



# High Grade Safe Jurisdiction Solid Partners



# FORWARD LOOKING STATEMENTS

This presentation includes certain "forward-looking information" and "forward-looking statements" (collectively "forward-looking statements") within the meaning of applicable Canadian and United States securities legislation including the United States Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, included herein, including, without limitation, the future price of copper, the estimation of mineral reserves and mineral resources, the realization of mineral reserve and mineral resource estimates, the timing and amount of estimated future production, costs of production, capital expenditures, costs and timing of the development of projects, the likelihood and timing with respect to the Ambler Mining District Industrial Access Project ("AMDIAP"), the potential future development of the Bornite project, the future operating or financial performance of the Company and planned expenditures and the anticipated activity at the Upper Kobuk Mineral Projects, are forward-looking statements. Forward-looking statements are frequently, but not always, identified by words such as "expects", "anticipates", "believes", "intends", "estimates", "potential", "possible", and similar expressions, or statements that events, conditions, or results "will", "may", "could", or "should" occur or be achieved. These forward-looking statements may include statements regarding perceived merit of properties; exploration plans and budgets; mineral reserves and resource estimates; work programs; capital expenditures; timelines; strategic plans; market prices for precious and base metals; or other statements that are not statements of fact. Forward-looking statements involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from the Company's expectations include: risks related to inability to define proven and probable reserves; risks related to our ability to finance the development of our mineral properties through external financing, strategic alliances, the sale of property interests or otherwise; uncertainty as to whether there will ever be production at the Company's mineral exploration and development properties; risks related to our ability to commence production and generate material revenues or obtain adequate financing for our planned exploration and development activities; risks related to lack of infrastructure including but not limited to the risk whether or not the AMDIAP will receive the requisite permits and, if it does, whether the Alaska Industrial Development and Export Authority will build the AMDIAP; risks related to inclement weather which may delay or hinder exploration activities at our mineral properties; risks related to the impact of the novel coronavirus (COVID-19) on the Company and its operations; risks related to our dependence on a third party for the development of our projects; none of the Company's mineral properties are in production or are under development; risks related to future sales or issuances of equity securities decreasing the value of the Company's existing common shares, diluting voting power and reducing future earnings per share; commodity price fluctuations; our history of losses and expectation of future losses; uncertainties relating to the assumptions underlying our resource estimates, such as metal pricing, metallurgy, mineability, marketability and operating and capital costs; uncertainty related to inferred mineral resources; mining and development risks, including risks related to infrastructure, accidents, equipment breakdowns, labor disputes or other unanticipated difficulties with or interruptions in development, construction or production; risks related to market events and general economic conditions, including the impact of COVID-19; risks and uncertainties relating to the interpretation of drill results, the geology, grade and continuity of our mineral deposits; risks related to governmental regulation and permits, including environmental regulation, including the risk that more stringent requirements or standards may be adopted or applied due to circumstances unrelated to the Company and outside of our control; the risk that permits and governmental approvals necessary to develop and operate mines at our mineral properties will not be available on a timely basis or at all; risks related to the need for reclamation activities on our properties and uncertainty of cost estimates related thereto; uncertainty related to title to our mineral properties; risks related to the acquisition and integration of operations or projects; risks related to increases in demand for equipment, skilled labor and services needed for exploration and development of mineral properties, and related cost increases; our need to attract and retain qualified management and technical personnel; risks related to conflicts of interests of some of our directors and officers; risks related to potential future litigation; risks related to the voting power of our major shareholders and the impact that a sale by such shareholders may have on our share price; risks related to global climate change; risks related to adverse publicity from non-governmental organizations; uncertainty as to our ability to maintain the adequacy of internal control over financial reporting as per the requirements of Section 404 of the Sarbanes-Oxley Act; increased regulatory compliance costs, associated with rules and regulations promulgated by the United States Securities and Exchange Commission, Canadian Securities Administrators, the NYSE American, the Toronto Stock Exchange, and the Financial Accounting Standards Boards, and more specifically, our efforts to comply with the Dodd-Frank Wall Street Reform and Consumer Protection Act; uncertainty as to the volatility in the price of the Company's common shares; the Company's expectation of not paying cash dividends; adverse federal income tax consequences for U.S. shareholders should the Company be a passive foreign investment company; and other risks and uncertainties disclosed in the Company's Annual Report on Form 10-K or the year ended November 30, 2019 filed with Canadian securities regulatory authorities and with the United States Securities and Exchange Commission and in other Company reports and documents filed with applicable securities regulatory authorities from time to time. The Company's forward-looking statements reflect the beliefs, opinions and projections on the date the statements are made. The Company assumes no obligation to update the forward-looking statements or beliefs, opinions, projections, or other factors, should they change, except as required by law.

# FORWARD LOOKING STATEMENTS

## NON-GAAP PERFORMANCE MEASURES

Some of the financial measures referenced in this presentation are non-GAAP performance measures. We have not reconciled forward-looking full year non-GAAP performance measures contained in this presentation to their most directly comparable GAAP measures, as permitted by Item 10(e)(1)(i)(B) of Regulation S-K. Such reconciliations would require unreasonable efforts at this time to estimate and quantify with a reasonable degree of certainty various necessary GAAP components, including for example those related to future production costs, realized sales prices and the timing of such sales, timing and amounts of capital expenditures, metal recoveries, and corporate general and administrative amounts and timing, or others that may arise during the year. These components and other factors could materially impact the amount of the future directly comparable GAAP measures, which may differ significantly from their non-GAAP counterparts.

These measures are not recognized measures under US GAAP and do not have a standardized meaning prescribed by US GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. Rather, these measures are provided as additional information to complement those US GAAP measures by providing further understanding of our results of operations from management's perspective and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with US GAAP. The Company believes that these measures, in addition to conventional measures prepared in accordance with US GAAP, provide investors an improved ability to evaluate the underlying performance of the Company.

## CAUTIONARY NOTE TO UNITED STATES INVESTORS

This presentation has been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ from the requirements of U.S. securities laws. Unless otherwise indicated, all resource and reserve estimates included in this presentation have been prepared in accordance with Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and the Canadian Institute of Mining, Metallurgy and Petroleum (CIM)—CIM Definition Standards on Mineral Resources and Mineral Reserves, adopted by the CIM Council, as amended ("CIM Definition Standards"). NI 43-101 is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. Canadian standards, including NI 43-101, differ significantly from the requirements of the United States Securities and Exchange Commission (SEC), and resource and reserve information contained herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, the term "resource" does not equate to the term "reserves". Under U.S. standards, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. The SEC's disclosure standards normally do not permit the inclusion of information concerning "measured mineral resources", "indicated mineral resources" or "inferred mineral resources" or other descriptions of the amount of mineralization in mineral deposits that do not constitute "reserves" by U.S. standards in documents filed with the SEC. Investors are cautioned not to assume that all or any part of "measured" or "indicated resources" will ever be converted into "reserves". Investors should also understand that "inferred mineral resources" have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. Under Canadian rules, estimated "inferred mineral resources" may not form the basis of feasibility or pre-feasibility studies except in rare cases. Disclosure of "contained ounces" in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC standards as in-place tonnage and grade without reference to unit measures. The requirements of NI 43-101 for identification of "reserves" are also not the same as those of the SEC, and reserves reported by Trilogy Metals in compliance with NI 43-101 may not qualify as "reserves" under SEC standards. Arctic does not have known reserves, as defined under SEC Industry Guide 7. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.

