



Northern Dynasty Minerals Ltd



THE PEBBLE PROJECT



HELPING TO SECURE AMERICA'S **GREEN FUTURE**

JANUARY 2022



TSX: **NDM**
NYSE AMERICAN: **NAK**



CAUTIONARY & FORWARD LOOKING INFORMATION

PLEASE REVIEW CAREFULLY

This presentation includes certain statements that may be deemed "forward-looking statements" under the United States Private Securities Litigation Reform Act of 1995 and under applicable provisions of Canadian provincial securities laws. All statements in this release, other than statements of historical facts, which address permitting, development and production for the Pebble Project are forward-looking statements. These include statements regarding (i) the mine plan for the Pebble Project, the financial results of the 2021 Preliminary Economic Assessment ("2021 PEA"), including net present value and internal rates of return, and the ability of the Pebble Partnership to secure the financing to proceed with the development of the Pebble Project, including any stream financing and infrastructure outsourcing, (ii) the social integration of the Pebble Project into the Bristol Bay region and benefits for Alaska, (iii) the political and public support for the permitting process, (iv) the ability to successfully appeal the negative Record of Decision and secure the issuance of a positive Record of Decision by the U.S. Army Corps of Engineers and the ability of the Pebble Project to secure all required federal and state permits, (v) the actions of the EPA with respect to its Proposed Determination with respect to the Pebble Project; (vi) the right-sizing and de-risking of the Pebble Project, including any determination to pursue any of the expansion scenarios for the Pebble Project or to incorporate a gold plant, (vii) the design and operating parameters for the Pebble Project mine plan, including projected capital and operating costs, (viii) exploration potential of the Pebble Project, (ix) future demand for copper and gold and the metals prices assumed for the financial projections including the 2021 PEA, (x) the potential addition of partners in the Pebble Project, and (xi) the ability and timetable of NDM to develop the Pebble Project and become a leading copper, gold and molybdenum producer. Although NDM believes the expectations expressed in these forward-looking statements are based on reasonable assumptions, such statements should not be in any way be construed as guarantees that the Pebble Project will secure all required government permits, establish the commercial feasibility of the Pebble Project, achieve the required financing or develop the Pebble Project. Such forward-looking statements or information related to the Preliminary Economic Assessment include but are not limited to statements or information with respect to the mined and processed material estimates; the internal rate of return; the annual production; the net present value; the life of mine; the capital costs, operating costs estimated for each of the Proposed Project and three Expansion Scenarios for the Pebble Project; and other costs and payments for the proposed infrastructure for the Pebble Project (including how, when, where and by whom such infrastructure will be constructed or developed); projected metallurgical recoveries; plans for further development, and securing the required permits and licenses for further studies to consider expansion of the operation; and market price of precious and base metals; or other statements that are not statement of fact.

Forward-looking statements are necessarily based upon a number of factors and assumptions that, while considered reasonable by NDM as of the date of such statements, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Assumptions used by NDM to develop forward-looking statements include the assumptions that (i) the Pebble Project will obtain all required environmental and other permits and all land use and other licenses without undue delay, (ii) any feasibility studies prepared for the development of the Pebble Project will be positive, (iii) NDM's estimates of mineral resources will not change, and NDM will be successful in converting mineral resources to mineral reserves, (iv) NDM will be able to establish the commercial feasibility of the Pebble Project, and (v) NDM will be able to secure the financing required to develop the Pebble Project. The likelihood of future mining at the Pebble Project is subject to a large number of risks and will require achievement of a number of technical, economic and legal objectives, including (i) obtaining necessary mining and construction permits, licenses and approvals without undue delay, including without delay due to third party opposition or changes in government policies, (ii) finalization of the mine plan for the Pebble Project, (iii) the completion of feasibility studies demonstrating that any Pebble Project mineral resources that can be economically mined, (iv) completion of all necessary engineering for mining and processing facilities, (v) the inability of NDM to secure a partner for the development of the Pebble Project, and (vi) receipt by NDM of significant additional financing to fund these objectives as well as funding mine construction, which financing may not be available to NDM on acceptable terms or on any terms at all. NDM is also subject to the specific risks inherent in the mining business as well as general economic and business conditions, such as the current uncertainties with regard to COVID-19. Investors should also consider the risk factors identified in its Annual Information Form for the year ended December 31, 2020, as filed on SEDAR and included in the Company's annual report on Form 40-F filed by the Company with the SEC on EDGAR.

The National Environment Policy Act Environmental Impact Statement process requires a comprehensive "alternatives assessment" be undertaken to consider a broad range of development alternatives, the final project design and operating parameters for the Pebble Project and associated infrastructure may vary significantly from that currently contemplated. As a result, the Company will continue to consider various development options and no final project design has been selected at this time, and no determination has been made to pursue any of the expansion options identified in the 2021 PEA.

The technical information contained in this presentation has been reviewed and approved by qualified persons who are not independent of NDM. Information on geology, drilling and exploration potential was reviewed by James Lang, PGeo., Mineral Resources by David Gaunt, PGeo., and the 2021 PEA and other engineering by Stephen Hodgson, PEng.

The 2021 PEA is preliminary in nature, and includes Inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no assurance that the 2021 PEA will be realized. Mineral Resources that are not mineral reserves do not have demonstrated economic viability.

For more information on the Company, Investors should review the Company's filings with the United States Securities and Exchange Commission at www.sec.gov and its home jurisdiction filings that are available at www.sedar.com.



INVESTMENT HIGHLIGHTS



COPPER: AN IMPORTANT METAL FOR AMERICA'S GREEN FUTURE

- A strategic metal for renewable energy & green technologies
- Critical metal for electric vehicles & associated infrastructure
- Renewable energy systems use up to 12 times more copper (per unit of energy produced) than conventional power systems¹
- Copper consumption predicted to rise 40% by 2035 & more than 100% by 2050²

1. Source: <https://copperalliance.org.uk/coverage-future-copper-demand/>
 2. Source: <https://stockhead.com.au/resources/glencore-has-some-stunning-figures-on-the-levels-of-battery-metals-the-world-will-need-by-2050/>
 3. Source: Final Environmental Impact Statement for the Pebble Project July 2020



PEBBLE: A U.S.-BASED WORLD CLASS RESOURCE

- Among the globe's greatest accumulations of metal
- Potential domestic solution to U.S. foreign supply chain dependence of critical minerals
- Cu/Au/Mo/Ag/Re grades facilitate near-term development
- Untapped exploration upside



PEBBLE: A PATH FORWARD

- Updated PEA* released in Fall 2021
- Pebble deposit provides optionality
- NDM's administrative appeal of U.S. Army Corps' denial of Federal ROD** has been accepted and the appeal process is underway
- Legal options being considered

* PEA = Preliminary Economic Assessment ([Link](#))
 ** ROD = Record of Decision



PEBBLE: THE RIGHT MINE AT THE RIGHT TIME

- Final EIS: No Measurable Impact on Fisheries with Significant Social/Economic Benefits Expected³
- Local and regional capital investment
- GDP & government revenue growth expected
- Experienced Management

TSX: **NDM**
 NYSE AMERICAN: **NAK**

RIGHTMINERIGHTTIME.COM



COPPER



AN IMPORTANT METAL
FOR AMERICA'S
GREEN FUTURE



TSX: **NDM**
NYSE AMERICAN: **NAK**

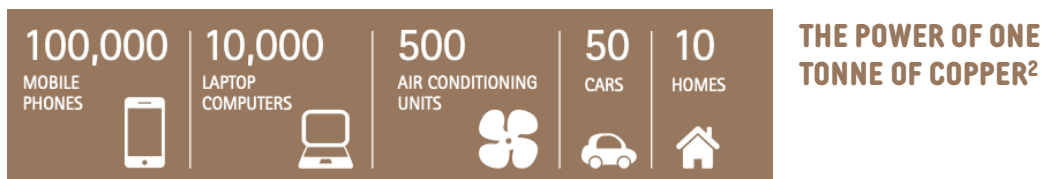


COPPER IS AN ESSENTIAL METAL FOR THE GREEN ECONOMY¹

Copper is a strategic metal in powering renewable energy systems and green technologies due to its properties:

- Electrical Conductivity increases efficiency
- Thermal Management allows rapid heating and cooling
- Durability withstands pressure and extreme temperatures
- Anti-Corrosive maintains integrity
- Versatile processed for numerous industries & products

Copper based products increase economic efficiency and environmental performance in multiple applications across the energy, healthcare, IT, industrial, transportation and building sectors



Global shift to green technologies expected to increase consumption >40% by 2035 & more than 100% by 2050

- Renewable power systems up-to twelve times more copper-intensive than conventional power systems
- Average electric vehicle (EV) contains triple the copper of an internal combustion car

In 2020, globally, >\$500 billion dollars invested in the carbon-free energy transition (renewables, electric heat, energy storage, and electrified transport)

- Includes \$304 billion in renewable energy & \$139 billion in electric transportation
- Electric transportation investment growth predicted to outpace and exceed renewable energy by 2025 (20.8% vs. 0.1%)

1. Source: <https://copperalliance.org/about-copper/the-copper-industry/>
 2. Source: <https://copperalliance.eu/resources/coppers-contribution-low-carbon-future>
 3. Source: <https://stockhead.com.au/resources/glencore-has-some-stunning-figures-on-the-levels-of-battery-metals-the-world-will-need-by-2050/>

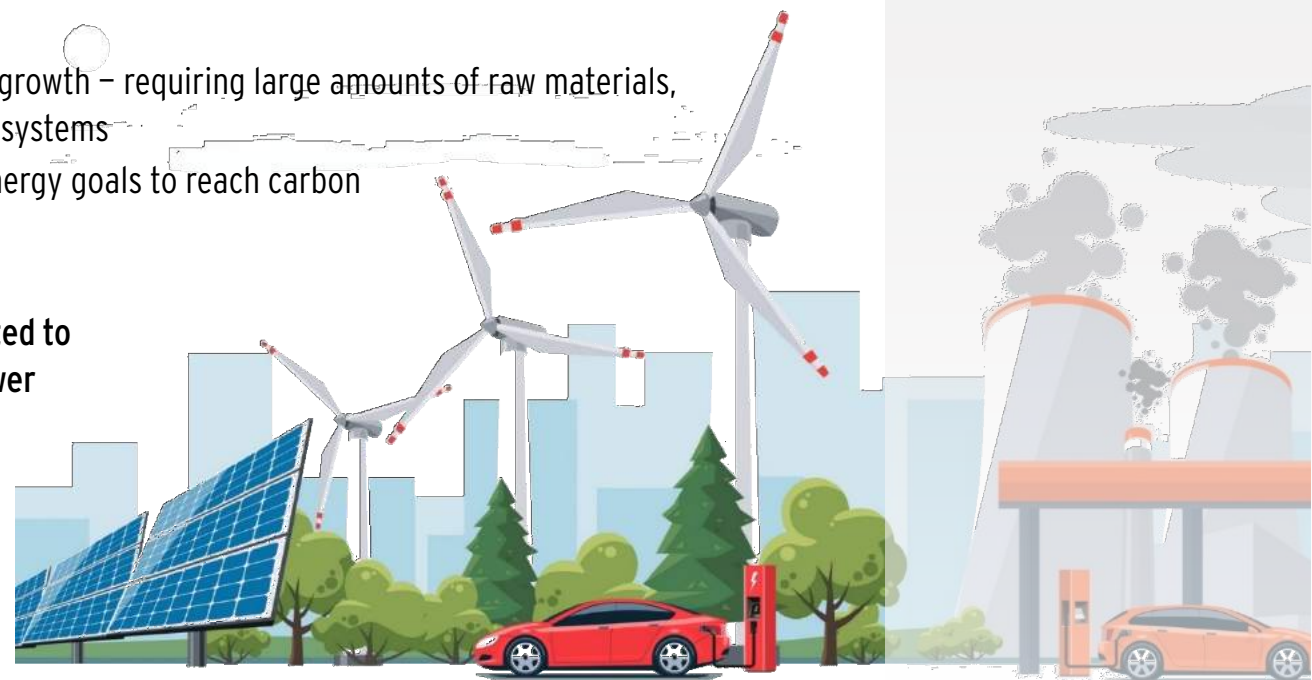


POST-COVID RECOVERY CENTERED ON CLEAN ENERGY TRANSITION

- 🌐 **Global increase in emphasis and dedication of resources for a swift transition to clean energy**
 - Copper demand expected to grow to achieve these objectives
 - One tonne of copper used in rotating machines, such as an electric motor or a wind turbine saves 7,500 tonnes of CO₂ emissions over its lifetime

- 🌐 **Transition to clean energy embedded in several key economic recovery policies in Asia, Europe and North America**
 - President Biden’s Build Back Better economic recovery plan focuses on modern, sustainable infrastructure and a clean energy future
 - EU Green Deal calls for clean energy for green recovery and growth – requiring large amounts of raw materials, including copper, for EVs, smart grids and renewable energy systems
 - China’s 14th Five-Year Plan calls for aggressive sustainable energy goals to reach carbon neutrality by 2060

- 🌐 **Governments and companies around the world have committed to adding some 826 gigawatts of new non-hydro renewable power capacity by 2030, at a likely cost of around \$1 trillion¹**



Sources: <https://sustainablecopper.org/2020-trends-a-year-in-review/>
 1. https://www.fs-unep-centre.org/wp-content/uploads/2020/06/GTR_2020.pdf



COPPER IS USED EXTENSIVELY IN EVS AND SUPPORTING INFRASTRUCTURE^{1,2,3}

🌍 Significant Increase in Electric Transportation Demand

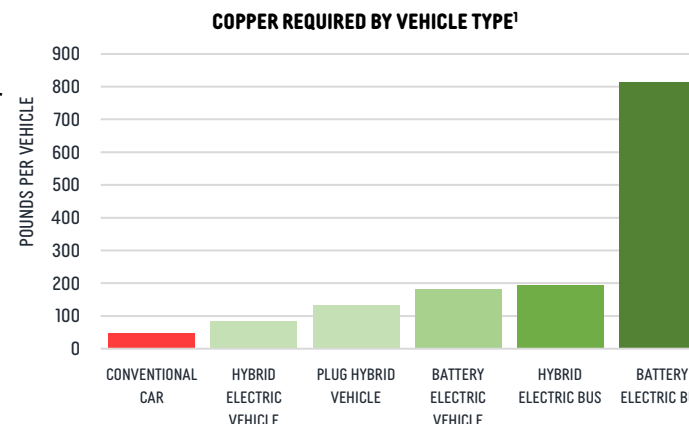
- Globally, battery-powered and hybrid vehicles could increase from just over 5 million to nearly 140 million by 2030
- Shipping and aviation also making electrification progress

🌍 Infrastructure for EV charging continues to expand

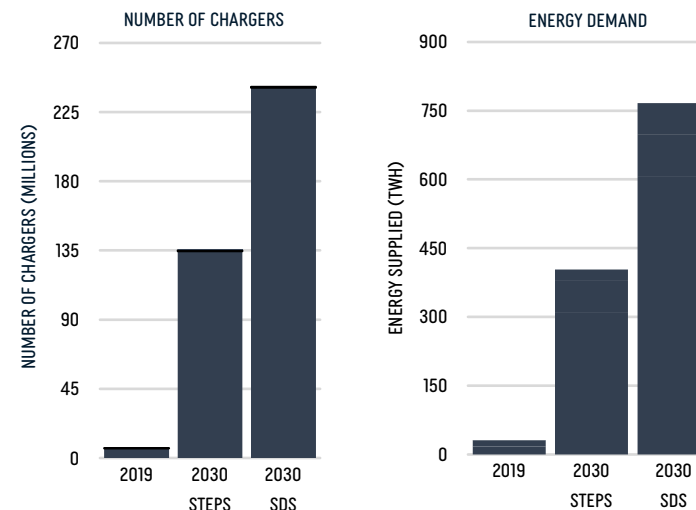
- Quantity of public chargers is growing the fastest in China, followed by Europe, then the U.S.
- If nations increase their investment in charging infrastructure and provide additional incentives, battery-powered and hybrid vehicles could increase (from the initial projection of 140 million) to closer to 240 million

🌍 Electricity demand expected to increase dramatically to support electric transportation

- As the demand for electric transportation and related infrastructure grows, so will the need for additional renewable power sources



LINK BETWEEN INCREASE IN CHARGING INFRASTRUCTURE & ELECTRICITY DEMAND²



STEPS: STATED POLICY SCENARIO SDS: SUSTAINABLE DEVELOPMENT SCENARIO

1. <https://www.iea.org/reports/electric-vehicles>
 2. IEA (2020), Global EV Outlook 2020, IEA, Paris <https://www.iea.org/reports/global-ev-outlook-2020>
 3. Transport & Environment (2020), Recharge EU: How many charge points will EU countries need by 2030



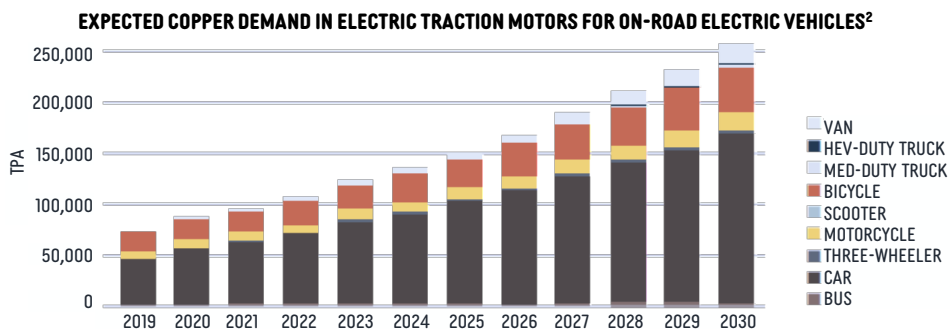
THE METAL THAT DRIVES ELECTRIC TRANSPORTATION¹

Government policies directly impact adoption of electric transportation

In 2019, more than 90% of global car markets (>50 countries) had incentives in place for EV sales, often in the form of subsidy or tax reduction

17 countries announced 100% zero-emission vehicle targets or phase-out of internal combustion engine vehicles through 2050

- President Biden signed Executive Order aiming to convert ~645,000 federal vehicles (from postal trucks to passenger vans) to electric power; up from 4,475 in 2019
- In December 2019, France was first country to enact into law with a 2040 timeframe
- 60% of global car sales covered by China's NEV mandate, EU CO₂ emissions standard or ZEV mandate (in selected U.S. states and Canada)



1. IEA (2020), Global EV Outlook 2020, IEA, Paris <https://www.iea.org/reports/global-ev-outlook-2020>
 2. ICU (March 2020) Copper demand in electric traction motors 2020 - 2030; Study author: IDTechEX

