338, Y_2O_3 1.2699, Nb_2O_5 1.4305, P_2O_5 2.2916
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes* *The verification of significant intersections by either independent or alternative company personnel.* *Discuss any adjustment to assay data*	Significant intercepts were calculated by an independent person. There are three generations of drilling with in the Cummins Range resource showing comparable tenure. A scissor drill hole was drilled in 2020 confirming grade and width of mineralization. The geological database used for the resource estimates consists of 235 assayed inclined RC holes representing 18979 assayed metres. The drill hole spacing is essentially 40x25 metres over most of the deposit.

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*	Drillhole collar locations have been surveyed using a differential GPS with accuracy to <1m
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*	Drilling has been conducted on a nominal 40mx25m spacing over the deposit. This spacing is considered appropriate for Mineral Resource estimation. During the 2007-2012 drilling programs initial sampling was on 4m intervals. Mineralised composites were resampled at 1m intervals. The 2020 drill program was sampled at 1m intervals and 2m, 3m and 4m composites were used in less mineralised areas.
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.*	The resource has been drilled out on a grid pattern of 40mx25m cancelling out any bias of key mineralised structures. The orientation of drilling is not considered to be biased towards any geological characteristics.
Sample security	*The measures taken to ensure sample security*	Samples were transported to Perth from site by reputable transport companies. Individual bags are cable tied and the pallets are wrapped in plastic.

Cummins Range 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 Cummins Range REO deposit is located on tenement E80/5092 and is 100% owned by Cummins Range Pty Ltd which is a wholly owned subsidiary of RareX Ltd. Cummins Range Pty Ltd purchased the tenement from Element 25 with a potential capped royalty payment of $1m should a positive PFS be completed within 36 months of purchase finalisation.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	CRA Exploration defined REO mineralisation at Cummins Range in 1978 using predominantly aircore drilling. Navigator Resources progressed this discovery with additional drilling after purchasing the tenement in 2006. Navigator announced a resource estimate in 2008. Kimberly Rare Earths drilled additional holes and upgraded the resource estimate in 2012.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Cummins Range REO deposit occurs within the Cummins Range carbonatite complex which is a 2.0 km diameter near-vertical diatreme pipe that has been deeply weathered but essentially outcropping with only thin aeolian sand cover in places. The diatreme pipe consists of various mafic to ultramafic rocks with later carbonatite intrusions. The primary ultramafic and carbonatite rocks host low to high grade rare earth elements with back ground levels of 1000-2000ppm TREO and high grade zones up to 8% TREO. The current resource sits primarily within the oxidised/weathered zone which reaches to >120m below the surface. Metallurgical studies by previous explorers show the rare earth elements are hosted by Monazite which is a common and favourable host for rare earth elements.

Drill hole information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* *easting and northing of the drill hole collar* *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *dip and azimuth of the hole* *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.*	Drill hole information from 2007-2012 drilling can be found in the previous announced resource to the ASX dated 15, October 2019. The RareX 2020 infill drill hole details and assays can be found in the ASX announcements dated as below. 17th, December 2020 27th, October 2020 19th, October 2020 30th, September 2020
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.*	The resource has been reported using cut-off grades of 0.5% and 1.0% TREO and are considered appropriate for a potential open mining scenario.
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').*	The Cummins Range resource is mostly located in the regolith profile of the Cummins Range diatreme. The weathering profile has created super high grade REE mineralisation with significant vertical and horizonal development. These high grade intersections are mostly focused along a north west structure that extends for over 800m. Thick vertical intersections along this structure will thin as you move towards the north east or south west. The horizontal development of these zones can reach up to hundreds of metres. mineralisation is developing in favourable horizons with in the regolith and is interpreted to be horizontal. All of the drilling is at 60 degrees to the south and is sufficient to test a horizontal ore body.

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.*	Maps and diagrams are included in the body of the announcement
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.*	This announced resource is considered balance.
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.*	No other substantive exploration data is material.
Further work	*The nature and scale of planned further work (eg tests for lateral 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.*	The resource is open along strike and at depth. A diamond drill rig is arriving this week to test for extensions to the deposit.