# TRILOGY'S INTERESTS

## In the Ambler Mining District

	<b>COPPER</b> billion pounds	<b>ZINC</b> billion pounds	<b>GOLD</b> million ounces	<b>SILVER</b> million ounces
Indicated	<b>3.35</b>	<b>3.36</b>	<b>0.73</b>	<b>55.0</b>
Inferred	<b>5.58</b>	<b>0.21</b>	<b>0.04</b>	<b>3.0</b>

 **High-Grade Copper**  
with Zinc and Precious Metals

 **Located in Alaska**  
a Safe, Rule of Law Jurisdiction

 **50/50 Joint Venture**  
with South32 Limited

 **Ambler Mining District with**  
**Significant Exploration Upside**

### JV Focused on Developing the District Upper Kobuk Mineral Projects (UKMP)

#### ARCTIC

- **Feasibility Study** results released Aug 20, 2020
- **Feasibility Highlights:**  
43.4 Mt @ 2.2% Cu | 3.1% Zn | 0.54% Pb | 0.47 g/t Au | 35 g/t Ag  
Contained Copper Equivalent of 3,988 Million pounds

**Post Tax \$1.1 Billion NPV and 27% IRR**

#### BORNITE

- **Bornite Exploration** 6 Billion lbs  
Copper and 77 Million lbs of Cobalt



# SHARE CAPITALIZATION

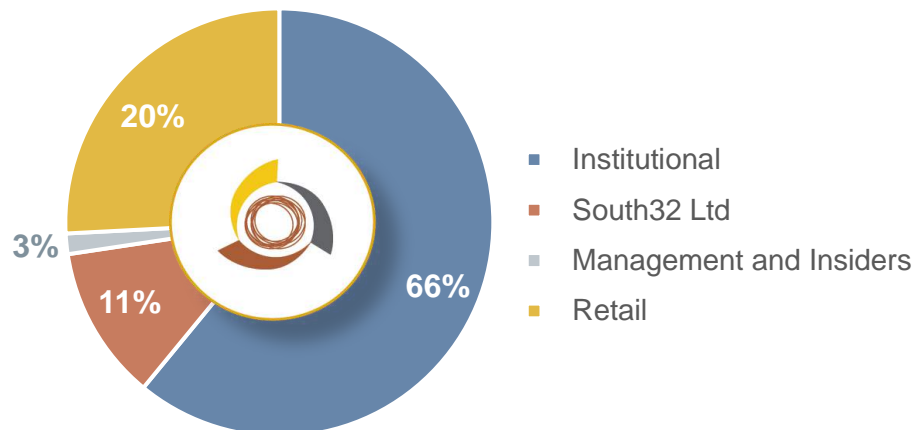
## Solid, Supportive Shareholder Base

### WELL FUNDED BALANCE SHEET

-  **Cash ~\$8.4 Million**
-  **No Debt**
-  **JV Cash & Loan Receivable ~\$135 Million (TMQ's Share ~\$68 Million)**
-  **Market Cap ~\$280 Million**
-  **Largely Institutionally Held**
-  **Meaningful Management Ownership**

### TSX, NYSE | TMQ

Issued and Outstanding	144.4 M
Options	11.1 M
Fully Diluted <sup>1</sup>	156.8 M



### MAJOR SHAREHOLDERS

Electrum Group ~20.4%	Bernard Selz ~8.3%
South32 Limited ~11.4%	DW Partners ~1.7%
Paulson & Co. ~9.9%	Manulife ~1.3%
Baupost Group ~8.4%	Mgt & BoD ~2.2%

Above totals approximately 64%

1. Fully diluted shares include 1.3M Deferred Share Units on May 31, 2021.

# CORPORATE HIGHLIGHTS – PARTNERSHIPS

## Forming Strong Partnerships to Advance the Ambler Mining District in Alaska

### 1. Joint Venture Partnership with South32

South32 contributed US\$145 million for its 50% interest in Ambler Metals. Trilogy contributed the UKMP assets into Ambler Metals.

### 2. Local Native Partnership with NANA

Agreement/Business Relationship with strong community relationships

### 3. Infrastructure Partnership with State of Alaska

AIDEA currently advancing road access



# JOINT VENTURE PARTNERSHIP with South32

South32 Limited has Exercised its Option to Form  
a Joint Venture with Trilogy

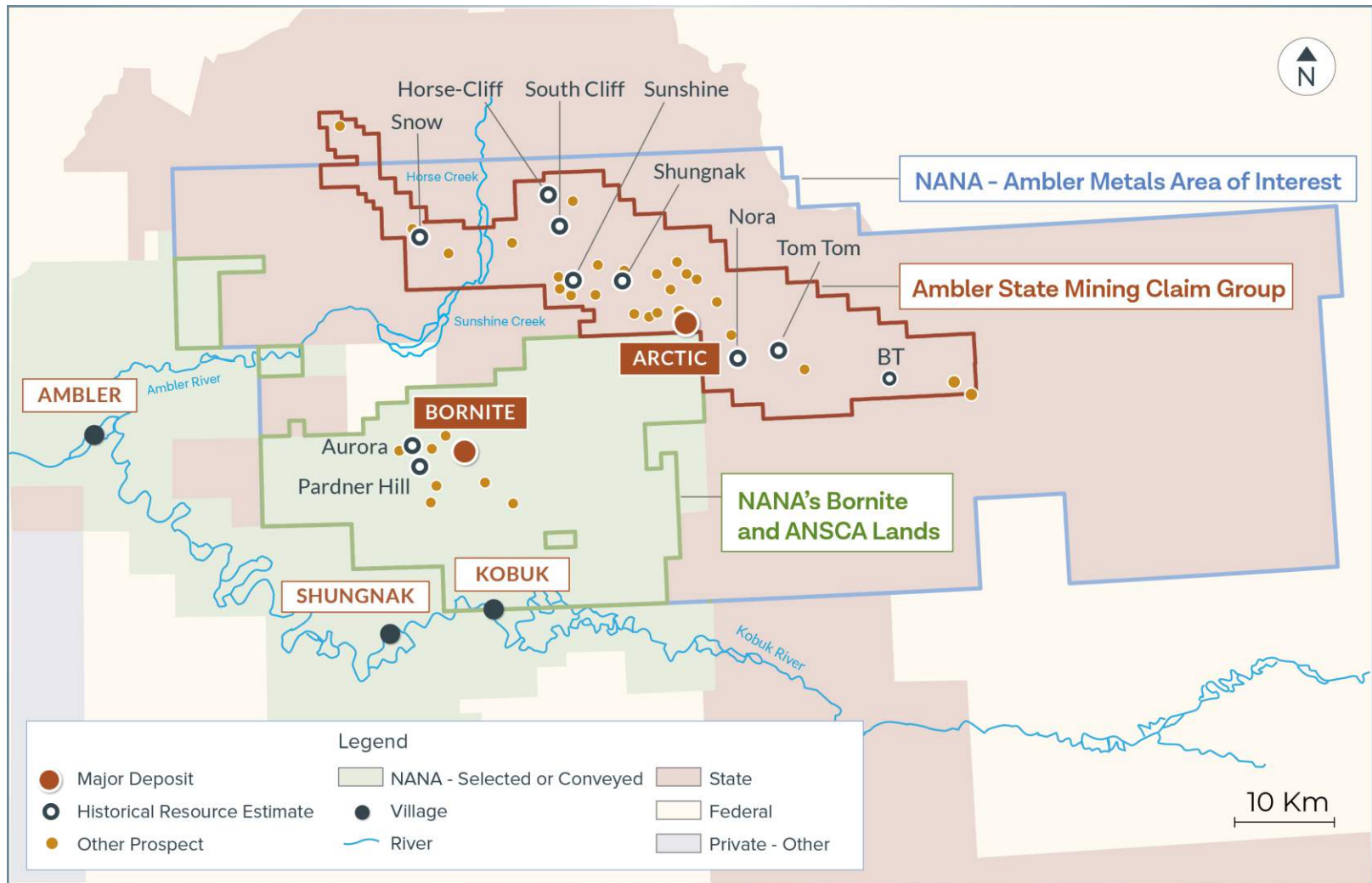


- South32, which has a market capitalization of over \$9 billion, is a global diversified metals and mining company, demerged from BHP Billiton in 2015
- South32 contributed ~\$145 million into the Joint Venture and Trilogy contributed the Upper Kobuk Mineral Projects (includes Arctic and Bornite)

- \$72.5 million is attributable to each of South32 and Trilogy
- JV retained \$87.5 million with the balance of \$57.5 million loaned back to South32
- The loan will be repaid in installments starting in 2021

# UPPER KOBUK MINERAL PROJECTS JV AREA

## Total Land Package of 172,675 Ha (427,690 Acres)





# CORPORATE HIGHLIGHTS – PARTNERSHIPS

## Forming **Strong Partnerships** to Advance the Ambler Mining District in Alaska

### 1. Joint Venture Partnership with South32

South32 contributed US\$145 million for its 50% interest in Ambler Metals. Trilogy contributed the UKMP assets into Ambler Metals.

