

#### American Rare Earths Limited

#### (ASX:ARR)

An Australian exploration company focused on the discovery & development of Rare Earths and Critical mineral resources in North America and Australia

**Commodity Exposure** 

Rare Earth Elements, in the USA

Heavy Mineral Sands and Cobalt in Australia

**Directors & Management** 

Creagh O'Connor

- Non-Executive Chairman
- Keith Middleton
- Managing Director
- Geoff Hill
- Non-Executive Director & Vice Chairman

Denis Geldard

Non-Executive Director

Jim Guilinger

- Chief Technical Advisor
- Wayne Kernaghan
- Company Secretary

#### Capital Structure

Ordinary Shares on Issue 338,058,326

American Rare Earths Limited

ARBN 003 453 503

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# 15 April 2021 March 2021 Quarterly Activities Report

#### Highlights

- New higher grade Rare Earths and Scandium samples returned from a sampling program at the 100% owned La Paz Rare Earths Project in Arizona USA;
- New samples obtained during the December 2020 Quarter have a 47% higher grade of Total Rare Earths Elements ("TREE") than the average previously reported JORC 2012 compliant resource estimate;
- Composited grade for new samples of 552ppm TREE, well above the resource estimate cut-off grade of 300ppm;
- 32 samples from the La Paz project area composited for metallurgical testing by the Saskatchewan Research Council facility in Canada;
- First drilling program since 2012 commenced at La Paz after receipt of permit approvals which is 50% larger than originally planned and designed to double the depth of the current resource with potential to expand and upgrade the resource;
- La Paz Scandium and Rare Earths Project has La Paz Economic Development Corporation endorsement and La Paz County Board of Supervisors approval;
- US Government Officials and industry experts visited the La Paz Scandium and Rare Earths Project during drilling in March 2021;
- 8,000,000 shares in Cobalt Blue Holdings Limited ("COB") sold for A\$2,468,822;
- Three-year Convertible Notes ("CN") of A\$1M converted into 5,000,000 COB shares at a deemed price of A\$0.20 per share with a total of A\$60,328 in interest received up until conversion;
- ARR continues to hold 6,000,448 COB shares (post share sale and CN conversion) and a five-year COB Promissory Note ("PN") of A\$3M interest free for the first three years (currently in year two) with interest of 6% per annum for years four and five payable in arrears and secured by title to tenements.
- American Rare Earths cash at bank on 31 March 2021 is \$4,615,154

# American Rare Earths Limited March 2021 Quarterly Activities Report

#### La Paz Rare Earths Project

The La Paz Rare Earth Project is 100% owned by ARR's wholly owned US subsidiaries, Western Rare Earths ("WRE") and La Paz Rare Earth LLC ("LPRE"). The Project is located in La Paz County, Arizona USA approximately 200km north-west of Phoenix and 320km south-east of Mountain Pass, which is the only operating Rare Earths mine in the USA. La Paz is surrounded by world class infrastructure within a mining friendly jurisdiction. Access is via paved and well-maintained dirt roads (Figure 1).



Figure 1: Location of La Paz Rare Earths Project in Arizona USA.

The Project is a large tonnage, high value light rare earth elements ("LREE") deposit containing low penalty elements such as radioactive thorium and uranium that could potentially be the largest, rare earth project in North America.

#### Potential Resource implications from New Higher Grade Rare Earths and Scandium Samples

A sampling program completed at the La Paz Project area returned TREE of 47% higher grade than the average resource estimate grade previously reported. The sampling program consisted of:

• A series of samples taken from the resource area to be composited for metallurgical testing; and

• New samples obtained from claim areas outside the resource area that had not previously been sampled.

The 32 samples collected from both within the resource area and the new claim control areas to the S/W during the December 2020 Quarter (refer Figure 4), were composited for metallurgical testing by the Saskatchewan Research Council facility in Canada. The composited grade of the samples was 552ppm TREE which is much higher than the 300ppm cut-off grade and 47% higher than the average of the resources estimate. In addition, the composited grade of Scandium in these samples was 16ppm. The individual sample sites are shown in Figure 5 and identified with the designation "MET".

In the past, extensive surface sampling has been undertaken at the La Paz Project area, with 122 samples collected within the maiden resource area during 2011 and 2019. A total of 73 samples or 60% of the 122 samples taken were above the 300ppm TREE cut-off.

