



Northern Dynasty Minerals Ltd



THE PEBBLE PROJECT



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

JANUARY 2024



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 presentation, other than statements of historical facts, which address permitting, development, production for the Pebble Project and the ability of the Company to successfully complete the full royalty financing transaction announced on July 27, 2022 (the "Royalty Financing") are forward-looking statements. These include statements regarding (i) the mine plan for the Pebble Project including the financial results of the 2023 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 right-sizing and de-risking of the Pebble Project, (iii) the design and operating parameters for the Pebble Project mine plan, including projected capital and operating costs, (iv) the social integration of the Pebble Project into the Bristol Bay region and benefits for Alaska, (v) the political and public support for the permitting process, (vi) the outcome of the USACE remand and 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, (vii) the status/merit of the EPA Final determination and the actions of the EPA with respect to its Final Determination with respect to the Pebble Project; (viii) exploration potential of the Pebble Project, (ix) future demand for copper, gold and other metals, (x) if permitting is ultimately secured, the ability to demonstrate the Pebble Project is ultimately commercially viable, (xi) the potential addition of partners in the Pebble Project, and (xii) the successful completion of the full Royalty Financing. 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.

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. Such forward looking statements or information related to the 2023 PEA 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 the expansion scenarios for the Pebble Project, 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, market price of precious and base metals, or other statements that are not statement of fact. 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, (v) NDM will be able to secure the financing required to develop the Pebble Project, including the full Royalty Financing, and (vi) the EPA's Final Determination will ultimately not be successful in restricting or prohibiting development of 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) the current mine plan may not reflect the ultimate mine plan for the Pebble Project, (ii) 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, (iii) finalization of the mine plan for the Pebble Project, (iv) the completion of feasibility studies demonstrating that any Pebble Project mineral resources that can be economically mined, (v) completion of all necessary engineering for mining and processing facilities, (vi) the ability of NDM to secure a partner for the development of the Pebble Project, and (vi) receipt by NDM of significant additional financing, including the full Royalty Financing, to fund these objectives as well as funding mine construction. NDM is also subject to the specific risks inherent in the mining business as well as general economic and business conditions. Investors should also consider the risk factors identified in the Company's Annual Information Form for the year ended December 31, 2022, as filed on SEDAR+ (www.sedarplus.ca) and included in its annual report on Form 40-F filed on EDGAR (www.sec.gov), as well as the risk factors set out in the Company's subsequent public continuous disclosure filings available on SEDAR+ and EDGAR. 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.sedarplus.com.

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.

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 engineering by Stephen Hodgson, PEng.



SUMMARY: STRONG RISK/RETURN POTENTIAL



**COPPER:
AN IMPORTANT METAL FOR
AMERICA'S GREEN FUTURE**

- 👤 Transition to Green Energy expected to substantially increase demand for copper
- 👤 Forecast supply not sufficient to meet demand
- 👤 Higher copper prices expected



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

- 👤 Largest undeveloped copper/gold deposit in the world
- 👤 Potential domestic solution to U.S. foreign supply chain dependence on critical minerals
- 👤 PEA September 2023: Positive Projected Financial Results, excellent optionality and important benefits for Alaska
- 👤 Untapped exploration upside



**PEBBLE:
A PATH
FORWARD**

- 👤 Final EIS: no measurable impact on fisheries with significant social/economic benefits expected¹
- 👤 Alaska and NDM are committed to fighting against the EPA and USACE actions which we believe are unsupportable
- 👤 Next step against the EPA overreach is filing a suit in Federal District Court
- 👤 If fully funded, \$60 million Royalty Investment enhances financial strength to challenge these agency decisions

1. Pebble Project EIS - Final Environmental Impact Statement, July 2020

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PEBBLE



**COPPER – AN IMPORTANT
METAL FOR AMERICA’S
GREEN FUTURE**



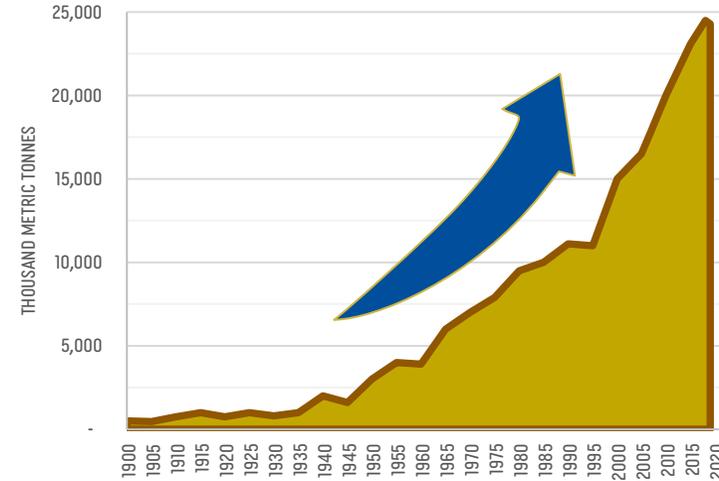
TSX: **NDM**
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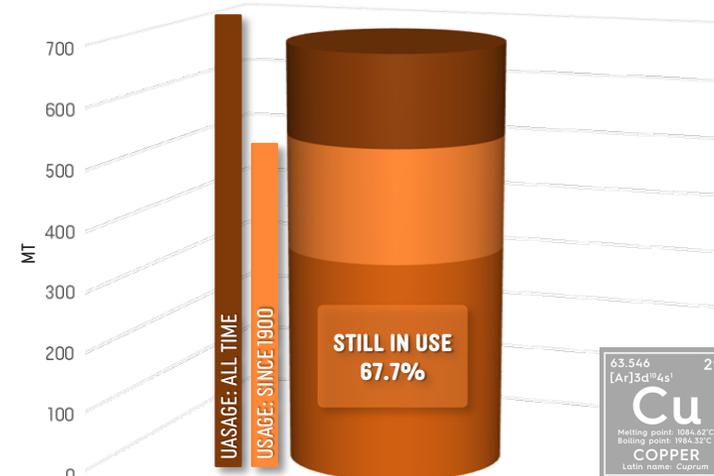
SIGNIFICANT DEFICIT FORECAST FOR COPPER

- Copper Bull-Market now under way¹
- Prices expected to be buoyed by supply disruptions and plans for “green” economic stimulus
- Global focus on carbon neutrality driving copper demand from ~23 million tons in 2020 to >30 million tons by 2030, potentially doubling by 2050²
- Copper demand will be driven by:
 - Global Growth Renewable Energy & Electric Transportation
 - Urbanisation Electrification & Battery Storage

WORLD REFINED COPPER USAGE (1900-2018)⁴



HISTORICAL COPPER USAGE^{5,6}

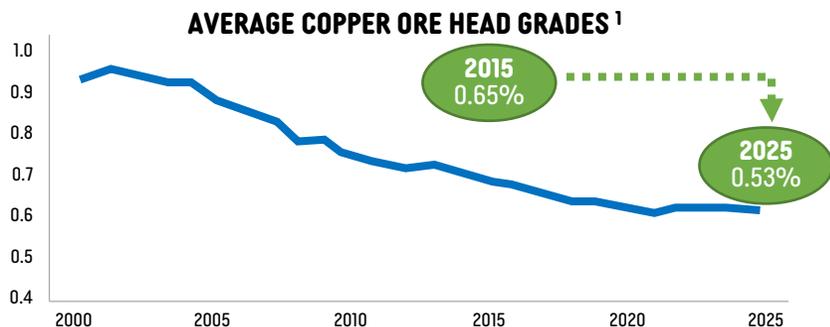


1. Source: The Goldman Sachs Group, Inc., "Copper: Charting a course to \$10,000/t" 1 December 2020
 2. Source: <https://stockhead.com.au/resources/glencore-has-some-stunning-figures-on-the-levels-of-battery-metals-the-world-will-need-by-2050/>
 3. Source: CRU Presentation/Study Groups
 4. <https://www.usgs.gov/centers/national-minerals-information-center/copper-statistics-and-information>
 5. <https://copperalliance.org/wp-content/uploads/2021/08/ica-copper-recycling-201712-A4-HR2.pdf>



DIFFICULTIES FACING FUTURE COPPER SUPPLY

DECLINING HEAD GRADES GLOBALLY



POLITICAL/SOCIAL INSTABILITY

- Panama
- Argentina
- Chile
- Ecuador
- Peru

LACK OF NEW LARGE DEVELOPMENTS

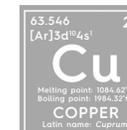
Industry needs a new Escondida (largest copper mine) built EVERY YEAR for next 8 years to meet expected demand;
None have started; None are planned²

LARGEST 6 US COPPER PROJECTS STALLED IN FEDERAL PERMITTING

- Pebble
- Resolution
- Twin Metals
- Ambler
- Polymet
- Rosemont

1. Source: Energy & Capital

2. Source: <https://www.nxtmine.com/uncategorized/8-escondidas-needed-over-the-next-eight-years>





URGENT NEED FOR SIGNIFICANT COPPER PROJECTS

 **Eric Heimlich, Head of Base Metals Supply, CRU¹ said in March 2022:**

- Miners need to invest > \$100 billion over the next 8 years to meet copper demand
- - ...have to build 8 projects the size of Escondida (the world's largest copper mine, owned by BHP)
- Projected annual deficit of 4.5 Mt by 2030; after 2030, it widens to 6 Mt/yr

 **Expected new supply concentrated in five mines:**

- Escondida
- Spence
- Quebrada Blanca
- Cobre Panama, and
- Kamoā-Kakula

 **Of these 100% of Phase 1 production from Kamoā-Kakula is contracted to China and 50% of Cobre Panama is contracted to South Korea.**

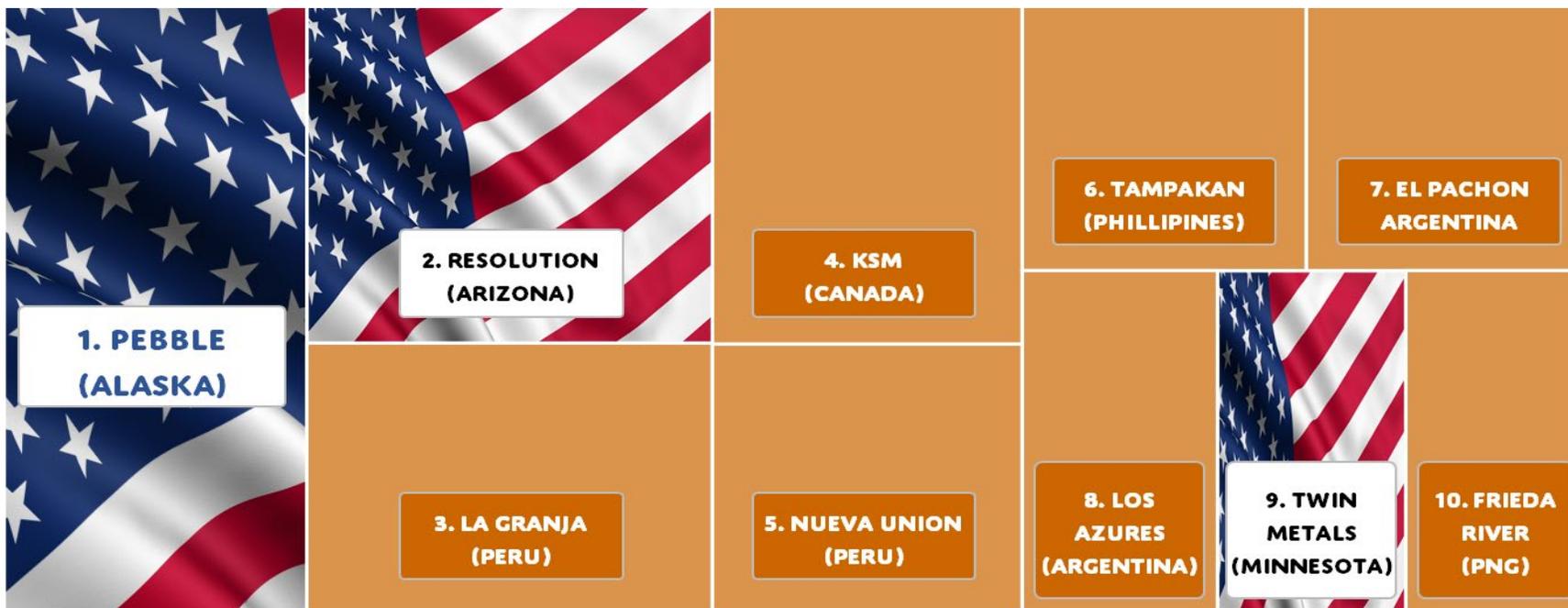
1. Source: <https://www.mining.com/miners-need-to-invest-over-100bn-to-meet-copper-demand/>
2. Source: Energy & Capital



WHERE WILL THE U.S. GET ITS COPPER?