	TARGET	INITIATIVE
CHINA	2020, 2025	5 MILLION EVS ON THE ROAD BY 2020 & THE PRODUCTION OF 7 MILLION EVS ANNUALLY BY 2025
GERMANY	2030	CHANGE TO TAXES & INCENTIVES TO ACHIEVE ONLY ZERO EMISSIONS SALES
INDIA	2030	BAN ON THE SALE OF PETROL AND DIESEL CARS
UNITED STATES	2030-35	PROPOSED 100% CLEAN ELECTRICITY BY 2035 & ADDING 500,000 PUBLIC CHARGING STATIONS
FRANCE	2040	BAN ON THE SALE OF CARS EMITTING GREENHOUSE GASES
UNITED KINGDOM	2040	BAN ON THE SALE OF ALL PETROL & DIESEL CARS & VANS



SIGNIFICANT DEFICIT FORECAST FOR COPPER

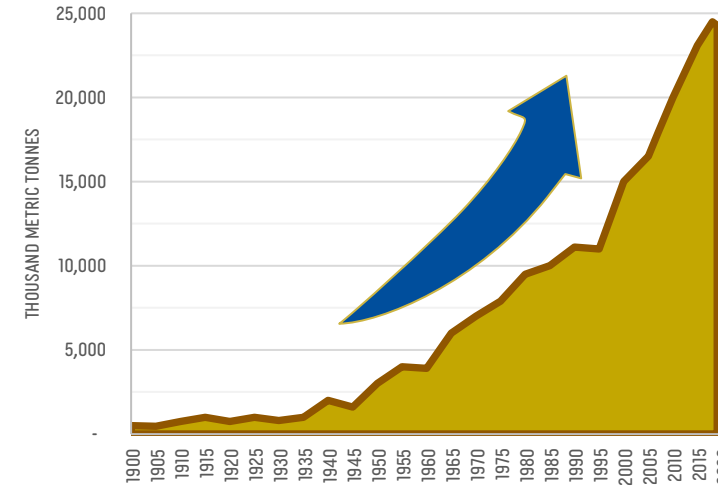
- 👤 **Copper Bull-Market now fully under way¹**
 - “The bull market for copper is now fully underway with prices up 50% from the 2020 lows, reaching their highest level since 2017”

- 👤 **Prices buoyed by supply disruptions, plans for “green” economic stimulus and China’s swift recovery from the coronavirus crisis**
 - Goldman Sachs recently increased the Bank’s forecast for copper to US\$12,000/mt (approx. US\$5.40/lb), seeing 20%+ upside this year, as the metal reaches all-time highs over the coming 12 months²
 - Bank of America expects copper to reach US\$20,000/mt by 2025 due to an expected supply/demand imbalance³

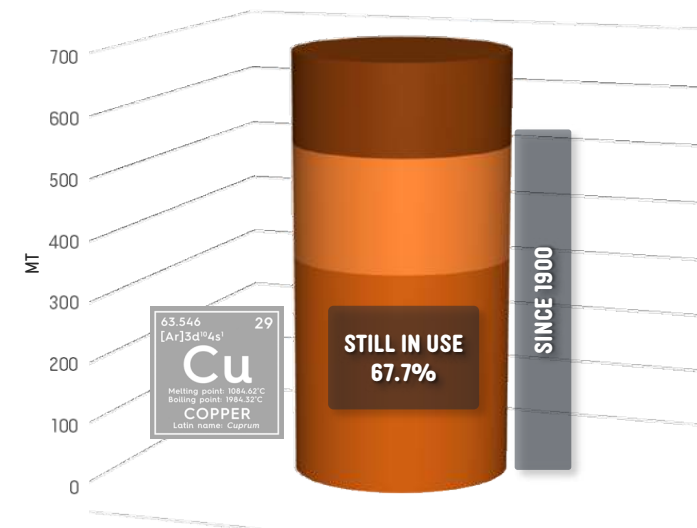
- 👤 **Global focus on carbon neutrality driving copper demand from ~23 million tons in 2020 to >30 million tons by 2030, potentially doubling by 2050⁴**

- 👤 **Copper demand will be driven by:**
 - 📈 Global Growth
 - 📈 Renewable Energy & Electric Transportation
 - 📈 Urbanisation
 - 📈 Electrification & Battery Storage

WORLD REFINED COPPER USAGE (1900-2018)⁵



HISTORICAL COPPER USAGE^{6,7}



1. Source: The Goldman Sachs Group, Inc., "Copper: Charting a course to \$10,000/lb" 1 December 2020
 2. <https://www.cnn.com/2021/05/06/copper-is-the-new-oil-and-could-hit-20000-per-ton-analysts-say.html>
 3. <https://www.cnn.com/2021/05/06/copper-is-the-new-oil-and-could-hit-20000-per-ton-analysts-say.html>
 4. Source: <https://stockhead.com.au/resources/glenore-has-some-stunning-figures-on-the-levels-of-battery-metals-the-world-will-need-by-2050/>
 5. Source: CRU Presentation/Study Groups
 6. <https://www.usgs.gov/centers/national-minerals-information-center/copper-statistics-and-information>
 7. <https://copperalliance.org/wp-content/uploads/2021/08/ica-copper-recycling-201712-A4-HR2.pdf>



WHERE WILL THE U.S. GET ITS COPPER?

- World's top copper projects predominantly located outside of the U.S
 - 70% of contained copper in top copper projects is foreign based
- Pebble ranks as the largest undeveloped copper project globally
 - 21% of contained copper of top copper projects
 - 72% of contained copper of top U.S. located projects

COMPARATIVE SIZE OF WORLD'S TOP COPPER PROJECTS BY CONTAINED COPPER



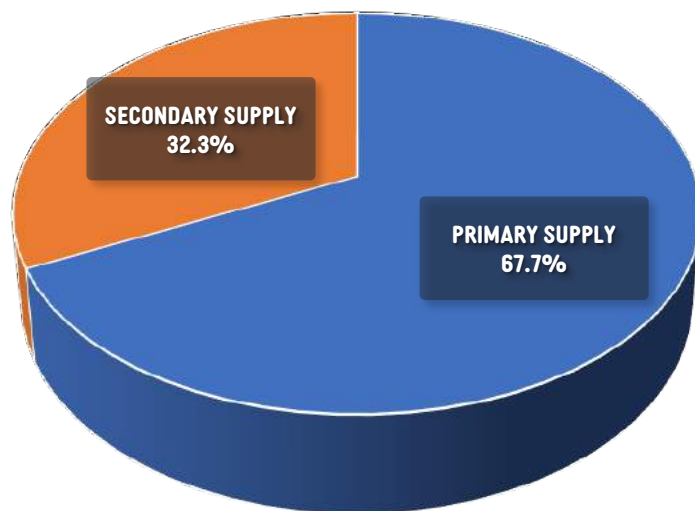
Source: Mining Intelligence 2021



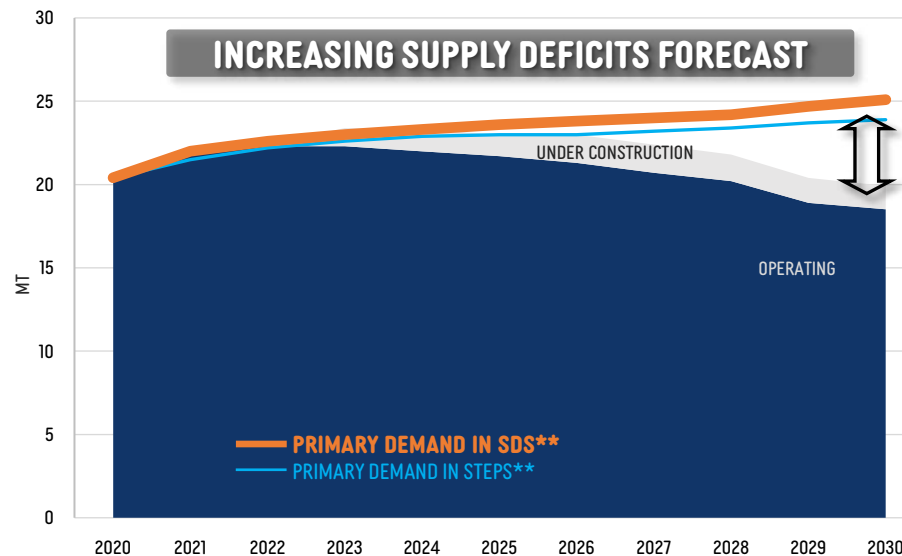
RECYCLING CANNOT FILL SUPPLY GAP

- The low-carbon, sustainable economy—with additional renewables and electric vehicles, greater energy efficiency and electrification—will require a nearly endless supply of metals, both from responsible mining and recycling¹
- Even a 100 percent end-of-life recycling rate for metals would not be enough to meet the growing demand for clean energy technologies¹
- Global manufacturers (from 2006 to 2015) used 25 million tonnes of copper, 35% of which was recycled copper².
 - Currently, a total of around 8.5 million tonnes of copper per year come from the recycling of “old” scrap (copper contained in end-of-life products) and “new” scrap (generated during production and downstream manufacturing processes).

ESTIMATED PRIMARY SUPPLY REQUIREMENTS FOR COPPER IN 2040³



COMMITTED MINE PRODUCTION AND PRIMARY DEMAND FOR COPPER⁴
(PRIMARY DEMAND IS TOTAL DEMAND NET OF RECYCLED VOLUME)



1. <https://copperalliance.org/policy-focus/society-economy/circular-economy/>
 2. <https://sn.astm.org/features/bright-future-recycled-copper-jf22.html>
 3. IEA, Primary supply requirements for copper by scenario, 2020-2040, IEA, Paris <https://www.iea.org/data-and-statistics/charts/primary-supply-requirements-for-copper-by-scenario-2020-2040>
 4. IEA, Committed mine production and primary demand for copper, 2020-2030, IEA, Paris (May 2021)

* IEA's Stated Policies Scenario (STEPS) and the Sustainable Development Scenario (SDS)
 **



PEBBLE



**A WORLD CLASS
RESOURCE IN THE U.S.**



TSX: **NDM**
NYSE AMERICAN: **NAK**



PEBBLE

A WORLD CLASS MINERAL RESOURCE

- RESOURCES**
- 6.5 B tonnes of Measured & Indicated
 - 4.5 B tonnes of Inferred

	MEASURED & INDICATED	INFERRED
COPPER	57 B LB	25 B LB
GOLD	71 M OZ	36 M OZ
MOLYBDENUM	3.4 B LB	2.2 B LB
SILVER	345 M OZ	170 M OZ
RHENIUM	2.6 M KG	1.6 M KG

* Refer to table of Measured, Indicated and Inferred Resources in Appendix





IMPORTANT METALS

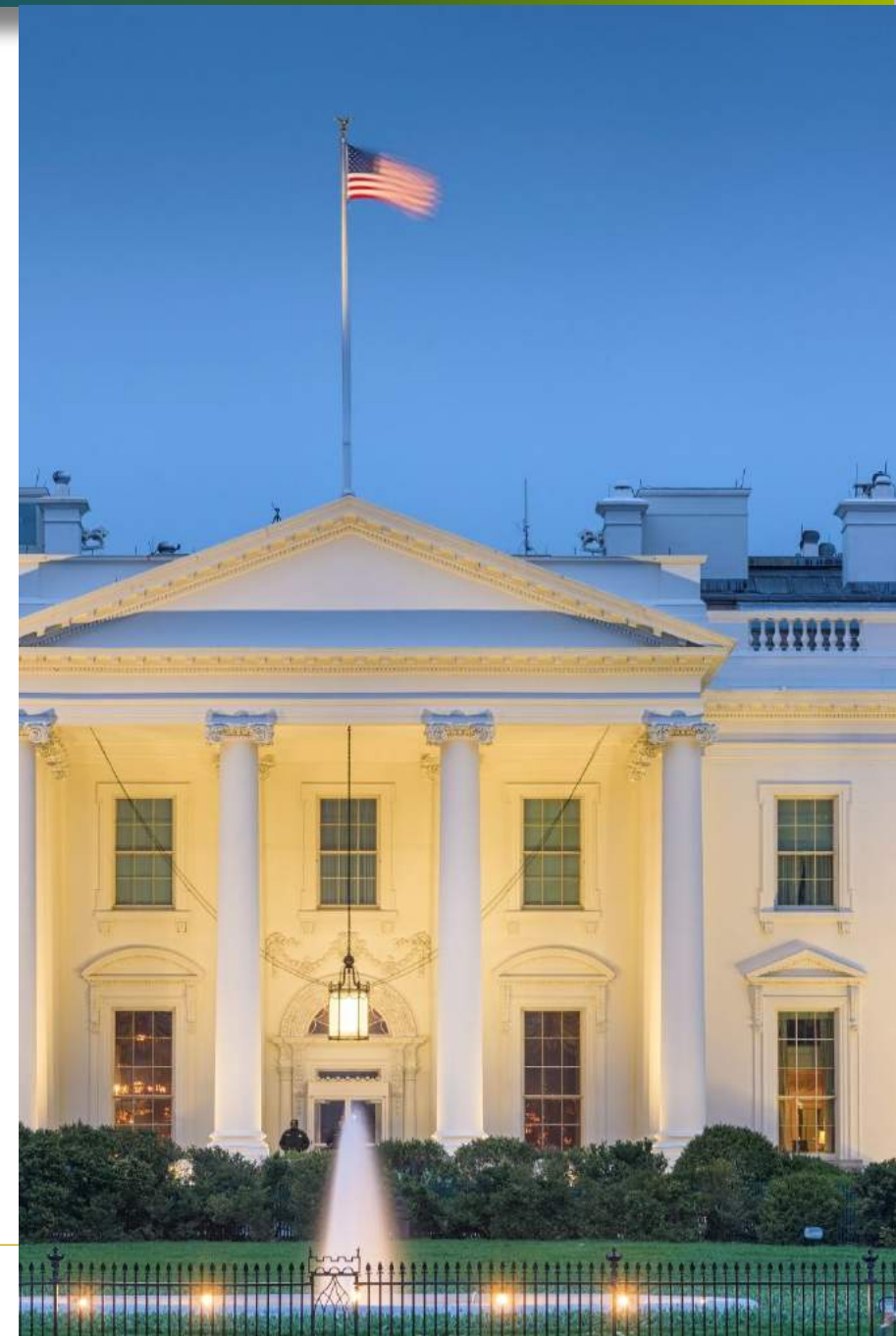
“We Know We Can Mine In A Responsible Way”

- 👤 Consecutive Federal Administrations have focused on the supply of important minerals

- 👤 President Trump signed an Executive Order² declaring a national emergency in the mining industry
 - Directs Interior Department to explore using the Defense Production Act to speed up mine development
 - “The action will cut down on unnecessary delays in permitting actions, providing Americans opportunities for jobs and improving economic and national security”³

- 👤 President Biden’s Energy Secretary supports increasing U.S. mining to help meet the demand for raw materials required to make batteries that power electric vehicles and store renewable electricity
 - “We are missing a massive opportunity for our own security, but also for a market for our trading partners who may want to have access to minerals that are produced in a responsible way,” Energy Secretary nominee Jennifer Granholm¹

1. <https://www.energy.senate.gov/hearings/2021/1/hearing-to-consider-nomination-of-the-honorable>
 2. https://www.whitehouse.gov/presidential-actions/executive-order-addressing-threat-domestic-supply-chain-reliance-critical-minerals-foreign-adversaries/?utm_source=link/
 3. <https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-protecting-domestic-mining-industry-critical-minerals-supply-chains/>





U.S. DEPENDENT ON FOREIGN IMPORTS OF IMPORTANT METALS

METAL	NET IMPORTS	U.S. IMPORT RELIANCE ¹			KEY USES
		CURRENT	WITH PEBBLE	% POTENTIAL REDUCTION	
COPPER (KT)	640	35%	27%	(8%)	CONSTRUCTION; TRANSPORTATION; ELECTRONICS; CLEAN AND RENEWABLE ENERGY TECHNOLOGIES
RHENIUM (KG)	39	82%	57% ²	(25%) ²	HIGH-OCTANE FUELS; JET ENGINES
SILVER (KT)	4	68%	67%	(1%)	ELECTRONICS AND ELECTRICAL APPLICATIONS

PEBBLE COULD BE A KEY DOMESTIC SOURCE OF IMPORTANT MINERALS

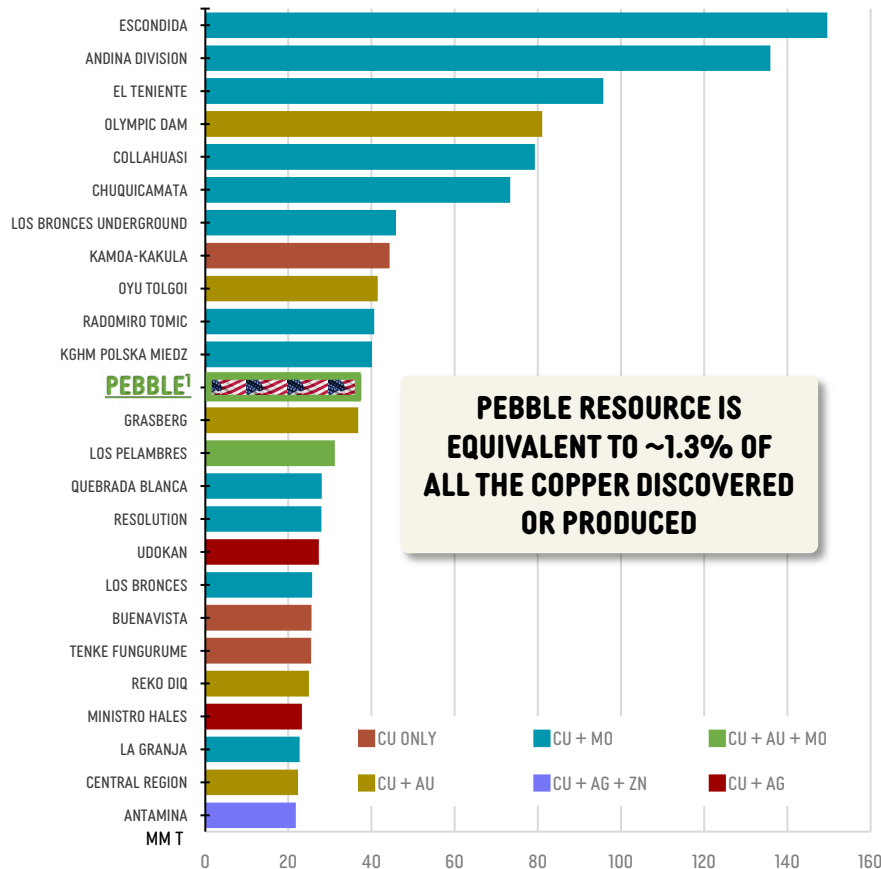
Source: <https://pubs.usgs.gov/periodicals/mcs2020/mcs2020.pdf>

1. Analysis assumes all foreign processed metal returns to the US; Numbers may be not add due to rounding
2. Based on proposed production of 15,000 tons year of molybdenum concentrate with a rhenium content of 900 ppm



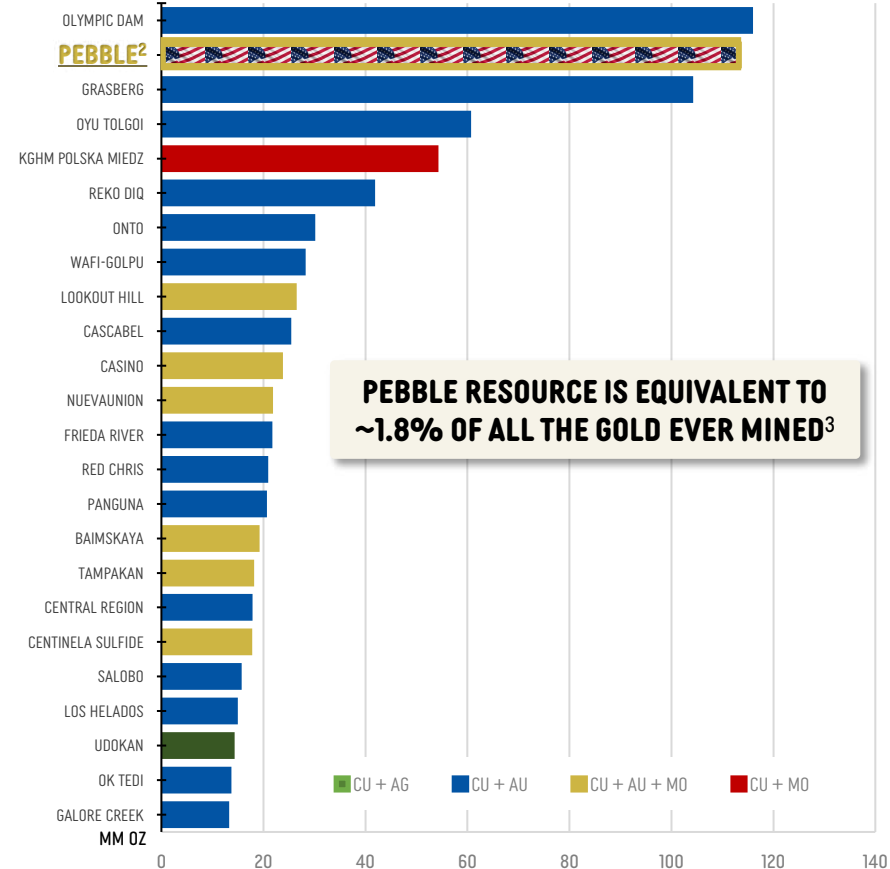
PEBBLE A GLOBALLY SIGNIFICANT COPPER AND GOLD RESOURCE

GLOBAL RANKING OF PRIMARY COPPER DEPOSITS CONTAINED COPPER



Source: Company filings, S&P Global Market Intelligence; BMO Capital Markets
 Note: Includes inferred resource.
 1. At 0.30% Cu Eq. cut-off.

