



25 February 2025

#### **BMO Global Metals Conference Presentation**

American Rare Earths **(ASX: ARR | OTCQX: ARRNF and AMRRY) ("ARR" or the "Company")** is pleased to announce that CEO Chris Gibbs will be presenting at the BMO Global Metals, Mining & Critical Minerals Conference this week in Florida, USA. A copy of the presentation is attached.

BMO Global Metals, Mining & Critical Minerals Conference (Florida, USA)

Presentation: 25 February 2025 | 11:30 AM - 11:45 AM EST (Ballroom C)

Speaker: Chris Gibbs, CEO & Executive Director

One-on-one investor meetings will also be held throughout the event.

Chris will be attending and presenting at several key industry conferences and investor events in the coming weeks:

**OTC Markets Investor Conference (New York, USA)** 

Presentation Date: 27 February 2025

PDAC 2025 Prospectors & Developers Association of Canada Conference (Toronto, Canada)

Dates: 2 - 6 March 2025

This announcement has been authorised for release by the CEO of American Rare Earths.

For further information, please contact:

Susie Lawson slawson@americanree.com

#### **About American Rare Earths Limited:**

American Rare Earths (ASX: ARR | OTCQX: ARRNF | ADR: AMRRY) is a critical minerals company at the forefront of reshaping the U.S. rare earths industry. Through its wholly owned subsidiary, Wyoming Rare (USA) Inc., the company is advancing the Halleck Creek Project in Wyoming—a world-class rare earth deposit with the potential to secure America's critical mineral independence for generations. The Halleck Creek Project boasts a JORCcompliant resource of 2.63 billion tonnes, representing approximately 16% of the greater Halleck Creek project surface area, making it one of the largest rare earth deposits in the United States. Located on Wyoming State land, the Cowboy State Mine within Halleck Creek offers cost-efficient open-pit mining methods and benefits from streamlined permitting processes in this mining-friendly state.

With plans for onsite mineral processing and separation facilities, Halleck Creek is strategically positioned to reduce U.S. reliance on imports—predominantly from China—while meeting the growing demand for rare earth elements essential to defense, advanced technologies, and economic security. As exploration progresses, the project's untapped potential on both State and Federal lands further reinforces its significance as a cornerstone of U.S. supply chain security. In addition to its resource potential, American Rare Earths is committed to environmentally responsible mining practices and continues to collaborate with U.S. Government-supported R&D programs to develop innovative extraction and processing technologies for rare earth elements. The opportunities ahead for Halleck Creek are transformational, positioning it as a multi-generational resource that aligns with U.S. national priorities for critical mineral independence.



ASX : ARR OTCQX: ARRNF [ADR] AMRRY

## BUILDING AMERICA'S RARE EARTH POWERHOUSE



34th Global Metals, Mining & Critical Minerals Conference February 23 – 26, 2025

**INVESTOR PRESENTATION** 



#### FORWARD LOOKING STATEMENTS

#### **Disclaimers**

This presentation contains forward-looking statements that involve subjective judgement and analysis and accordingly, are subject to significant uncertainties and risks, many of which are outside the control of, and are unknown to, American Rare Earths ("**ARR**"). In such circumstances, the forward-looking statements can be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "seek", "estimate", "believe", "continue" or other similar words.

No representation, warranty or assurance is given or made in relation to any forward-looking statement by ARR or it's representatives, In addition, no representation, warranty or assurance is given in relation to any underlying assumption or that any forward-looking statements will be achieved. Actual future events may vary materially from the forward-looking statements and the assumptions on which the forward-looking statements are based. Accordingly, presentation readers are cautioned not to place undue reliance on such forward-looking statements as a result of the uncertainties.

ARR wishes to caution readers that these forward-looking statements are based on economic predictions and assumptions on reserves, mining method, production rates, metal prices and costs (both capital and operating) developed by ARR management in conjunction with consultants.

This presentation and the forward-looking statements made in this presentation, speak only as of the date of the presentation.