### 2. Local Native Partnership with NANA

Agreement/Business Relationship with strong community participation

### 3. Infrastructure Partnership with State of Alaska

AIDEA currently advancing road access



**NANA**



# AMBLER MINING DISTRICT

## Strong Local Support for Mining

**Safe Jurisdiction – Mining District Hosts Deposits Rich in Copper, Zinc, Lead, Gold, Silver & Cobalt**



- Politically Stable
- Rule of Law
- Recognized Mineral Potential
- Resource Extractive Industries are the Largest Contributors to Alaska's Economy
- Well Established Permitting Process
- Supportive Borough Government – tax base for region
- NANA Agreement

▣ **NANA** - Alaskan Regional Native Corporation with 14,000 Iñupiat shareholders

▣ Land owner and Joint partner with **Teck Resources Ltd. on Red Dog**

▣ **Red Dog is the largest zinc mine in the world** operating for nearly 30 years

▣ **Good jobs and local taxes** from Red Dog supports NW Arctic Borough and School District

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Alaska Industrial Development & Export Authority ("AIDEA") currently advancing road access

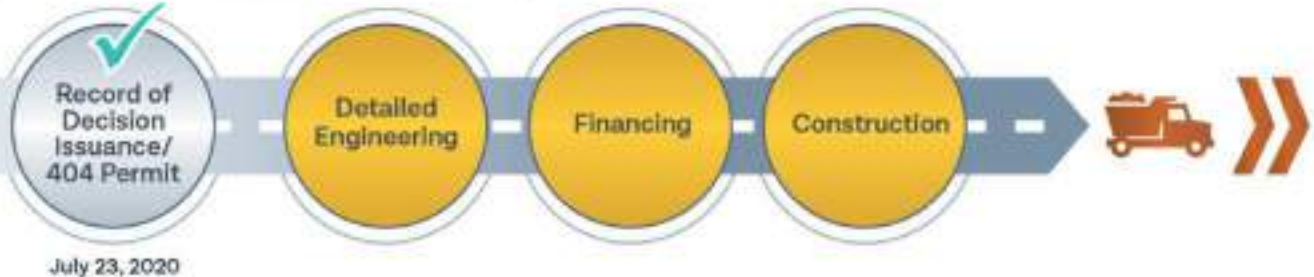


# TRUCK TRANSPORTATION PLAN

## AIDEA Currently Advancing Road Access to Ambler Mining District



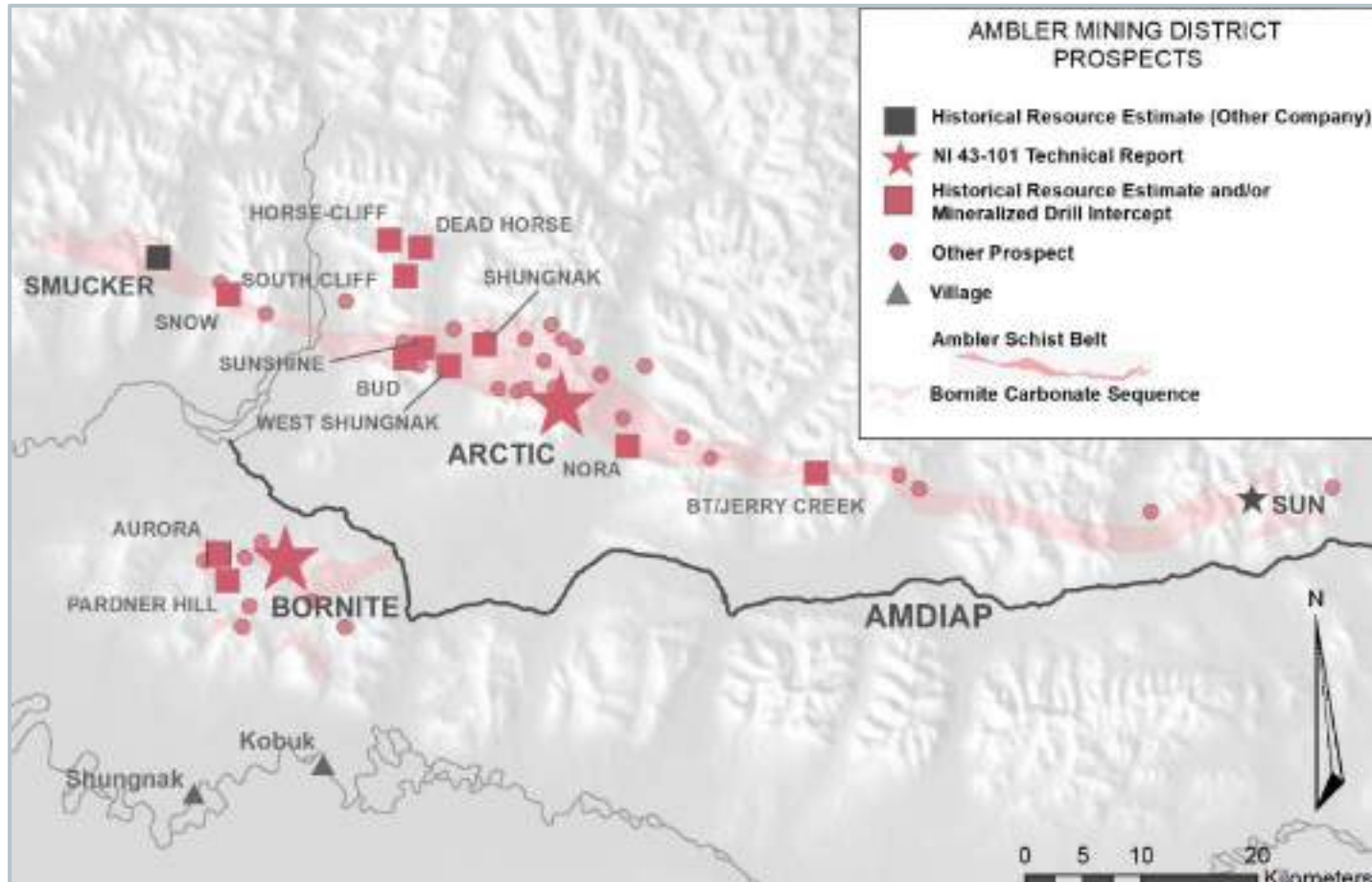
# NEPA ROAD PERMITTING PROCESS (EIS)



- Bureau of Land Management is the lead agency for road permitting
- AIDEA is the proponent
- Detailed engineering has commenced on the road