- World’s top undeveloped copper projects predominantly located outside of the U.S
 - 60% of contained copper in top copper projects is foreign based; 40% “held-up” in U.S. permitting
- Pebble ranks as the largest undeveloped copper project globally
 - 37% of contained copper of top copper projects
 - 47% of contained copper of top U.S. located projects

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



Source: Mining Intelligence 2022



PEBBLE



A U.S.-BASED WORLD CLASS RESOURCE



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PEBBLE

A WORLD CLASS MINERAL RESOURCE ON GOOD MINING GROUND

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

RECOVERABLE METAL

	MEASURED & INDICATED	INFERRED
COPPER	53 B LB	23 B LB
GOLD	54 M OZ	28 M OZ
MOLYBDENUM	2.8 B LB	1.8 B LB
SILVER	249 M OZ	122 M OZ
RHENIUM	1.8 M KG	1.0 M KG

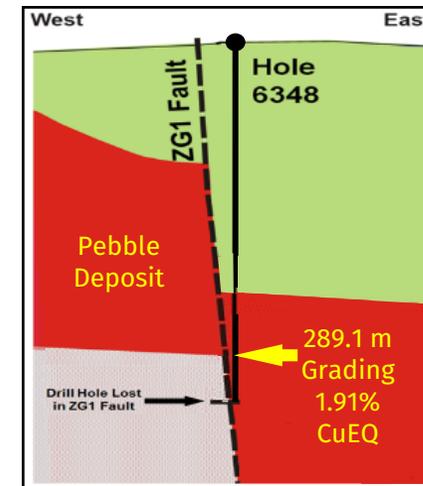
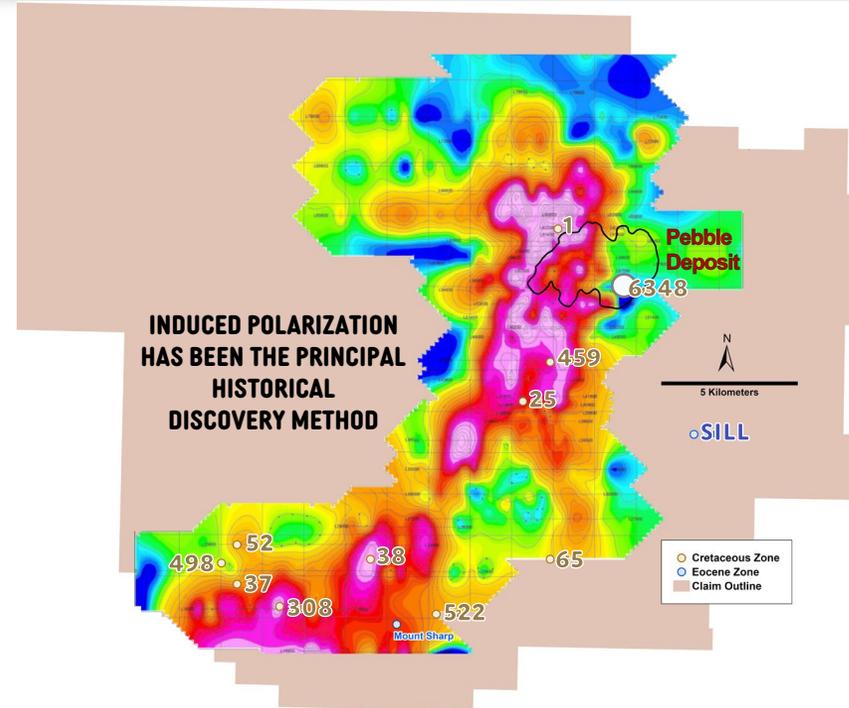
* Refer to table of Measured, Indicated and Inferred Resources in Appendix



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 NATURE OF THE DEPOSIT PROVIDES OPTIONALITY¹

- 
2023 Preliminary Economic Assessment ("PEA") updates cost estimates and financial results for the Proposed Project, defined in the original 2017 permit application and amended in 2019
- 
The Proposed Project (i.e. Permitting Case) is an open pit mine feeding a conventional 180,000 tons per day ("Tpd") copper flotation concentrator
 - Would process 1.3 billion tons of mineralized material over 20 years of mining at the 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"), and 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 2023 PEA examines the sensitivity of the Project to three potential mine expansion scenarios:
 - Generally modelled on a concept identified by the PLP in the response to a Request for Information from the USACE during the federal permitting process
 - Potential alternative strategies for incremental gold recovery.
- 
Any of these potential mine expansion 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 2023 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 2023 PEA WILL BE REALIZED.

1. All results cited from the 2023 PEA reference the Base Case and related Potential Expansion Scenarios



PEBBLE 2023 PEA: PROPOSED PROJECT

Proposed Project

- 20-year, 180,000 tons per day open pit operation with conventional processing producing two concentrates
- Capable of processing 1.3 billion tons of mineralized material over 20 years of mining at a low strip ratio of 0.12:1
- Average annual mine operating cost of US\$14.17/ton
- Initial capital investment of US\$3.116 billion¹
- Average annual metal production is forecast to be 320 million lb copper; 368,000 oz gold; 15 million lb molybdenum; 1.8 million oz silver and 10,000 kg rhenium
- Life-of-Mine metal production of 6.4 billion lb copper; 7.4 million oz gold; 300 million lb molybdenum; 37 million oz silver; and 200,000 kg rhenium

 2023 PEA is an independent review of the project that provides cost and price estimates to reflect current economic volatility

 Infrastructure plan that uses the “southern route” for project access as defined in the original permitting application for the Pebble Project and subsequently amended

 Proposed mine would provide good-paying, year-round employment² for thousands of Alaskans and substantial tax revenues for the state, including contributions to the Alaska Permanent Fund

 Study also assesses potential mine expansion scenarios to demonstrate optionality and a possible pathway for future mine development, and the potential of the future addition of a gold plant

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1. Total initial capital investment for the design, construction, installation, and commissioning estimated to be \$6.77 billion, which includes all direct and indirect costs, as well as a contingency. NDM believes it is most likely that the proposed project would be developed with partners who will provide the primary infrastructure (marine terminal, access road, ferry, natural gas pipeline, mine site power plant) in return for lease payments or tolls at rates which provide a return on investment to the developers of the infrastructure. The capital cost of this infrastructure which may be provided by third parties is estimated at \$2.64 billion, which would reduce the cash outlay required for construction. The financial results also include anticipated metal streaming, which would provide proceeds of approximately \$1.2 billion towards the initial capital cost, and right of way and reclamation payments of \$230 million during the construction period.
2. Direct and indirect employment



PEBBLE 2023 PEA PRODUCTION SUMMARY^{1,2}

	UNITS	PROPOSED PROJECT	POTENTIAL EXPANSIONS ³
MINERALIZED MATERIAL	BILLION TONS	1.3	8.6
COPPER EQUIVALENT ⁴	%	0.58	0.72
COPPER	%	0.29	0.39
GOLD	OZ/TON	0.009	0.01
MOLYBDENUM	PPM	154	208
SILVER	OZ/TON	0.042	0.046
RHENIUM	PPM	0.28	0.36
WASTE	BILLION TONS	0.2	14.4
OPEN PIT STRIP RATIO	-	0.12	1.67
LIFE OF MINE	YEARS	20	VARIES
METAL PRODUCTION (LIFE OF MINE)			
COPPER	MLB	6,400	60,400
GOLD (IN CU CONCENTRATE)	KOZ	7,300	50,500
SILVER (IN CU CONCENTRATE)	KOZ	37,000	267,000
GOLD (IN GRAVITY CONCENTRATE)	KOZ	110	782
MOLYBDENUM	MLB	300	2,900
RHENIUM	1000 KGS	230	2,000
METAL PRODUCTION (ANNUAL⁵)			
COPPER	MLB	320	-
COPPER-GOLD CONCENTRATE	KTONS	559	-
GOLD (IN CU CONCENTRATE)	KOZ	363	-
SILVER (IN CU CONCENTRATE)	KOZ	1,800	-
MOLYBDENUM	MLB	15	-
MOLYBDENUM CONCENTRATE	KTONS	14	-
RHENIUM	1000 KGS	12	-

THE 2023 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 AND THERE IS NO ASSURANCE THAT THE 2023 PEA WILL BE REALIZED. MINERAL RESOURCES THAT ARE NOT MINERAL RESERVES DO NOT HAVE DEMONSTRATED ECONOMIC VIABILITY.

1. All scenarios/alternatives include infrastructure outsourcing and gold streaming
2. Long-term metal prices: copper \$3.90/lb; gold \$1,700/oz; molybdenum \$12/50/lb; silver \$22.50/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 to the Proposed Project 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 2023 PEA PROPOSED PROJECT^{1,2}

DESCRIPTION	UNITS	PROPOSED PROJECT – BASE CASE, INCLUDING ROYALTIES
MINING TAXES & GOVERNMENT ROYALTIES	US\$ M	1,487
CORPORATE INCOME TAX	US\$ M	1,931
POST – TAX UNDISCOUNTED CASH FLOW	US\$ M	7,681
POST – TAX NPV AT 7% ³	US\$ M	2,233
POST – TAX IRR	%	16.2%
POST – TAX PAYBACK PERIOD	YEARS	4.6

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1. Assumptions:
 - Proposed Project, per that submitted for permitting
 - Third party partners provide project infrastructure, including access road, marine facilities, ferry and ferry landing facilities, natural gas pipeline, natural gas fired power plant
 - Metal streaming
 - Full five royalty tranches exercised
2. Long-term metal prices: copper \$3.90/lb; gold \$1,700/oz; molybdenum \$12/50/lb; silver \$22.50/oz; rhenium \$1,500/kg
3. Net Present Value is calculated using a 7% discount rate. By convention, a discount rate of 8% is typically applied to copper and other base metal projects, while 5% is applied to gold and other precious metal projects. Given the polymetallic nature of the Pebble deposit and the large contributions of gold to total project revenues, a 7% blended discount rate has been selected.



PEBBLE POTENTIAL EXPANSION SCENARIOS^{1,2,3,4}

- ☞ Three potential expansion scenarios were evaluated to test the sensitivity of the project to expansion of the operation and extraction of a greater portion of the resource.
- ☞ The potential expansion scenarios were modeled on the response submitted by Pebble Partnership to USACE in response to a Request for Information (“RFI”) received during the NEPA EIS process.
- ☞ All three potential expansion scenarios assessed the impact of extracting 8.6 billion tons of resource, with different throughput rates and expansion timeframes.
- ☞ The potential expansion scenario modeled explicitly on the RFI response envisioned the process plant expanding to 250,000 tons per day in Year 21. The other two potential expansion scenarios envisioned a plant expansion to 270,000 tons per day in either Year 5 or Year 10.

DESCRIPTION	UNITS	YEAR 5 EXPANSION	YEAR 10 EXPANSION	YEAR 21 EXPANSION
NET SMELTER RETURN	\$M	312,780	312,360	312,570
OPERATING COSTS	\$M	125,110	119,470	124,050
TOTAL CAPITAL COSTS ¹	\$M	26,850	26,830	27,430
INITIAL CAPITAL COSTS	\$M	4,132	4,132	4,132
EXPANSION COSTS	\$M	4,404	4,324	4,974
SUSTAINING COSTS	\$M	18,314	18,377	18,332
POST – TAX UNDISCOUNTED CASH FLOW	\$M	110,770	114,970	111,800
POST – TAX NPV AT 7%	\$M	8,570	7,520	5,500
POST – TAX IRR	%	22.0	20.0	18.1

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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

DESCRIPTION	UNIT	PROPOSED PROJECT	PROPOSED PROJECT + GOLD PLANT	EXPANSION SCENARIOS		
				YEAR 5	YEAR 10	YEAR 21
CONCENTRATE (LOM)						
COPPER	MLB	6,400	6,500	61,200	61,200	61,200
GOLD (IN CU CONCENTRATE)	KOZ	7,300	7,300	50,500	50,500	50,400
SILVER (IN CU CONCENTRATE)	KOZ	37,000	37,000	267,000	267,000	267,000
GOLD PLANT (LOM)						
GOLD (AS DORÉ)	KOZ	-	2,000	14,400	14,500	14,500
SILVER (AS DORÉ)	KOZ	-	2,900	22,500	22,600	22,600
TOTAL PRODUCTION (LOM)						
GOLD	KOZ	7,400	9,300	64,900	65,100	65,000
SILVER	KOZ	37,000	39,500	289,000	289,000	289,000

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 \$3.90/lb; gold \$1,700/oz; molybdenum \$12.50/lb; silver \$22.50/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 to the Proposed Project in the near-term for regulatory approval. Each would require extensive federal, state and local permitting processes and approvals before proceeding.



