# Idaho Strategic Resources

"We Live Here"



Gold Production Rare Earth Elements & Other Critical Minerals

### **Forward Looking Statements**

idahostrategic.com

This presentation contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which are intended to be covered by the safe harbor created by such sections and other applicable laws. When a forward-looking statement expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, such statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by the forward-looking statements. Forward-looking statements and financial performance and financial condition and often contain words such as "anticipate," "intend," "plan," "will," "could," "event," "should," "expect," "believe," "project," "target," "indicative," "preliminary," "potential" and similar expressions. Forward-looking statements in this presentation may include, without limitation: (i) the Company's plans to expand production at the Golden Chest Mine; (ii) production costs and ounces produced as a result of increasing production at the Golden Chest Mine; (iii) The potential exploration and development of the Company's greater Murray Gold Belt gold properties and the Eastern Star property; (v) the exploration and development of the Company's rare earth elements projects; (vi) the potential for positive results from its partnerships, specifically the IGEM Program, to research environmentally friendly rare earth processing and separation technology (vii) mine-specific and Company-wide estimates of future production, sales, costs of sales and cash cost and AISC per ounce, as well as Company-wide estimated spending on capital, exploration and pre-development. (viii) the Company's plans to build a new mill on-site at the Golden Chest Mine, as well as the cost estimates, financing, expected output, and potential benefi

Estimates or expectations of future events or results are based upon certain assumptions, which may prove to be incorrect, which could cause actual results to differ from forward-looking statements. Such assumptions, include, but are not limited to: (i) there being no significant change to current geotechnical, metallurgical, hydrological and other physical conditions; (ii) permitting, development, operations and expansion of the Company's projects being consistent with current expectations and mine plans; (iii) political/regulatory developments in any jurisdiction in which the Company operates being consistent with its current expectations; (iv) certain price assumptions for gold and rare earth elements; (v) prices for key supplies being approximately consistent with current levels; (vi) the accuracy of our current mineral resource estimates; (vii) there being no significant changes to Company plans due to COVID-19 or any other public health issue, including, but not limited to with respect to availability of employees, vendors and equipment; (viii) the Company's plans for development and production will proceed as expected and will not require revision as a result of risks or uncertainties, whether known, unknown or unanticipated; (ix) counterparties performing their obligations under hedging instruments; (x) sufficient workforce is available and trained to perform assigned tasks; (xi) weather patterns and rain/snowfall within normal seasonal ranges so as not to impact operations; (xii) relations with interested parties remain productive; (xiii) maintaining availability of water rights; (xiv) factors do not arise that reduce available cash balances; and (xv) there being no material increases in our current requirements to post or maintain reclamation and performance bonds or collateral related thereto.

### Forward Looking Statements

idahostrategic.com

In addition, material risks that could cause actual results to differ from forward-looking statements include, but are not limited to: (i) gold and other metals price volatility; (ii) operating risks; (iii) currency fluctuations; (iv) increased production costs and variances in ore grade or recovery rates from those assumed in mining/milling plans; (v) community relations; (vi) litigation, political, regulatory, labor, and environmental risks; (vii) exploration risks and results, including that mineral resources are not mineral reserves, they do not have demonstrated economic viability and there is no certainty that they can be upgraded to mineral reserves through continued exploration; (viii) inflation causes our costs to rise more than we currently expect. For a more detailed discussion of such risks and other factors, see the Company's (i) Form 10-K filed with the Securities and Exchange Commission (SEC). The Company does not undertake any obligation to release publicly, revisions to any "forward-looking statement," including, without limitation, outlook, to reflect events or circumstances after the date of this presentation, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws. Investors should not assume that any lack of update to a previously issued "forward-looking statement" constitutes a reaffirmation of that statement. Continued reliance on "forward-looking statements" is at investors' own risk.

Qualified Persons: Scientific and technical information contained in this presentation has been reviewed and approved by Robert John Morgan, PG, PLS. Robert John Morgan (Vice President Exploration) is an employee of Idaho Strategic Resources, Inc. and a "Qualified person" as such term is defined in S-K 1300.