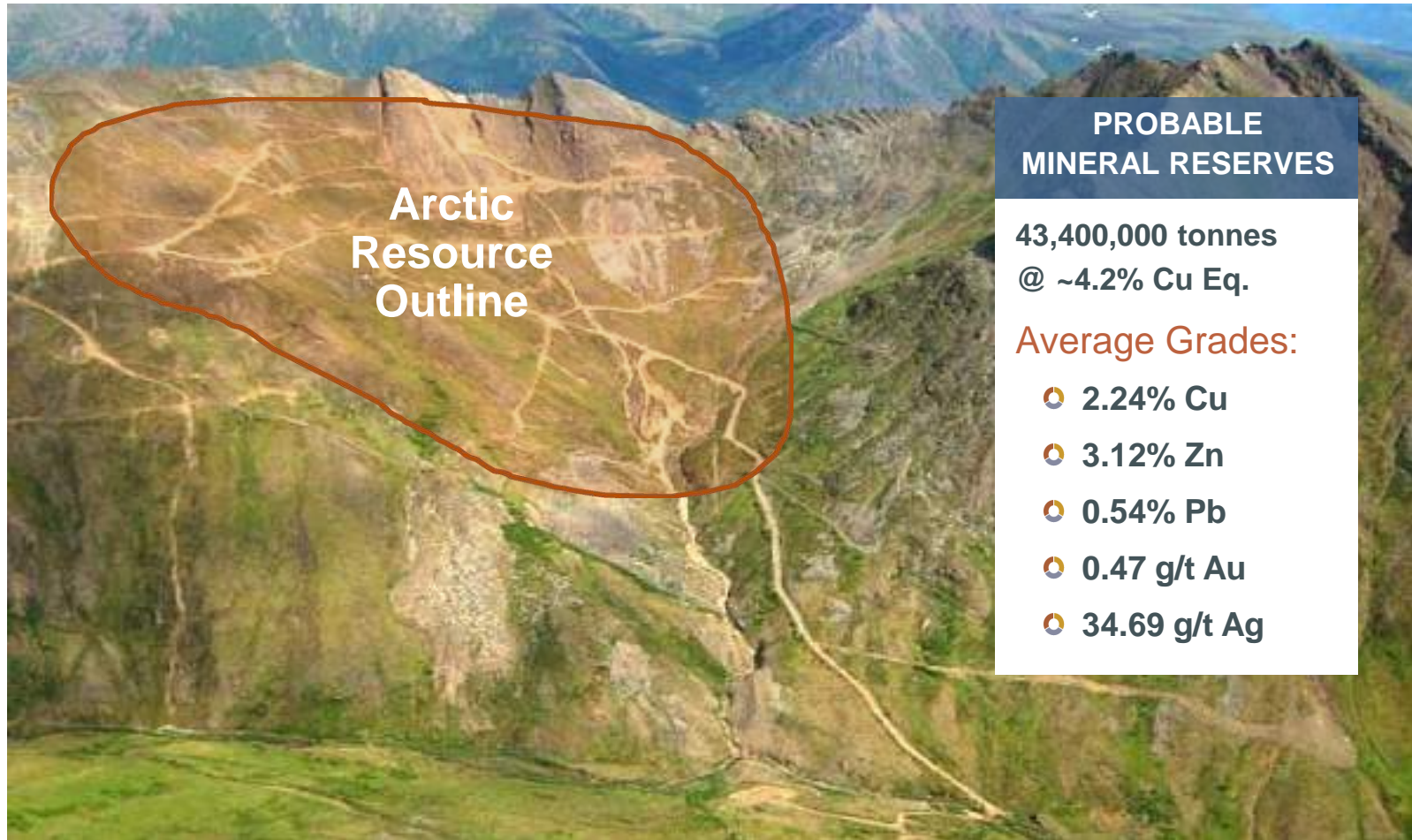
# HIGH-GRADE STRING OF PEARLS

**Ambler Mining District Hosts Deposits Rich in Copper, Zinc, Lead, Gold, Silver & Cobalt**



# RESERVES AT THE ARCTIC PROJECT

## Probable Mineral Reserves



Additional Inferred Resources of 3.5 Mt, with average grades of 1.71% Cu, 2.72% Zn, 0.60% Pb, 0.36 g/t Au and 28.69 g/t Ag. See Appendix for Reserve Estimate for the Arctic Project.

# ARCTIC FS – INPUTS & ECONOMIC RESULTS

## Feasibility Inputs and Economic Results

Mine Life	12 Years
Mill Capacity	10,000 tpd
Strip Ratio (Waste/Ore)	6.87:1
Average Annual Production	155M lbs Cu 192M lbs Zn 32M lbs Pb 3.4M oz Ag 32,400 oz Au
Base Case Metal Prices	\$3.00/lb Cu \$1.10/lb Zn \$1.00/lb Pb \$18.00/oz Ag \$1,300/oz Au
Initial Capital Cost (\$ million)	\$905.6
Total Capital Cost (\$ million)	\$1,224.7
Operating Cost (\$/tonne milled)	\$50.65
Pre-Tax NPV (\$ million) at 8%	\$1,550.9
<b>After-Tax NPV (\$ million) at 8%</b>	<b>\$1,134.7</b>
<b>Cash Costs, Net of By-Product Credits (\$/lb Cu Payable)</b>	<b>\$0.32</b>
<b>All-in Cost (\$/lb of Cu Payable)</b>	<b>\$0.98</b>
Annual Free Cash Flow at Assumed Metal Prices (\$ million)	~\$416
Capital Intensity Ratio (\$ Initial Capital/Tonne of Copper Equivalent)	\$7,372
<b>Pre-Tax IRR (%) / After-Tax IRR</b>	<b>30.8/27.1</b>
<b>Payback Period - After-Tax (Years)</b>	<b>2.6</b>





# ARCTIC FS – INPUTS & ECONOMIC RESULTS – SPOT PRICES

## Feasibility Inputs and Economic Results

Mine Life	12 Years
Mill Capacity	10,000 tpd
Strip Ratio (Waste/Ore)	6.87:1
Average Annual Production	155M lbs Cu 192M lbs Zn 32M lbs Pb 3.4M oz Ag 32,400 oz Au
Spot Metal Prices (September 16, 2021)	<b>\$4.23/lb Cu</b> <b>\$1.39/lb Zn</b> <b>\$1.01/lb Pb</b> <b>\$22.86oz Ag</b> <b>\$1,752oz Au</b>
Initial Capital Cost (\$ million)	\$905.6
Total Capital Cost (\$ million)	\$1,224.7
Operating Cost (\$/tonne milled)	\$50.65
Pre-Tax NPV (\$ million) at 8%	<b>\$3,189.0</b>
<b>After-Tax NPV (\$ million) at 8%</b>	<b>\$2,323.7</b>
<b>Cash Costs, Net of By-Product Credits (\$/lb Cu Payable)</b>	<b>-\$0.21</b>
<b>All-in Cost (\$/lb of Cu Payable)</b>	<b>\$0.44</b>
Annual Free Cash Flow at Assumed Metal Prices (\$ million)	<b>~\$588</b>
Capital Intensity Ratio (\$ Initial Capital/Tonne of Copper Equivalent)	<b>\$7,745</b>
<b>Pre-Tax IRR (%) / After-Tax IRR</b>	<b>48.1/42.0</b>
<b>Payback Period - After-Tax (Years)</b>	<b>1.5</b>