GLOBAL RANKING OF PRIMARY COPPER DEPOSITS CONTAINED PRECIOUS METALS¹



Source: Company filings, S&P Global Market Intelligence, street research; BMO Capital Markets
 Note: Includes inferred resource.
 1. Converted to Au Eq. at street consensus Au price of US\$1,618/oz and Ag price of US\$21.14/oz
 2. At 0.30% Cu Eq. cut-off.
 3. Source: World Gold Council (<https://www.gold.org/about-gold/facts-about-gold>) says that about 187,000 tonnes of gold have been mined since the beginning of civilization. Pebble resource represents 3,273 T (10,910,000,000 tonnes x 0.30 g/t = 3,273 T).



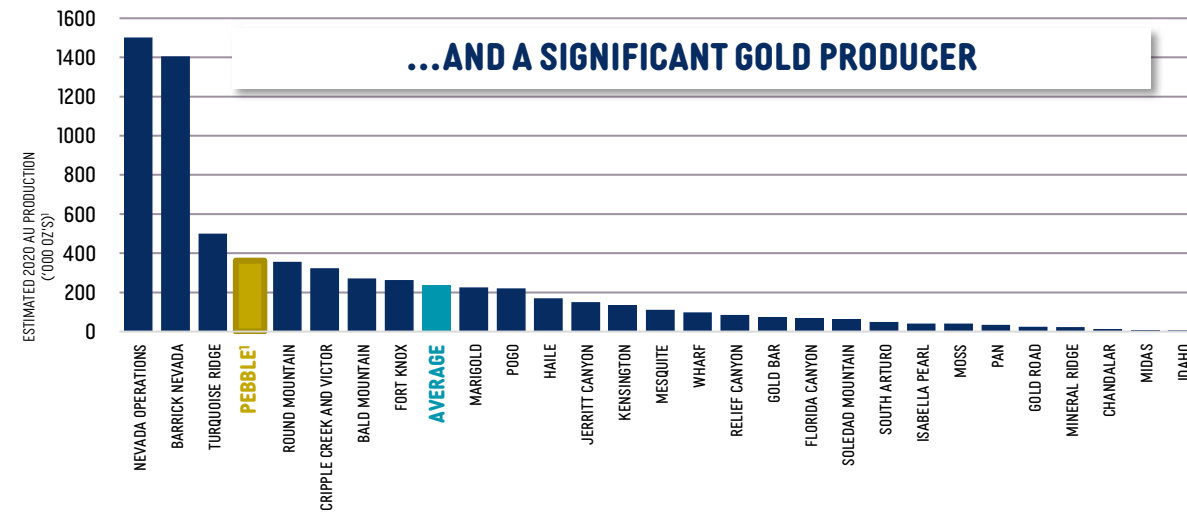
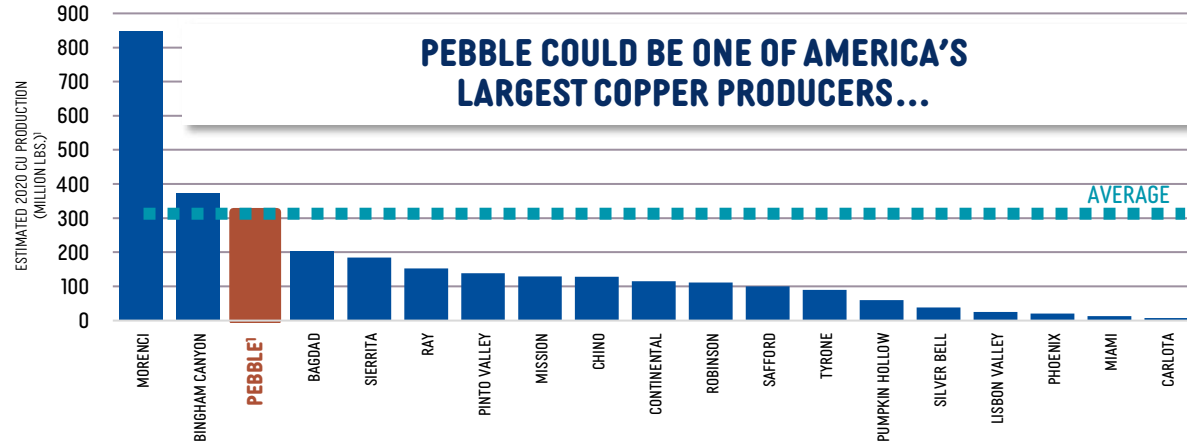
PEBBLE A POTENTIAL LEADING U.S. METALS PRODUCER

Average annual metal production over 20 years of mining:

- 616,000 tons of copper gold-concentrate
- 320 million lb copper
- 363,000 oz gold
- 1.8 million oz silver
- 15,000 tons of molybdenum concentrate
- 14 million lb molybdenum
- 12,000 kg rhenium²

Significant new gold discoveries are decreasing³

Pebble hosts world's largest undeveloped gold resource⁴



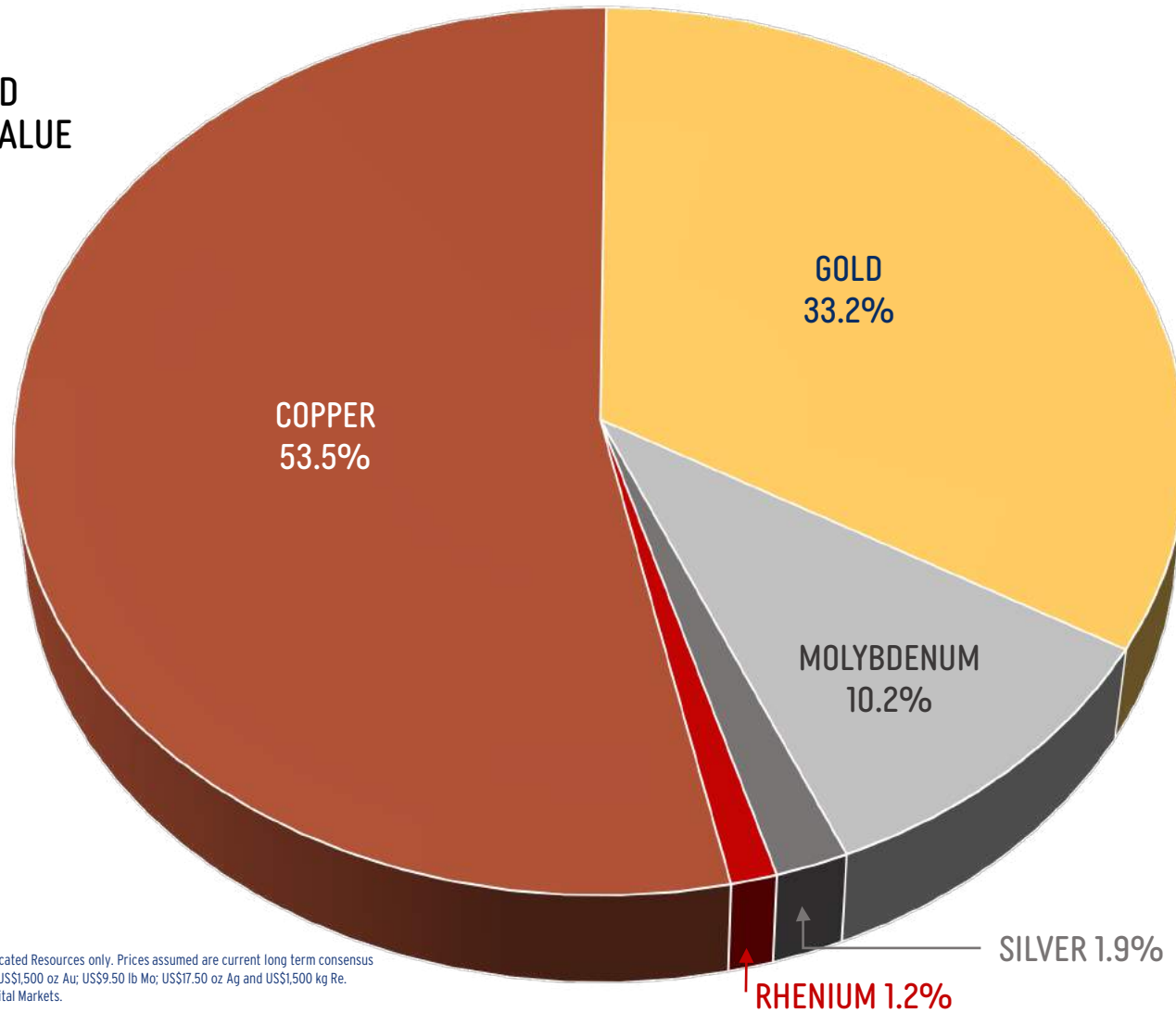
Source: BMO Capital Markets, SNP, S&P Global Market Intelligence

1. Estimated Production per Permitting Case
 2. Based on proposed production of 15,000 tons year of molybdenum concentrate with a rhenium content of 900 ppm.
 3. Mining Journal May 3 2018, S&P Global Market Intelligence's Annual Gold Discoveries Report
 4. See Global Ranking of Porphyry Deposits, Contained Copper and Contained Gold in this presentation



PEBBLE METAL VALUE COMPARISONS




ANTICIPATED
RELATIVE VALUE
BY METAL



Note: Based on Measured and Indicated Resources only. Prices assumed are current long term consensus forecasts of US\$3.00 lb Cu; US\$1,500 oz Au; US\$9.50 lb Mo; US\$17.50 oz Ag and US\$1,500 kg Re.
Source: Company data and BMO Capital Markets.



PEBBLE: GOOD FOR AMERICA - DOMESTIC LOW COST PRODUCTION WHEN THE U.S. NEEDS IT THE MOST

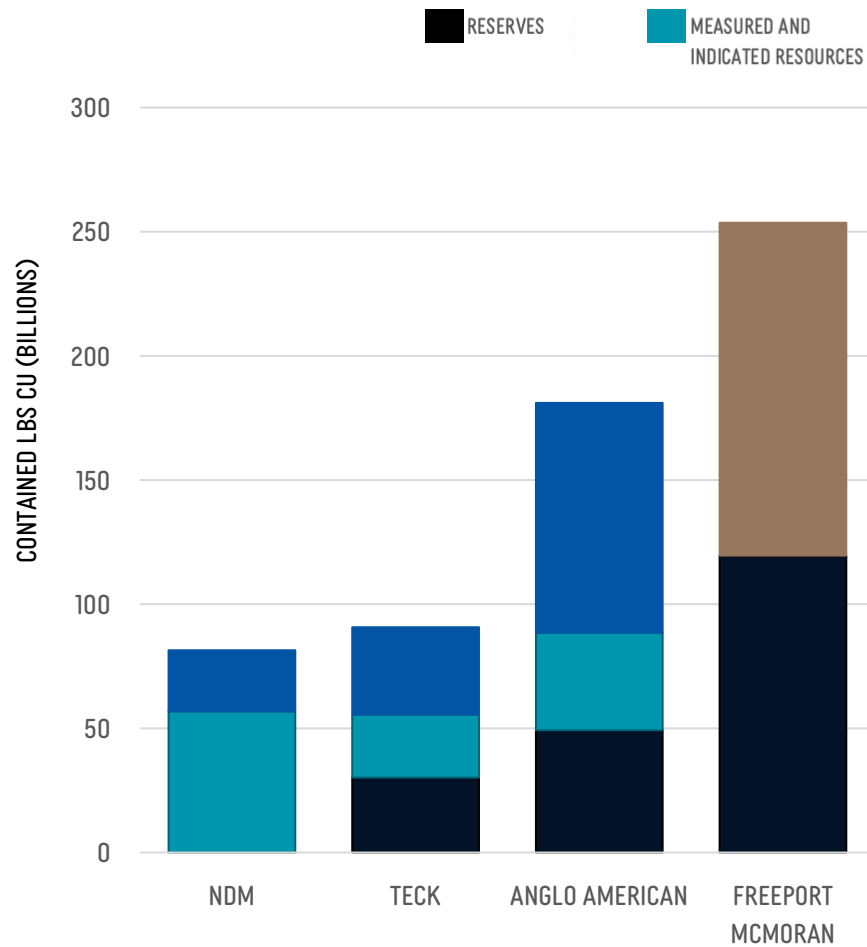
-  As the largest undeveloped copper, gold and rhenium resource in the world, Pebble has the potential to produce vast quantities of critical minerals and metals – including those for which the U.S. currently relies on foreign producers for a significant proportion of its needs.
 - Copper, in particular, is considered to be critical for renewable energy and electrification technologies, including EVs
-  In order to achieve its vision for global leadership in transitioning to a low-carbon future, the U.S. simply must develop its own domestic sources of copper and other critical metals
-  This would demonstrate to the rest of the world what environmentally sound and socially responsible mining looks like
 - Providing end users with a proper Environmental, Social, and Corporate Governance (“ESG”) metrics by which all minerals and metals production can be sustainably and environmentally produced

IN A GLOBAL CONTEXT, PEBBLE COULD FURTHER STRENGTHEN
THE U.S. POSITION AS ONE OF THE MOST IMPORTANT COPPER PRODUCERS IN THE WORLD
AT A TIME WHEN THE U.S. AND THE WORLD NEEDS MORE COPPER
TO MEET ITS FUTURE LOW CARBON ENERGY GOALS.



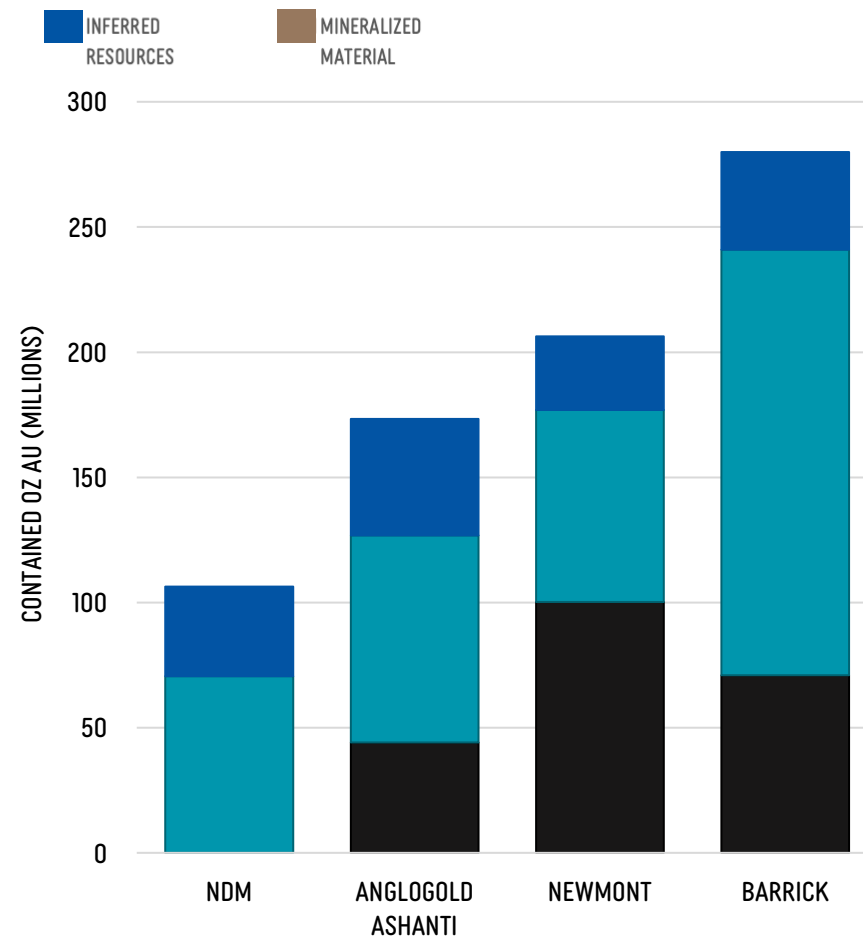
PEBBLE COMPARISONS

CONTAINED COPPER AT PEBBLE VERSUS RESERVE & RESOURCE BASE OF SELECT MAJOR COPPER PRODUCERS



1. Source material (s), calculation assumptions and/or methodology are listed in the appendixes at the end of presentation