This presentation includes market and industry data which was obtained from various publicly available sources and other sources believed by the Company to be true. Although the Company believes it to be reliable, the Company has not independently verified any of the data from third party sources referred to in this presentation or analyzed or verified the underlying reports relied upon or referred to by such sources, or ascertained the underlying assumptions relied upon by such sources. The Company does not make any representation as to the accuracy of such information. Certain claims made by the Company regarding its rare earth elements landholdings being the largest in the United States and the Company's Lemhi Pass project being the largest thorium resource in the United States is based on reviewing the publicly available landholdings of other known domestic rare earth elements projects and publicly available information on U.S. thorium resources respectively. The Company does not make any representation as to the accuracy of such information and cautions investors not to rely on the Company's claim as the largest domestic rare earth elements landholder or that Lemhi Pass is the U.S.' largest thorium resource when making investment decisions.

Links/Sources of public information contained herein:

- 1. https://www.usgs.gov/news/national-news-release/us-geological-survey-releases-2022-list-critical-minerals
- 2. https://pubs.usgs.gov/sir/2010/5220/
- 3. Landholdings : MP Materials, Western Rare Earths, Ucore, US Rare Earths, Rare Element Resources
- 4. <u>https://pubs.usgs.gov/circ/1336/pdf/C1336.pdf</u>
- 5. https://pubs.usgs.gov/periodicals/mcs2022/mcs2022.pdf
- 6. <u>https://www.heritage.org/defense/commentary/rare-earths-supply-chains-and-confrontation-china#:~:text=China%20only%20has%20around%2036,of%20the%20world%27s%20processing%20capaci</u>
  - ty
- 7. https://www.greencarcongress.com/2023/02/20230204-admas.html
- 8. https://pubs.usgs.gov/circ/0805/pdf/circ805.pdf

- 9. https://www.greencarcongress.com/2023/02/20230204-admas.html
- 10. <u>https://www.energy.gov/sites/default/files/2023-05/DOE%20-%20100%25%20Clean%20Electricity%20-%20Final.pdf</u>
- 11. <u>https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/17/fact-sheet-biden-harris-administration-announces-new-private-and-public-sector-investments-for-affordable-electric-vehicles/#:~:text=As%20part%20of%20President%20Biden%27s,under%20the</u>
- 12. https://www.whitehouse.gov/wp-content/uploads/2021/10/US-Long-Term-Strategy.pdf
- 13. BGR 2021, USGS, Friedrichs 2022
- 14. https://www.businessdefense.gov/ibr/mceip/dpai/dpat3/docs/DPA-TitleIII-Overview.pdf
- 15. <u>https://pages.marketintelligence.spglobal.com/IRA-Impact-on-North-American-metals-and-minerals-market-report-demo-request-EMC.html</u>

### An Idaho-Based Approach

Idaho: Ranked #7 Globally on the Investment Attractiveness Index



#### **Corporate Overview**

Listed on the NYSE: **IDR** Headquartered in North Idaho Domiciled in Idaho Operations focused in Idaho

#### **IDR's Business Plan**

"The stability of profitable and growing gold production combined with the upside potential of major rare earth elements discovery and other critical technology and energy minerals"

### **Share Information**

idahostrategic.com

Information as of Nov. 1, 2023

Shares Outstanding	12,263,318
Warrants	289,294
Employees Stock Options	477,449
Fully Diluted Shares	13,030,061
Insider Ownership	12.72%
Stock Price	\$5.26
Market Cap	\$64,505,052

## **Gold Production – Golden Chest Mine**

NYSE American: IDR

idahostrategic.com

#### **Gold Production: Golden Chest Mine**

Located in the Murray Gold Belt

Current Production: H-Vein and Idaho Vein in the Skookum Shoot

#### **Targeted Production**

Gold Production:10–15k oz/yearAssumed AISC:\$1,300 oz +/-

#### **Additional Exploration Targets**

Additional Hanging Wall Veins Paymaster Shoot Murray Gold Belt area (~7,000 acres)



Idaho Vein



H-Vein Mining



NYSE American: IDR

idahostrategic.com

# **The New Jersey Mill**

### New Jersey Mill Located in Kellogg, ID

- 360 tonne per day (tpd) flotation mill and tailings storage facility
- Expansion potential to add filter press for paste backfill system
- Expansion potential to add additional tailings storage capacity on nearby IDR property

### Environmental Stewardship Highlights

- 2014 Pollution Prevention Award from the Idaho DEQ for water conservation
- NJ Mill saves approximately 50M gallons of water annually at full production

### Savings with a Paste Backfill Plant

 On-site Paste Backfill Plant: ~\$800k/year (~\$20 per tonne of ore)