# ARCTIC PRODUCING QUALITY CONCENTRATES

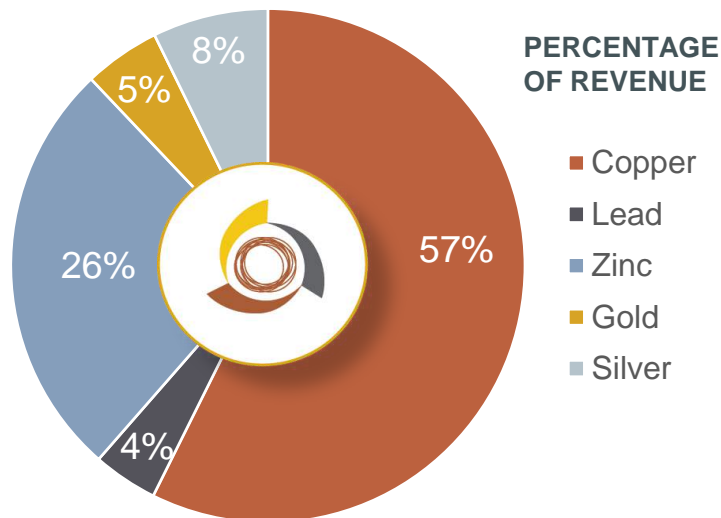
## 3 Separate High-Quality Concentrates

### COPPER CONCENTRATE

- 89.9% recovery
- 30.3% concentrate grade
- Cu payable 96.5%
- Ag 138 g/t (4.44opt); Ag payable 90%
- No significant penalty metals

### ZINC CONCENTRATE

- 90.6% recovery
- 59.2% concentrate grade
- Zn payable 85%
- No significant penalty metals

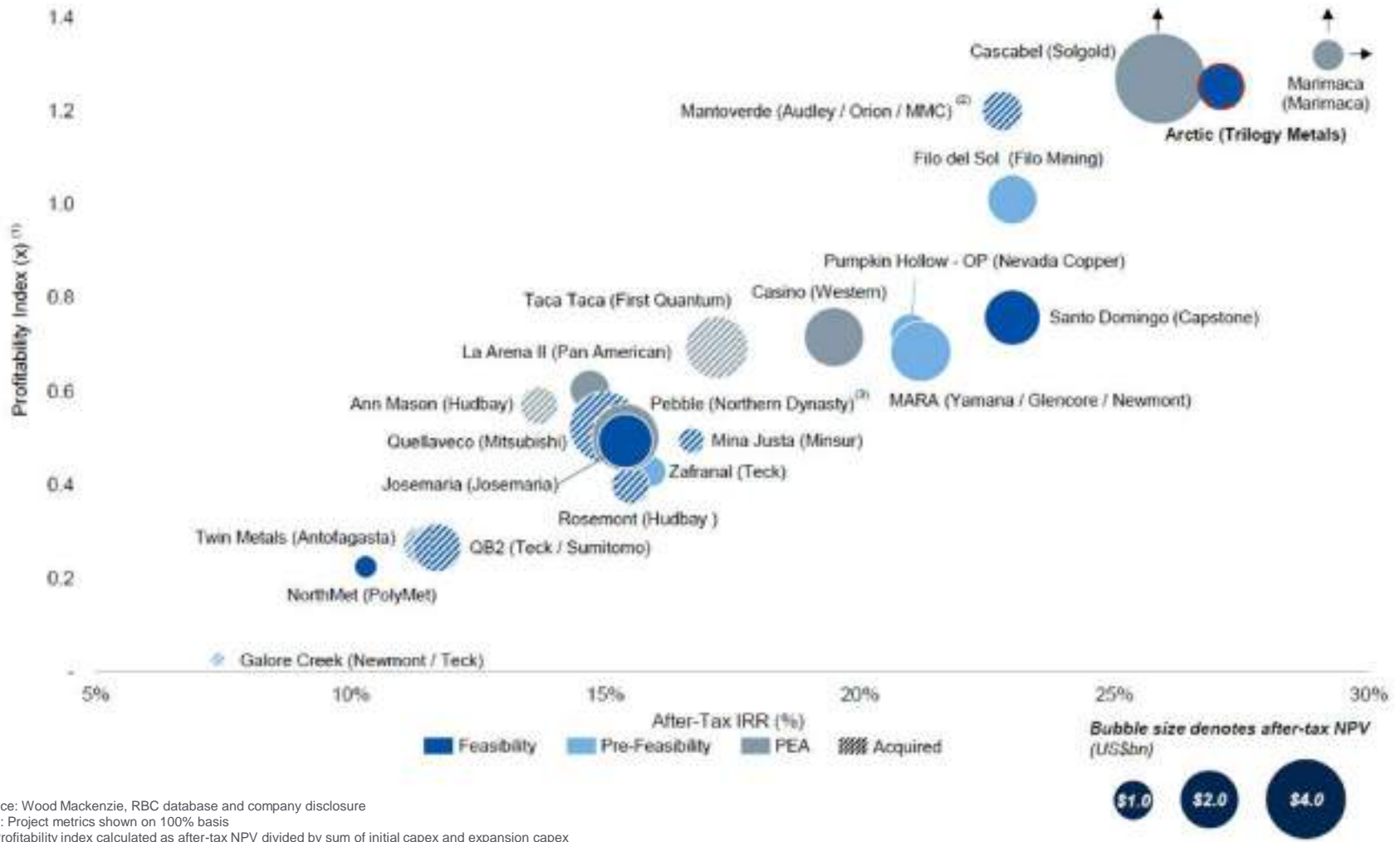


### PRECIOUS METAL CONCENTRATE

- 79% Pb recovery
- 55% Pb concentrate grade
- Pb payable 55%, subject to 3% deduction for concentrates <60% grade
- Ag 2,806 g/t (90.22opt); Ag payable 95%
- Au 37 g/t (1.2opt); Au payable 95%

# ARCTIC BOASTS ROBUST ECONOMIC METRICS

## Profitability Index, After-Tax IRR and After-Tax NPV Benchmarking



Source: Wood Mackenzie, RBC database and company disclosure

Note: Project metrics shown on 100% basis

(1) Profitability index calculated as after-tax NPV divided by sum of initial capex and expansion capex

(2) Based on adjusted Wood Mackenzie Model (assumes copper price of \$3.30/lb and gold price of \$1,350/oz)

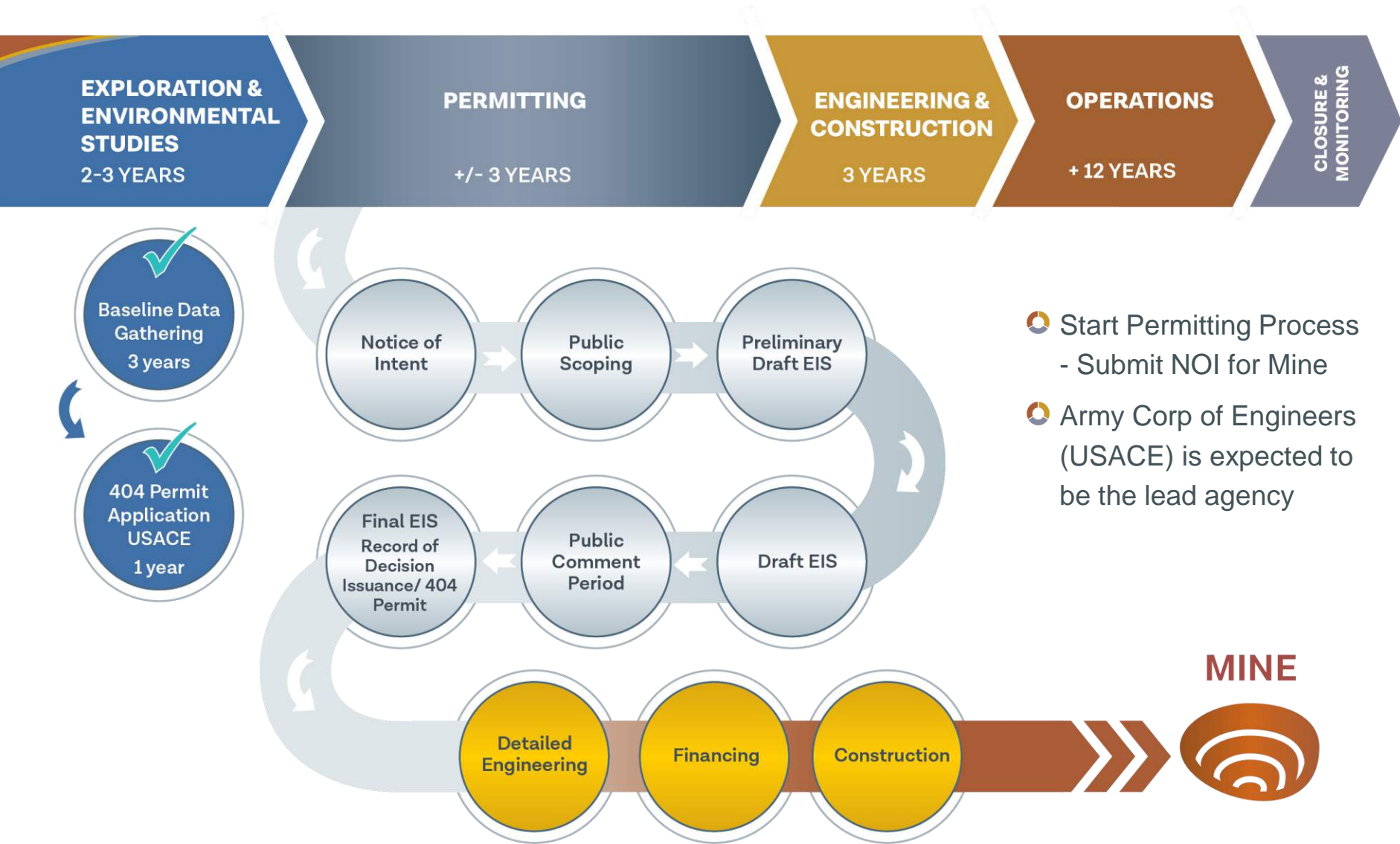
(3) Based on 2011 PEA that the company recognizes as out-of-date; a more recent technical report was filed in late 2017, but does not provide updated cost, production and profitability metrics