Samples collected outside the resource area during 2019, and 2020 total 597, of which 182 or 30% were above the 300ppm TREE cut-off and noted to be relatively concentrated in areas to the southwest of the resource area (refer Figures 6 and 7). The samples collected in 2020 are shown in Figure 7 and identified with the designation "LP".

The maps shown as Figures 6 and 7 both highlight sample sites and value coding that point to the potential of the ore body to extend several kilometers to an area of alluvial cover over its center, as indicated by the strong surface sample results similar to those in the resource area. The pattern may alternatively represent a potential separate second resource area. Drilling in areas southwest of the resource will assist to better understand which, if either, of these possible opportunities may exist.

# **Commencement of Phase 3 Metallurgy Work**

The Saskatchewan Research Council in Canada has commenced with the analysis and processing of the 32 samples collected from the La Paz resource area. This metallurgical work program is being undertaken with the guidance of Wood PLC and its recommendations contained in Appendix D of the 2020 Technical Report on the La Paz Rare Earths and Scandium Project (refer ASX Release: 24 November 2020). As recommended by Wood PLC, the metallurgical work program is being undertaken in a sequential manner, initially to determine if ore can be successfully upgraded into a viable concentrate for treatment in the refinery, followed by batch refinery test work (acid bake, water leach and precipitation) and is specific to recommendation "5.1 Initial Program" of the Wood PLC recommendations document.

# **Drilling Program Commenced**

Preparations for a 2021 core drilling program at La Paz were advanced during the quarter as follows:

- Drill locations identified.
- Biological and archaeological surveys completed and accepted by regulatory authorities.
- Permit applications approved by Bureau of Land Management and the Arizona State Land Department.
- Drill pads marked and scraped level ready for drill rig mobilisation to each site; and
- Timberline Drilling Inc. engaged to conduct the drilling program and a deposit paid.

The Company subsequently received approval of all necessary permits to start the core drilling campaign. Drilling commenced on 13 March 2021.

Permit approvals for the drilling program included the Bureau of Land Management ("BLM"), which is the largest land holder of the US Government on behalf of the Department of the Interior. As there are no mineral revenue royalties requirements for producing mines on these federal lands, improved potential economic viability of projects on BLM land can be expected.

In addition, approvals were also granted by the Arizona State Land Department and the Arizona Department of Water Resources.

The approvals were received after an exemption from the 60-day moratorium on land disturbance activity approvals on US federal lands, announced by the new Acting Secretary of the Interior on the day of President Biden's inauguration on 20 January 2021.

The drilling program is the first to be carried out at La Paz since a few core holes were drilled in 2012 by the project's predecessor who, in 2011, established the resource from extremely shallow percussion drilling. The current drilling program aims to increase the resource size and average grade and pave the way for advanced metallurgical studies. Drilling will also provide an opportunity for the development of a Scandium resource. As core samples advance in depth, each 3-metre section will be immediately evaluated to provide an opportunity for the geologist to guide the drilling crew to follow the geology deeper than the planned 61-metre depth down into the mineralised zone.

Core material from the drilling will be fillet cut, photographed and assayed in 1.5-metre sections, and it is proposed to provide 500kg of targeted core material for advanced metallurgical analysis by a world-class Rare Earths laboratory. This work will primarily focus on the use of proven, economically viable processing that is pivotal for the preparation of a Preliminary Economic Assessment that the Company expects to publish later in 2021.

# 50% Larger Drilling Program to Double the Depth of the Current Resource

The drilling program is comprised of 9 drill holes each to a depth of 61 metres. This is 50% more holes than the original 6 holes previously announced by the Company and its wholly owned US subsidiary, Western Rare Earths, with drilling to double the depth of the current resource. The expanded program will not only drill the maiden resource area but will also allow for reconnaissance to be undertaken at depth in the new project areas to the southwest where there is potential to extend the ore body by several kilometers. Robust surface sample results similar to those in the maiden resource area, indicate that the ore body may potentially extend 5 kilometers or more (refer Figure 8).

In the Interpretation and Conclusions section of the 2020 JORC 2012 compliant Technical Report, the Company's Chief Technical Consultant and Consulting Geologist, Mr. Jim Guilinger, stated that "a detailed review of the previous drilling at different elevations indicates opportunity for more than 60m thickness of higher-grade Rare Earths values in the lower plate gneiss. Thus, the topography lends itself to the opportunity to substantially increase the resource by deeper drilling in the lower plate, where higher grade Rare Earths is prevalent. This analysis supports the plan for a core drilling campaign to 61m depths..." (refer ASX Release: 24 November 2020 for full Technical Report).