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DESCRIPTION	UNITS	PROPOSED PROJECT + GOLD PLANT	YEAR 5 EXPANSION	YEAR 10 EXPANSION	YEAR 21 EXPANSION
NET SMELTER RETURN	\$M	38,190	338,260	337,820	338,010
OPERATING COSTS	\$M	19,740	136,320	130,600	135,340
TOTAL CAPITAL COSTS ¹	\$M	5,640	27,100	27,170	27,750
INITIAL CAPITAL COSTS	\$M	4,150	4,150	4,150	4,150
EXPANSION COSTS	\$M	219	4,633	4,640	5,280
SUSTAINING COSTS	\$M	1,272	18,314	18,378	18,322
POST – TAX UNDISCOUNTED CASH FLOW	\$M	9,020	120,770	124,830	121,480
POST – TAX NPV AT 7%	\$M	2,740	10,030	8,660	6,460
POST – TAX IRR	%	17.5	24.2	21.4	19.6

1. Assumptions:
 - Proposed Project, per that submitted for permitting
 - Third party partners provide project infrastructure, including access road, marine facilities, ferry and ferry landing facilities, natural gas pipeline, natural gas fired power plant
 - Metal streaming
 - Full five royalty tranches exercised
2. Long-term metal prices: copper \$3.90/lb; gold \$1,700/oz; molybdenum \$12/50/lb; silver \$22.50/oz; rhenium \$1,500/kg
3. Net Present Value is calculated using a 7% discount rate. By convention, a discount rate of 8% is typically applied to copper and other base metal projects, while 5% is applied to gold and other precious metal projects. Given the polymetallic nature of the Pebble deposit and the large contributions of gold to total project revenues, a 7% blended discount rate has been selected.
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 to the Proposed Project in the near-term for regulatory approval. Each would require extensive federal, state and local permitting processes and approvals before proceeding.

THE 2023 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 2023 PEA WILL BE REALIZED.



PEBBLE



A PATH FORWARD



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



PEBBLE STILL WORKING ITS WAY THROUGH THE PERMITTING PROCESS

Negative Record of Decision (ROD) Issued: November 25, 2020

-  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 Submits Permit Denial Appeal: January 19, 2021

-  "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."

USACE Pacific Ocean Division remands the negative ROD to the Alaska District: April 25, 2023

-  After 27 months of review, the USACE Pacific Ocean Division has remanded the ROD decision back to the Alaska District for reconsideration of several key points



APPEAL OF USACE RECORD OF DECISION REMANDED

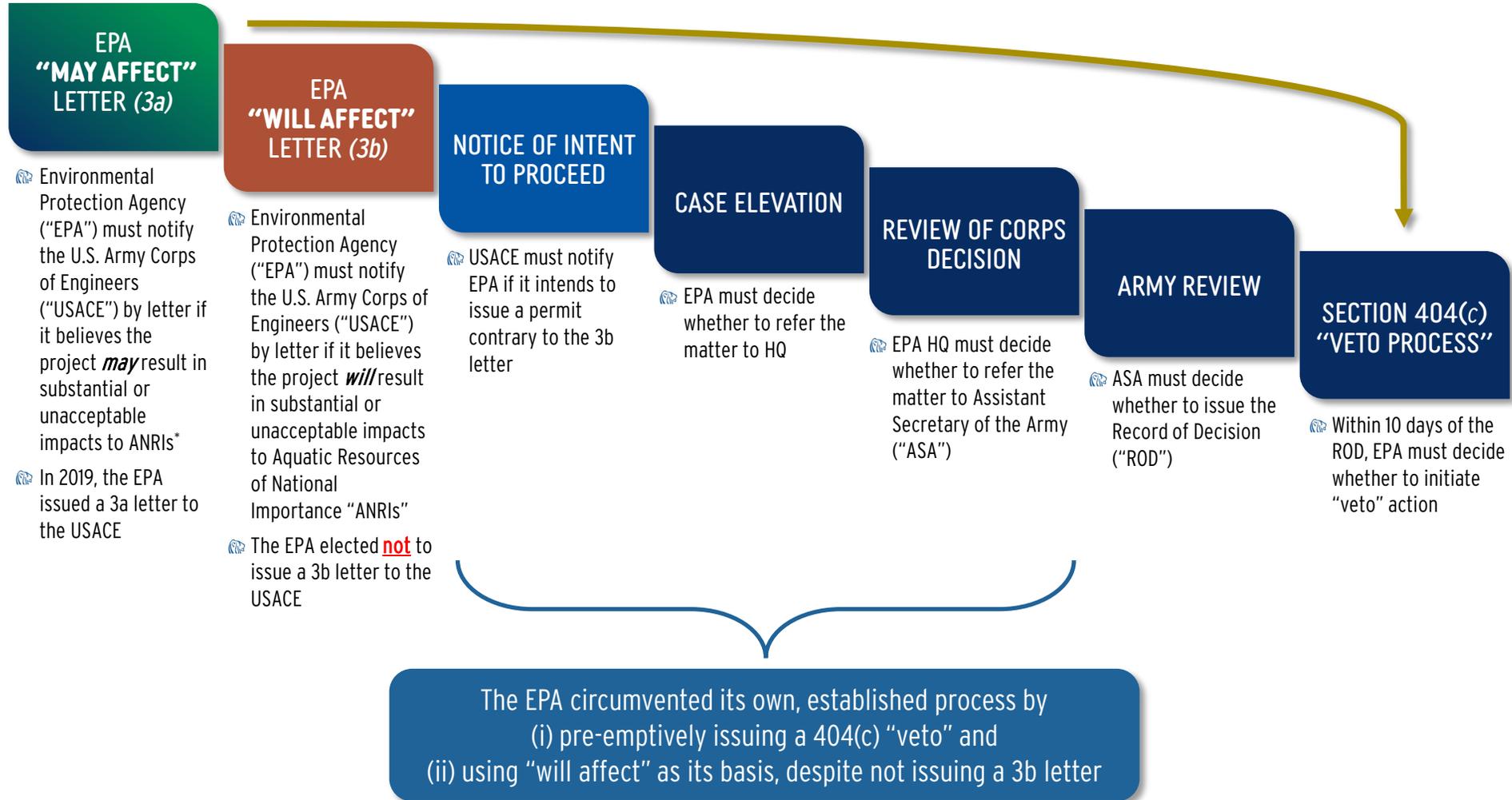
- Under U.S. regulatory law, permitting decisions for major development projects must be based on an ‘administrative record’ which, in Pebble’s case, includes the Final EIS published by the USACE in July 2020
- NDM maintains the USACE’s permitting decision does not reflect many of the findings in the final EIS

SUMMARY OF INCONSISTENT AND DIAMETRICALLY OPPOSED FINDINGS

SUBSTANTIVE ISSUE	FINDINGS IN FINAL EIS	PERMITTING DECISION BASED ON PIR	PACIFIC OCEAN DIVISION REMAND
Potential ‘economic contribution’ to the Bristol Bay region and State of Alaska	“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)	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”	“It is not clear why the District uses the term ‘brief duration’ here. As the Appellant states, the FEIS describes the economic benefits as long term. In addition, the District does not describe any of the other PIR factor benefits or detriments as ‘brief duration’. While the sentence in question refers to ‘the impacts’, not ‘the beneficial impacts’ or ‘the detrimental impacts’, the District does not provide adequate explanation of why the benefits here would be deemed brief duration.”
Potential effects on ‘water quality’	“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)	In supporting documents for its ROD, the USACE claims Pebble would “cause water quality degradation”	As the Compensation Mitigation Plan (CMP) – or lack thereof – formed a significant basis for the negative ROD decision, as well as underpinning for the finding of ‘significant degradation,’ reversing the decision on the CMP could have significant follow-on effects for several other conclusions.
Potential effects on ‘subsistence fishing and hunting’	“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)	In supporting documents for its ROD, the USACE claims Pebble would lead to “reduced subsistence opportunities”	“The Appellant also correctly states that the FEIS ‘found no impact to fish and game resources available for subsistence harvests.’ However, the ROD does not reflect any alternate conclusions or statements by the District.”
Likelihood and consequence of a ‘catastrophic tailings storage facility failure’	“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 experienced large failures.” (K4.27-4)	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.”	“...Because the District found that large spills are not reasonably foreseeable, its discussion of them...is inappropriate. The District is required to analyze effects which are likely to occur, but the District found that a catastrophic event is not reasonably foreseeable.”



EPA FAILS TO FOLLOW ITS OWN PROCESS



* Aquatic Resources of National Importance
 Source: EPA (<https://www.epa.gov/system/files/documents/2023-01/CWA%20404c%20Fact%20Sheet%202023.pdf>)



FUNDAMENTAL FLAWS WITH EPA'S FINAL DETERMINATION

PLP's submitted to the EPA (Sept 2022), noting flaws in their veto

-  **EPA has not exhausted specific measures during the permitting process to voice and address its concerns before issuing a Section 404(c) veto**
 -  404(c) action remains premature and preemptive as the U.S. Army Corps of Engineers ("USACE") has issued a Record of Decision denial. As such, "pursuing a veto in the absence of such an indication by USACE is contrary to law and EPA precedent."
 -  EPA's proposal to restrict future development of the Pebble Deposit is legally and technically unsupportable
-  **Like other recent challenges, this action exceeds the statutory authority granted by Congress**
 -  Congress has never granted EPA the authority to set aside large areas of land, nor do EPA's regulations contemplate such authority
 -  The 309-square-mile area proposed for restricting mining is over 23 times larger than the 2020 Mine Plan
-  **The EPA has made wildly speculative claims about possible adverse impacts from Pebble's development that are not supported by any defensible data and are in direct contradiction to the facts validated in the USACE's Final Environmental Impact Statement ("FEIS") for the Pebble Project**
 -  The EPA refers to new scientific studies, but fails to provide any evidence of new, supporting information for their conclusions
-  **EPA relies heavily on 'what-if' scenarios, while at the same discounting the similar nature of anticipated economic benefits**
 -  Despite the significant amount of work done by NDM, PLP and S&P Global to demonstrate the overwhelmingly positive socioeconomic benefits to Alaska (and the broader U.S. as well), the EPA seeks to dismiss this in favour of suspect and highly speculative work done to assess the benefits of the Bristol Bay salmon fishery
 -  The FEIS and subsequent Economic Impact Assessment ("EIA") clearly demonstrate the dramatic impact responsible Pebble development could have for these communities; benefits which are indisputable. Also, the FEIS and EIA were completed by competent and highly reputable U.S./International engineering and data analysis and management companies
-  **The EPA has a nearly 20-year history of campaign within the agency to kill the Pebble Project**
 -  Under (now) the last three administrations, the EPA has conspired with environmental activists to undermine due process and circumvent the established National Environmental Policy Act ("NEPA") process; each of these three administrations were Democratic



SUPREME COURT DECIDED NOT TO HEAR STATE APPEAL TO BYPASS LOWER COURTS

-  Alaska asked the Supreme Court to opine whether it would hear its case against the EPA's veto of Pebble without going through the Federal District Court system first
-  Is NOT a comment on the merits of the State's case, but is a procedural decision
-  The Supreme Court is a court of last resort and often denies appeals when the case can be heard by a lower court
-  Alaska Governor remains committed to fighting against this injustice

1. Message posted on X on January 8, 2024



Governor Mike Dunleavy 

@GovDunleavy



At a time when federal administrations are fast-tracking renewable energy development, the careful production of copper and other rare minerals, like those found in the Pebble area, is more important than ever. The Supreme Court's decision to not hear the State's case directly is disappointing, but the State is confident that the lower courts will find that EPA violated the law with its prohibition and restrictions against any mining activity within the 309-square mile area surrounding the Pebble deposit. The State will continue to fight against this flagrant overreach.