Idaho Department of Environmental Quality Pollution Prevention Champion

> New Jersey Mill Kellogg, Idaho 2014

\*Currently transport ore to New Jersey Mill (in N. Idaho)

# Addressing U.S.' Critical Mineral Needs

NYSE American: IDR

idahostrategic.com

Potential to address <u>19 of the 50</u> Strategic Critical Minerals outlined by the United States Geological Survey (USGS) and the Idaho Geological Survey (IGS)<sup>1</sup>

- 3 of the top domestic Rare Earth Elements Projects<sup>2</sup>
- The largest Rare Earth Elements landholder in the U.S.<sup>3</sup>
- The largest Thorium resource in the United States<sup>4</sup>
- Producing gold mine in a friendly jurisdiction Source of cash flow
- Potential high value by-product minerals include Niobium, Titanium, Gold, and others
- Proven ability to bring projects into production with ~50 team members experienced in mining, milling, drilling, exploration, and project financing

USGS List of Critical Minerals				
Aluminum	Hafnium	Samarium		
Antimony	Holmium	Scandium		
Arsenic	Indium	Tantalum		
Barite	Iridium	Tellurium		
Beryllium	Lanthanum	Terbium		
Bismuth	Lithium	Thulium		
Cerium	Lutetium	Tin		
Cesium	Magnesium	Titanium		
Chromium	Manganese	Tungsten		
Cobalt	Neodymium	Vanadium		
Dysprosium	Nickel	Ytterbium		
Erbium	Niobium	Yttrium		
Europium	Palladium	Zinc		
Fluorspar	Platinum	Zirconium		
Gadolinium	Praseodymium			
Gallium	Rhodium			
Germanium	Rubidium			
Graphite	Ruthenium			

# Idaho's Two Critical Mineral Belts

NYSE American: IDR

idahostrategic.com

#### Idaho's REE - Thorium Belt

Runs parallel to the Idaho Cobalt Belt

Abundance of Technology and Energy Metals

Nationally recognized REE Deposits

- Mineral Hill
- Lemhi Pass
- Diamond Creek

Recognized as the #1 Thorium prospect in the U.S.

Lemhi Pass



### Mineral Hill Rare Earth Project



### USGS Recognized Resource included in our National REE Inventory Land package – 2,051 acres unpatented claims

• REE mineralization associated with high-grade carbonatites

Idaho Geological Survey sampling has total REE grades up to **21.5%** 

 IDR samples assay up to 23.5% TREEs – strike length of approximately 0.5 miles

Neodymium, Praseodymium and Samarium occur on the property in abundance

Alkaline intrusive bodies significantly boosts the potential for REE deposits to be found at depth

# Lemhi Pass REE & Thorium Project

#### **Nationally Recognized REE Deposit**

#### USGS recognized as the #1 Thorium prospect in the U.S.

Land Package ~ 11,425 acres unpatented claims

#### **Select REE Sample Program Results**

Rare Earth Element Highlights:

- 4.26% TREEs with 2.56% Neodymium
- 2.35% TREEs with 1.21% Neodymium
- 1.62% TREEs with 0.8% Neodymium

REE mineralization at Lemhi Pass shows a unique concentration of Neodymium as a percentage of total rare earths

The REE-Th veins at Lemhi Pass are generally broad with widths up to 40 feet and can have strike lengths greater than 4,000 feet



NYSE American: IDR

idahostrategic.com

### **Diamond Creek Rare Earth Project**

NYSE American: IDR idahostrategic.com



#### **USGS Recognized Resource included in our National REE Inventory**

Land package – 4,554 acres unpatented claims

### 2022 Diamond Creek Drill Program

1.1 meters of 2.2% TREEs

- 11.3 meters of 1.3% TREEs
- 10.1 meters of 0.7% Niobium
  - 0.5 meters of 1% Niobium

### 2022 Diamond Creek Trench

- 32 meters of 1.28% TREEs
  - 4 meters of 1.5% TREEs
- 8 samples above the upper detection limits of 0.5% Niobium

Project contains 1979 USGS estimated Total Rare Earth Elements (TREEs) ore resource:

70,000+ metric tonnes of REEs, with grade of 1.22%

### **Chinese Rare Earth Monopoly**

idahostrategic.com

### U.S. REE Dependence<sup>5</sup>

U.S. imports ~58% of its REEs from China

U.S. REE 2021 production of 43,000 tonnes, compared to China's production of 168,000 tonnes