The La Paz Project was first drilled in 2011 and a maiden resource established during that year in accordance with National Instrument 43-101 guidelines via 195 extremely shallow percussion drill holes to a depth of 30 metres. During 2020, the data was reviewed in order to confirm the previously defined resource and the Company announced a first formal JORC 2012 classified resource estimate for the wholly owned La Paz Rare Earths Project in Arizona, USA of 128.2Mt @ 373.4ppm (0.037%) TREE (refer ASX Release: 11 November 2020).

The updated classification followed an extensive review of the La Paz Rare Earths Project by the Company's Chief Technical Consultant and Consulting Geologist, Mr. Jim Guilinger, that brought the project within ASX reporting requirements for mineral resource inventories in compliance with JORC 2012 protocols. Mr. Guilinger, who reviewed the La Paz Project, is a Competent Person under JORC

2012 and NI 43-101 standards. He is also Head of Colorado-based independent consultants World Industrial Minerals LLC.

The new inventory description in Table 1 below is a straight conversion of the resource estimate with no change in actual classified mineralised volumes under either code.

La Paz Resource Estimate 2012 JORC					
Mt Grade (%) Contained REE (kg) Contained REE (Mlbs)					
Inferred	112	0.037	37,586,080	83.3	
Indicated	16.2	0.037	5,436,558	12.1	
Total	128.2	0.037	43,022,638	95.4	

Table 1: La Paz Rare Earths Project JORC 2012 Classified Mineral Resource Estimate

#### Potential to expand and upgrade the Resource

The core samples from the drilling program will serve the following two purposes:

- Firstly, to expand and upgrade the resource in both size and grade; and
- Secondly, to provide material for advanced metallurgical work to be undertaken by both proven traditional processes as well as promising high efficiency new technologies.

In the Interpretation and Conclusions section of the 2020 JORC 2012 compliant Technical Report, the Company's Chief Technical Consultant and Consulting Geologist, Mr. Jim Guilinger, stated that *"After the planned 2021 drilling program we expect to be able to upgrade the Rare Earths resource…"* (refer ASX Release: 24 November 2020 for full Technical Report).

#### Advancing on 2020 Technical Report recommendations

Mr. Guilinger stated in the Recommendations section of the 2020 JORC 2012 compliant Technical Report, that *"it is imperative that better quality samples in the form of cores be drilled in select high-grade areas previously identified by percussion drilling. Additionally, scandium recovery needs to be investigated"* (refer ASX Release: 24 November 2020 for full Technical Report).

#### **Opportunity for a Potential Scandium Resource**

In the Recommendations section of the 2020 JORC 2012 compliant Technical Report, Mr. Guilinger also stated that *"Scandium values tend to be high also in areas of high ppm TREE, so the drilling will also likely identify a scandium resource greater than 11ppm"* (refer ASX Release: 24 November 2020 for full Technical Report). Drill core assay results from the current 2021 La Paz drilling program will therefore be used by the Company to determine if a maiden Scandium resource can be established, concomitant and in addition to the Rare Earths resource of 128.2Mt.

Mr. Guilinger also stated in the Interpretation and Conclusions section of the 2020 JORC 2012 compliant Technical Report, that *"After the planned 2021 drilling program we expect to be able to upgrade the Rare Earths resource and separately establish a maiden resource for Scandium"* (refer ASX Release: 24 November 2020 for full Technical Report).

The development of a Scandium resource in the US is especially attractive to the Company for the following reasons:

• The US Geological Survey's 2021 Mineral Commodity Summaries publication states that "Domestically, scandium was neither mined nor recovered from process streams or mine tailings in 2020. Limited capacity to produce ingot and distilled scandium metal existed at *facilities in Ames, IA; Tolleson, AZ."* Significantly, the La Paz Project site is located only 200km from Tolleson AZ (refer to https://pubs.usgs.gov/periodicals/mcs2021/mcs2021.pdf at page 144 of the publication); and

• The US Government identified Scandium along with Rare Earths on its Final List of Critical Minerals in a 2017 Presidential Executive Order. The list targets "mineral commodities that are vital to the Nation's security and economic prosperity. This dependency of the United States on foreign sources creates a strategic vulnerability for both its economy and military." (refer to https://www.federalregister.gov/documents/2018/05/18/2018-10667/final-list-of-critical-minerals-2018).