1



NDM SECURES INNOVATIVE ROYALTY AGREEMENT UP TO \$60 MILLION ON NON-CORE METALS

- 

The Pebble Project requires time, patience and sufficient liquidity to successfully navigate the established legal process and continue ongoing efforts to work with the people in the region
- 

NDM will receive up to \$60 million (*\$14 million received to date*) over the next two years, in return for the right to receive a portion of the future gold and silver production from the Pebble Project for the life of the mine

 - Initial payment of \$12 million was received upon execution Royalty Agreement provides the right to purchase 2% gold for 1,500/oz and 6% silver for \$10/oz
 - Improve our liquidity without issuing equity at what we consider depressed prices
- 

The agreement raises significant capital over the next two years in return for the right to buy a small portion of future, non-core gold and silver production from the Proposed Project, while keeping 100% of the copper production
- 

The Company has agreed to divide the second payment into 6 equal payments of \$2M each (the first \$2M is received). Upon completion of the remaining five \$2M payments before the contract expiry date, the expiry date will be extended by one year for the remaining three \$12M payments to be made
- 

Significant copper price increases anticipated due to the expected supply/demand imbalance

**NDM CONTINUES TO BUILD THE FINANCIAL WHEREWITHAL TO
 KEEP FIGHTING AGAINST WHAT WE CONSIDER TO BE UNFOUNDED INTERFERENCE
 BY U.S. FEDERAL GOVERNMENT AGENCIES IN AN
 OTHERWISE WELL-ESTABLISHED, LEGAL PERMITTING PROCESS**

Source: See Northern Dynasty news release dated July 27, 2022 and November 13, 2023



PROVEN 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.

CHRISTIAN MILAU

Christian Milau, CEO of Blue Dot Carbon, is a Chartered Professional Accountant (CPA, CA) and mining executive with experience in acquisition, financing, development, and operation of mines. Mr. Milau was CEO of Equinox Gold Corp. and 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.

SIRI C. GENIK

Siri Genik is a senior executive in the Natural Resources and Infrastructure industries. She is a subject-matter expert in Sustainability and ESG, Stakeholder Engagement and Governance, as well as Strategic Communications and Supply Chain. Siri is the Principle and Founder of BRIDGE®, a firm providing sustainability strategies to Boards and Leadership. She has over 25 years of experience working on major capital projects through the world. Her background with the mining industry includes serving as Head of Project Services for BHP Canada as well as Glencore (Xstrata) working on projects in Australia, Malaysia and New Caledonia. Siri is a lawyer and is fluent in English, French and Spanish.

ISABEL SATRA

Isabel Satra has spent over 20 years in investment management, most recently as Founder and CFO of Kopernik Global Advisors, where she is a Co-Portfolio Manager, oversees management of the firm finances as well as serves on the Board of Directors and the Investment Oversight Committee. She has also held positions of Analyst and Portfolio Manager at several investment firms, including Vinik Asset Management and Tradewinds Global Investors, after transitioning from engineering positions at Boeing North America and Rockwell International.

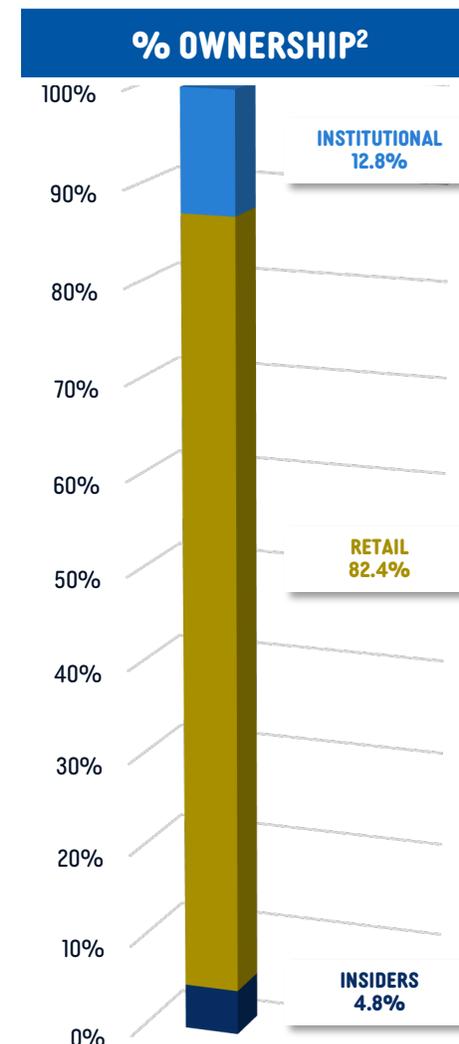


SUPPORTIVE SHAREHOLDER BASE

ISSUED & OUTSTANDING	OPTIONS & OTHER ¹	FULLY DILUTED
538.5 M	36.7 M	575.2 M

BALANCE SHEET & TRADING LIQUIDITY	
C\$18.2M Cash & Cash Equivalents (December 31, 2023)	
US\$15M in 10-year Convertible Notes, bearing interest at 2% per annum, convertible to common shares at US \$0.3557, subject to certain conditions	
Daily Trading Volume Last 90 trading days ³	NDM - TSX 113,900
	NAK - NYSE American 1,536,936

MAJOR SHAREHOLDERS ⁴
<ul style="list-style-type: none"> Kopernik Global Investors LLC SKKY Capital Corp Ltd. Ostvast Capital Mgmt Ltd. Heptagon Capital LLP Russell Investments Group Ltd. SEI Investments Co. SIG Holding LLC TIFF Advisory Services Cadinha & Co LLC Balter Liquid Alternatives LLC



1. As at December 31, 2023. Includes Options, Warrants RSUs and DSUS.
 2. Based on fully diluted shares at December 31, 2023.
 3. As at January 8, 2024.
 4. Major Institutional Shareholders as at January 8, 2024 (Source: Public Filings).



SUMMARY: STRONG RISK/RETURN POTENTIAL



COPPER: AN IMPORTANT METAL FOR AMERICA'S GREEN FUTURE

- 👤 Transition to Green Energy expected to substantially increase demand for copper
- 👤 Forecast supply not sufficient to meet demand
- 👤 Higher copper prices expected



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

- 👤 Largest undeveloped copper/gold deposit in the world
- 👤 Potential domestic solution to U.S. foreign supply chain dependence on critical minerals
- 👤 PEA September 2023: Positive Projected Financial Results, excellent optionality and important benefits for Alaska
- 👤 Untapped exploration upside



PEBBLE: A PATH FORWARD

- 👤 Final EIS: no measurable impact on fisheries with significant social/economic benefits expected¹
- 👤 Alaska and NDM are committed to fighting against the EPA and USACE actions which we believe are unsupportable
- 👤 Next step against the EPA overreach is filing a suit in Federal District Court
- 👤 If fully funded, \$60 million Royalty Investment enhances financial strength to challenge these agency decisions

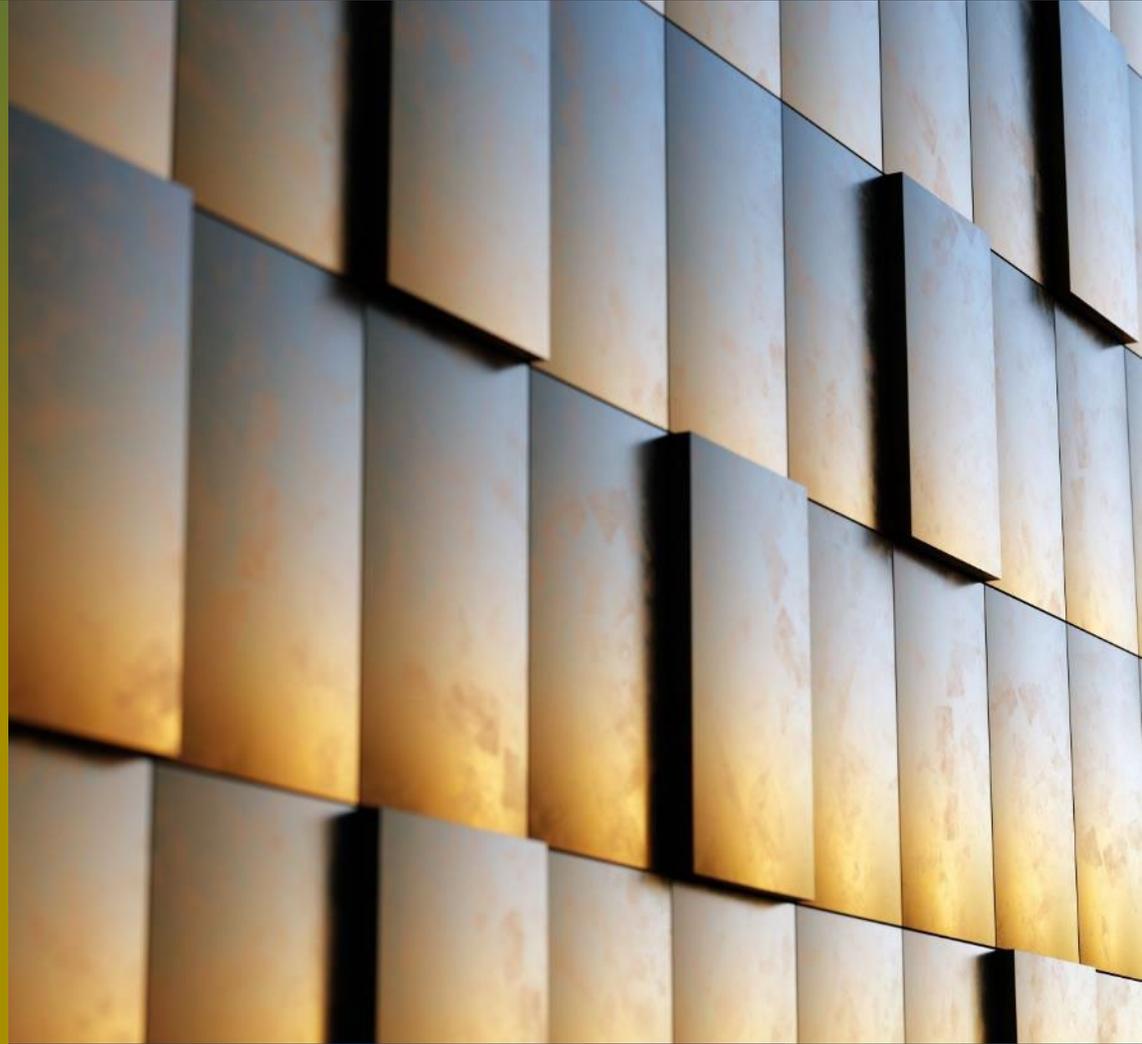
1. Pebble Project EIS - Final Environmental Impact Statement, July 2020

TSX: NDM
NYSE AMERICAN: NAK

RIGHTMINERIGHTTIME.COM



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APPENDIX
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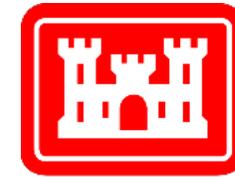
PEBBLE FINAL ENVIRONMENTAL IMPACT STATEMENT (EIS)¹

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 expert independent body has comprehensively reviewed a development plan put forward by Pebble Project proponents under the full auspices of U.S. regulations
-  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®



1. Pebble Project EIS - Final Environmental Impact Statement, July 2020



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

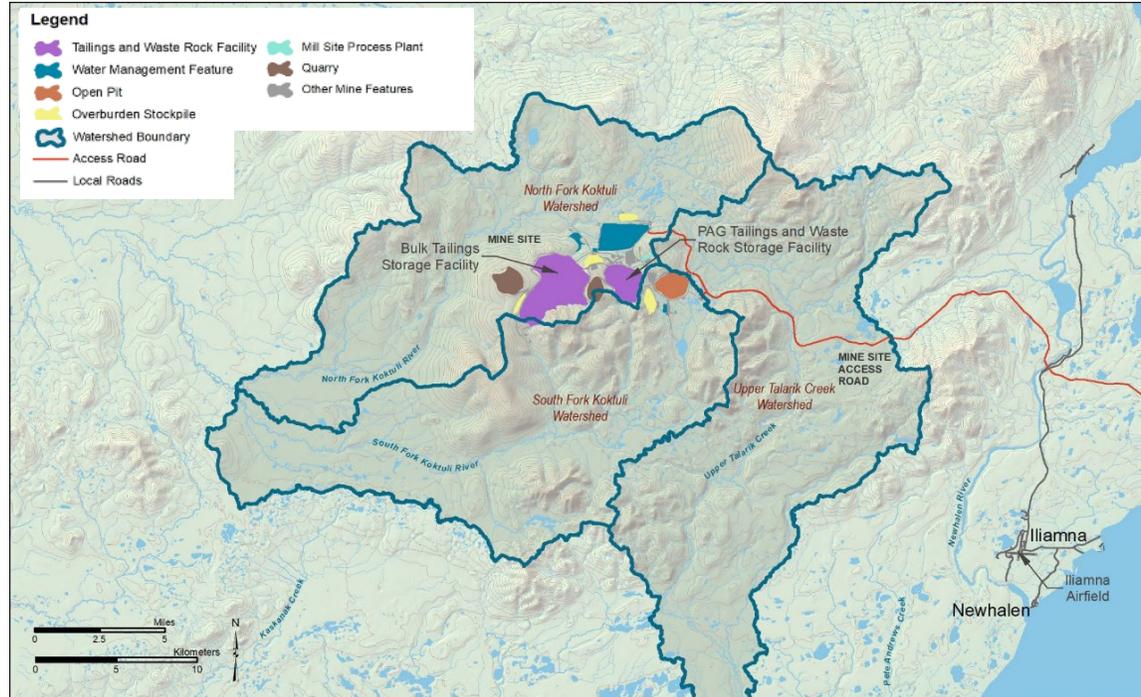
Enhanced bulk tailings storage

- 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

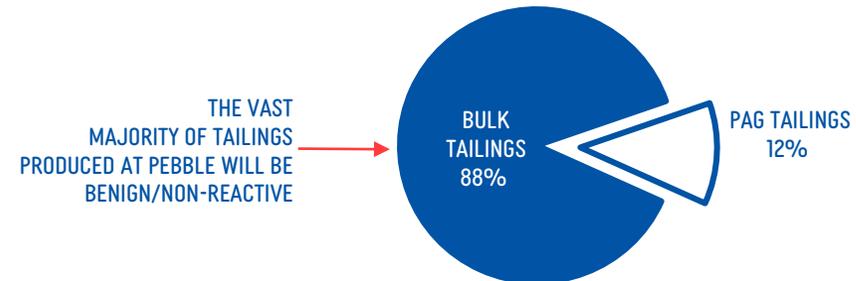
No mine facilities in Upper Talarik/Kvichak drainage