Accordingly, subject to any continuing obligations under the Corporations Act and the Australian Securities Exchange Listing Rules, ARR disclaims any obligation or undertaking to publicly update or revise any of the forward-looking statements in this presentation, whether as a result of new information, or any change in events, conditions or circumstances on which any such statements is based.

#### **Competent Person Statement**

This work was reviewed and approved for release by Mr Kelton Smith (Society of Mining Engineers #4227309RM) who is employed by Tetra Tech and has sufficient experience which is relevant to the processing, separation, metallurgical testing and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 JORC Code. Mr. Smith is an experienced technical manager with a degree in Chemical engineering, operations management and engineering management. He has held several senior engineering management roles at rare earth companies (Molycorp and NioCorp) as well as ample rare earth experience as a industry consultant. Mr. Smith consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

This work was reviewed and approved for release by Mr Patrick A Sobecke (Society of Mining Metallurgy and Exploration #04133849) who is employed by Stantec and has sufficient experience which is relevant to the mining plan and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 JORC Code. Patrick is a Professional Engineer (IL 062.064122) with over 21 years of experience in multiple commodities, mining methods and countries. Mr. Sobecke consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

The information in this document is based on information compiled by personnel under the direction of Mr. Dwight Kinnes who is Chief Technical Officer of American Rare Earths. This geological work was reviewed and approved for release by Mr. Kinnes (Society of Mining Engineers #4063295RM) who is employed by American Rare Earths and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 JORC Code. Mr Kinnes consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

ARR confirms it is not aware of any new information or data that materially affects the information included in the original market announcement, 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 announcement.

### **American Rare Earths**

CLEAR PATH TO BUILDING AMERICA'S NEXT MAJOR RARE EARTH SUPPLIER

ARR is advancing one of the most significant rare earth development projects in the USA. Robust Scoping Study economics demonstrate project viability and scalability. Strategic advantage with permitting on State of WY Land and Minerals [2-3 years to permit vs. Federal track of +10 years]<sup>1</sup>

Permitting advantage accelerates ARR's path to production. Fully U.S.-based rare earth production - from mine to metal oxide.

### **ARR: The USA's Rare Earth Solution**

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### AMERICAN-MADE RARE EARTHS

 $\rightarrow$  GROWTH ALIGNED, MARKET-DRIVEN EXPANSION FOR U.S. & ALLIES

#### **CURRENT SUPPLY DYNAMICS**

- China has restricted exports of key critical minerals: gallium, germanium, graphite, and antimony.
- China produces ~70% of global supply and holds ~40% of global reserves.
- Brazil and Russia (BRICS) hold an additional ~30% of global reserves.<sup>1</sup>



#### → OUR SUPPLY OPPORTUNITY | KEY INITIATIVES DRIVING U.S. SUPPLY CHAIN GROWTH

#### **CRITICAL TO U.S. SECURITY**

Rare earth minerals are essential for economic and national security.

#### **ASX BENEFICIARIES**

Lynas Rare Earths received ~US\$258M in DoD funding for a REE processing facility in Texas.<sup>3</sup>

#### \$439M IN U.S. FUNDING

DoD has invested heavily in domestic REE supply chains since 2020.

#### SINGLE POINT OF FAILURE U.S. REE SUPPLY CHAIN

Only one operating REE mine in the U.S.

#### TAX INCENTIVES

The Inflation Reduction Act provides tax credits for REE development.<sup>3</sup>

#### POLICY SHIFT

Trump pledged to expand REE mining & roll back environmental protections.<sup>4</sup>

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### "SECURING RARE EARTHS IS NO LONGER OPTIONAL - IT'S ESSENTIAL FOR NATIONAL SECURITY, DEFENSE, AND INDUSTRIAL LEADERSHIP."