#### **Government Officials visit La Paz Scandium and Rare Earths Project**

On Friday 19 March 2021, an official site visit was undertaken at the La Paz Scandium and Rare Earths Project by US Federal and State land management agencies, office representatives of members of Congress, local and State elected officials and industry experts (Figure 2). The visit by the approximately 20 officials occurred whilst drilling was progressing at site.



Figure 2: Federal and State officials onsite at La Paz project



## Figure 3: WRE CEO, Marty Weems, giving a presentation on the importance of the La Paz Project

Mr Marty Weems, Chief Executive Officer of the Company's 100% owned US subsidiary, Western Rare Earths ("WRE"), gave a presentation on the importance of the Project (Figure 3).

The visiting officials travelled to the remote location, almost 30km from the community of Bouse, Arizona, many travelling more than 240 kilometres from the city of Phoenix, to the La Paz Scandium and Rare Earths Project, where the current drilling campaign was underway (refer ASX Release 16 March 2021).

Specifically, Mr Weems discussed the benefits of the La Paz Scandium and Rare Earths Project in a brief *"Why Now?"*, *"Why here?"* and *"Why us?"* presentation, which summarised the Nation's needs for the Project with reference to the Biden Administration's recent Executive Order to access Rare Earths supply chains. Additionally, he mentioned the US Critical Minerals list that identifies scandium and rare earths as "mineral commodities that are vital to the Nation's security and economic prosperity. This dependency of the United States on foreign sources creates a strategic vulnerability for both its economy and military...".

https://www.federalregister.gov/documents/2018/05/18/2018-10667/final-list-of-critical-minerals-2018

In his presentation, Mr Weems further highlighted that the La Paz Project is a low-grade, critical mineral target with the extraordinary advantage of its sheer volume, and possible opportunity for:

1) simple concentration via magnetics.

2) ultra-low penalty element content (Thorium <7ppm); and

3) low cost of open-pit production.

Mr Weems shared that "La Paz County Rare Earths are indeed rare in that there is no other known hardrock mining, defined resource of record in North America with such a low Thorium penalty. Only the Company's Wyoming asset even comes close with most competitors having 30-60X the Thorium concentration of the comparatively "clean" La Paz asset." Additional benefits presented to officials included the Project's close proximity to world class infrastructure within a mining-friendly jurisdiction and the potential job creation opportunities associated with the mine.

The official tour included Regina Cobb from the State House of Representatives of the State of Arizona; Amy Love, Outreach Director for the Office of US Senator Mark Kelly; Penny Pew, District Director and Intergovernmental Affairs for the Office of Congressman Paul Gosar and representatives from the affected Federal and State land management agencies, including Jason West from the Bureau of Land Management and David Haag from the Arizona State Land Trust. Additional attendees included local officials, such as those from La Paz County and the Town of Quartzite; experts from support industries, like railroad and utility companies; commerce and economic development organisations; and local media.

The presentation by Mr Weems and WRE's other Board Members, including Melissa Sanderson and Chair of the Board, Clarence McAllister, was very well received, and in addition to permit approvals granted by the various Arizona State Departments (refer ASX Release on 10 March 2021), the official site tour represented a successful collaboration and cooperation effort over Rare Earths in the State of Arizona, which echoes the support previously highlighted by the Federal Government.

Commenting on the official site visit at the La Paz Project, Managing Director of the Company, (ASX:ARR) Mr Keith Middleton, commented: "The large-scale support of the La Paz Project, not only at the national level through the Biden Administration executive order, but also at the local level within the State of Arizona, gives the Company further validation that the La Paz Project sits within a mining-friendly jurisdiction, and provides immense confidence in the potential of the Project to become a mine of national significance. We are grateful to the local community of La Paz county for their exceptional support in progressing the Project, and the collaboration of private and public national and state officials on this tour further echoes this support."



Figure 4: Location of samples collected in December 2020



Figure 5: Location of Met Samples in La Paz Resource Area



Figure 6: Location of Met Samples in La Paz Central Area



Figure 7: Location of Met Samples in La Paz Southwest Area



Figure 8: La Paz Drill Hole Locations

# **Broken Hill Base and Precious Metals Projects**

The Company's Broken Hill regional tenement holdings (EL 8773, EL 8776 and EL 8775) have not changed during the Quarter (Figure 9). The tenements contain the Main Line, Broken Hill North-West and Triple Chance base and precious metals projects. See the tenement Schedule at Annexure 1.

The Company's strategy is to relinquish these project area tenements as it develops its critical minerals projects in North America.