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



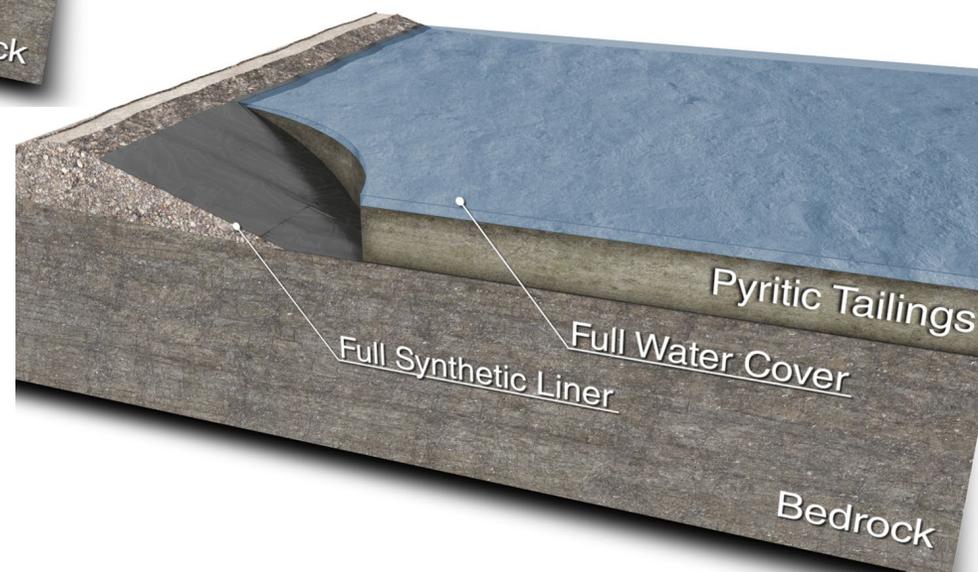
PEBBLE TAILINGS STORAGE FACILITIES (TSF)

Two separate TSFs to manage bulk/nonPAG (1.0 billion tons) and pyritic/PAG (0.1 billion tons) material



- 👉 Bulk tailings can be stored sub-aerially
- 👉 Flow through main embankment (530 ft high)
- 👉 Lined southern embankment
- 👉 Flattened slopes with enhanced buttresses
- 👉 Conservative 2.6:1 (horizontal to vertical) slope angle
- 👉 Founded on bedrock
- 👉 Extended beach and 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.”

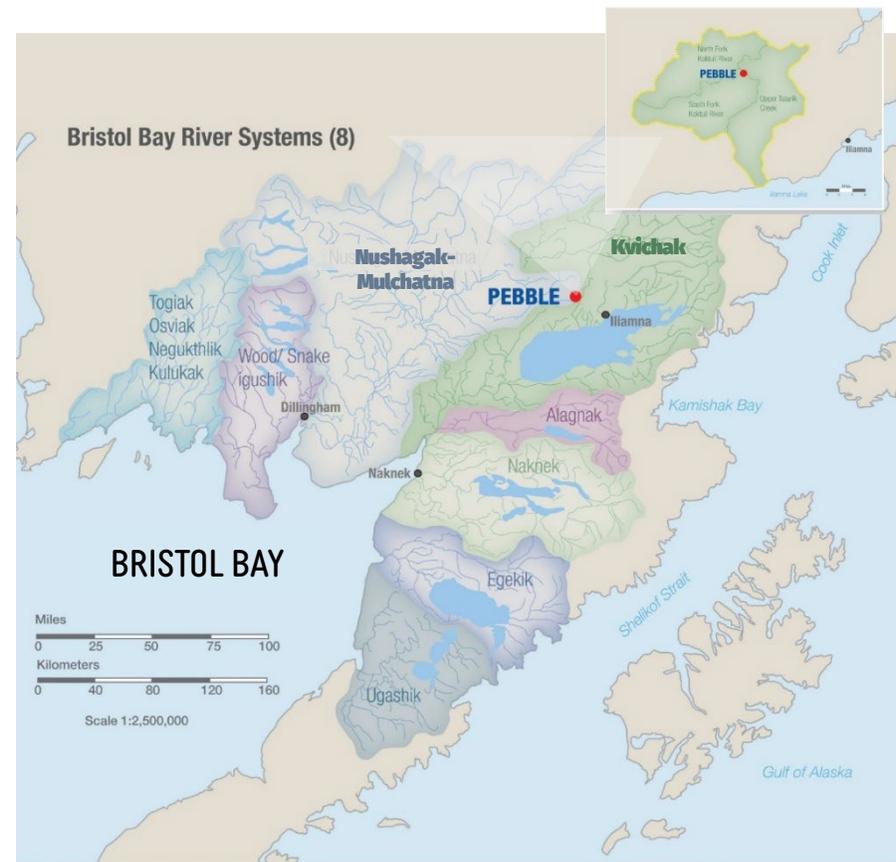
The Final EIS concludes:

- 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 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** 





ALASKA: A PROVEN MINING AND RESOURCE DEVELOPMENT JURISDICTION

Established mining industry:

- Six operating mines and multiple late-stage development projects
- Ranked #11 Globally for Investment Attractiveness by Fraser institute Annual Survey of Mining Companies 2022

A strong resource based economy:

- Governor Dunleavy:
 “...The economic adversity facing Bristol Bay poses a steep challenge, but the odds are far from insurmountable if we take action today...”
- “I will not stop fighting for the people of the Bristol Bay region who continue to suffer from an acute lack of economic opportunity.”

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 ‘owner’ state’:

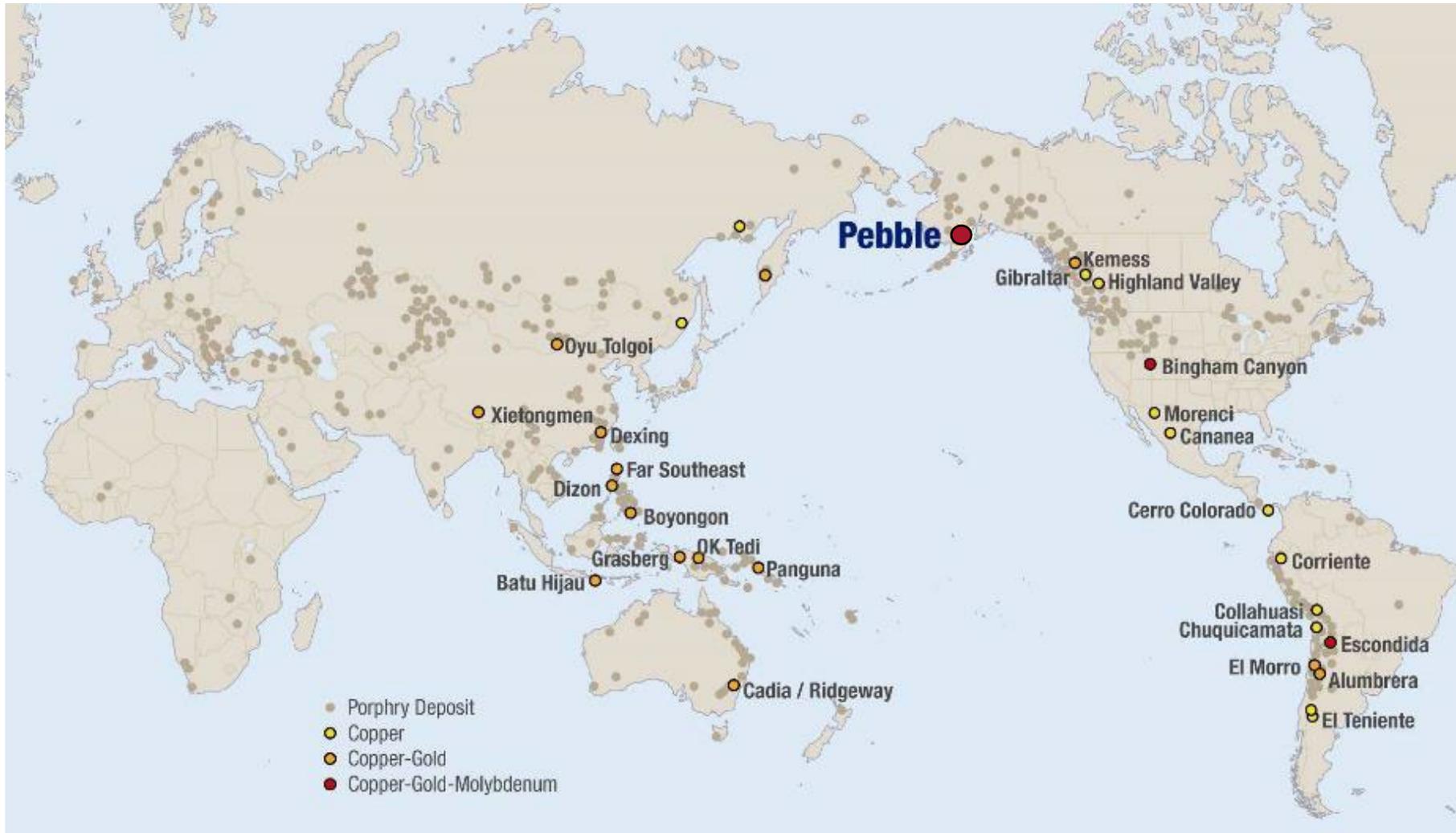
- Alaska State Constitution (1959):
 “It is the Policy of the State of Alaska to encourage... the development of its resources by making them available for maximum use consistent with the public interest”
- The Permanent Fund



1. October 26, 2020 letter, Gov. Dunleavy to Representatives Edgmon and Stutes



PEBBLE AMONG THE WORLD'S GREATEST STORES OF MINERAL WEALTH





PEBBLE GOOD MINING GROUND

➤ Pebble Resource Estimate using a 0.3% CuEq cutoff

Classification	Tonnes	Grades						Recoverable Metal				
		Million	CuEq %	Cu %	Au g/t	Ag g/t	Mo ppm	Re ppm	Cu B lb	Au M oz	Ag M oz	Mo B lb
Measured	527	0.65	0.33	0.35	1.7	178	0.32	3.35	4.58	20.4	0.15	118,000
Indicated	5,929	0.77	0.41	0.34	1.7	246	0.41	49.64	49.24	228.9	2.62	1,731,000
M+I	6,456	0.76	0.40	0.34	1.7	240	0.40	52.99	53.82	249.3	2.78	1,849,000
Inferred	4,454	0.55	0.25	0.25	1.2	226	0.36	22.66	28.11	121.7	1.81	1,025,000