CONTAINED GOLD AT PEBBLE VERSUS RESERVE & RESOURCE BASE OF SELECT MAJOR GOLD PRODUCERS



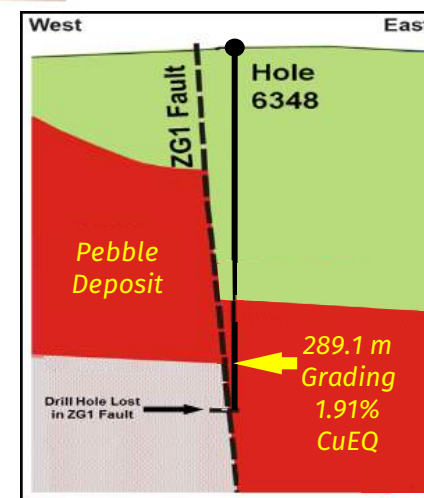
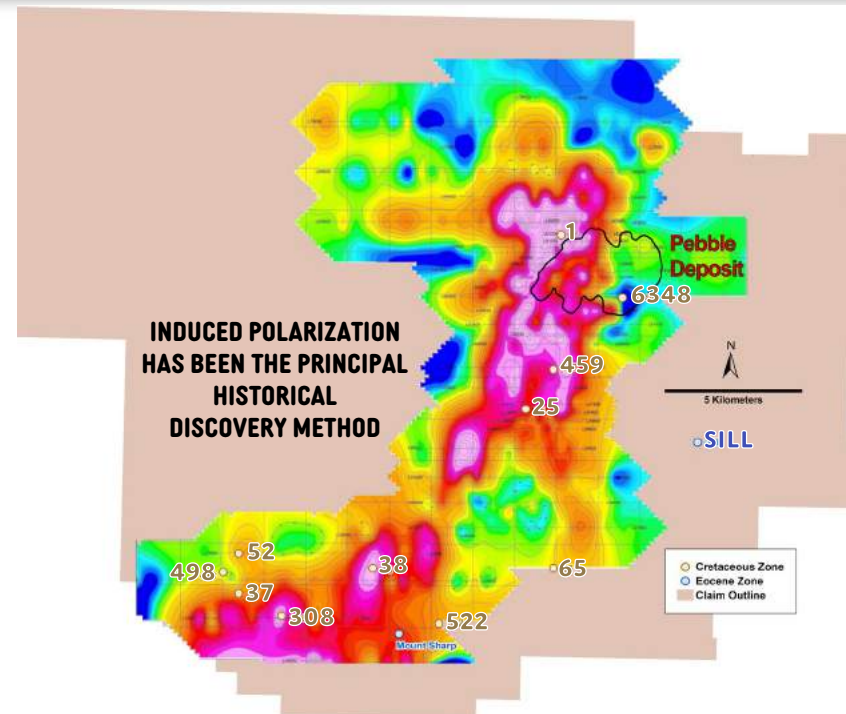
1. Source material (s), calculation assumptions and/or methodology are listed in the appendix at the end of presentation



PEBBLE UNTAPPED EXPLORATION POTENTIAL

WORLD'S MOST EXTENSIVE MINERAL SYSTEM¹

- A zone of sulphide mineralization is indicated by an induced polarization chargeability anomaly at least 25 km by 7 km in size
- Sulphides and hydrothermal alteration confirmed by drilling that discovered mineralization in 11 zones outside the Pebble deposit
- Many other targets have been identified by magnetic and electromagnetic geophysical surveys and geochemical methods but have not been drill tested
- There is good potential for a cluster of deposits to occur in the vicinity of Pebble
- Pebble Deposit open at depth and to the east
 - Highest grades at Pebble offset by the East Graben
 - Faulting was a post-mineralization event; patterns west of the ZG1 Fault may be repeated to the east
 - DDH-6348 intersected 289.1 m grading 1.91% CuEQ² below cover rocks in the graben - no follow up



1. Source: USGS.
 2. CuEQ uses metal prices: \$3.00/lb Cu; \$1,400/oz Au; \$9.50/lb Mo. Individual grades are 1.24% Cu, 0.79 g/t Au, 0.042% Mo



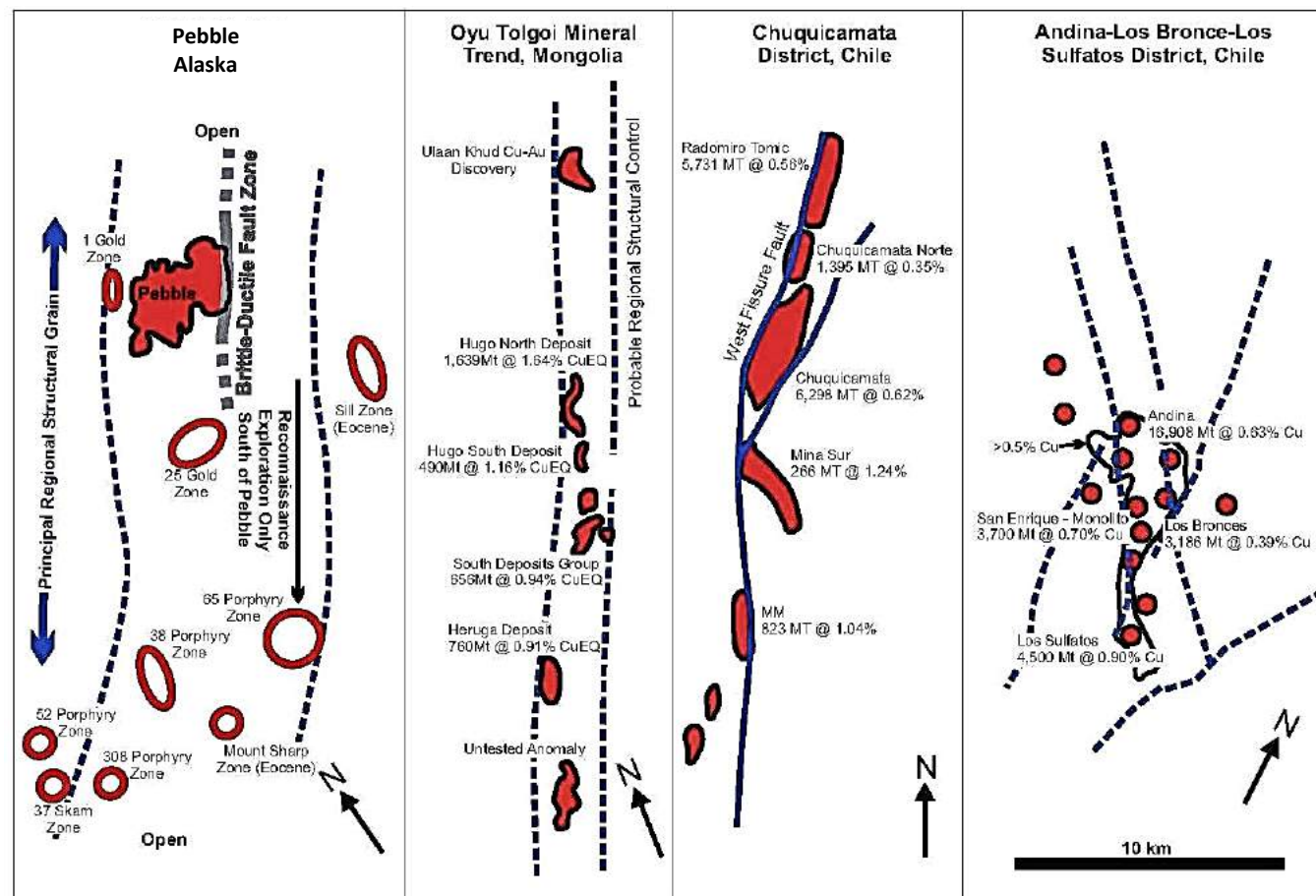
PEBBLE MAY HOST OTHER MAJOR DEPOSITS

At ~11 Bt, Pebble is already one of the largest porphyry deposits ever discovered, yet there is significant geological potential to discover other major porphyry deposits, which commonly occur in clusters

The extent of mineralization at Pebble is comparable to:

- Oyu Tolgoi
- Chuquicamata
- Los Bronces/ Andina

Exploration potential at deposit and within region is noteworthy

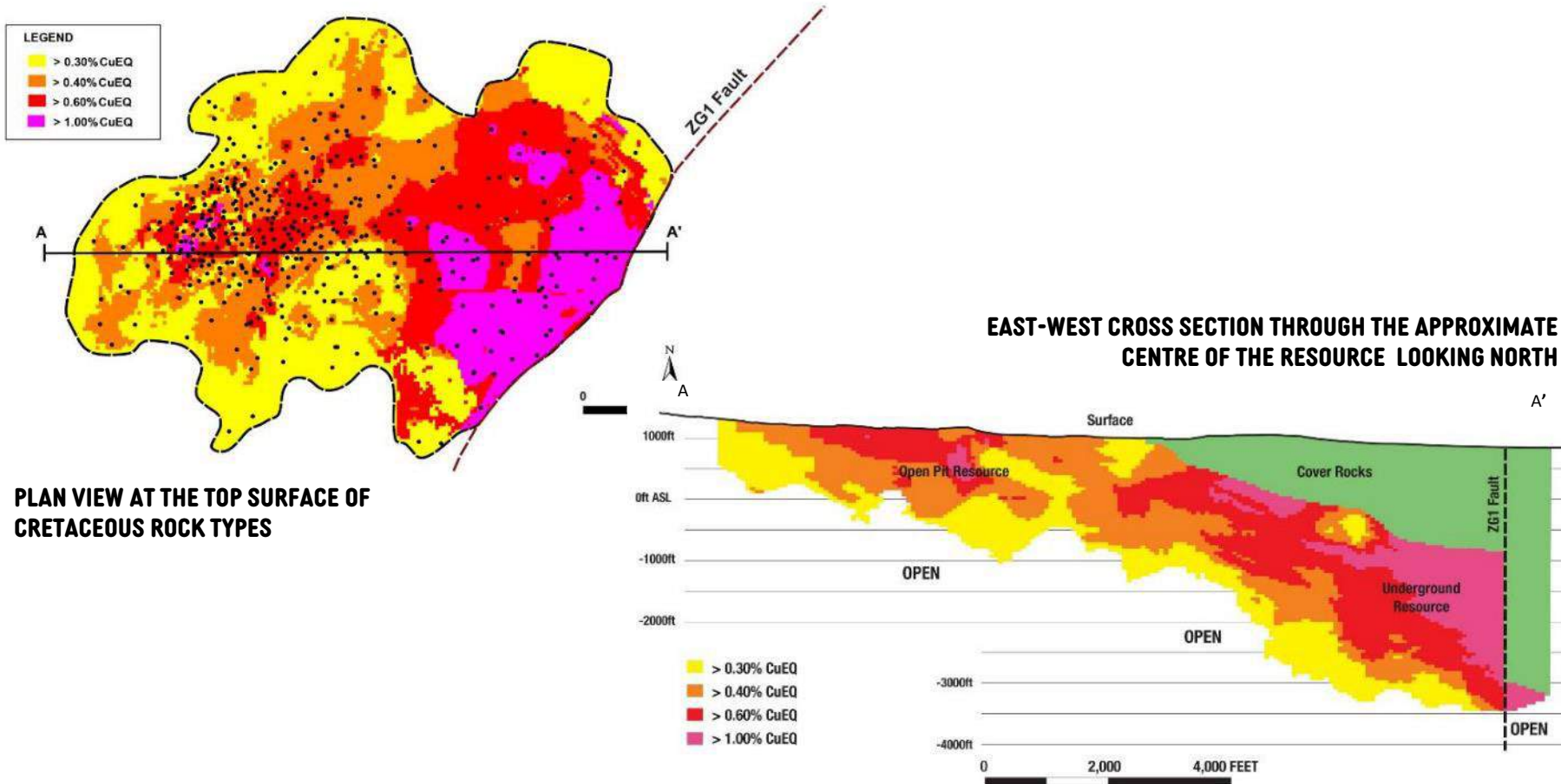


Each area is shown at the same scale



PEBBLE PLAN VIEW AND CROSS SECTION

- The Pebble resource is based on 699 diamond core holes and >59,000 samples.
- Mineralization extends over a 4km by 3km area



Note: Metal prices used for copper equivalent (CuEQ) are same as for resource (see Page 40).



PEBBLE



A PATHWAY FORWARD



TSX: **NDM**
NYSE AMERICAN: **NAK**



PEBBLE 2021 PEA - ROBUST FINANCIALS WITH COMBINED GLOBALLY SIGNIFICANT PRODUCTION & EXCELLENT OPTIONALITY^{1,2,3,4}

IRR & NPV AT PREVAILING METALS PRICES

	IRR	NPV ₇
PROPOSED PROJECT:	23.7%	\$4.7B
EXPANSION SCENARIOS		
5 YEARS:	30.0%	\$13.9B
21 YEARS:	25.7%	\$9.8B

IRR & NPV AT LONG TERM METALS PRICES

	IRR	NPV ₇
PROPOSED PROJECT:	15.7%	\$2.3B
EXPANSION SCENARIOS		
5 YEARS:	21.5%	\$8.5B
10 YEARS:	19.5%	\$7.3B
21 YEARS:	18.1%	\$5.7B

ANNUAL & LOM COPPER PRODUCTION (M lb)

	ANNUAL	LOM
PROPOSED PROJECT:	320	6.4B
EXPANSION SCENARIOS		
5 YEARS:	670	60,400
10 YEARS:	660	60,400
21 YEARS:	600	60,400

ANNUAL & LOM GOLD PRODUCTION (k oz)⁵

	ANNUAL	LOM
PROPOSED PROJECT:	363	7,300
EXPANSION SCENARIOS		
5 YEARS:	560	50,500
10 YEARS:	560	50,500
21 YEARS:	500	50,400

AVERAGE CASH COST

	AVG. CO PRODUCT		AVG. BY-PRODUCT	
	C1 Cu (Lb CuEq)	Au (oz)	C1 Cu (Lb)	Au (oz)
PROPOSED PROJECT:	\$1.65	\$753	\$0.69	(\$1,148)
EXPANSION SCENARIOS				
5 YEARS:	\$1.54	\$702	\$0.53	(\$2,014)
10 YEARS:	\$1.53	\$699	\$0.53	(\$2,024)
21 YEARS:	\$1.56	\$712	\$0.56	(\$1,979)





AVERAGE NSR & LOM NSR (\$M)

	AVG	LOM
PROPOSED PROJECT:	\$1,600	\$32,000
EXPANSION SCENARIOS		
5 YEARS:	\$3,200	\$285,000
10 YEARS:	\$3,100	\$285,000
21 YEARS:	\$2,800	\$285,000

1. Any of these scenarios could form the basis for future permit applications and review. Neither Northern Dynasty nor the Pebble Partnership has proposed or intends to propose any of these development alternatives in the near-term for regulatory approval. Each would require extensive federal, state and local permitting processes and approvals before proceeding.
 2. All figures are in U.S. dollars unless otherwise stated & all financial results are post-tax
 3. Long-term metal prices: copper \$3.50/lb; gold \$1,600/oz; molybdenum \$10/lb; silver \$22/oz; rhenium \$1,500/kg ; Prevailing metal prices: copper \$4.25/lb; gold \$1,800/oz; molybdenum \$18/lb; silver \$24/oz; rhenium \$1,600/kg
 4. Excludes secondary gold plant. 5. Excludes gravity gold concentrate



PEBBLE NATURE OF THE PEBBLE DEPOSIT PROVIDES OPTIONALITY

- 
The 2021 PEA provides an update for the Pebble project with cost estimates and financial results for the Proposed Project assessed by the USACE in the Final Environmental Impact Statement
- 
The Proposed Project (i.e. Permitting Case) is compact, open pit mine feeding a conventional 180,000 tons per day (“Tpd”) copper flotation concentrator
 - It is expected to process 1.3 billion tons of mineralized material over 20 years of mining at the extremely low strip ratio of 0.12:1, compared to typical porphyry copper projects which range as high as 2:1 to 3:1;
 - Reflects innovative tailings, waste and water management strategies proposed by the Pebble Partnership Limited (“PLP”), as evaluated by the Army Corp of Engineers (“USACE”) in the Final Environmental Impact Statement (“EIS”), as well as power and transportation infrastructure necessary for developing, operating and closing the proposed mine
- 
Additionally, the 2021 PEA examines:
 - Three potential mine expansion scenarios (modelled on a concept identified by the PLP in an Request for Information (“RFI”) submission to the USACE during the federal permitting process); and
 - Potential alternative strategies for incremental gold recovery
- 
Any of these scenarios could form the basis for future permit applications and review
 - Neither Northern Dynasty nor PLP has proposed or intends to propose any of these development alternatives in the near-term for regulatory approval
 - Each would require extensive federal, state and local permitting processes and approvals before proceeding
 - The 2021 PEA is preliminary in nature, and includes Inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no assurance that the 2021 PEA will be realized



PEBBLE 2021 PEA PRODUCTION SUMMARY^{1,2,3}

		PROPOSED PROJECT	EXPANSION SCENARIOS		
			YEAR 21	YEAR 10	YEAR 5
MINERALIZED MATERIAL	B tons	1.3	8.6	8.6	8.6
COPPER EQUIVALENT ⁴	%	0.58	0.72	0.72	0.72
COPPER	%	0.29	0.39	0.39	0.39
GOLD	oz/ton	0.009	0.01	0.01	0.01
MOLYBDENUM	ppm	154	208	208	208
SILVER	oz/ton	0.042	0.047	0.046	0.046
RHENIUM	ppm	0.28	0.36	0.36	0.36
WASTE	B tons	0.2	14.4	14.4	14.4
OPEN PIT STRIP RATIO		0.12	1.67	1.67	1.67
OPEN PIT LIFE	Years	20	78	73	68
LIFE OF MINE	Years	20	101	91	90
METAL PRODUCTION (LOM⁵)					
COPPER	M lb	6,400	60,400	60,400	60,400
GOLD (IN CU CONCENTRATE)	k oz	7,300	50,400	50,500	50,500
SILVER (IN CU CONCENTRATE)	k oz	37,000	267,000	267,000	267,000
GOLD (IN GRAVITY CONCENTRATE)	k oz	110	782	783	782
MOLYBDENUM	M lb	300	2,900	2,900	2,900
RHENIUM	k kg	200	2,000	2,000	2,000
METAL PRODUCTION (ANNUAL⁵)					
COPPER	M lb	320	600	660	670
COPPER CONCENTRATE	k tons	616	1,000	1,200	1,200
GOLD (IN CU CONCENTRATE)	k oz	363	500	560	560
SILVER (IN CU CONCENTRATE)	k oz	1,800	2,600	2,900	3,000
MOLYBDENUM	M lb	15	29	32	32
MOLYBDENUM CONCENTRATE	k tons	14	26	29	29
RHENIUM	k kg	12	20	22	22