Figure 9: Location of tenement holdings in the world class Broken Hill Province

# Wyoming Rare Earths Project Partial Acquisition

ARR is acquiring the Laramie Rare Earths Elements Project in Wyoming USA held by Zenith Minerals Limited's ("Zenith") 100% Australian owned subsidiary, Wyoming Rare Pty Ltd ("Wyoming Rare"). Under the transaction, the Company will acquire all of the issued capital held by Zenith in Wyoming Rare including all Laramie related data, samples, maps and exploration permits (i.e., precursors to mineral leases).

An amendment was made in December 2020 to the Share Purchase Agreement ("SPA") with Zenith for the 100% acquisition by ARR of the Laramie Rare Earth Elements Project whereby the completion date was extended to 30 June 2021, and terms relating to acquisition and conditions precedent were revised in agreement with Zenith to include non-material payment, project ownership and tenement grant adjustments. However, the acquisition consideration of 2.5 million ARR ordinary shares (set at a price of A\$0.02 per share) plus A\$50,000 cash remained unchanged. The Company has already settled 50% of the acquisition by issuing 1.25 million ARR shares and paying A\$25,000 to Zenith. The balance of the consideration is due upon receipt of regulatory approvals of the awaited mineral lease and royalty agreement from the State of Wyoming on or before 30 June 2021.

The Company has identified additional BLM tenement targets to expand on the five BLM tenements currently comprising the Project into surrounding areas indicated to have similar favorable rock type (Figure 10).



#### Figure 10 : Location of the Wyoming Laramie Project

#### Investment in Cobalt Blue Holdings Limited ("COB")

In January 2021, ARR sold 8,000,000 COB shares for cash proceeds of A\$2,468,822. The Company also converted its A\$1M three-year Convertible Note ("CN") into 5,000,000 COB shares at a deemed price of A\$0.20 per share.

Following the share sale and conversion, ARR holds 6,000,448 COB shares worth A\$2,250,168, based on a COB closing price of A\$0.375 on 31 March 2021. The Company received total interest of A\$60,328 on the CN up until the date of conversion and continues to hold a A\$3M Promissory Note ("PN") interest free for years one to three with interest payable in arrears at 6% per annum for years four and five. The PN is currently in year two and secured over title to tenements.

ARR also continues to hold rights to a Net Smelter Return ("NSR") royalty of 2% on all cobalt production from the Thackaringa Project which was sold to Cobalt Blue Holdings Limited in February 2020.

#### Corporate

During the March 2021 Quarter:

- A total of 8,222,067 loyalty shares were issued to shareholders that continuously held their shares for 12 months pursuant to the terms of capital raisings conducted in 2019 and 2020.
- Exploration Expenditure of \$279,341 was incurred
- The Company's cash position as of 31 March 2021 was \$4,615,154 and was boosted by A\$2,468,822 from the sale of 8,000,000 COB shares in January 2021 (refer above)
- The Company also holds a substantial holding of 6,000,448 listed shares in Cobalt Blue Holdings Limited (ASX: COB) worth A\$2,250,168 as of 31 March 2021 and deferred consideration via promissory notes from the sale of ARR's Thackaringa assets in February 2020.
- During the quarter amounts paid to Directors and related parties was \$104,000 for the payment of fees, consulting fees and reimbursement of expenses.

### **Outlook for June 2021 Quarter**

The outlook for Company activities during the June 2021 Quarter is as follows:

- Completion of the drilling program at La Paz Rare Earths Project:
- Announcement of core drill results for La Paz;
- Commencement of Metallurgical test work on the new La Paz core drill samples; and
- Completion of Wyoming Rare Earths Project acquisition from Zenith.

This market announcement has been authorised for release to the market by the Board of American Rare Earths Limited.

#### Keith Middleton

#### Managing Director

This ASX announcement refers to information extracted from market announcements, which are available for viewing on ARR's website **https://americanrareearths.com.au** 

ARR confirms 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, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. ARR confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcements.