#### > ARR JORC RESOURCE

Halleck Creek could become a multi-generational rare earths asset for the United States, with the potential capacity to meet current US domestic consumption levels for ~100 years<sup>1</sup>

(1) High level assumptions made, for illustrative purposes only. Calculated as (Estimated contained rare earths in JORC Resource)/(USGS 5-year Avg. U.S. annual rare earths consumption). Estimated rare earths contained in JORC resource assumes 20% of JORC resource are converted to theoretical reserves, 90% of theoretical reserves are mined and 67% of contained rare earths are recovered. Note Halleck Creek currently does not have a mineral reserve estimate.

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## **STRATEGIC** POSITION

#### **U.S. SUPPLY CHAIN**

**Reducing dependence** on Chinacontrolled supply and refining.

#### **CRITICAL MINERAL SOLUTION**

A domestic supply for defense, aerospace and advanced technology.

#### SCALABLE & LONG-TERM

Developing One of the Largest Rare Earth Resources in North America

#### We're not just mining - we're refining.

Our goal is to supply high-purity rare earth oxides to the U.S. and its allies, strengthening critical supply chains.

This is a once-in-a-generation opportunity to rebuild America's rare earth industry.

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### **ASSET OVERVIEW**

DIVERSIFIED REE OPPORTUNITY WITH MULTIPLE 100%-OWNED ASSETS

#### HALLECK CREEK

- Anticipated to be a key portfolio value driver over time.
- Positioned to accelerate the development of one of the largest rare earth deposits in North America.
- 2.6Bt at 3,292 ppm Total Rare Earth Oxide (TREO) JORC resource estimate<sup>1</sup>

#### VALUE-ADDED PROJECTS

- La Paz 171Mt JORC resource estimate, world class asset potential.<sup>2</sup>
- Beaver Creek TREO grades 5.8%-13.9%
- Searchlight exploration asset, close to the Mountain Pass mine



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# HALLECK CREEK

### THE GAME-CHANGER

One of the largest rare earth deposits in the United States with vast untapped potential.

JORC-compliant resource of **2.63 billion tonnes at 3,292 ppm** Total Rare Earth Oxides (TREO)<sup>1</sup>

Total ore mined over the 20-year life of mine for the Cowboy State Mine exceeds 62 million tonne (Mt), which represents only a small fraction of the current 2.63 billion tonnes JORC resource, pointing to significant upside, both in terms of mine life and annual production at Halleck Creek



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### HALLECK CREEK

LARGE, US DOMESTIC, SCALABLE RARE EARTHS PROJECT WITH A CLEAR PATH TO PERMITS

#### **PROJECT STATS**

- RESOURCE: 2.6 Billion tonnes @ 3292ppm
- MAGNETIC RARE EARTHS: 26% of TREO
- **OPEN-PIT MINE:** Deposit is amenable to open-pit mine with mineralisation from surface to 300m.
- PATHWAY TO PERMITTING: State land advantage and low radioactive elements
- DOMESTIC PROCESSING: American made high-value rare earth metal oxide for the US.
- INFRASTRUCTURE: Proximity to road, rail, power & people
- HIGH GRADE AT-SCALE: High-grade intersections exceeding 5,000 ppm TREO confirm the scale, grade, and continuity of the deposit, further de-risking the project, including: 148.0m @ 4,451ppm TREO, including 52.5m @ 5,273ppm TREO.



Source: 2025 Halleck Creek Updated Scoping Study Technical Report

1. Permit to mine estimates based on public disclosure for US mining development projects including CK Gold project, Eagle Mine, Hasbrouck Mine, Stibnite Gold Project, Florence Copper, Resolution Copper and Bear Lodge.

2. Scoping Study assumes US\$91.0/kg NdPr, US\$2.0/kg La, US\$10.0/kg SEG , US\$1,500.0/kg Tb and US\$400.0/kg Dy.

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### **ROBUST** PROJECT ECONOMICS

→ HALLECK CREEK | UPDATED SCOPING STUDY FEBRUARY 2025

#### SIGNIFICANT UP-SIDE POTENTIAL:

2.6 billion tonne JORC resource, highlighting potential for extended mine life and increased production at Halleck Creek.