1. All scenarios/alternatives include infrastructure outsourcing and gold streaming
2. Long-term metal prices: copper \$3.50/lb; gold \$1,600/oz; molybdenum \$10/lb; silver \$22/oz; rhenium \$1,500/kg
3. Any of these scenarios could form the basis for future permit applications and review. Neither Northern Dynasty nor the Pebble Partnership has proposed or intends to propose any of these development alternatives in the near-term for regulatory approval. Each would require extensive federal, state and local permitting processes and approvals before proceeding.
4. Copper equivalent (CuEq) calculations use metal prices: US\$1.85/lb for Cu, US\$902/oz for Au and US\$12.50/lb for Mo, and recoveries: 88% Cu, 75% Au, and 82% Mo
5. Life of mine volumes ÷ life of mine years



PEBBLE PROPOSED PROJECT^{1,2}

- 20 years of open pit mining at a processing rate of 180,000 Tpd
- At forecast long-term³ metal prices
 - Internal Rate of Return (“IRR”) of 15.8%
 - Net Present Value at 7% discount rate of (“NPV₇”) of \$2.3 billion
- At prevailing⁴ metal prices
 - IRR of 23.8%
 - NPV₇ of \$4.8 billion
- Estimated Capital of \$6.0B⁵

PROPOSED PROJECT - IRR SENSITIVITY TO METAL PRICE CHANGES (%)

		COPPER PRICE (\$ /LB)				
		3.00	3.25	3.50	3.75	4.00
GOLD PRICE (\$ /OZ)	1,200	8.9%	10.5%	12.1%	13.6%	15.0%
	1,400	10.6%	12.3%	13.8%	15.3%	16.7%
	1,600	12.5%	14.1%	15.7%	17.1%	18.5%
	1,800	14.4%	16.1%	17.6%	19.1%	20.5%
	2,000	16.5%	18.2%	19.7%	21.2%	22.6%

PROPOSED PROJECT - NPV₇ SENSITIVITY TO METAL PRICE CHANGES (\$B)

		COPPER PRICE (\$ /LB)				
		3.00	3.25	3.50	3.75	4.00
GOLD PRICE (\$ /OZ)	1,200	0.5	1.0	1.4	1.9	2.3
	1,400	0.9	1.4	1.9	2.3	2.8
	1,600	1.4	1.8	2.3	2.7	3.2
	1,800	1.8	2.3	2.7	3.1	3.6
	2,000	2.2	2.7	3.1	3.6	4.0





1. All scenarios/alternatives include infrastructure outsourcing and gold streaming
 2. All figures are in U.S. dollars unless otherwise stated & all financial results are post-tax
 3. Long-term metal prices: copper \$3.50/lb; gold \$1,600/oz; molybdenum \$10/lb; silver \$22/oz; rhenium \$1,500/kg
 4. Prevailing metal prices: copper \$4.25/lb; gold \$1,800/oz; molybdenum \$18/lb; silver \$24/oz; rhenium \$1,600/kg
 5. Excludes \$1.68 billion in estimated costs for transportation infrastructure and power supply, which are expected to be outsourced

		PROPOSED PROJECT
MINERALIZED MATERIAL	B tons	1.3
COPPER EQUIVALENT ⁶	%	0.57
COPPER	%	0.29
GOLD	oz/ton	0.009
MOLYBDENUM	ppm	154
SILVER	oz/ton	0.042
RHENIUM	ppm	0.28
WASTE	B tons	0.2
OPEN PIT STRIP RATIO		0.12
OPEN PIT LIFE	Years	20
LIFE OF MINE	Years	20
METAL PRODUCTION (LOM⁷)		
COPPER	M lb	6,400
GOLD (IN CU CONCENTRATE)	k oz	7,300
SILVER (IN CU CONCENTRATE)	k oz	37,000
GOLD (IN GRAVITY CONCENTRATE)	k oz	110
MOLYBDENUM	M lb	300
RHENIUM	k kg	200
METAL PRODUCTION (ANNUAL⁷)		
COPPER	M lb	320
COPPER CONCENTRATE	k tons	616
GOLD (IN CU CONCENTRATE)	k oz	363
SILVER (IN CU CONCENTRATE)	k oz	1,800
MOLYBDENUM	M lb	15
MOLYBDENUM CONCENTRATE	k tons	14
RHENIUM	k kg	12

6. Copper equivalent (CuEq) calculations use metal prices: US\$1.85/lb for Cu, US\$902/oz for Au and US\$12.50/lb for Mo, and recoveries: 88% Cu, 75% Au, and 82% Mo
 7. Life of mine volumes ÷ life of mine years



PEBBLE SECONDARY GOLD RECOVERY PLANT^{1,2,3,4}

-  Possible addition of a secondary gold recovery plant in Production Year 5, using the most efficient and permissible lixiviants available at the time any related permitting applications are made
-  We continue to evaluate multiple technologies to safely employ secondary gold recovery as doré at the Pebble Project. Any future plan to incorporate secondary gold recovery would require extensive federal, state and local permitting processes and approvals before proceeding
-  **Should a secondary gold plant be added in Production Year 5:**
 - Pyritic tails from the copper-molybdenum cleaner circuit would be re-floated to remove additional gangue and upgrade gold content
 - The gold-bearing pyrite concentrate from this step would then be re-ground and fed to a closed circuit recovery plant
 - Gold and silver could be recovered via processing to produce doré; alternative methods pending the results of future testing
-  **Proposed Project plus Gold Plant:**
 - At forecast long-term metal prices, with addition of a gold plant at Production Year 5, IRR of 16.5% and NPV₇ of \$2.7 billion
 - LOM gold and silver production for this scenario: 9 million oz and 39 million oz, respectively

ONSITE GOLD PRODUCTION		PROPOSED PROJECT
GOLD PLANT (LOM)		
GOLD (AS DORÉ)	k oz	1,800
SILVER (AS DORÉ)	k oz	2,600
TOTAL PRODUCTION (LOM)		
GOLD	k oz	9,000
SILVER	k oz	39,000

1. All scenarios/alternatives include infrastructure outsourcing and gold streaming
 2. All figures are in U.S. dollars unless otherwise stated & all financial results are post-tax
 3. Long-term metal prices: copper \$3.50/lb; gold \$1,600/oz; molybdenum \$10/lb; silver \$22/oz; rhenium \$1,500/kg
 4. Any of these scenarios could form the basis for future permit applications and review. Neither Northern Dynasty nor the Pebble Partnership has proposed or intends to propose any of these development alternatives in the near-term for regulatory approval. Each would require extensive federal, state and local permitting processes and approvals before proceeding.



PEBBLE DEVELOPMENT ALTERNATIVES^{1,2,3,4,5}

Development alternatives demonstrate the inherent optionality

- The broad range of potential pathways for future mine development show how project life could be extended and metal production enhanced through an expansion at different points in time or via alternative mining or treatment scenarios
- In all examined development alternatives, the onsite gold plant, as modeled, could commence operation in Production Year 5 after acquiring the required permits

Expansion Scenarios

- 90 to 101 year mine life at a peak processing rate of up to 270,000 Tpd
- At forecast long-term metal prices, IRR of 18.1 to 21.5% and NPV₇ of \$5.7 to \$8.5 billion

Expansion Scenarios with Gold Plant

- The financial potential of the 20-year operation described in the 2021 PEA's Proposed Project analysis is explored further through the possible addition of a gold recovery plant in Production Year 5
- At forecast long-term metal prices, IRR of 18.8% to 22.7% and NPV₇ of \$6.6 to \$9.8 billion

1. All scenarios/alternatives include infrastructure outsourcing and gold streaming
 2. All figures are in U.S. dollars unless otherwise stated & all financial results are post-tax
 3. Long-term metal prices: copper \$3.50/lb; gold \$1,600/oz; molybdenum \$10/lb; silver \$22/oz; rhenium \$1,500/kg
 4. Includes addition of an onsite gold plant at Production Year 5
 5. Any of these scenarios could form the basis for future permit applications and review. Neither Northern Dynasty nor the Pebble Partnership has proposed or intends to propose any of these development alternatives in the near-term for regulatory approval. Each would require extensive federal, state and local permitting processes and approvals before proceeding
 6. Copper equivalent (CuEQ) calculations use metal prices: US\$1.85/lb for Cu, US\$902/oz for Au and US\$12.50/lb for Mo, and recoveries: 88% Cu, 75% Au, and 82% Mo
 7. Life of mine volumes ÷ life of mine years.

		YEAR 5
MINERALIZED MATERIAL	B tons	8.6
COPPER EQUIVALENT ⁶	%	0.72
COPPER	%	0.39
GOLD	oz/ton	0.01
MOLYBDENUM	ppm	208
SILVER	oz/ton	0.046
RHENIUM	ppm	0.36
WASTE	B tons	14.4
OPEN PIT STRIP RATIO		1.67
OPEN PIT LIFE	Years	68
LIFE OF MINE	Years	90
METAL PRODUCTION (LOM⁷)		
COPPER	M lb	60,400
GOLD (IN CU CONCENTRATE)	k oz	50,500
SILVER (IN CU CONCENTRATE)	k oz	267,000
GOLD (IN GRAVITY CONCENTRATE)	k oz	782
MOLYBDENUM	M lb	2,900
RHENIUM	k kg	2,000
METAL PRODUCTION (ANNUAL⁷)		
COPPER	M lb	670
COPPER CONCENTRATE	k tons	1,200
GOLD (IN CU CONCENTRATE)	k oz	560
SILVER (IN CU CONCENTRATE)	k oz	3,000
MOLYBDENUM	M lb	32
MOLYBDENUM CONCENTRATE	k tons	29
RHENIUM	k kg	22



PEBBLE: GOOD FOR ALASKA¹

Alaska's ongoing fiscal crisis exacerbated by COVID-19 and declining oil & gas pricing/investment

Pebble represents:

- Capital investment and GDP growth
- Jobs and economic diversification
- Much needed government revenue
- New transportation and power infrastructure

Southwest Alaska/Bristol Bay region characterized by:

- High levels of unemployment and underemployment
- Decreasing population, outmigration and school closures
- Among America's highest cost of living

The ability of Pebble to produce copper at a low cash cost, and generate many millions in annual taxes and other government revenues in Alaska, while setting aside appropriate closure funding, could propel this region of Alaska into prosperity and opportunity.

- Regional residents can participate directly in the economic outcomes through the Pebble Performance Fund ("PPF")²

		PROPOSED PROJECT	EXPANSION SCENARIOS ⁴		
			YEAR 21	YEAR 10	YEAR 5
ANNUAL TAXES³					
ALASKA MINING LICENSE	\$M	34	81	92	93
ALASKA ROYALTY	\$M	15	36	41	41
ALASKA INCOME TAX	\$M	38	101	115	116
BOROUGH SEVERANCE & TAX	\$M	25	43	48	47
LIFE OF MINE TAXES					
ALASKA MINING LICENSE	\$B	0.69	8.16	8.34	8.32
ALASKA ROYALTY	\$B	0.30	3.61	3.68	3.68
ALASKA INCOME TAX	\$B	0.75	10.20	10.46	10.40
BOROUGH SEVERANCE & TAX	\$B	0.49	4.34	4.33	4.34

1. All figures are in U.S. dollars unless otherwise stated
 2. See Northern Dynasty news release data June 16, 2020
 3. Estimated based on current Alaskan statutes
 4. Any of these scenarios could form the basis for future permit applications and review. Neither Northern Dynasty nor the Pebble Partnership has proposed or intends to propose any of these development alternatives in the near-term for regulatory approval. Each would require extensive federal, state and local permitting processes and approvals before proceeding.



PEBBLE



**THE RIGHT MINE
AT
THE RIGHT TIME**





TSX: **NDM**
NYSE AMERICAN: **NAK**






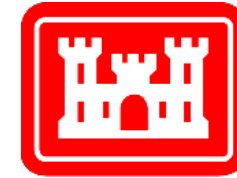
PEBBLE FINAL ENVIRONMENTAL IMPACT STATEMENT (EIS)

Pebble EIS initiated December 2017; published July 2020

-  Intensive federal permitting process led by U.S. Army Corps of Engineers under National Environmental Policy Act (NEPA)
-  Eight federal & three state cooperating agencies, plus L+P Borough and federally recognized tribes, including:
 - U.S. Environmental Protection Agency, U.S. Fish & Wildlife Service
 - AK Dept. of Natural Resources, AK Dept. of Environmental Conservation

Final EIS:

-  First time an independent, expert regulatory body has comprehensively reviewed a development plan put forward by Pebble Project proponents
-  The most relevant and defensible science-based assessment of the project ever developed, and the administrative record upon which final permitting decisions will be made
-  Describes a 'project' that will create tremendous benefits for Alaska's people and governments



**US Army Corps
of Engineers®**

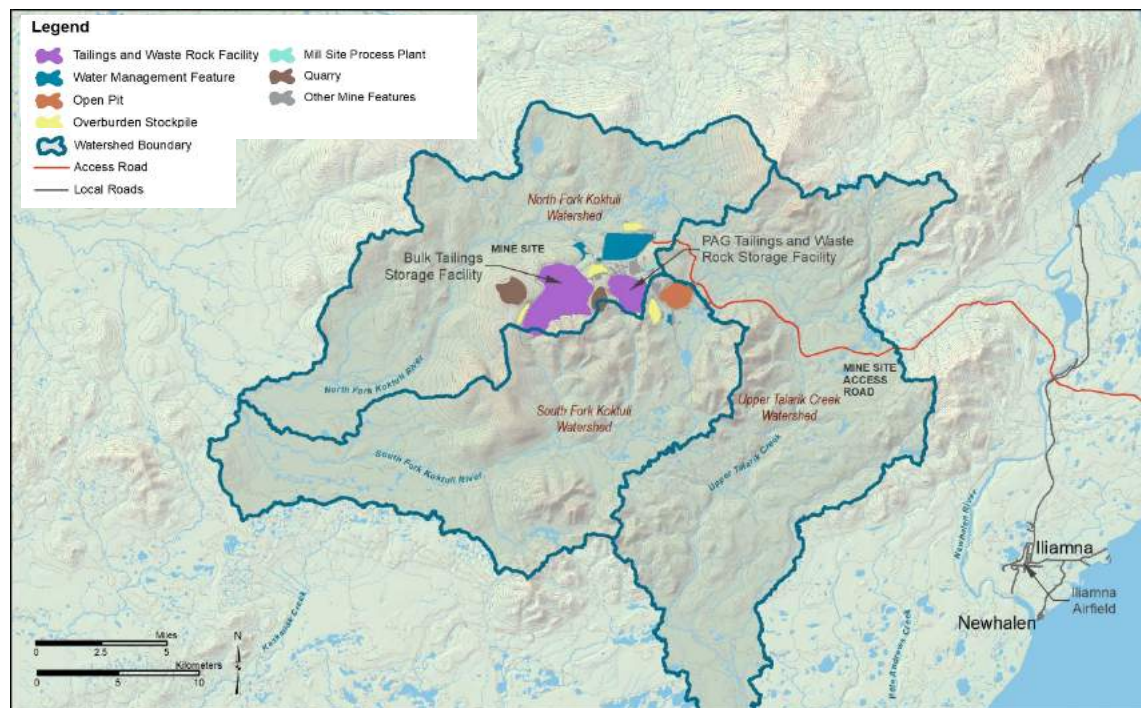




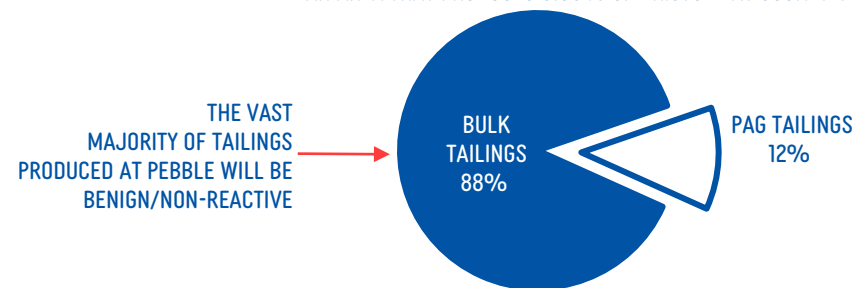
PEBBLE KEY ENVIRONMENTAL DESIGN FEATURES

- Robust water management plan**
 - 76 years of weather data
- Compact project footprint**
 - 0.025% of Bristol Bay watershed
 - No impact on critical fish habitat
 - No permanent waste rock piles
- Potentially acid-generating (PAG) tailings & waste rock separated and stored underwater in fully-lined facility**
 - Transferred to open-pit for safe, permanent storage at closure
- Enhanced bulk tailings storage**
 - Enhanced buttresses and conservative (2.6:1) slope angles achieve 'factor of safety' above industry norms
 - Flow-through embankment vastly reduces failure likelihood & consequence
 - No long-term water quality effects
 - Capped and dry post-closure
- No mine facilities in Upper Talarik/Kvichak drainage**
- No planned cyanide use**

PRIMARY MINE FACILITIES & LOCAL HYDROGRAPHY



ALL PRIMARY MINE FACILITIES WILL BE SITED IN THE NORTH/SOUTH FORK KOKTULI DRAINAGE: AN AREA THAT PRODUCES 0.08% OF BRISTOL BAY SOCKEYE.