Competent Persons Statement: The information in this report that relates to Exploration Results is based on information compiled by Mr. Jim Guilinger. Mr. Guilinger is a Member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc). Mr. Guilinger is Principal of independent consultants World Industrial Minerals LLC. Mr. Guilinger has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Guilinger consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

#### About American Rare Earths

American Rare Earths Limited (ASX: ARR) is the only Australian company listed on the ASX with assets in the growing rare earth metals sector of the United States of America, itself emerging as an alternative international supply chain to counter China's market dominance of a global rare earth market expected to balloon to US\$20 billion by the mid-2020s. ARR owns 100% of the world-class La Paz rare earth project, located 170km northwest of Phoenix, Arizona. The project's highly shallow 2012 JORC resource (128.2Mt @

373.4ppm (0.037%) Total Rare Earth Elements), is less than 30m below surface and is contained within just 525 acres of ARR's total La Paz footprint of 5,143 acres that points to potential resource upside. As a large tonnage, bulk deposit, La Paz is also potentially the largest, rare earth deposit in the USA and benefits from containing very low penalty elements such as radioactive thorium and uranium. ARR plans to deliver its first Preliminary Economic Assessment for La Paz in late 2021 and is working with leading USA research institutions to have La Paz's mineral profile incorporated into emerging US advanced rare earth processing technologies. ARR is also acquiring a second USA rare earth asset, the Laramie project in Wyoming. Transaction completion is due by mid-2021.

#### Annexure 1 American Rare Earths Limited Tenement Schedule as of 31 March 2021 Australia

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	Reference	Beneficial	Location	Reference	Location	Reference	Location
		Interest					
		%					
	EL8773	100%	Broken Hill Region	-	-	EL8773	Broken Hill Region
)	EL8776	100%	Broken Hill Region	-	-	EL8776	Broken Hill Region
	EL8775	100%	Broken Hill Region	-	-	EL8775	Broken Hill Region

#### Annexure 2 American Rare Earths Limited Tenement Schedule as of 31 March 2021 La Paz, Arizona, USA

Mining tenements at beginning of quarter		Mining tenements acquired or disposed/expired during the quarter		Mining tenements held at the end of the quarter				
Serial Number	Claim Name	Claimant Name	Beneficial Interest %	Reference	Location	Serial Number	Claim Name	Claimant Name
639 Acres	Lease Number 008-120965-00	LA PAZ RARE EARTH LLC	100%	-	-	639 Acres	Lease Number 008-120965-00	LA PAZ RARE EARTH LLC
AMC456814 - AMC456827	LA PAZ 1-14	LA PAZ RARE EARTH LLC	100%	-	-	AMC456814 - AMC456827	LA PAZ 1-14	LA PAZ RARE EARTH LLC
AMC456828 - AMC456845	LA PAZ 15-32	LA PAZ RARE EARTH LLC	100%	AMC456828 – AMC456845 disposed	La Paz, Arizona, USA	-	-	-
AMC456846 - AMC456882	LA PAZ 33-69	LA PAZ RARE EARTH LLC	100%	-	-	AMC456846 - AMC456882	LA PAZ 33-69	LA PAZ RARE EARTH LLC
AMC456883	LA PAZ-70	LA PAZ RARE EARTH LLC	100%	AMC456883 disposed	La Paz, Arizona, USA	-	-	-
AMC456884	LA PAZ-71	LA PAZ RARE EARTH LLC	100%	-	-	AMC456884	LA PAZ-71	LA PAZ RARE EARTH LLC
AMC456885	LA PAZ-72	LA PAZ RARE EARTH LLC	100%	AMC456885 disposed	La Paz, Arizona, USA	-	-	-
AMC456886	LA PAZ-73	LA PAZ RARE EARTH LLC	100%	-	-	AMC456886	LA PAZ-73	LA PAZ RARE EARTH LLC
AMC456887	LA PAZ-74	LA PAZ RARE EARTH LLC	100%	AMC456887 disposed	La Paz, Arizona, USA	-	-	-
AMC456888	LA PAZ-75	LA PAZ RARE EARTH LLC	100%	-	-	AMC456888	LA PAZ-75	LA PAZ RARE EARTH LLC
AMC456889 - AMC456904	LA PAZ 76-91	LA PAZ RARE EARTH LLC	100%	AMC456889 - AMC456904 disposed	La Paz, Arizona, USA	-	-	-
AMC456905 - AMC456914	LA PAZ 92 – 101	LA PAZ RARE EARTH LLC	100%	-	-	AMC456905 - AMC456914	LA PAZ 92 - 101	LA PAZ RARE EARTH LLC
AMC456915 - AMC456920	LA PAZ 102 – 107	LA PAZ RARE EARTH LLC	100%	AMC456915 - AMC456920 disposed	La Paz, Arizona, USA	-	-	-
AMC458543 - AMC458654	LA PAZ 108 - 219	LA PAZ RARE EARTH LLC	100%	-	-	AMC458543 - AMC458654	LA PAZ 108 - 219	LA PAZ RARE EARTH LLC
-	-	-	-	AMC461270 – AMC461311 acquired	La Paz, Arizona, USA	AMC461270 – AMC461311	LA PAZ 220 - 261	LA PAZ RARE EARTH LLC