	CAPEX <sup>1</sup> us\$	NPV <sub>10%</sub> [after-tax] <sup>1</sup>	IRR (after-tax) <sup>1</sup>	Payback period <sup>1</sup>
3Mtpa Scenario	\$456M	\$558M	24%	<b>2.7</b> yrs
6Mtpa Scenario	\$737M	\$1.17B	28.4%	<b>1.8 yrs</b>

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## **100% U.S. BASED** FROM MINE TO REFINERY

→ WYOMING, U.S.A. | PERMITTING ADVANTAGE



Streamlined permitting process accelerates development.





Onsite mineral processing and separation = domestic supply chain.



Reducing the reliance on foreign controlled refining operations.

#### LICENSE TO EXPLORE The Cowboy State Mine

- License Secured: Advancing Cowboy State Mine development.
- Bulk Sampling: Dozing and excavation underway.
- Pilot Processing: Feedstock secured for testing.
- Expanding Exploration: Just 16% of Halleck Creek explored – much more to explore.
- Significant Resource Upside: Only 16% of surface area covered by JORC resource estimate.

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### ADVANCING FORWARD

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#### CONTINUED PROGRESS UNLOCKING SHAREHOLDER VALUE

US\$456M EXIM Bank Letter of Interest highlights the strategic importance of Halleck Creek. US\$7.1M in non-dilutive Wyoming grant funding reduces capital risk.



Positioned to attract further investment for full-scale development.



Source: FactSet Notes: (1) To 31 January 2025. Annotated Share Price and Volume History

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**CLEAR PATH AHEAD** 

ARR'S STRONG  $\rightarrow$ 2024 EXECUTION SETS UP MAJOR **MILESTONES** AHEAD.

CONTINUED FOCUS ON THE **DE-RISKING AND DEVELOPMENT OF** HALLECK CREEK.

-	Strategic Roadmap	2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025
	Completion comprehensive drilling program	$\checkmark$				
	Delivery of Halleck Creek Updated Scoping Study		$\checkmark$			
MENT	Updating resource models and mine planning					)
DEVELOPMENT	Metallurgy Milestone: Achieved a 10X ore upgrade at scale and separated allanite (REE host mineral) from hastingsite (gangue)		$\checkmark$			
	Progress metallurgical test-work					)
	Halleck Creek Pre-Feasibility Study					
PERMITTING	Licence granted to allow test mining at Halleck Creek, which will act as feedstock source for a future pilot processing plant	<b>v</b>				
PERM	Progress state permitting and environmental baseline studies					
IC TIES	EXIM Letter of Intent for up to US\$456m of funding to support Halleck Creek development	<b>V</b>				
STRAGETIC OPPORTUNTIES	Wyoming State funding matching grant of US\$7.1M to support the Cowboy State Mine at Halleck Creek's development	$\checkmark$				
0 II	Engagement of BMO Capital Markets as financial adviser to explore strategic investment, JV, M&A and offtake opportunities	$\checkmark$				

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HALLECK CREEK IS THE SOLUTION, DELIVERING A SECURE, U.S. CONTROLLED RARE EARTH SUPPLY CHAIN IN WYOMING, USA.

STRATEGIC U.S. ALIGNMENT	SIGNIFICANT RESOURCE POTENTIAL
CLEAR PATH TO PERMITTING	COMMITMENT TO SUSTAINABILITY



# Appendix

### WORLD-CLASS TEAM

#### **BOARD OF DIRECTORS**



#### **Richard Hudson, Chairman**

Richard is a Chartered Accountant with experience in M&A, corporate governance and shareholder management. He joined the Board in February 2022.



#### **Sten L Gustafson, Non-Executive Director & Deputy Chairman** Sten is the CEO and Director of Pyrophyte Acquisition Corp. (NYSE: PHYT), a SPAC focused on energy transition solutions. With 25+ years in the global energy sector, he has advised on over 100 transactions worth more than \$100B.

#### Melissa Sanderson, Non-Executive Director

Mel has 30+ years of experience in diplomacy and mining, specializing in cross-cultural communication and leadership in diversity. She led government relations and social responsibility at Freeport-McMoRan and senior diplomat in the US Department of State.