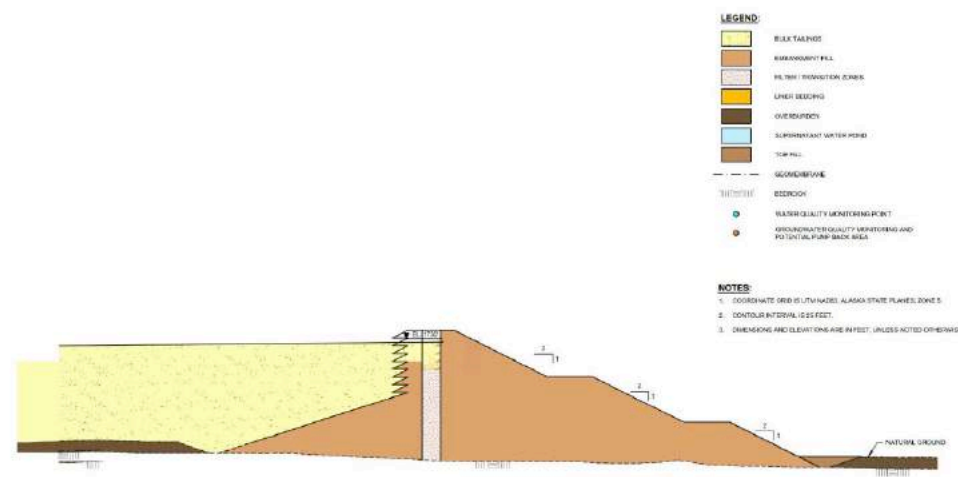
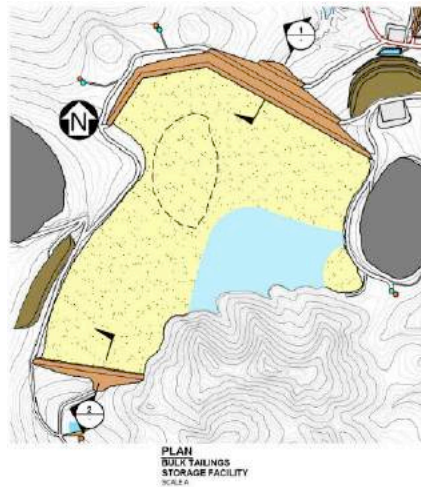


Note: See Disclosures Page 2

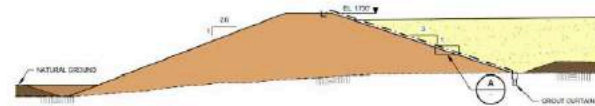
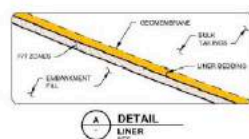


PEBBLE TAILINGS STORAGE FACILITY (TSF)(PROPOSED DESIGN)

- Two engineered facilities to segregate PAG (0.1 billion tons) and non-PAG tailings (1.1 billion tons)
- Non-PAG facility designed with a flow-through main embankment (530 feet high)
- PAG tailings stored with PAG waste rock in a separate lined facility
- PAG tailings and waste rock to be relocated to the pit at closure
- Enhanced buttresses and improved Factor of Safety
 - Conservative 2.6:1 (horizontal : vertical) slope angle



1 SECTION
BULK TSF MAIN EMBANKMENT
SCALE B

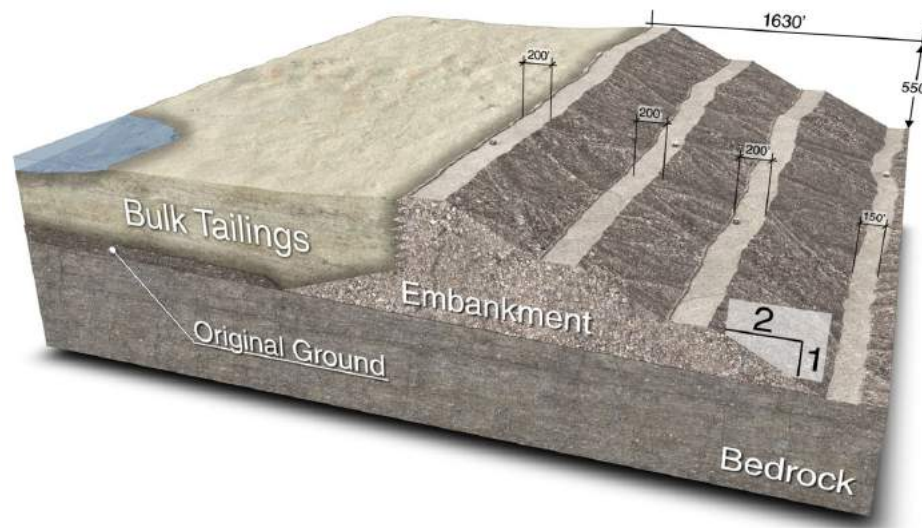


Note: See Disclosures Page 2



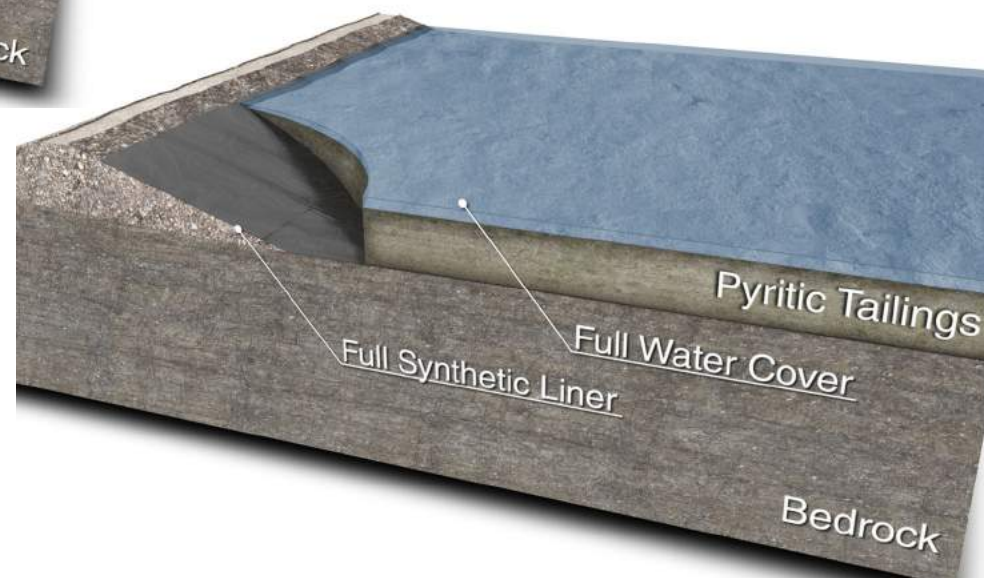
PEBBLE TAILINGS STORAGE FACILITY (TSF)

Separate TSFs to manage bulk/non-PAG and pyritic/PAG material



- Bulk tailings can be stored sub-aerially
- Flow through main embankment
- Lined southern embankment
- Flattened slopes
- Founded on bedrock
- Extended beach
- Reduced water storage

- Pyritic tails must be stored under water to prevent oxidation
- Synthetic liner to capture the water
- PAG rock to be stored with pyritic tails
- Rock and tails reclaimed to pit at closure and site decommissioned and reclaimed





PEBBLE FINAL EIS FINDINGS



On subsistence fish & wildlife resources:

- “Overall, impacts to fish and wildlife would not be expected to impact harvest levels. Resources would continue to be available because no population level decrease in resources would be anticipated.”



On the Bristol Bay commercial fishery:

- “No measurable change in the number of returning salmon and the historical relationship between ex-vessel values and wholesale values...or processor operations.”
- “... would not be expected to have a measurable effect on fish numbers and result in long-term changes to the health of the commercial fisheries in Bristol Bay.”



On water quality:

- “...direct and indirect impacts of treated contact waters to off-site surface water are not expected to occur.”
- “...no effects on any community groundwater or surface water supplies”



On local communities:

- “The increase in job opportunities, year-round or seasonal employment, steady income, and lower cost of living ...would have beneficial impacts.”
- “The project could reduce or eliminate the current local population decline because of the increase in employment opportunities and indirect effects on education”





PEBBLE FINAL EIS

NO MEASURABLE IMPACT ON FISHERIES

Based on the Pebble Project design submitted for permitting, and considering all relevant environmental safeguards and mitigations, the USACE found that “impacts to Bristol Bay salmon are not expected to be measurable.”

The Final EIS concludes:

- within the Bristol Bay region as a whole (40,000 sq. miles)

“The mine site area is not connected to the Togiak, Ugashik, Naknek, and Egegik watersheds and is not expected to affect fish populations or harvests from these watersheds.”
- Within the large regional watersheds that will host project facilities (~23,000 sq. miles)

“(The project) would not have measurable effects on the number of adult salmon returning to the Kvichak and Nushagak river systems.”
- Within the project footprint area (~10 sq. miles)





“...impacts to anadromous and resident fish populations from these direct habitat losses would not be measurable, and would be expected to fall within the range of natural variability.”







PEBBLE ROD DENIAL DECISION CONTAINS QUESTIONABLE CONCLUSIONS




Record of Decision (ROD): November 25, 2020 permit denial:

-  Public Interest review (PIR) found Pebble to be 'not in the public interest'
-  Compensatory mitigation plan (CMP) deemed 'non-compliant'
-  ROD and PIR decisions are fundamentally unsupported by the 'administrative record' established by the Final EIS
-  CMP finding is contrary to policy, precedence and PLP interactions with the USACE

Pebble Lodges Permit Denial Appeal: January 19, 2021

-  "There are some very compelling arguments persuasively presented in the Pebble Partnership's RFA, and we encourage all our shareholders and others interested in responsible resource development in Alaska and the United States to review them carefully"
-  "We believe our submission clearly demonstrates the USACE's Record of Decision for the Pebble Project is contrary to law, unprecedented in Alaska and fundamentally unsupported by the administrative record. These are matters not only of concern to Northern Dynasty and its investors, but to all Alaskans"

Current Status:

-  The USACE has accepted the appeal and deemed the application is complete and meets the criteria for an appeal
-  The appeal process is underway
-  EPA reinstated 404(c) restrictions and is considering next steps¹

Legal options also being considered

1. Notwithstanding a thorough and comprehensive environmental review process conducted by the USACE that determined Pebble could be developed without harm to Bristol Bay fishery, without impact on water quality while providing significant economic opportunities and jobs for the region and communities near the project.



PEBBLE LODGES APPEAL OF USACE RECORD OF DECISION

- Under U.S. regulatory law, permitting decisions for major development projects must be based on an ‘administrative record’ – which, in Pebble’s case, includes the Final EIS published by the USACE in July 2020.
- Northern Dynasty believes the USACE has based its permitting decision on a Public Interest Review (PIR) that is inconsistent with, and at times diametrically opposed to, findings in the Final EIS.


SUMMARY OF INCONSISTENT AND DIAMETRICALLY OPPOSED FINDINGS		
SUBSTANTIVE ISSUE	FINDINGS IN FINAL EIS	PERMITTING DECISION BASED ON PIR
POTENTIAL ‘ECONOMIC CONTRIBUTION’ TO THE BRISTOL BAY REGION AND STATE OF ALASKA	<i>“An estimated \$64 million annually in state corporate taxes during the operations phase. It was estimated that the operations phase could also generate \$41 million annually from State mining license taxes. The project could generate \$20 million annually (in 2011 dollars) in state royalty payments during the operations phase.” (4.3-11)</i>	In supporting documents for its ROD, the USACE claims the Pebble Project’s economic benefits are “speculative” and “would be primarily received by the private applicant”
POTENTIAL EFFECTS ON ‘WATER QUALITY’	<i>“There would be no effects on any community groundwater or surface water supplies from the changes in groundwater flows at the mine site.” (ES 67)</i>	In supporting documents for its ROD, the USACE claims Pebble would “cause water quality degradation”
POTENTIAL EFFECTS ON ‘SUBSISTENCE FISHING AND HUNTING’	<i>“Overall, impacts to fish and wildlife would not be expected to impact harvest levels. Resources would continue to be available because no population level decrease in resources would be anticipated.” (ES 51)</i>	In supporting documents for its ROD, the USACE claims Pebble would lead to “reduced subsistence opportunities”
LIKELIHOOD AND CONSEQUENCE OF A ‘CATASTROPHIC TAILINGS STORAGE FACILITY FAILURE’	<i>“The Applicant’s bulk TSF design is different than that of most other historic and current TSFs. The proposed design is especially distinct when compared to most historic mines that have experience large failures.” (K4.27-4)</i>	In supporting documents for its ROD, the USACE found that in “the event of human failure and/or a catastrophic event (at Pebble), the commercial and/or subsistence (fisheries) resources would be irrevocably harmed.”

Source: https://northerndynastyminerals.com/site/assets/files/4881/december_3-_2020.pdf



PEBBLE SOCIAL INTEGRATION WITH BRISTOL BAY REGION

- 👤 **Pebble has multiple partnership agreements with Alaska Native landowners/stakeholders in the project area to deliver:**
 - Transportation corridor access to Pebble mine site
 - Direct financial benefits, contracting and employment for Alaska Native corporations and shareholders
 - Bristol Bay residents who are full partners in the Pebble enterprise
- 👤 **Pebble Performance Dividend announced June 2020:**
 - Revenue sharing for full-time residents of Bristol Bay
 - Distribute a 3% net profit royalty interest
 - Min. \$3M annual payment beginning at construction
- 👤 **Process to initiate public dialogue around regional power sharing announced June 2020**
- 👤 **MOU to establish transportation/port operations partnership with consortium of Alaska Native village corporations announced July 2020**
- 👤 **Workforce development plan to maximize local hire and local benefits through:**
 - On-site training, internships, scholarships & educational partnerships
 - Region-wide recruitment and transport
 - Work schedules that facilitate subsistence lifestyles

**PEBBLE
PERFORMANCE
DIVIDEND** 





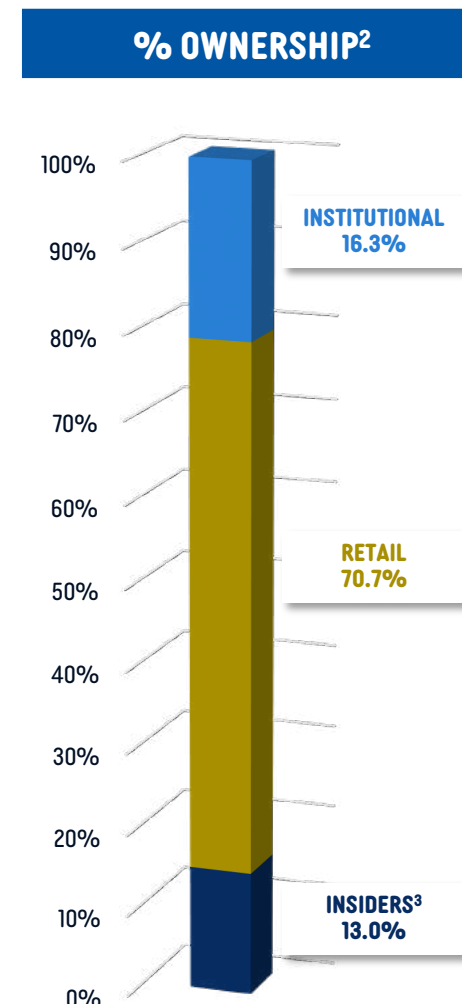
SUPPORTIVE SHAREHOLDER BASE

ISSUED & OUTSTANDING	OPTIONS & WARRANTS ¹	FULLY DILUTED
528.5 M	21.6 M	550.1 M

BALANCE SHEET & TRADING LIQUIDITY	
C\$37.1 M Cash & Cash Equivalents (June 30, 2021)	
No Debt	
Daily Trading Volume Last 90 trading days ⁴	NDM – TSX 241,779
	NAK – NYSE American 5,321,619

1. As at August 31, 2021. Includes Options, RSUs, DSUs plus 200,000 warrants exercisable at \$CAD 0.75, expiring Nov 21/2021.
 2. Based on fully diluted shares at August 31, 2021
 3. Insiders⁵ include significant shareholders SKKY Capital Corp Ltd and Ostvast Capital Mgmt Ltd., which owns 8.34% at August 31, 2021
 4. As at September 10, 2021
 5. Source: Bloomberg. As at September 13, 2021

MAJOR SHAREHOLDERS ⁵
<ul style="list-style-type: none"> Kopernik Global Investors LLC SKKY Capital Corp Ltd. Ostvast Capital Mgmt Ltd. Frank Russell Company Mirae Asset Global Investments Co Ltd. Heptagon Capital LLP SIG Holding LLC Bank of Montreal BMO Global Asset Management SEI Investments Co. TIFF Advisory Services Inc. State Street Corp Mmcap International Inc Spc GAMCO Investors Inc. Citadel Advisors LLC Shepherd Kaplan Krochuk LLC





PROVEN EXPERIENCED LEADERSHIP

MANAGEMENT

RONALD THIESSEN CEO / DIRECTOR

Mr. Thiessen, a Chartered Professional Accountant (FPCA, FCA) with more than 25 years of corporate development experience, leads Northern Dynasty's Mines ("NDM") corporate development and financing activities. In addition to his role as President and CEO, Mr. Thiessen is a Director of the Pebble Limited Partnership. He is also President and CEO of Hunter Dickinson Inc ("HDI").

MARK PETERS CHIEF FINANCIAL OFFICER

Mr. Peters is a Chartered Professional Accountant (CPA, CA) who has more than 20 years of experience in the areas of financial reporting and taxation, working primarily with Canadian and U.S. public corporations. He served as CFO for HDI since 2016 and a TSX Venture-listed company since 2012. Prior to that, Mr. Peters led the tax department for the HDI group of companies and worked for PricewaterhouseCoopers LLP.

BRUCE JENKINS EXECUTIVE VICE PRESIDENT ENVIRONMENT & SUSTAINABILITY

Mr. Jenkins is a corporate and environmental executive with more than 40 years of experience in project and corporate management. Mr. Jenkins oversees environmental affairs and sustainable development for NDM. He is also Executive Vice President, Environment and Sustainability for HDI.

ADAM CHODOS EXECUTIVE VICE PRESIDENT CORPORATE DEVELOPMENT

Mr. Chodos is a senior executive with over 19 years of experience in Corporate Development and Investment Banking advisory. Mr. Chodos was most recently a Director of Corporate Development for Teck Resources and, before that, was a Group Executive with Newmont's Corporate Development team. He also spent nine years as an Investment Banker with J.P. Morgan Securities Inc., in New York, and had a significant role in US\$28 billion of mergers, acquisitions, divestitures and capital markets transactions in the resource sector. He is also Executive Vice President, Corporate Development for HDI.

STEPHEN HODGSON VICE PRESIDENT, ENGINEERING

Mr. Hodgson (P.Eng.) has over 40 years of experience in consulting, project management, feasibility-level design and implementation, and mine operations at some of the largest mineral development projects in the world, including Pine Point zinc mine in the Northwest Territories, the Red Dog zinc mine in Alaska, Antamina in Peru, and the Oyu Tolgoi copper-gold project in Mongolia. He brings a unique perspective to the Pebble team with his experience at northern and Arctic mines. He has led NDM engineering team since 2005.

MIKE WESTERLUND VICE PRESIDENT, INVESTOR RELATIONS

Mr. Westerlund brings 20 years experience in the mines and mineral space including 8 years heading up the investor relations department at Hecla Mining Company, a US\$3B precious metals miner with 5 operating mines.

TREVOR THOMAS COMPANY SECRETARY & GENERAL COUNSEL

Mr. Thomas is the company secretary to NDM. Mr. Thomas has practiced in the areas of corporate commercial, corporate finance, securities and mining law since 1995, both in private practice environment as well as in-house positions and is currently in-house General Counsel for HDI.

BOARD OF DIRECTORS

ROBERT DICKINSON CHAIRMAN

Mr. Dickinson, an economic geologist with more than 40 years of mineral exploration experience who is an inductee of the Canadian Mining Hall of Fame, leads Northern Dynasty's project development activities. In addition to his role as Executive Chairman, Mr. Dickinson is a director of the Pebble Limited Partnership. He is also Chairman of HDI.

RONALD THIESSEN CEO AND DIRECTOR (refer to Management listing)

DESMOND BALAKRISHNAN

Desmond Balakrishnan is a lawyer practicing in the areas of Corporate Finance and Securities, Mergers and Acquisitions, Lending, Private Equity and Gaming and Entertainment for McMillan LLP, where he has been a partner since 2004. McMillan serves as the Company's Canadian attorneys. He has been lead counsel on over \$3 billion in financing transactions and in mergers and acquisitions aggregating in excess of \$6 billion. He also serves as a director and/or officer of several resource, finance and gaming firms. He holds CLA and BA from Simon Fraser University and a Bachelor of Laws (with Distinction) from the University of Alberta.