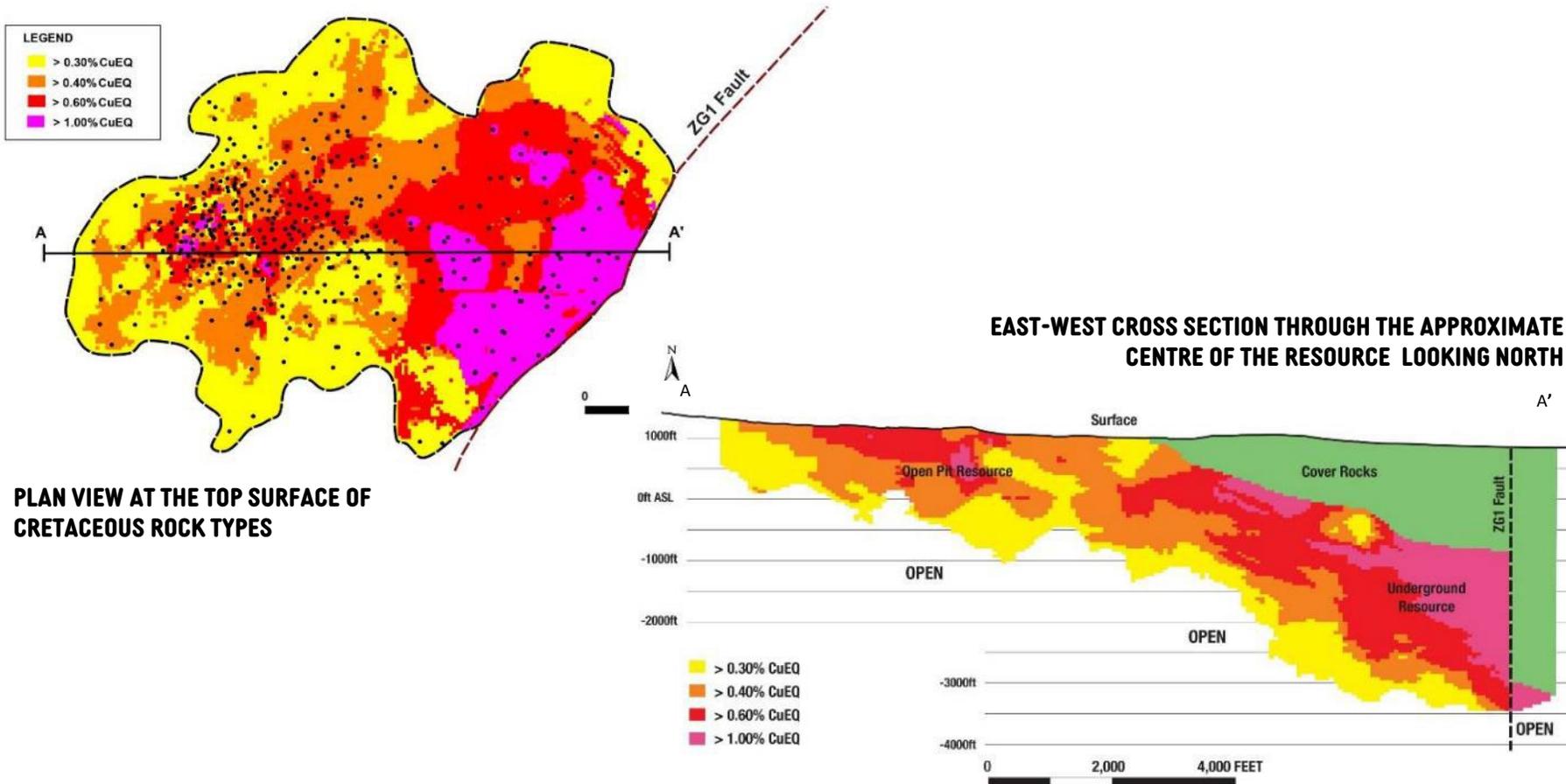
Notes:

- David Gaunt, P. Geo., estimated the resource, which has been audited by Greg Z. Mosher, P. Geo., a Qualified Person who is independent of Northern Dynasty and who assumes responsibility for this estimate. The effective date of the Technical Report is August 21, 2023 (2023 PEA) filed at www.sedarplus.ca.
- Copper equivalent (CuEq) calculations use the following 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).
- Recovered metal based on recoveries in Table I-1 and Table I3-20 in the 2023 PEA.
- The mineral resource estimate is constrained by a conceptual pit shell that was developed using a Lerchs-Grossmann algorithm and is based in the following parameters: 42 degree pit slope; metal prices and recoveries for gold of US\$1,540.00/oz and 61% Au, for copper of US\$3.63/lb and 91% Cu, for silver of US\$20.00/oz and 67% Ag and for molybdenum of 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.
- Per the calculation outlined in Section 14.12 of the 2023 PEA, recent company work has demonstrated that using appropriate and likely inputs for commodity prices, concentrate grades, payable copper, and realization charges results in a cutoff grade of 0.22% CuEq. The OP believes that the use of a 0.3% CuEq cutoff grade to express the Pebble resources is conservative and provides continuity with previous estimates.
- The OP has reviewed the technical information, and other factors that may affect the estimate including permitting and external legal counsel's letter regarding the ROD appeal and Final Determination and believes that there are reasonable prospects of eventual economic extraction.



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



PLAN VIEW AT THE TOP SURFACE OF CRETACEOUS ROCK TYPES

EAST-WEST CROSS SECTION THROUGH THE APPROXIMATE CENTRE OF THE RESOURCE LOOKING NORTH

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



PEBBLE PROPOSED PROJECT MINING

Standard open pit truck/shovel operation

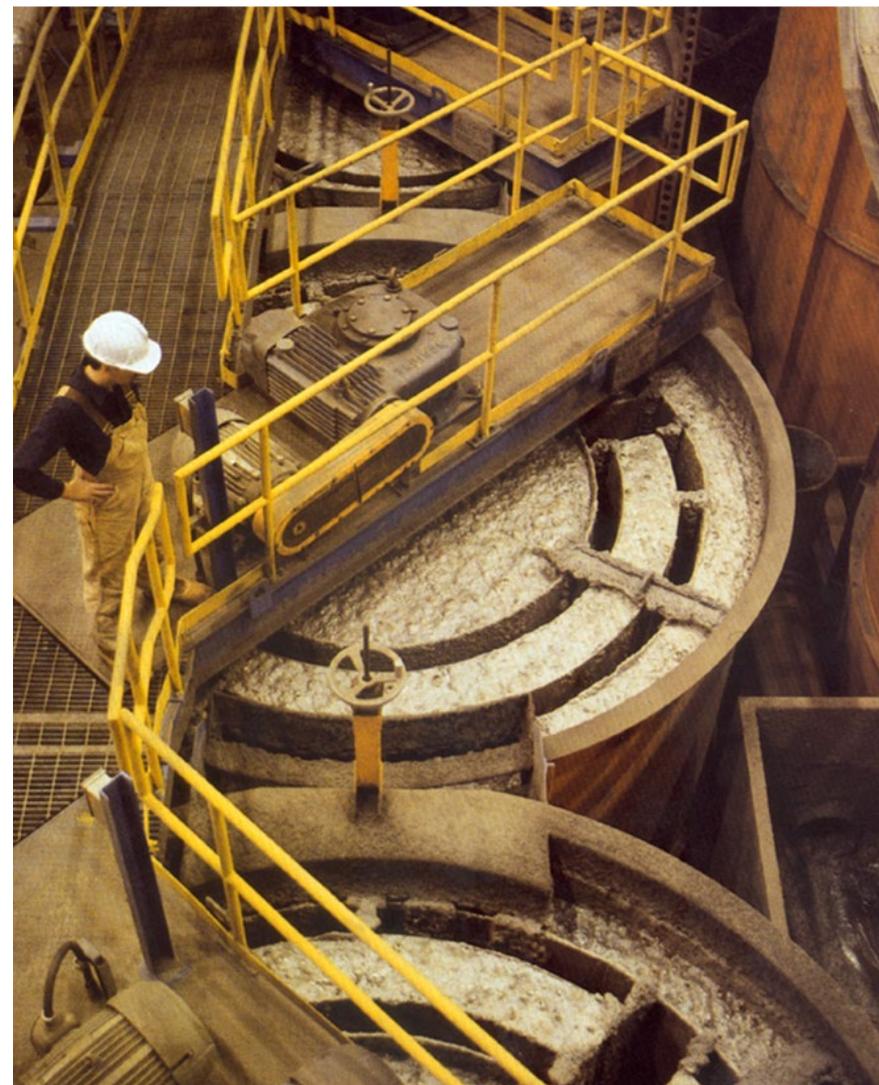
- 1.3 billion tons mill feed, 1.4 billion tons total (0.12:1 strip ratio)
- 1 year pre-production, 20 years operation
- No permanent waste rock facility
- PAG waste and tails backfilled to the pit at closure
- Ultra-class equipment





PEBBLE METALLURGICAL TESTWORK

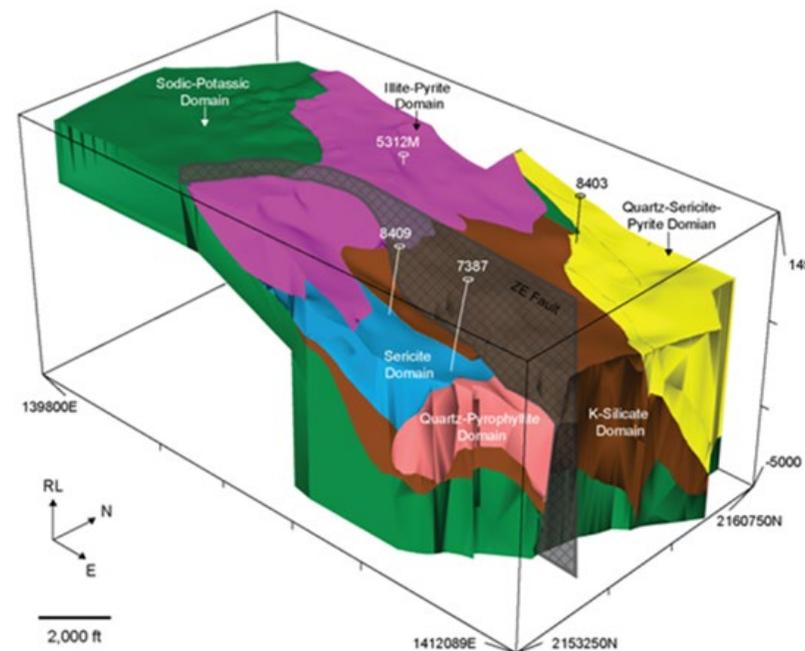
- 👉 **NDM testwork completed from 2004 to 2008**
 - Focused on flowsheet development
 - Comminution variability testing
- 👉 **\$10.5 million on metallurgical testwork from 2008 to 2013**
 - Managed by PLP
 - Majority of the testwork completed at SGS Lakefield
 - Cu/Mo separation conducted at SGS and G&T (now ALS)
- 👉 **Major testwork included**
 - Ore characterization / mineralogy
 - Flotation optimization
 - Flotation and comminution variability
 - Testwork to support secondary gold plant design
 - Continuous flotation
 - Vendor testwork (regrinding, thickening, filtration, gravity gold etc.)