#### Hugh Keller, Non-Executive Director

Hugh is a veteran corporate lawyer and director with 34 years at Ashurst. He has served on audit committees for Thakral Holdings, LJ Hooker, and Cobalt Blue Holdings and advises businesses on governance and strategy.

#### Chris Gibbs, CEO and Executive Director

Chris has nearly 30 years of experience in the resource sector within Australia, Europe, Africa and North America, including with Argonaut Gold where he led the development of the Magino gold mine.

### WYDMING RARE [USA] INC (100% Wholly Owned Subsidiary)



#### Joe Evers, President, Wyoming Rare (USA) Inc.

Joe is the President of Wyoming Rare (USA) Inc., a 100%owned subsidiary of American Rare Earths.



#### **Dwight Kinnes, Chief Technical Officer** Dwight is a geologist with 40 years of experience, particularly in North America.



#### John Mansanti, Senior Advisor

John is a consultant to the minerals industry with over four decades of mining experience, specialising in operations, technical support, and capital projects. He has held leadership roles as CEO of Pacific Soda and Crystal Peak Minerals, as well as Senior VP of Operations for Intrepid Potash.

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#### Tommy von Finckenstein, Strategy & Corporate Development

Tommy has worked in both Mining investment banking and equity research. He also earned a degree in Mine Engineering from McGill University.

### CAPITAL SUMMARY

#### Capital Summary<sup>1</sup>

ASX Ticker	ARR
Share Price (at close Feb. 19, 2025)	A\$0.32
Shares Outstanding	506M
Options Outstanding	51.0
Market Capitalisation	A\$162M
Cash (at 31 December 2024) <sup>2</sup>	A\$11.7M
Enterprise Value	125.0

#### Shareholders<sup>1</sup>



Hill Family (ex-Director) Fidelity International Other Top 20 Shareholders Other Shareholders

### Halleck Creek Scoping Study Highlights

Project	Unit	Value
CSM Mine Plan	yr	20
Processing Run-of-Mine (ROM)	Mtpa	3.0
Total Production	Mt	85,840,139
Construction Period	yr	2.5
Operating Costs	Unit	Value
NdPr Oxide	USD\$/kg	36.10
Tb Oxide	USD\$/kg	595.09
Dy Oxide	USD\$/kg	158.69
SEG Concentrate	USD\$/kg	3.97
La	USD\$/kg	0.79
Total	USD\$/kg	23.89
Before Tax Financials	Unit	Value
Free Cash Flow	USD	2,501,550,792
NPV	at 8%	855,620,187
NPV	at 10%	659,528,176
IRR (%)	%	25.8
Payback Period	yr	2.5
After Tax Financials	Unit	Value
Free Cash Flow	USD	2,193,661,024
Federal and State Taxes Paid	USD	(307,889,767)
NPV	at 8%	732,923,202
NPV	at 10%	558,010,632
IRR (%)	%	24
Payback Period	yr	2.7

Capital Expenditures	Unit	Value
Initial Mine Capital	USD	5,423,976
Initial Processing Capital	USD	374,644,403
Contingency (20%)	USD	76,013,676
Total Initial Capital	USD	456,082,054
Pricing	Unit	Value
NdPr Oxide	USD\$/kg	91.00
Tb Oxide	USD\$/kg	1,500.00
Dy Oxide	USD\$/kg	400.00
SEG Concentrate	USD\$/kg	10.00
La	USD\$/kg	2.00
Total		60.85
Recovery	Unit	Value
NdPr	%	63.9%
Tb	%	70.2%
Dy	%	66.5%
SEG	%	70.1%
La	%	68.6%
Annual Avg. Production	Unit	Value
NdPr Oxide	mt	1,833
Tb Oxide	mt	24
Dy Oxide	mt	98
SEG Concentrate	mt	488
La Carbonate	mt	1,724
Total	mt	4,169

Notes: (1) ASX announcement, 24 February 2025.