STEVEN DECKER

Steven Decker is a Chartered Financial Analyst® charter holder with more than 20 years of investment experience as an Analyst and Portfolio Manager. He holds an MBA in Finance from the Marshall School of Business at the University of Southern California where he received the Marcia Israel Award for Entrepreneurship & was a manager of the California Equity Fund.

GORDON KEEP

Gordon Keep is a Professional Geologist with extensive business experience in investment banking and creating public natural resource companies, Mr. Keep is CEO of Fiore Management & Advisory Corp., a private financial advisory firm. He also serves as an officer and/or director for several natural resource companies. He holds a B.Sc. in Geological Science from Queen's University and an MBA from the University of British Columbia.

DAVID LAING

David Laing is a mining engineer and executive, with 40 years' experience in mining operations, projects, engineering studies, mining finance, investor relations, mergers and acquisitions, corporate development and company building. He has also held senior positions in mining investment banking and technical consulting, most recently as Chief Operating Officer of Equinox Gold, and True Gold.

CHRISTIAN MILAU

Christian Milau, CEO Equinox Gold, is a Chartered Professional Accountant (CPA, CA) and mining executive with experience in acquisition, financing, development, and operation of mines. Mr. Milau also has background in finance and capital markets, and government and stakeholder relations, including successfully negotiating with governments on various community, security, fiscal and tax matters.

KEN PICKERING

Mr. Pickering is a Professional Engineer, mining executive & international consultant with 40 years of experience in a variety of capacities in the natural resources industry. He has led the development, construction & operation of mining projects throughout the world. These include: the Escondida Mine in Chile & several billion dollar expansion phases, the Tintaya copper operations in Peru, BHP Iron ore operations in Western Australia, the Spence copper leaching project in Northern Chile & Pinto Valley operations/Resolution project in the Western United States. Mr. Pickering is also a Director of Teck Resources & Endeavour Silver.

WAYNE KIRK

Wayne Kirk has over 35 years of experience as a corporate attorney, including nine years' experience as Vice President, General Counsel and Corporate Secretary of Homestake Mining Company, and over 16 years of experience as a director of publicly held companies. Mr. Kirk holds a B.A. in Economics (Distinction) from the University of California (Berkeley) and an LL.B (magna cum laude) degree from Harvard University, and has been a member of the California Bar since 1969. He was also a director of the company from July 2004 to February 2016.



INVESTMENT HIGHLIGHTS



COPPER: AN CRITICAL METAL FOR AMERICA'S GREEN FUTURE

- A strategic metal for renewable energy & green technologies
- Critical metal for electric vehicles & associated infrastructure
- Renewable energy systems use up to 12 times more copper (per unit of energy produced) than conventional power systems¹
- Copper consumption predicted to rise 40% by 2035 & more than 100% by 2050²

1. Source: <https://copperalliance.org.uk/coverage-future-copper-demand/>
 2. Source: <https://stockhead.com.au/resources/glencore-has-some-stunning-figures-on-the-levels-of-battery-metals-the-world-will-need-by-2050/>
 3. Source: Final Environmental Impact Statement for the Pebble Project July 2020



PEBBLE: A U.S.-BASED WORLD CLASS RESOURCE

- Among the globe's greatest accumulations of metal
- Potential domestic solution to U.S. foreign supply chain dependence of critical minerals
- Cu/Au/Mo/Ag/Re grades facilitate near-term development
- Untapped exploration upside



PEBBLE: A PATH FORWARD

- Updated PEA* released in Fall 2021
- Pebble deposit provides optionality
- NDM's administrative appeal of U.S. Army Corps' denial of Federal ROD** has been accepted and the appeal process is underway
- Legal options being considered

* PEA = Preliminary Economic Assessment ([Link](#))
 ** ROD = Record of Decision



PEBBLE: THE RIGHT MINE AT THE RIGHT TIME

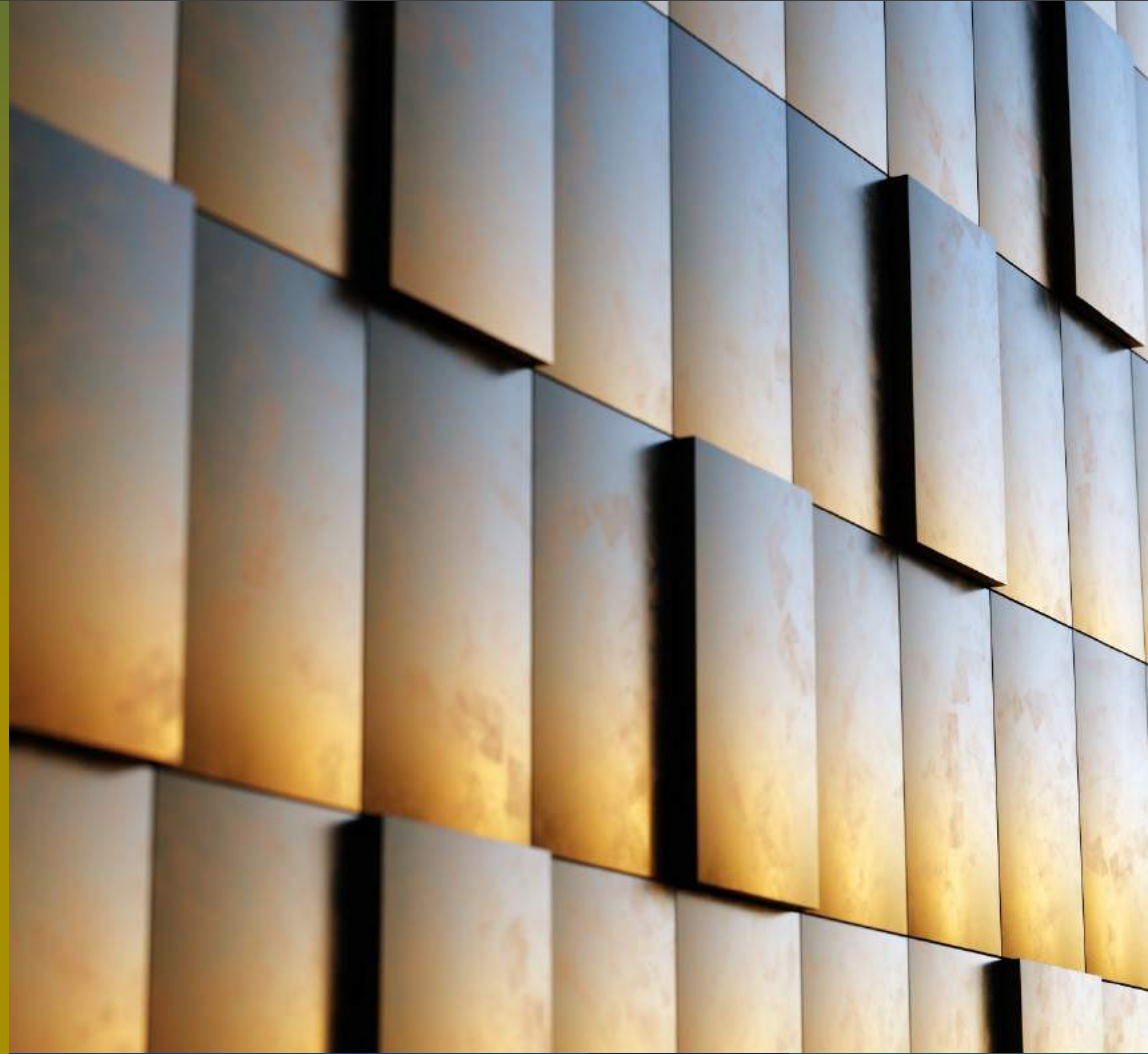
- Final EIS: No Measurable Impact on Fisheries with Significant Social/Economic Benefits Expected³
- Local and regional capital investment
- GDP & government revenue growth expected
- Experienced Management

TSX: **NDM**
 NYSE AMERICAN: **NAK**

RIGHTMINERIGHTTIME.COM



...
APPENDIX
...





ALASKA A PROVEN MINING AND RESOURCE DEVELOPMENT JURISDICTION

Established mining industry:

- Six operating mines and multiple late-stage development projects
- Ranked #5 Globally for Investment Attractiveness by Fraser institute Annual Survey of Mining Companies 2020

State fiscal crisis:

- Governor Dunleavy:
 "...The economic adversity facing Bristol Bay poses a steep challenge, but the odds are far from insurmountable if we take action today..."

Committed to due process and the rule of law:

- Bristol Bay Area Plan (2005)
 "The general resource management intent for the Pebble Copper Area is to accommodate mineral exploration and development..."

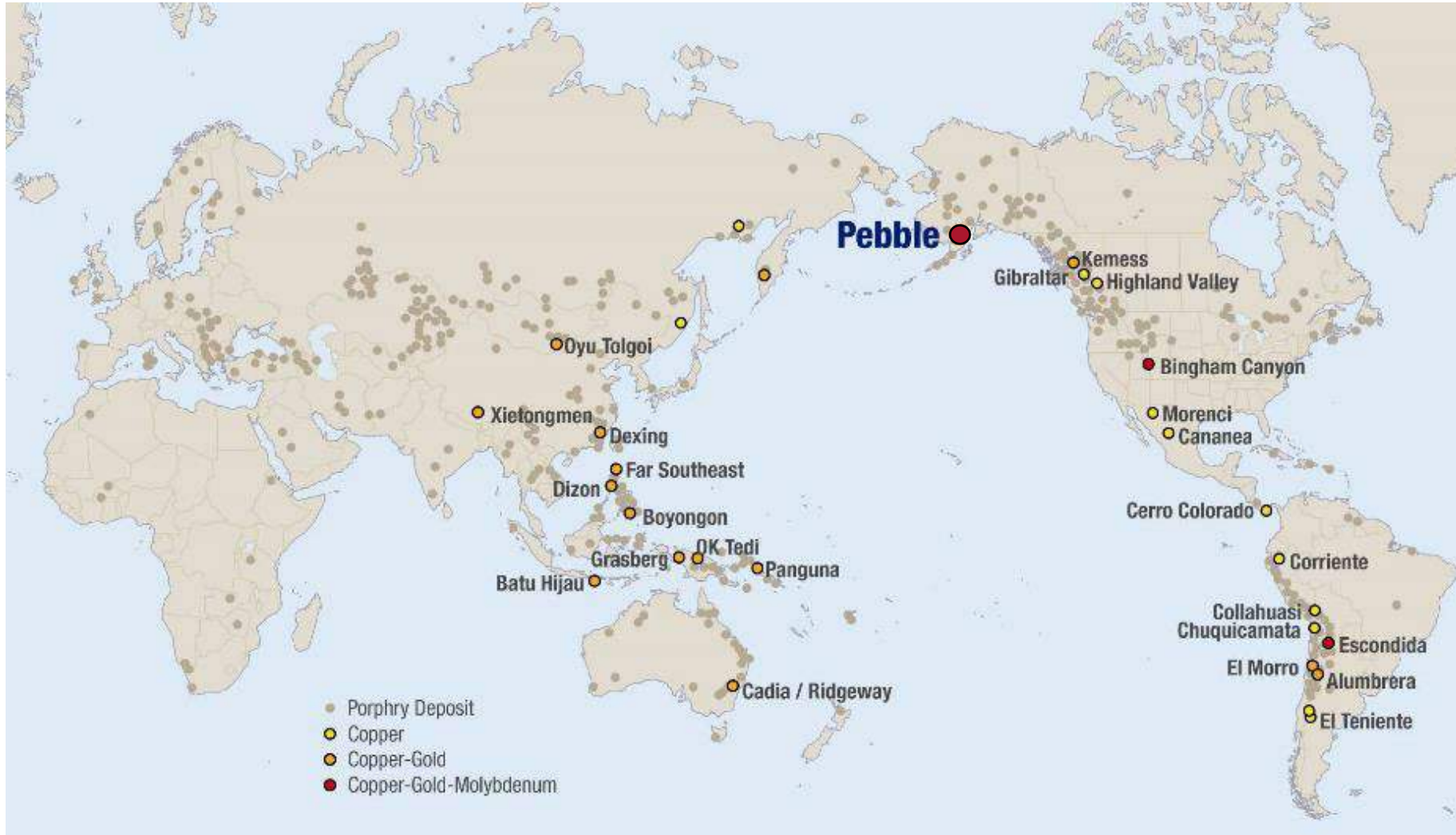
An 'owners' state':

- Alaska State Constitution (1959):
 "It is the Policy of the State of Alaska to encourage... the development of its resources by making them available for maximum use consistent with the public interest"
- The Permanent Fund



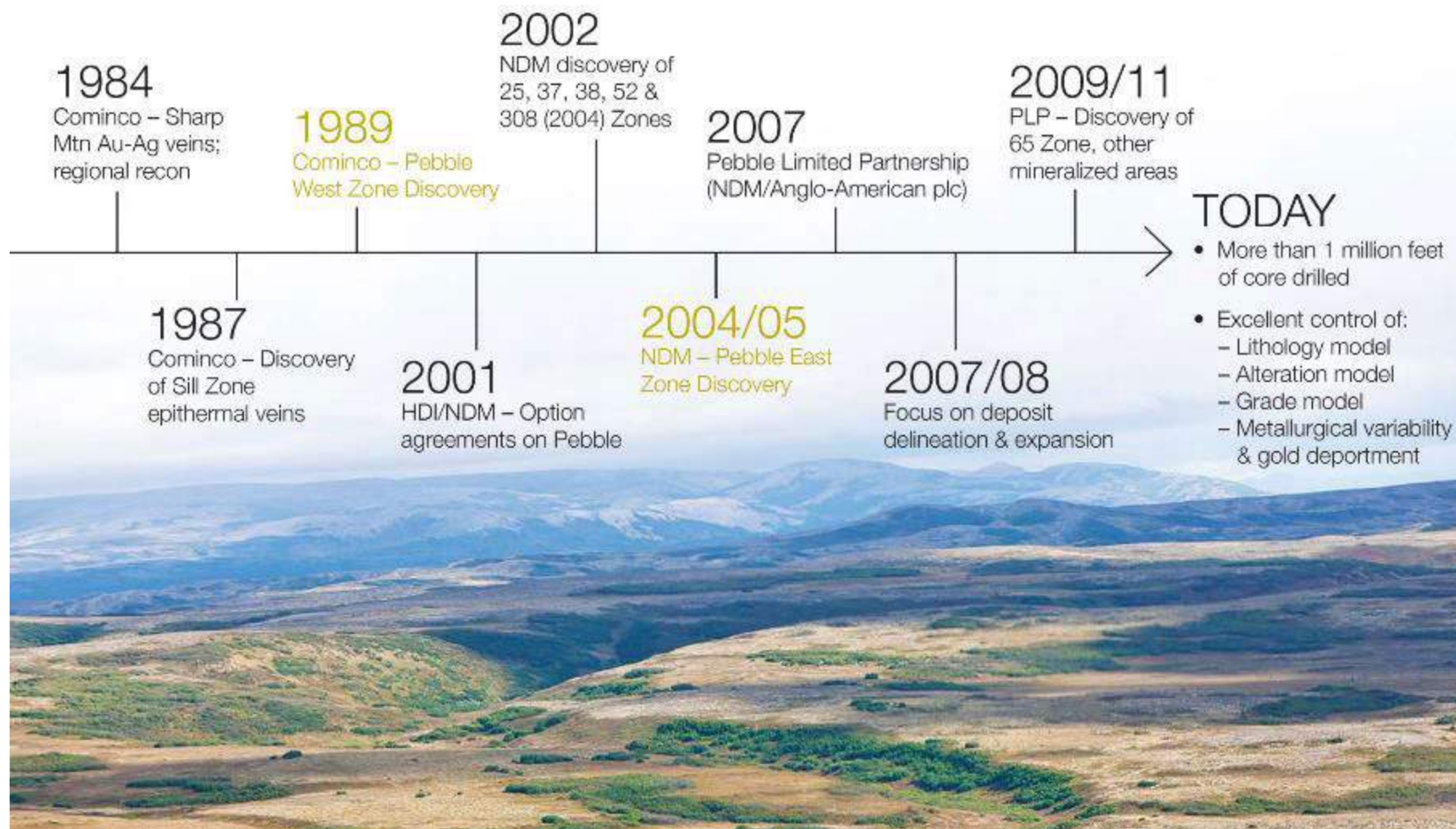


PEBBLE AMONG THE WORLD'S GREATEST STORES OF MINERAL WEALTH





PEBBLE EXPLORATION HISTORY





PEBBLE RESOURCE ESTIMATE

6.5 BILLION TONNES MEASURED & INDICATED

4.5 BILLION TONNES INFERRED

August 2020

Category	Cutoff CuEQ %	CuEQ %	Million Tonnes	Cu (%)	Au (g/t)	Mo (ppm)	Ag (g/t)	Re (ppm)	Cu (B lbs)	Au (M oz)	Mo (B lbs)	Ag (M oz)	Re (Kkg)
Measured	0.3	0.65	527	0.33	0.35	178	1.7	0.32	3.83	5.93	0.21	28.1	167
	0.4	0.66	508	0.34	0.36	180	1.7	0.32	3.81	5.88	0.20	27.4	163
	0.6	0.77	279	0.40	0.42	203	1.8	0.36	2.46	3.77	0.12	16.5	100
	1.0	1.16	28	0.62	0.62	302	2.3	0.52	0.38	0.56	0.02	2.0	14
Indicated	0.3	0.77	5,929	0.41	0.34	246	1.7	0.41	53.58	64.81	3.21	316.4	2,443
	0.4	0.82	5,185	0.45	0.35	261	1.8	0.44	51.42	58.35	2.98	291.7	2,271
	0.6	0.99	3,455	0.55	0.41	299	2.0	0.51	41.88	45.54	2.27	221.1	1,748
	1.0	1.29	1,412	0.77	0.51	343	2.4	0.60	23.96	23.15	1.07	109.9	853
Measured + Indicated	0.3	0.76	6,456	0.40	0.34	240	1.7	0.41	56.92	70.57	3.42	344.6	2,615
	0.4	0.81	5,693	0.44	0.35	253	1.8	0.43	55.21	64.06	3.18	320.3	2,431
	0.6	0.97	3,734	0.54	0.41	291	2.0	0.50	44.44	49.22	2.40	237.7	1,848
	1.0	1.29	1,440	0.76	0.51	342	2.4	0.60	24.12	23.61	1.08	112.0	867
Inferred	0.3	0.55	4,454	0.25	0.25	226	1.2	0.36	24.54	35.80	2.22	170.4	1,603
	0.4	0.68	2,646	0.33	0.30	269	1.4	0.44	19.24	25.52	1.57	119.1	1,154
	0.6	0.89	1,314	0.48	0.37	292	1.8	0.51	13.90	15.63	0.85	75.6	673
	1.0	1.20	361	0.68	0.45	377	2.3	0.69	5.41	5.22	0.30	26.3	251

NOTES:

Mineral Resources that are not mineral reserves do not have demonstrated economic viability

David Gaunt, P.Geo., a qualified person as defined under 43-101 who is not independent of Northern Dynasty, is responsible for the estimate.