PEBBLE METALLURGICAL RECOVERIES BY GEOMETALLURGICAL DOMAIN

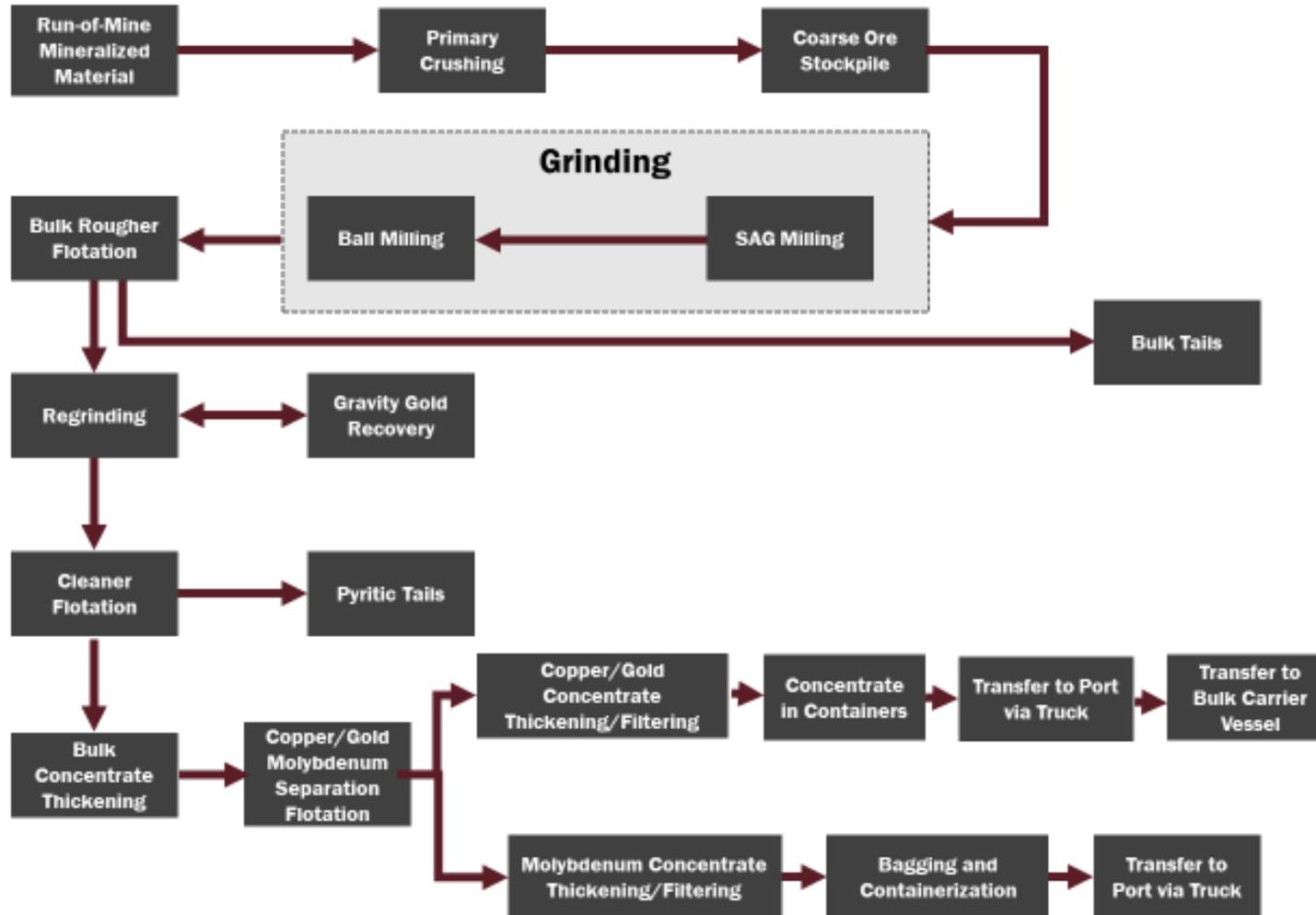
	FLOTATION RECOVERY TO CONCENTRATE			
	CU CONC			MO CONC
	CU	AU	AG	MO
SUPERGENE				
SODIC POTASSIC	74.7	60.4	64.1	51.2
ILLITE PYRITE	68.1	43.9	64.1	62.6
HYPOGENE				
ILLITE PYRITE	86.4	43.9	64.1	73.2
SODIC POTASSIC	86.2	60.4	64.1	76.6
K SILICATE	90.3	61.3	64.1	82.3
QP	94.3	65.0	64.1	80.1
SERICITE	86.4	39.2	64.1	73.2
QSP	86.0	31.6	64.1	82.5



- Domains defined by geometallurgical assessment
- Domain recoveries based on locked-cycle test results
- Results summarized to the median
- Assumes a 92.7% Mo separation efficiency



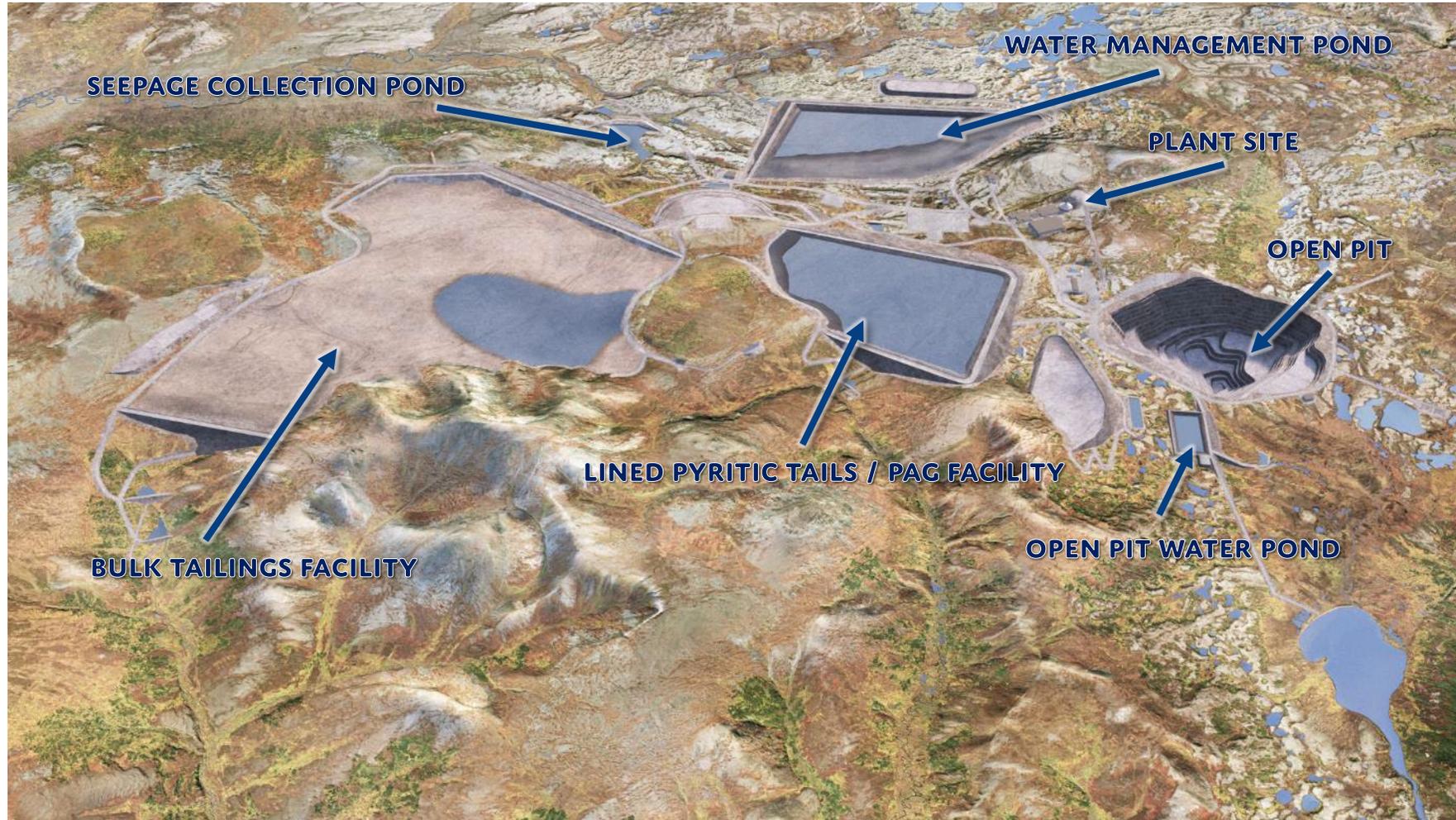
PEBBLE CONVENTIONAL FROTH FLOTATION PROPOSED PROCESS FLOW SHEET



Note: See Disclosures Page 2



PEBBLE PROPOSED MINE SITE GENERAL LAYOUT





PEBBLE EARTHQUAKE DESIGN

Alaska earthquakes

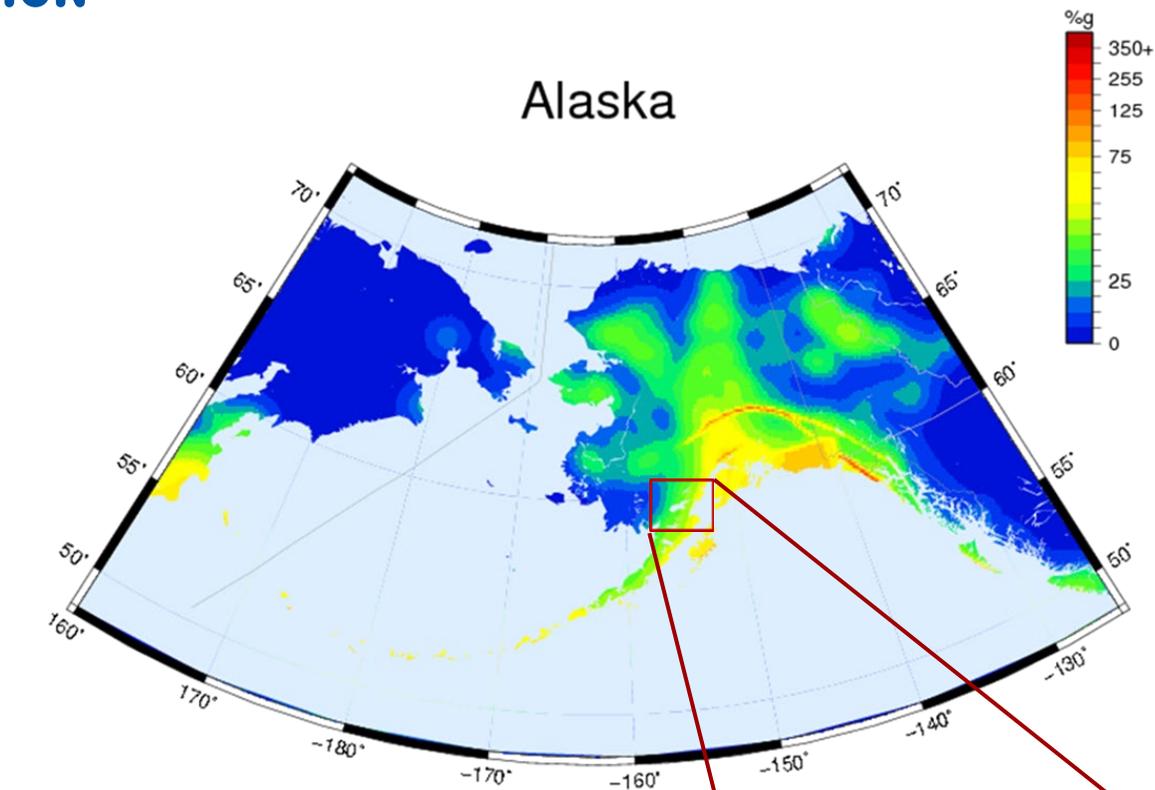
- Most active state in the U.S.
- Critical design consideration

Earthquake design in two steps

- Probability based on history
- Calculated worst case (maximum credible)

Probability

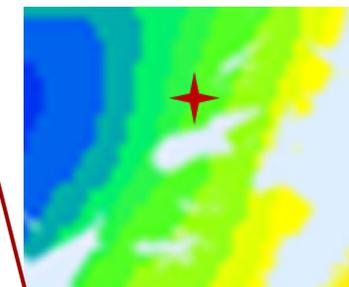
- Used USGS data
- Based on accelerations due to shaking
- Measured as percent of gravity (g)



PGA, 2% in 50 years

Pebble site:

- 0.29g return period 2,475 years
- 0.43g return period 10,000 years



Map derived from USGS Earthquakes Hazard Program:
www.earthquake.usgs.gov/hazards/products/ak



PEBBLE EARTHQUAKE DESIGN

- 👉 **Maximum Credible Earthquake (MCE)**
 - Evaluated all potential seismic sources in region
 - Selected 4 earthquakes
- 👉 **9.2 M Megathrust - 0.16g**
 - Repeat of 1964 event
- 👉 **8.0 M Intraslab - 0.61g**
 - Major event near port site
- 👉 **7.5 M Lake Clark Fault- 0.57g**
 - Complete rupture of closest known major fault to the site
- 👉 **6.5 M "floating" fault - 0.56g**
 - Unidentified fault immediately below the site
- 👉 **Results**
 - Used the Intraslab scenario with 0.61g as the MCE
 - Given the probability assessment, greater than 10,000 year return period