U.S. REE reserves estimated at 1,800,000 tonnes, compared to China's estimated reserves of 44,000,000 tonnes

China controls roughly 90% of the world's REE refining capabilities<sup>6</sup>

One primary REE mine in production in the U.S. that currently exports its production to China for processing





### **Uses of Rare Earth Elements**

idahostrategic.com

#### **Permanent Magnets:**

NdFeB – Neodymium Iron Boron Magnets SmCo – Samarium Cobalt Magnets

Key uses of REE permanent magnets include both decarbonization technologies like electric vehicles and wind turbines as well as national defense technologies such as the F-35 Fighter Jet and Virginia Class Submarine

In 2019, the U.S. Congress enacted a new requirement to prohibit the purchase of NdFeB and SmCo magnets from prohibited sources (incl. China)

In 2021, U.S. Congress enacted new regulations beginning in 2026 requiring all production steps, from mining to finished magnet to be completed outside of China (and others)



### **Rare Earth Market Projections**

idahostrategic.com

### Adamas Projected Global REE <u>Market<sup>7</sup></u>

\$3.8 billion market in 2022 to\$36.2 billion in 2035

Forecasted rare earth oxides consumption is projected for a CAGR of 19.1%

Primary growth drivers are led by electric vehicles (50%) and wind power generators (25%)

NdPr consumption expected to increase 11-fold by 2035 while DyTb are expected to increase 7 to 9-fold

#### \$35 Wind Power \$30 Other e-Mobility \$25 Commercial EVs **JSD** Billion Passenger EVs \$20 \$15 **Adamas Intelligence** \$10 \$5 \$0 2020 2028 2030 2035 2022 2023 2024 2025 2026 2027 2029 2032 2033 2034 2031 202

#### Value of Rare Earths Used in Energy Transition to Skyrocket to 2035

### **Global REE Production vs Demand**

idahostrategic.com

Metal	Symbol	Metal Estimated to Phase Out Fossil Fuels (tons)	2019 Global Metal Production (tons)	Years to Produce Metal at 2019 Rates
Neodymium	Nd	965,183	23,900	40.4
Praseodymium	Pr	235,387	7,500	31.4
Dysprosium	Dy	196,207	1,000	196.2
Terbium	Tb	16,771	280	59.9
Lanthanum	La	5,970,738	35,800	166.8

U.S. goal is for 100% carbon pollution free electricity by 2035

U.S. goal is for 50% of all new vehicles sold to be electric by 2030

U.S. goal is net-zero carbon emissions by 2050

### **Domestic Partners/Resources**

idahostrategic.com

#### **Government Resources**

- Defense Production Act Title 3 (DPA)
- Bipartisan Infrastructure Act
- Inflation Reduction Act (IRA)

#### State of Idaho Resources

- Idaho National Laboratory (INL)
- Center for Advanced Energy Studies
- University of Idaho
- Idaho Geological Survey

### U.S. Company Resources

Energy Fuels White Mesa Mill



DPA Title 3 allows for approximately \$850 million in funding for domestic critical minerals mining and processing<sup>14</sup>



IRA allows for up to \$502 billion in tax credits, grants, loans, and/or incentives for critical minerals and related clean energy technology<sup>15</sup>



INL is the leading nuclear lab and advance materials separations lab in the United States with a key focus on REE separation



EF owns and operates the only toll milling facility in the U.S. licensed to handle radioactive waste and monazite

idahostrategic.com

#### Our Approach to Environmental, Social, and Governance (ESG)

"It is our belief that successful operations begin with the heightened responsibility that only local oversight and a community mindset can provide. That the established outsider approach toward offshoring environmental damage and irresponsible work conditions – in the name of saving the environment – has finally run its course."

#### NIMBY Has Failed (Not In My Back Yard)

Offshoring Mineral Production to Countries without Environmental/Humanitarian Regulations

- Amplifies pollution and environmental damages from mining
- Unintentionally supports slave/child labor
- Saying "No" to everything has consequences, even beyond our borders



**Community Revitalization** 





Idaho DEQ Award



**Responsible Development** 

### **Contact Us**



idahostrategic.com



Corporate Office Idaho Strategic Resources, Inc. 201 N. 3rd St. Coeur d'Alene, ID 83814 P: (208) 625-9001 E: tswallow@idahostrategic.com W: http://www.idahostrategic.com

Kellogg Office Idaho Strategic Resources, Inc. P.O. Box 1019 Kellogg, ID 83837