#### Annexure 3 American Rare Earths Limited Tenement Schedule as of 31 March 2021 Laramie, Wyoming USA

Mining tenements at beginning of quarter		Mining tenements acquired during the quarter	Mining tene	Mining tenements held at the end of the quarter		
REX 1	Laramie	Wyoming Rare (USA)		REX 1	Laramie	Wyoming Rare (USA)
REX 2	Laramie	Wyoming Rare (USA)		REX 2	Laramie	Wyoming Rare (USA)
REX 3	Laramie	Wyoming Rare (USA)		REX 3	Laramie	Wyoming Rare (USA)
REX 4	Laramie	Wyoming Rare (USA)		REX 4	Laramie	Wyoming Rare (USA)
REX 5	Laramie	Wyoming Rare (USA)		REX 5	Laramie	Wyoming Rare (USA)

# **Appendix 5B**

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Na	ame of entity		
Amer	ican Rare Earths Limited		
AE	BN	Quarter ended ("curr	ent quarter")
83 00	3 453 503	31 March	n 2021
С	onsolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	9	101
1.2	Payments for		
	(a) exploration & evaluation	-	(34)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	-	-
	(e) administration and corporate costs	(291)	(819)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	60	60

1.4Interest received601.5Interest and other costs of finance paid(3)1.6Income taxes paid-1.7Government grants and tax incentives-1.8Other (provide details if material)-1.9Net cash from / (used in) operating activities(225)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(2)	(9)
	(d) exploration & evaluation	(279)	(714)
	(e) investments	-	(39)

ASX Listing Rules Appendix 5B (17/07/20)

+ See chapter 19 of the ASX Listing Rules for defined terms.

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C	onsolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
	(f) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	2,469	2,469
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material): Lease payment	(15)	(45)
2.6	Net cash from / (used in) investing activities	2,173	1,662
3	Cash flows from financing activities		

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	2,490
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(2)	(237)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	(2)	2,253

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,656	1,434
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(225)	(699)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	2,173	1,662

Co	onsolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(2)	2,253
4.5	Effect of movement in exchange rates on cash held	13	(35)
4.6	Cash and cash equivalents at end of period	4,615	4,615
5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	4,572	2,613
5.2		40	40
1	Call deposits	43	43
5.3	Call deposits Bank overdrafts	-	- 43
5.3 5.4	Call deposits Bank overdrafts Other (provide details)	43 - -	43 - -

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1 <sup>1</sup>	104
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
Note: if explana	any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a c ation for, such payments.	lescription of, and an

<sup>1</sup>Reimbursement of expenses, payment of fees and consulting fees to current.

7.	Financing facilities Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	3,000 <sup>2</sup>	-
7.4	Total financing facilities	3,000	-
7.5	Unused financing facilities available at quarter end 3,000		
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Est	imated cash available for future operating activities	\$A'000		
8.1	Net cash from / (used in) operating activities (item 1.9) (225)		(225)		
8.2	(Payments for exploration & evaluation classified as investing (279) activities) (item 2.1(d))		(279)		
8.3	Total relevant outgoings (item 8.1 + item 8.2) (504)				
8.4	Cash a	and cash equivalents at quarter end (item 4.6)	4,615		
8.5	Unuse	d finance facilities available at quarter end (item 7.5)	3,000		
8.6	Total available funding (item 8.4 + item 8.5) 7,615		7,615		
8.7	B.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)		15.11		
	Note: if "N/A". O	Note: if the entity has reported positive relevant outgoings (i.e., a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.			
8.8 If item 8.7 is less than 2 quarters, pleas		8.7 is less than 2 quarters, please provide answers to the follow	wing questions:		
	8.8.1	Does the entity expect that it will continue to have the current cash flows for the time being and, if not, why not?	level of net operating		
	Answe	r: N/A			
	8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?				
	Answe	r: N/A			

# 8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

#### Answer: N/A

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

<sup>2</sup> \$3M five-year promissory note maturing 17 January 2025

#### Compliance statement

- This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 15 April 2021

Authorised by: Keith Middleton – Managing Director (Name of body or officer authorising release – see note 4)

#### Notes

1

- This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee e.g., Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.