PEBBLE WATER MANAGEMENT

Water management is a key project component

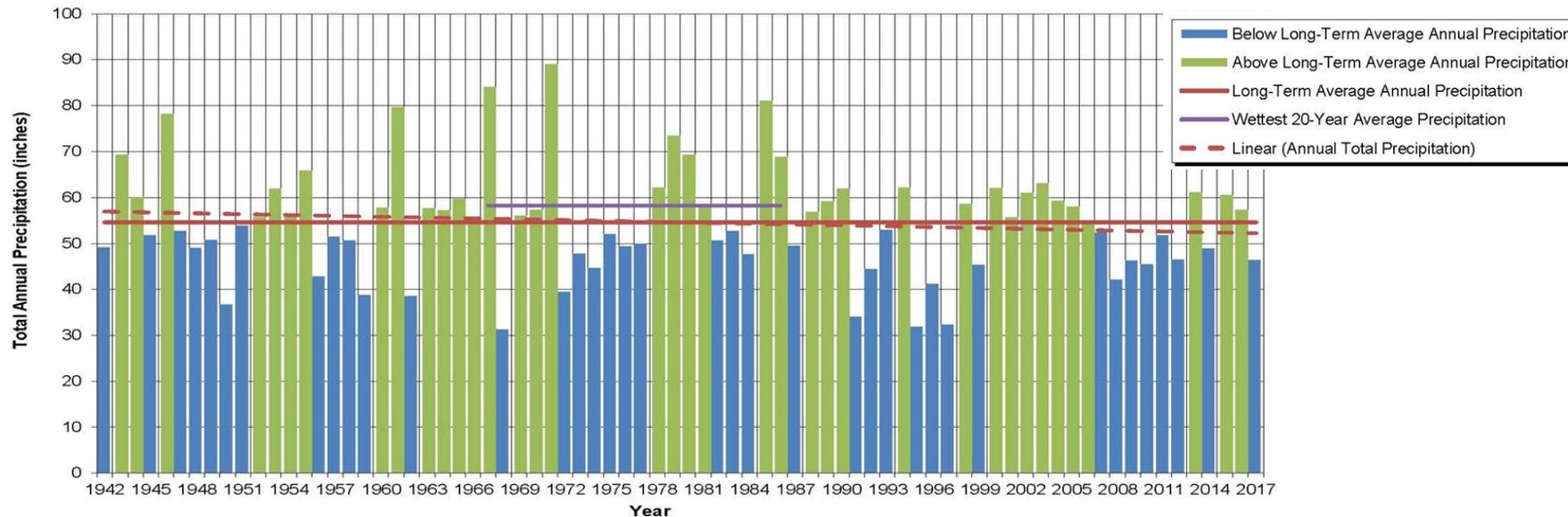
- Need to protect salmon spawning habitat
- Very specific and demanding discharge criteria
- Tailings management safety
- Required for process operations

Water balance developed using:

- 11 years of site weather data
- Stream gauges
- 76 years of records from nearby communities

Results

- Mean annual precipitation - 54.6 inches
- Designs accommodate 98th percentile





PEBBLE WATER MANAGEMENT



Water management plan

- Designed to manage full range of expected precipitation
- Minimize water storage in tailings facilities
- Meet or exceed discharge quality criteria



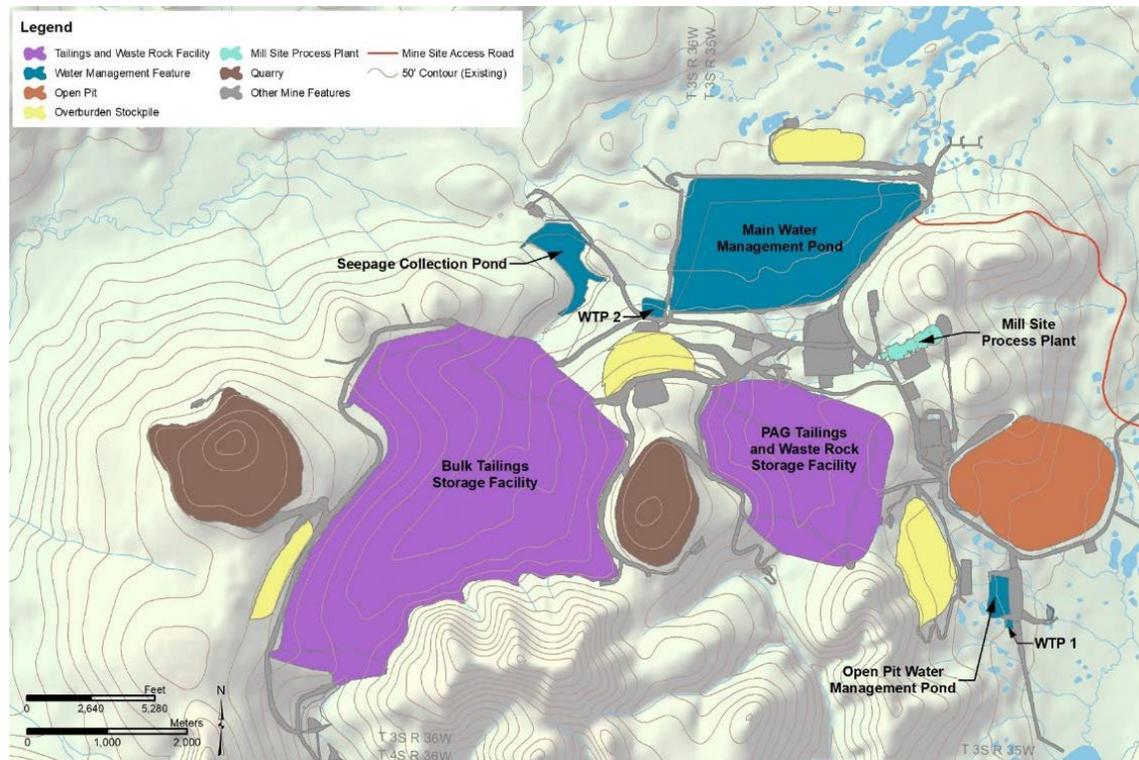
Water management facilities

- Main Water Management Pond - primary storage facility
- Seepage Collection Pond - captures flow-through water from Bulk TSF
- Open Pit Water Management Pond



Water treatment

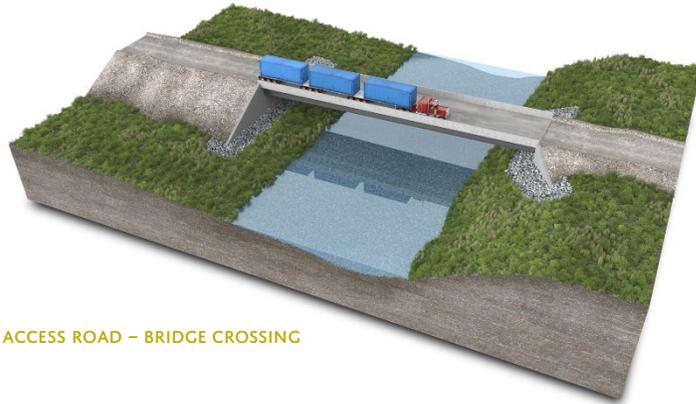
- Treatment Plant #1 - treats open pit dewatering flow
- Treatment Plant #2 - flow from TSFs and remainder of site
- Multiple trains for variable treatment rates to match conditions
- Discharge to the Kaktuli South and North Forks and Upper Talarik



Note: See Disclosures Page 2



PEBBLE: TRANSPORTATION SYSTEM



ACCESS ROAD – BRIDGE CROSSING



NORTH FERRY TERMINAL



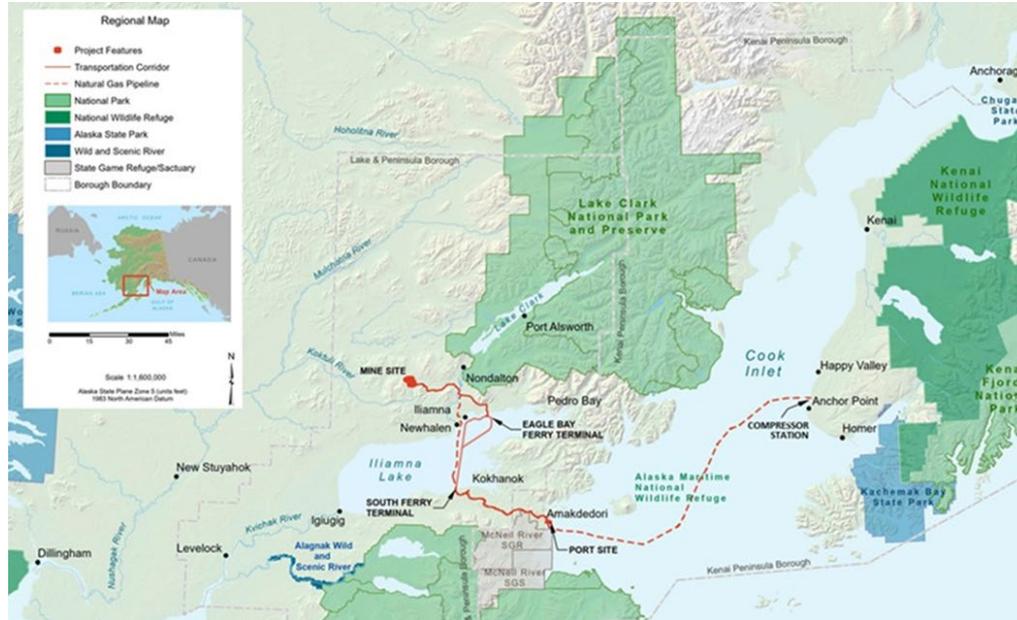
ICE BREAKING FERRY



SOUTH FERRY TERMINAL



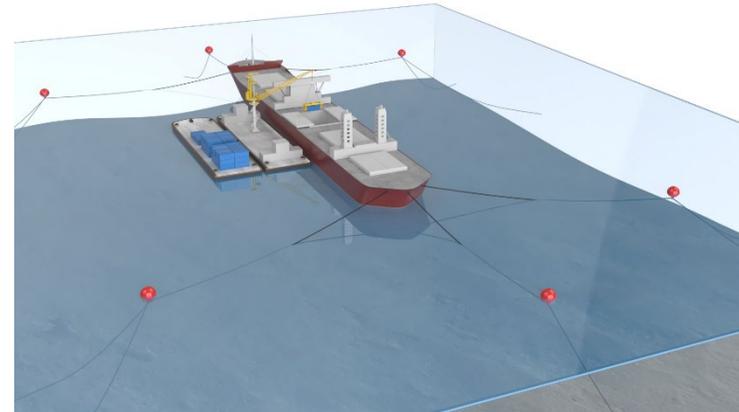
PEBBLE: CONCENTRATE HAULAGE IN CONTAINERS



PERMITTING CASE ACCESS CORRIDOR



AMAKDEDORI PORT



CONCENTRATE CONTAINER TRANSFER



BULK CONTAINER LAYDOWN YARD



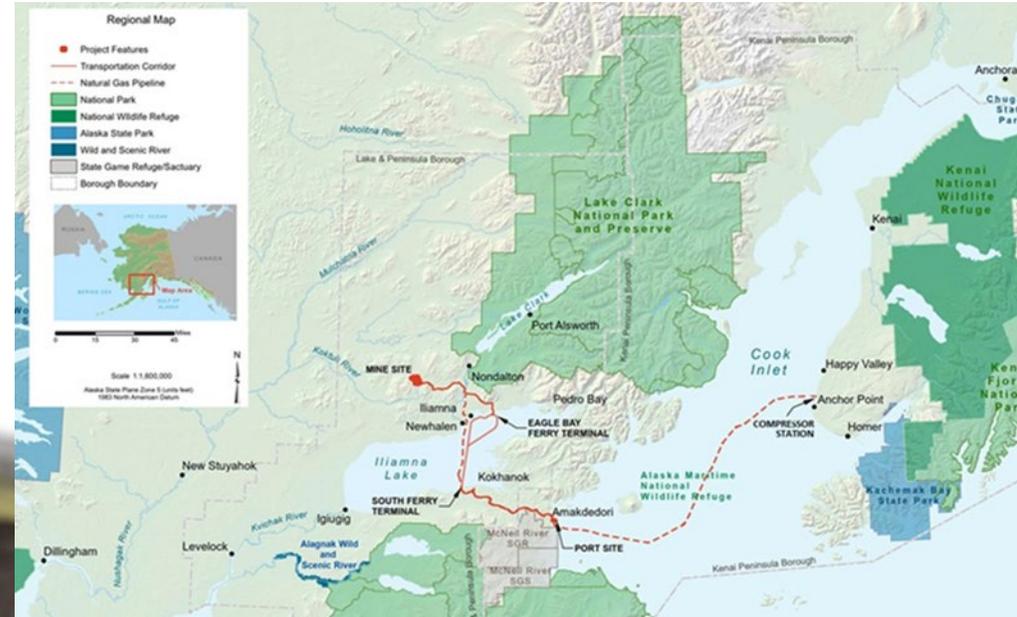
BULK CARRIER CONTAINER TRANSFER





PEBBLE PROPOSED POWER SUPPLY

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



Note: See Disclosures Page 2



REFERENCES & SOURCE MATERIAL

SOURCES FOR SLIDE 25

- 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

NI 43-101 TECHNICAL REPORT UPDATE, PEBBLE PROJECT AND PRELIMINARY ECONOMIC ASSESSMENT , ALASKA, USA, EFFECTIVE DATE AUGUST 21, 2023, AMENDED & RESTATED REPORT DATE SEPTEMBER 18, 2023

- <https://northerndynastyminerals.com/pebble-project/project-economics/>

PEBBLE PROJECT EIS - FINAL ENVIRONMENTAL IMPACT STATEMENT, JULY 2020

- <https://pebblepartnership.com/all-eis-documents>



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

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