The study is a preliminary assessment based on Class 5 Association for the Advancement of Cost Engineering (AACE) compliant cost development -30%/+50% and includes a contingency factor of 20%.

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### Halleck Creek Scoping Study Highlights





Notes: (1) ASX announcement, 24 February 2025.

The study is a preliminary assessment based on Class 5 Association for the Advancement of Cost Engineering (AACE) compliant cost development -30%/+50% and includes a contingency factor of 20%.

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### Halleck Creek Scoping Study Sensitivities



Notes: (1) ASX announcement, 24 February 2025.

The study is a preliminary assessment based on Class 5 Association for the Advancement of Cost Engineering (AACE) compliant cost development -30%/+50% and includes a contingency factor of 20%.

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### Halleck Creek Scoping Study

LOM Mining Stats	3.0 Mtpa Base Case	6.0 Mtpa Alt. Case
Total Ore Mined (Mt)	62.3	120.5
Total Waste Mined (Mt)	23.6	46.7
Total Material Mined (Mt)	85.8	167.3
Strip Ratio	0.38	0.39
Recovered Rare Earths	3.0 Mtpa Base Case	6.0 Mtpa Alt. Case
La (Mkg)	36.2	67.2
NdPr (Mkg)	38.5	70.2
SEG (Mkg)	10.3	18.7
Tb (Mkg)	0.5	0.9
Dy (Mkg)	2.1	3.8
NdPr Eq (Mkg)	87.5	160.9
NdPr Eq (g/t)	931	931
LOM Cash Flow	3.0 Mtpa Base Case	6.0 Mtpa Alt. Case
Total Revenue (US\$M)	5,271	9,640
OPEX Mining (US\$M)	407	744
OPEX Milling (US\$M)	1,645	2,890
CAPEX Mining (US\$M)	7	10
CAPEX Milling (US\$M)	450	727
After Tax Metrics	3.0 Mtpa Base Case	6.0 Mtpa Alt. Case
Free Cash Flow (US\$M)	2,194	4,208
Free Cash Flow (US\$M) Federal & State Taxes Paid (US\$M)	2,194 308	4,208 606
Federal & State Taxes Paid (US\$M)	308	606
Federal & State Taxes Paid (US\$M) NPV @ 8% (US\$M)	308 733	606 1,497

#### Notes: (1) ASX announcement, 24 February 2025.

The study is a preliminary assessment based on Class 5 Association for the Advancement of Cost Engineering (AACE) compliant cost development -30%/+50% and includes a contingency factor of 20%.

### **Resource Statements**

#### Halleck Creek<sup>1</sup>

	Toppogo	Grade			
Classification	Tonnage	TREO	LREO	HREO	MREO
	Mt	ppm	ppm	ppm	ppm
Measured	206.7	3,720	3,352	370	904
Indicated	1,272.6	3,271	2,900	360	852
Inferred	1,147.2	3,239	2,878	361	837
Total	2,626.5	3,292	2,926	361	850

	Tennege	Contained Material			
Classification	Tonnage	TREO	LREO	HREO	MREO
	Mt	kt	kt	kt	kt
Measured	206.7	769.0	692.9	76.6	186.8
Indicated	1,272.6	4,162.4	3,690.0	458.1	1,084.3
Inferred	1,147.2	3,715.7	3,302.0	413.7	960.4
Total	2,626.5	8,647.1	7,684.9	948.3	2.231.4

#### La Paz<sup>2</sup>

	Toppogo	Grade		
Classification	Tonnage	TREO	Scandium	
	Mt	ppm	ppm	
Indicated	35.2	459	17	
Inferred	135.4	472	17	
Total	170.6	469	17	

	Toppogo	Containe	Contained Material		
Classification	Tonnage	TREO	Scandium		
	Mt	kt	t		
Indicated	35.2	16.1	592.7		
Inferred	135.4	63.9	2,280.9		
Total	170.6	80.0	2,873.6		

Notes: (1) ASX announcement, 4 February 2025. (2) ASX announcement, 3 August 2021.





ASX : ARR DTCQX: ARRNF (ADR) AMRRY

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