Section 3 Estimation and Reporting of Mineral Resources		
Criteria	***JORC Code Explanation***	**Commentary**
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	The database has been checked by company geologists and reviewed by the competent person. Government open file reports were also checked by the Competent Person against the supplied database with no apparent errors
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.*	The competent person has not visited the site. A site visit was not deemed necessary due to the early development phase of the project.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	The Cummins Range REE Project has been interpreted as the product of strong weathering of mafic, ultramafic and carbonatite rocks. Weathering profiles have been modelled based on bottom of complete oxidation and top of fresh rock surfaces, and these have been used to limit composites and blocks for grade interpolation. These is evidence of enrichment of REE grades along areas of deeper weathering coincident with interpreted faulting.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The mineralised shear zones are approximately 100m in length and about 1-10m in width. The shear has been modelled to a vertical depth below surface of 160m
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domains, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	Cummins Range was estimated using Ordinary Kriging. Variogram models were constructed for three domains with two main variables in each domain. The three domains are Oxide, Transitional and fresh. The two variables are HREO (Heavy Rare Earth Oxides) and LREO (Light Rare Earth Oxides). In additional to these two main variables, variogram models were also constructed for other variables U_3O_8, ThO_2, CaO, Al_2O_3, Fe_2O_3 P_2O_5, Nb_2O_3, Sc_2O_3, SrO, MgO and Y_2O_3.

	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	A previous estimated conducted in 2006 was used for comparison. The models grades reconciled well except for the dry bulk density values used. The older model used density values significantly lower than the current model.
	The assumptions made regarding recovery of by-products.	No assumptions have been made regarding by-products
	Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	No deleterious elements have been identified
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The parent block size is 10mX, 10mY, 2.5mZ with no sub-blocks
	Any assumptions behind modelling of selective mining units.	
	Any assumptions about correlation between variables.	
	Description of how the geological interpretation was used to control the resource estimates.	The solid mineralised shapes were used as hard boundaries in the grade estimation
	Discussion of basis for using or not using grade cutting or capping	Log cumulative frequency graphs and co-efficients of variation were used determine that no top cuts were necessary
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Validation was done with swath plots and visual examination of the model against drilling.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The estimate was conducted using dry tonnes.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The Mineral Resource has been reported at a cut-off grade of 0.5% of 5,000 ppm TREO (Total Rare Earth Oxide). This is considered appropriate for potential open pit mining methods.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	No mining assumptions or modifying factors have been considered

Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	No metallurgical assumptions or parameters have been considered
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	No environmental assumptions or parameters have been considered.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Bulk density measurements are based on down-hole geophysical logging. An Auslog Gamma, Caliper and Density, D605 sonde was used to survey 13 RC holes at Cummins Range. The holes were all drilled by Rarex in 2020 or 2021. The density measurements were all calibrated and reported as dry bulk density measurements. Six of the holes have assay data available and these were used to obtain regression data for the relationship between TREO and density. There is a relationship between TREO and density and this was applied to the oxide and transitional zones where there was sufficient data. For grades above 5,000ppm TREO the formula Bulk Density =0.000001 X TREO ppm + 2.6098 was used. For grades less than 5,000 ppm TREO, Bulk Density = .0001 X TREO ppm + 2.0976 was applied. For the primary, fresh zone a density of 2.796t/m³ was applied. Densities from 48m were correlated with diamond hole CDD001, stored in the Geological Survey of WA Core Library.

Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data.* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	Cummins Range has been classified as Indicated and Inferred. Classification was largely determined by drilling density with number of drill holes and average distance to composites used to define classification. Indicated Resources in oxide and transitional zones were defined by at least four holes used in the estimation and the average distance to composites less than 50m. All other estimated blocks were classified as Inferred. For fresh rock there were no Indicated resources classified due to lack of drilling into the fresh zone resulting in a geological interpretation of lower confidence. Inferred resources were defined by the average distance to composites used in the estimation being less than 50m, all other estimated blocks were unclassified. The continuity of grade and geology is sufficiently determined by the drilling to allow for this level of confidence in the Mineral Resource. The classification reflects the Competent Persons view of the deposit.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates*	No audits or reviews have been conducted on this Mineral Resource
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The Mineral Resource estimate has been classified as Indicated and Inferred. In addition there are some areas where grade has been estimated but has been unclassified. Additional infill drilling, if successful in intersecting mineralisation, should enable these areas to be upgraded and classified as a Mineral Resource. The drilling, geological interpretation and grade estimation reflects the confidence levels applied to the Mineral Resource in the classifications of Inferred and Indicated This estimate represents a global estimate of the in-situ tonnes and grade of the Cummins Range Deposit