# JORC Code, 2012 Edition – Table 1 Wyoming Rare Earths Project

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (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.</li> </ul>	<ul> <li>[note: all work listed is historic and carried out by previous property owner] Individual grab rock samples and systematic traverse chip samples along measured lines with samples taken every 1m and composited up to 20m in length, were collected by hand at the surface, from in-situ outcrops.</li> <li>Grab samples are believed to be representative of the outcrops they came from</li> <li>1-2kg rock samples were collected by a geologist, samples were broken using a hammer from outcrop. Rock samples were crushed in the laboratory and then pulverized before analysis.</li> </ul>
Drilling techniques	• 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).	No drilling
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	No Drilling
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</li> </ul>	Rock samples were geologically described and photographed.

Criteria	JORC Code explanation	Commentary
	<ul> <li>Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Qualitative logging
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all cores taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>No Drilling</li> <li>Samples were analysed at ALS Laboratories in Reno Nevada, the samples were crushed, pulverized and assayed by ICP-ME MS81 for REE and subsequently the pulps were re-assayed for Scandium.</li> <li>~2kg of rock was crushed and pulverized and a subsample was taken in the laboratory and sent for analysis.</li> <li>Grab sampling was selective based upon geological observations whilst composite traverse chip sampling was systematic in nature.</li> <li>Each sample was 1kg to 2kg in weight which is appropriate to test for grain size of material.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.</li> </ul>	<ul> <li>The samples were crushed and assayed for 38 elements by fusion ICP-MS. The procedure will report near total results.</li> <li>No geophysical tools used in the sampling program.</li> <li>Internal laboratory standards were analysed with rock samples.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul> <li>Two consulting company personnel have observed the assayed samples.</li> <li>No Drilling</li> <li>Field data were all recorded in field notebooks and sample record books and then entered into a digital database.</li> </ul>

Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	No Adjustments were made.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> </ul>	<ul> <li>Sample location is based on GPS coordinates +/- 5m accuracy.</li> </ul>
	Quality and adequacy of topographic control.	<ul> <li>The grid system used to compile data was NAD27 Zone 13N.</li> <li>Topography control is +/- 10m</li> </ul>
Data spacing and	Data spacing for reporting of Exploration Results.	Both randomly spaced and on 1m long continuous surface chip sampling
distribution	<ul> <li>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.</li> </ul>	<ul> <li>The data alone will not be used to estimate mineral resource or ore reserve</li> </ul>
	Whether sample compositing has been applied.	• Systematic traverse chip samples along measured lines with samples taken every 1 m and composited up to 20m in length, individual composites were then combined by length weighted averaging.
Orientation of data in relation to geological	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	<ul> <li>Rock samples were taken of selected outcrops that were considered representative of varying rock types as well as systematic composites.</li> </ul>
structure	• 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.	No drilling
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were kept in numbered bags until delivered to the laboratory.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	Sampling techniques are consistent with industry standards.

# Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	Wyoming Rare Earths Project Acquisition - Share Purchase Agreement with Zenith Minerals Limited executed with 5 BLM claims now held by Wyoming Rare (USA) [wholly owned subsidiary of ARR] with amended completion date extended to 30 June 2021 for finalized acquisition Wyoming State Leases. Exploration on the State leases was historically completed under an exploration permit issued by the State of Wyomir
	• 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> <li>As above. The leases are applications with no known impediment to future granting of exploitation rights.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>As previously mentioned, Zenith Minerals (company from which the property was acquired) completed all of the exploration herein described.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	• The deposit is within a large scale anorthosite complex. REE elements are hosted in allanite which is contained within syenite that is part of that complex.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	No Drilling

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>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.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul><li>No high-grade cutting</li><li>No aggregation used</li></ul>
		No metal equivalents used
Relationship between	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>	No Drilling
mineralisation widths and	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	No Drilling
intercept lengths	• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').	No Drilling
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>See map in body of Report under "Wyoming Project Acquisition Section"</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Traverse TREO values as follows: 332m @0.24%; 80m @0.4%: 60m</li> <li>@ 0.39%, 40M @0.35%; 60m @0.37%; 137m @0.37%; 72m @</li> <li>0.33%; 60m @0.34% and 17m@ 0.24%</li> </ul>

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<section-header><section-header><complex-block><complex-block></complex-block></complex-block></section-header></section-header>
Further work	<ul> <li>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further mapping and sampling is planned leading to drill targets.</li> </ul>