Copper equivalent (CuEQ) calculations use metal prices: US\$1.85/lb for Cu, US\$902/oz for Au and US\$12.50/lb for Mo, and recoveries: 85% Cu, 69.6% Au, and 77.8% Mo (Pebble West zone) and 89.3% Cu, 76.8% Au, 83.7% Mo (Pebble East zone).

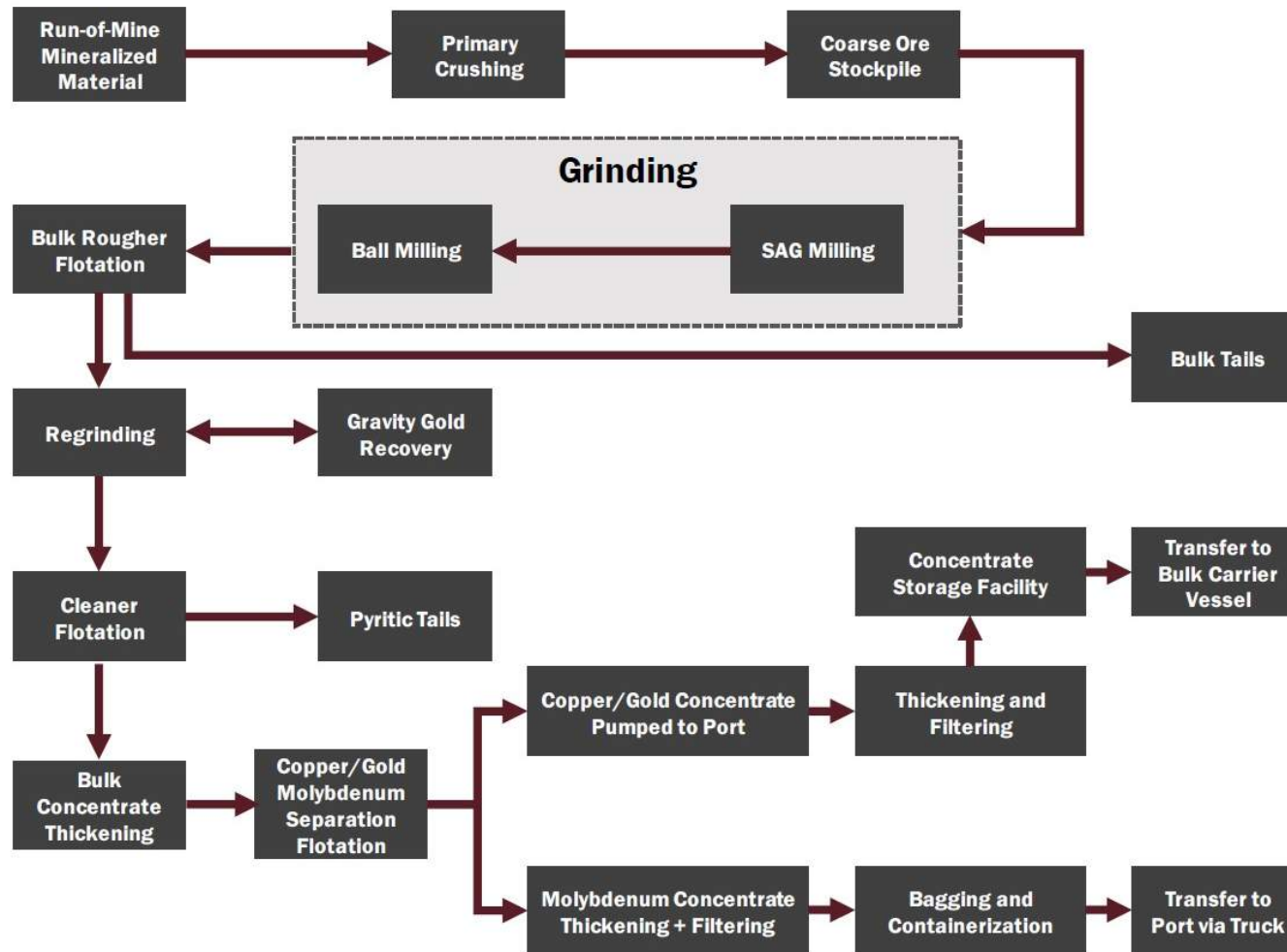
Contained metal calculations are based on 100% recoveries. A 0.30% CuEQ cut-off is considered to be appropriate for porphyry deposit open pit mining operations in the Americas.

The mineral resource estimate is constrained by a conceptual pit shell that was developed using a Lerchs-Grossman algorithm and is based in the following parameters: 42 degree pit slope; metal prices and recoveries of US\$1,540.00/oz and 61% Au, US\$3.63/lb and 91% Cu, US\$20.00/oz and 67% Ag and US\$12.36/lb and 81% Mo, respectively; a mining cost of US\$1.01/ton with a US\$0.03/ton/bench increment and other costs (including processing, G&A and transport) of US\$6.74/ton.

All mineral resource estimates, cut-offs and metallurgical recoveries are subject to change as a consequence of more detailed analyses that would be required in pre-feasibility and feasibility studies. The mineral resource estimates contained herein have not been adjusted for any risk that the required environmental permits may not be obtained for the Pebble Project. The risk associated with the ability of the Pebble Project to obtain required environmental permits is a risk to the reasonable prospects for eventual economic extraction of the mineralisation and their classification as a mineral resource.



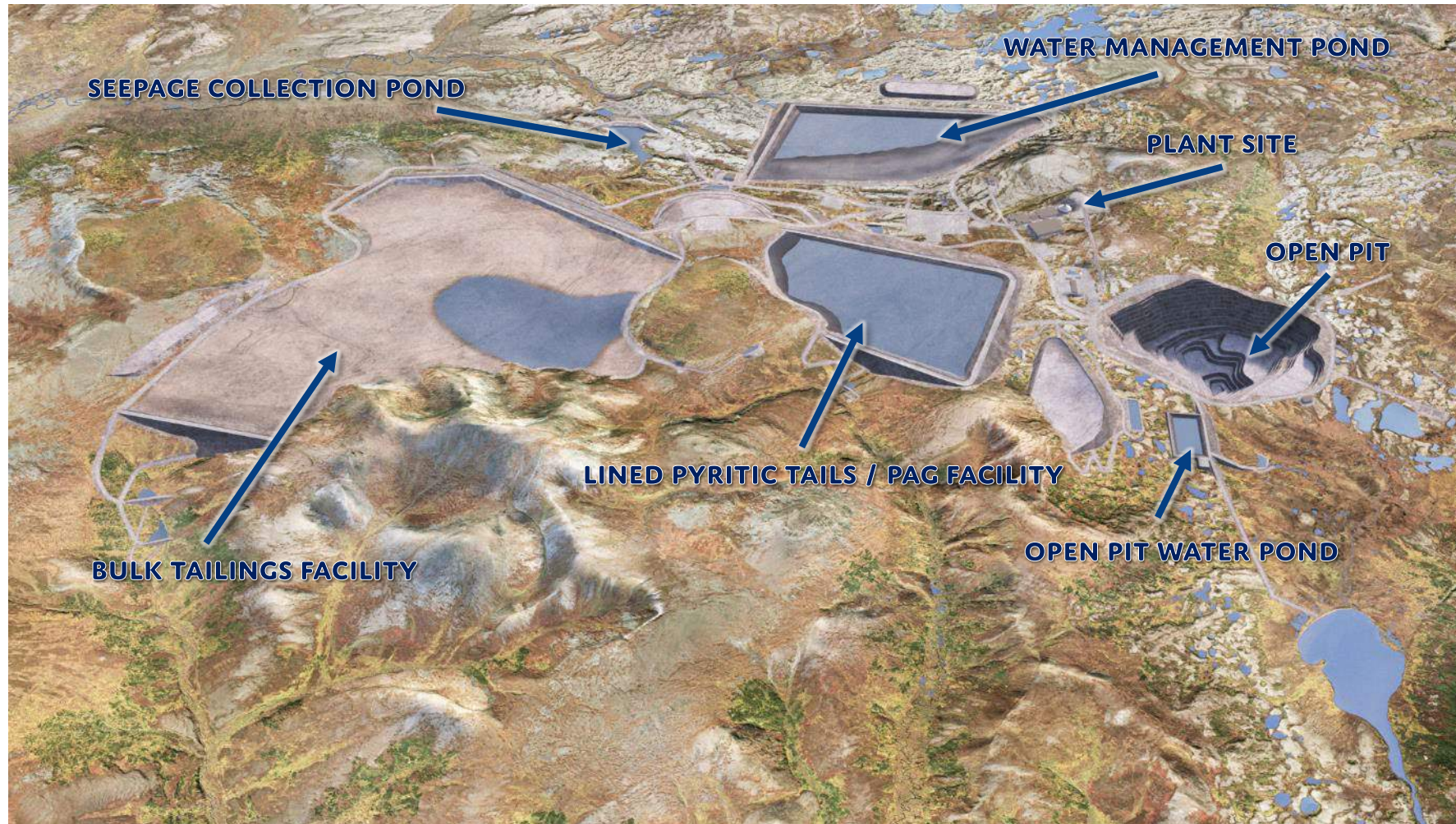
PEBBLE CONVENTIONAL FROTH FLOTATION PROPOSED PROCESS FLOW SHEET



Note: See Disclosures Page 2



PEBBLE PROPOSED MINE SITE GENERAL LAYOUT



Note: See Disclosures Page 2



PEBBLE PROPOSED TRANSPORTATION SYSTEM



ACCESS ROAD:
BRIDGE CROSSING

PROPOSED
DIAMOND POINT
PORT



CONCENTRATE PIPELINE PUMP STATION²



82-MILE ALL-WEATHER ACCESS ROAD FOR
TRANSPORTING MINE EQUIPMENT, FUEL & SUPPLIES





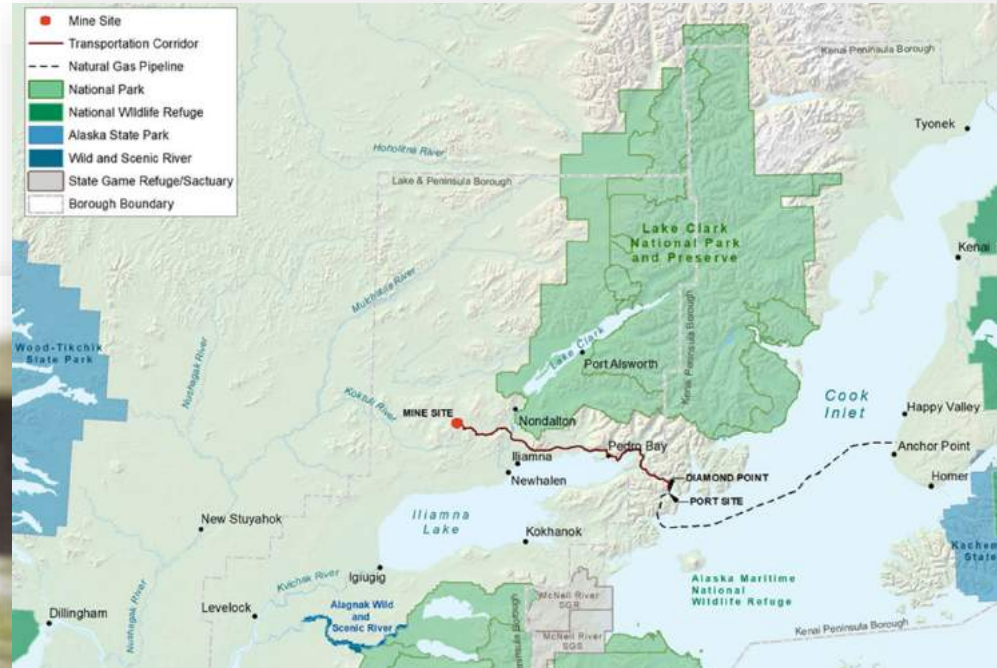
COPPER CONCENTRATE SLURRY PIPELINE²

Note: See Disclosures Page 2



PEBBLE PROPOSED POWER SUPPLY

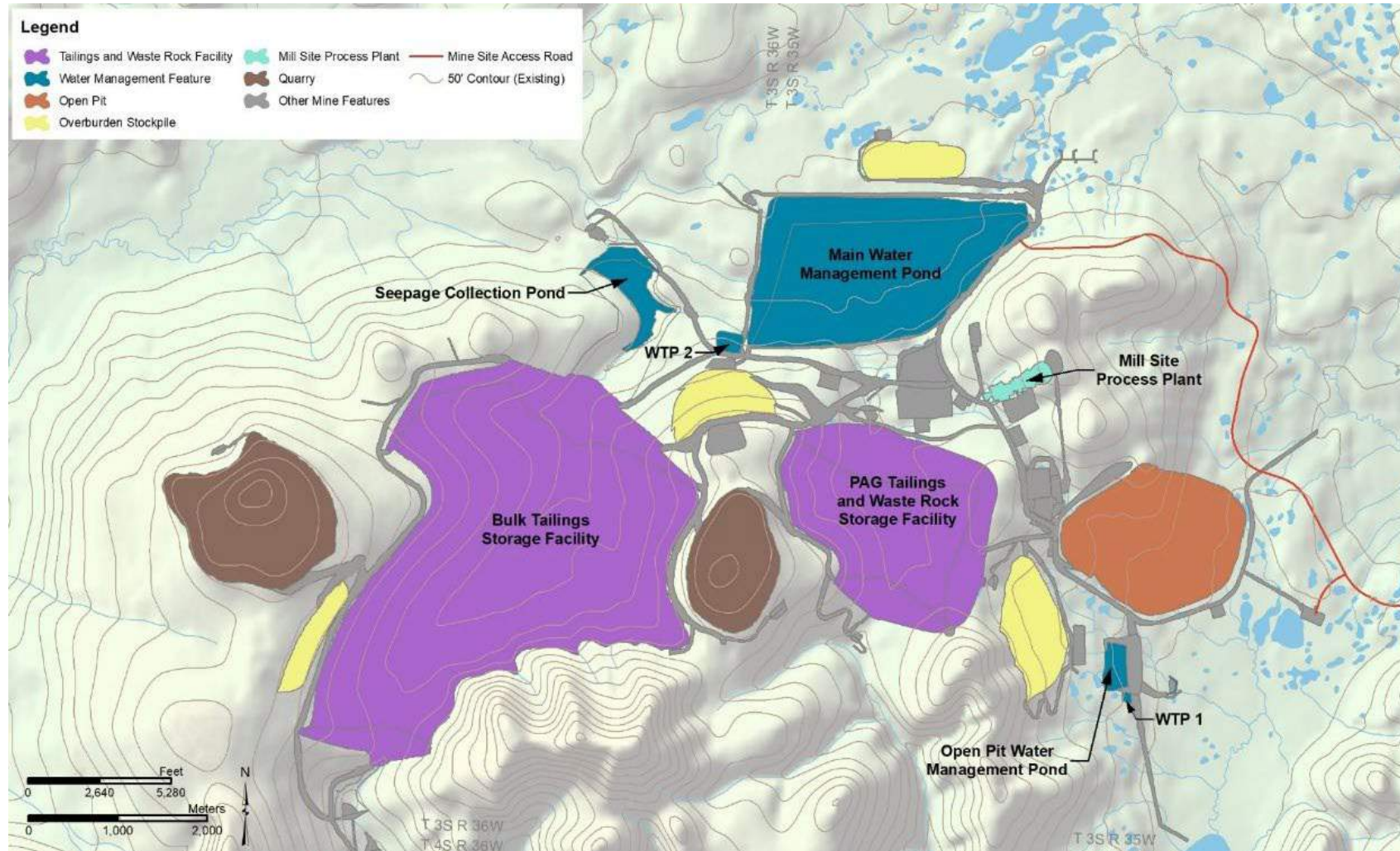
-  270 MW natural gas-fired power plant at mine site
 - Smaller power plant at port site
-  164 mile pipeline to connect to Kenai Peninsula
 - Sub-marine crossing of Cook Inlet



Note: See Disclosures Page 2



PEBBLE PROPOSED WATER MANAGEMENT



Note: See Disclosures Page 2



REFERENCES & SOURCE MATERIAL

SOURCES FOR SLIDE 18

- TECK: <https://www.teck.com/investors/reserves-&-resources/reserves-and-resources>
- ANGLO AMERICAN: <https://www.angloamerican.com/~media/Files/A/Anglo-American-Group/PLC/investors/annual-reporting/2019/aa-ore-reserves-and-mineral-resources-2018.pdf>
- FREEPORT MCMORAN: https://s22.q4cdn.com/529358580/files/doc_financials/annual/FCX_AR_2018.pdf
- NEWMONT: https://www.newmont.com/wp-content/uploads/2020/02/Newmont-Reports-2019-Reserves-and-Resources_Final.pdf
- ANGLOGOLD ASHANTI: <http://www.aga-reports.com/18/download/AGA-RR18.pdf>
- BARRICK: https://barrick.q4cdn.com/788666289/files/doc_financials/2019/q4/2019-Reserves-and-Resources.pdf

NOTES FOR COPPER PRODUCTION

- USGS Annual Metal Report: <https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/atoms/files/mcs-2019-copper.pdf>
- <https://www.teck.com/investors/reserves-&-resources/>
- <https://www.angloamerican.com/~media/Files/A/Anglo-American-Group/PLC/investors/annual-reporting/2019/aa-ore-reserves-and-mineral-resources-2018.pdf>
- https://s22.q4cdn.com/529358580/files/doc_financials/annual/FCX_AR_2018.pdf

PEBBLE PROJECT PRELIMINARY ECONOMIC ASSESSMENT NI 43-101 TECHNICAL REPORT, EFFECTIVE DATE: SEPTEMBER 9, 2021

- https://www.northerndynastyminerals.com/site/assets/files/4335/final_pebble_project_pea_2021-10-22.pdf



THANK YOU



Northern Dynasty Minerals Ltd

CONTACT INFORMATION

General Office
14th Floor
1040 W. Georgia Street
Vancouver, BC
Canada V6E 4H1

INVESTOR RELATIONS

info@northerndynasty.com
Tel: 604.684.6365
TF: 800.667.2114



Suite 405, 2525 Gambell Street
Anchorage AK 99503
Phone: (907) 339-2600
Fax: (907) 339-2601

WEBSITES

northerndynastyminerals.com
pebblepartnership.com
rightminerighttime.com

COPPER:
A CRITICAL METAL
FOR THE U.S.
GREEN FUTURE

PEBBLE:
A U.S.-BASED
WORLD CLASS
RESOURCE

PEBBLE:
SIGNIFICANT
BENEFITS IN THE
PUBLIC INTEREST

PEBBLE:
A PATHWAY
FORWARD