# ARCTIC PROJECT DEVELOPMENT PLAN

## Overview of Mine Site – Looking Northeast



# NEPA MINE PERMITTING PROCESS (EIS)



- Start Permitting Process - Submit NOI for Mine
- Army Corp of Engineers (USACE) is expected to be the lead agency

# NO FEDERAL LANDS – EASIER TO PERMIT

## Requires Federal, State and Borough Approvals

▶ 404 Wetlands Permit from the US Army Corps of Engineers is the only significant Federal Permit Required

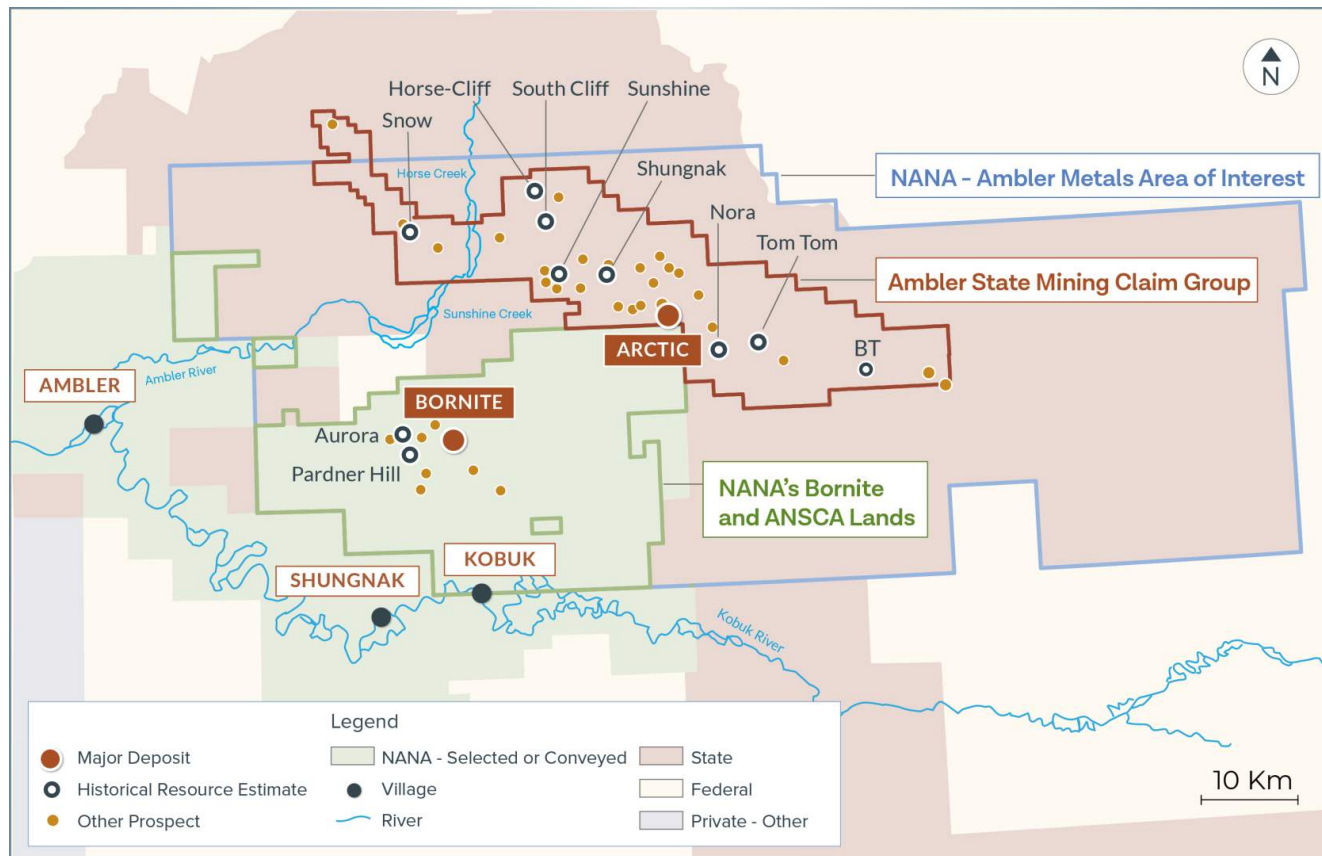
▶ All other significant permits issued by the State of Alaska:

● Mine Operating Permit

● Dam Operating Permit

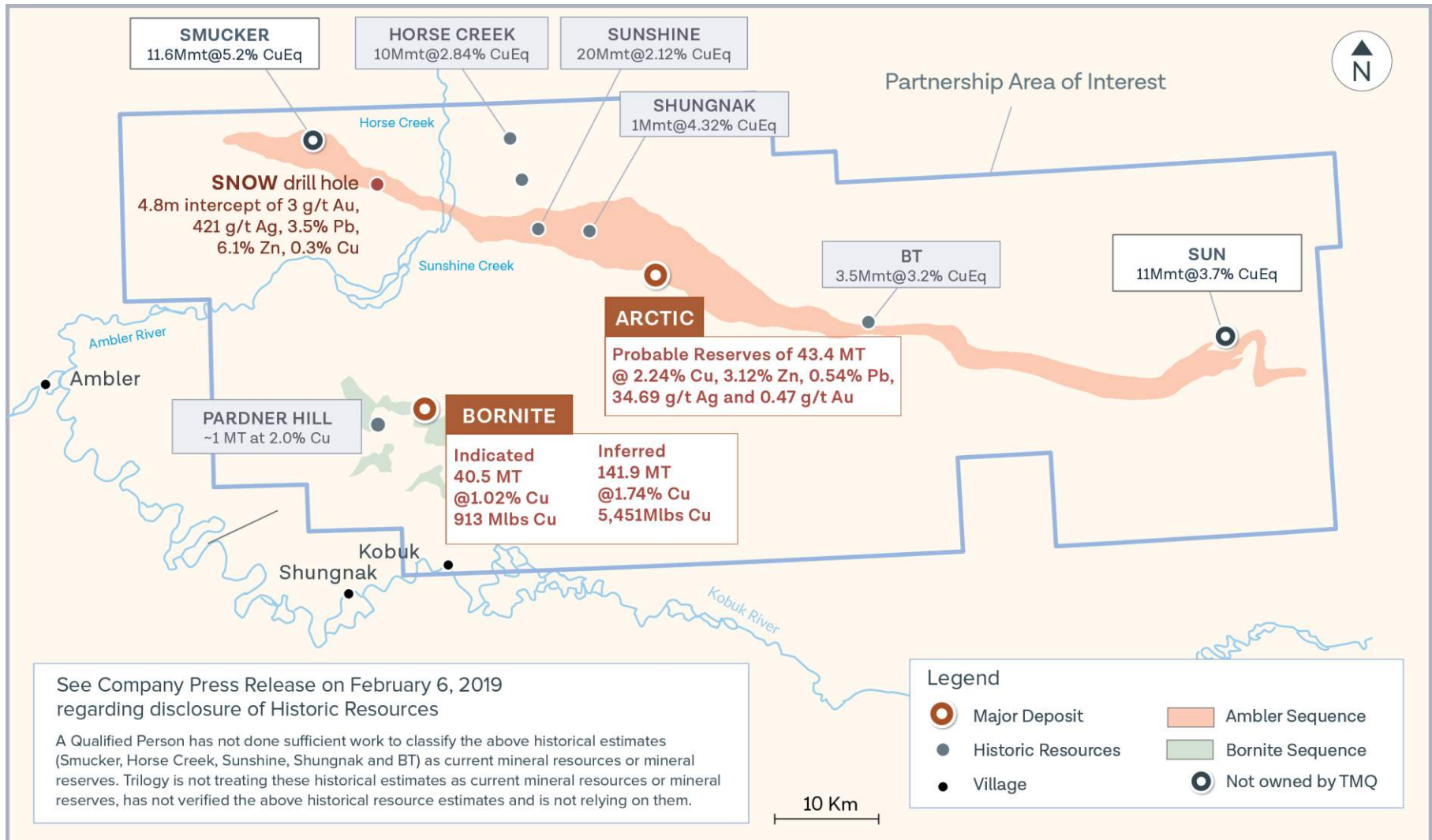
● Air Quality Permit

● Water Discharge Permit

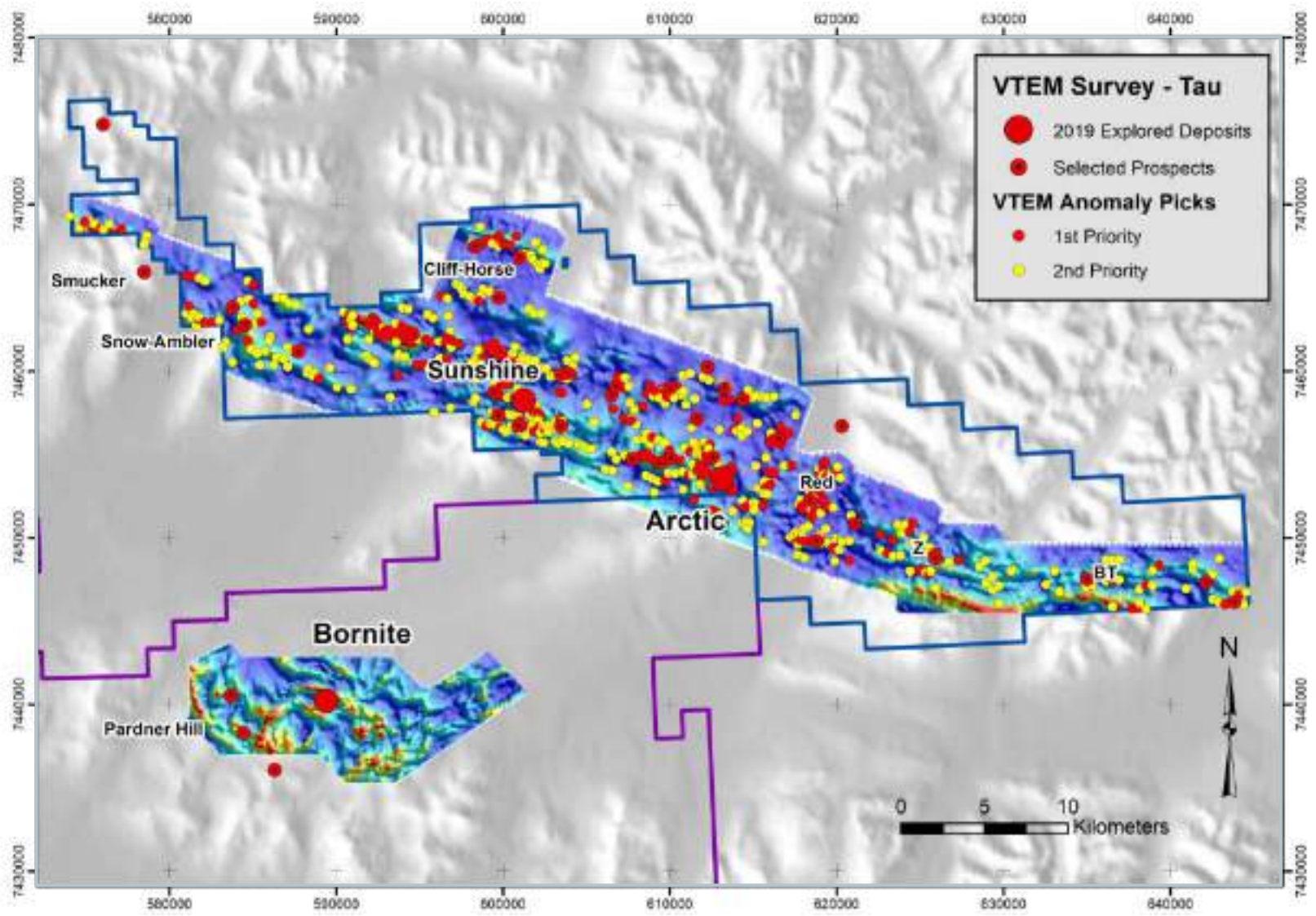


# DISTRICT EXPLORATION

## Pearls on a String

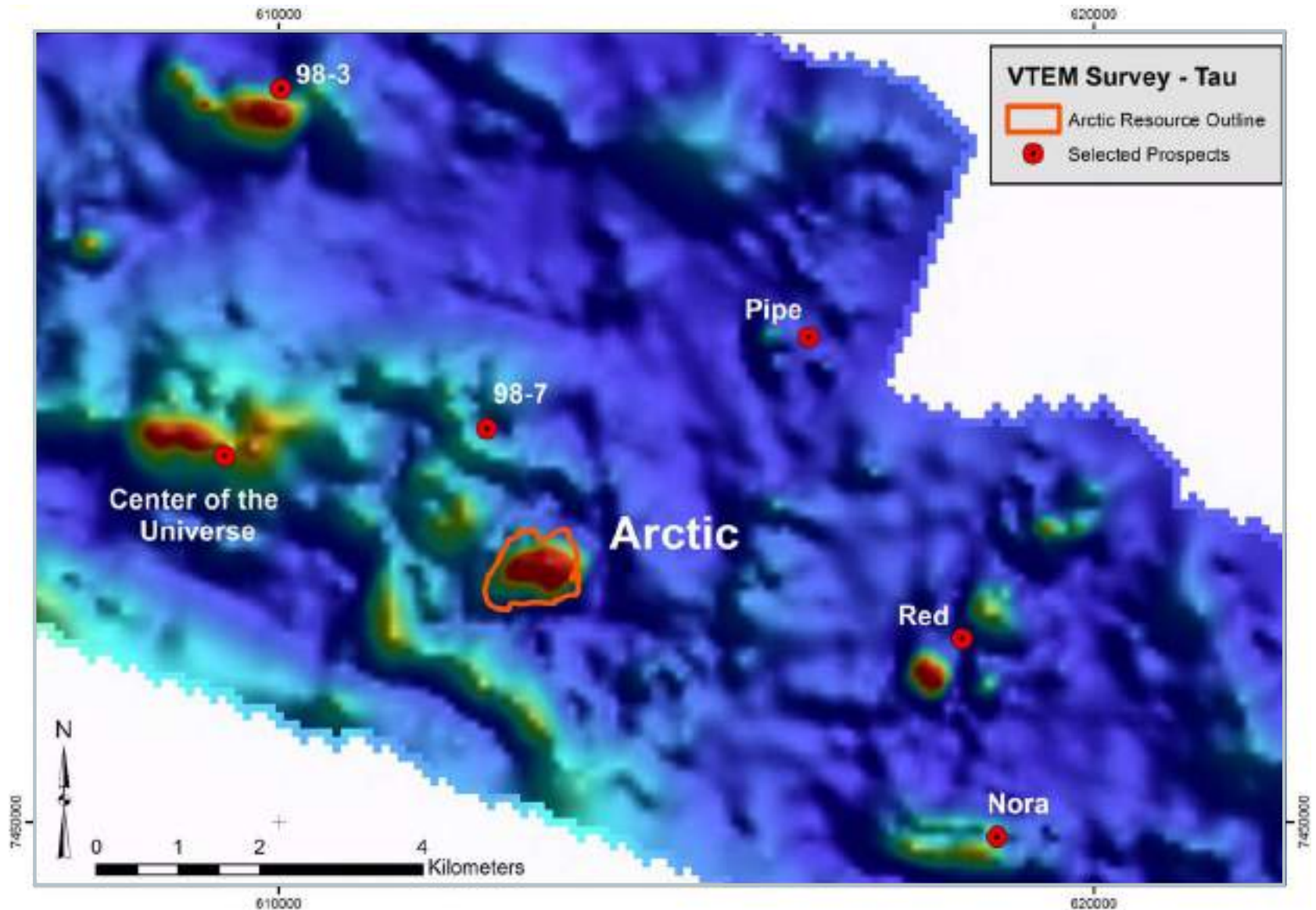


# NUMEROUS ELECTROMAGNETIC ANOMALIES

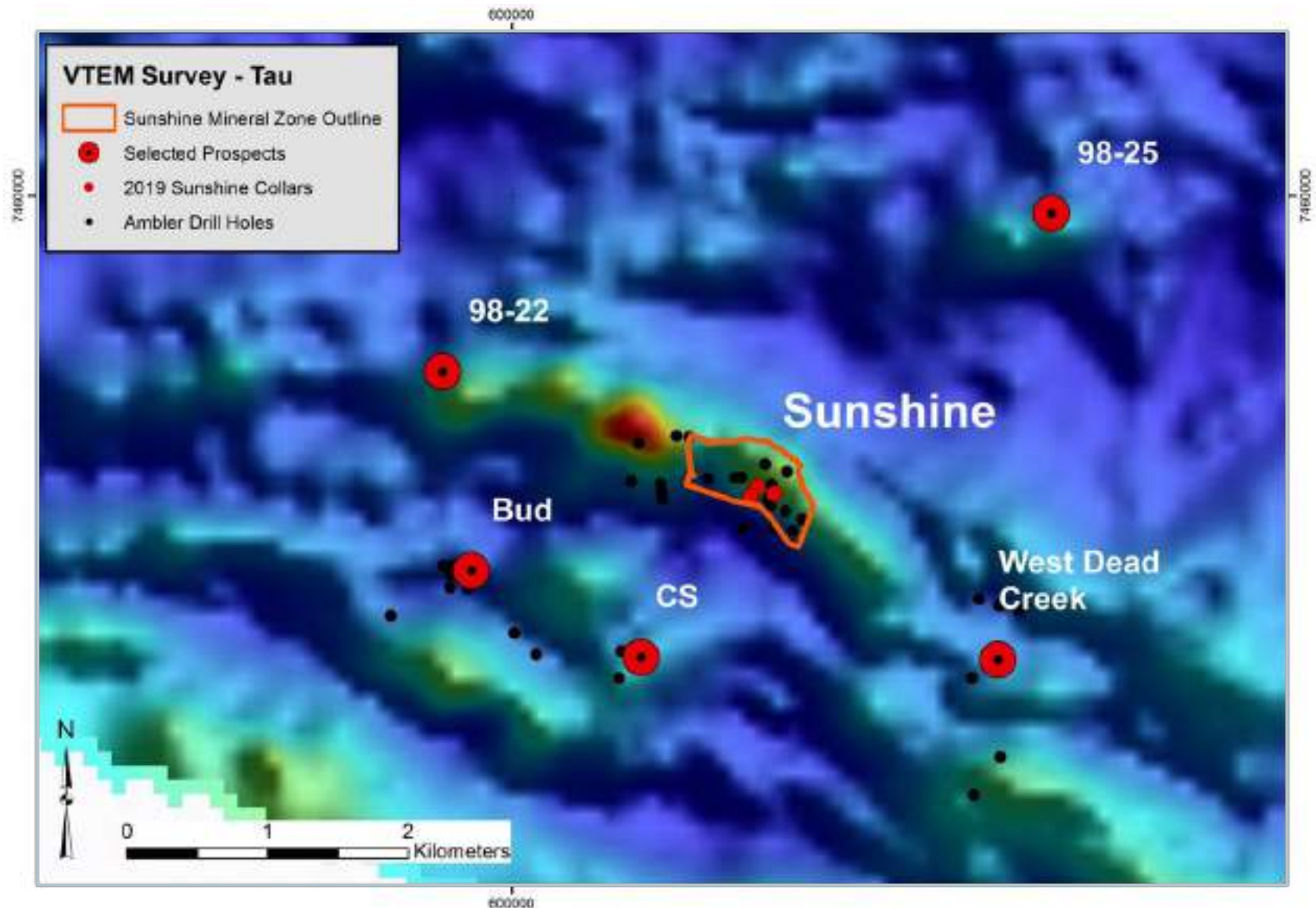




# NUMEROUS ELECTROMAGNETIC ANOMALIES



# NUMEROUS ELECTROMAGNETIC ANOMALIES



# SUNSHINE DRILLING RESULTS 2019

1.5% CuEq	From (m)	To (m)	Length (m)	Cu (%)	Zn (%)	Pb (%)	Au (g/t)	Ag (g/t)	CuEq (%)*
SC19-018	139.52	144.76	5.24	2.08	3.13	0.63	0.15	41.64	3.93
	238.72	245.06	6.34	1.63	1.45	0.09	0.07	13.38	2.38
	247.86	255.06	7.20	0.72	2.18	0.21	0.03	6.64	1.69
	260.46	261.60	1.14	1.53	0.35	0.01	0.03	3.67	1.71
SC19-020	176.37	179.74	3.37	4.15	3.42	0.83	0.26	74.35	6.54
	188.55	190.10	1.55	1.43	1.65	0.40	0.06	23.30	3.77
	204.15	209.09	4.94	4.47	3.42	0.01	0.00	0.12	5.77
	219.30	221.98	2.68	3.70	0.44	0.00	0.00	0.40	3.87
SC19-021	146.62	156.28	9.66	3.93	3.00	0.77	0.22	73.10	6.10
SC19-022	114.12	115.47	1.35	2.89	4.87	1.41	0.17	68.30	5.90
	130.40	134.61	4.21	0.34	2.28	1.07	0.07	30.63	1.85
	143.73	159.01	15.28	1.35	2.91	0.78	0.16	32.58	3.08
SC19-023	163.50	168.51	5.01	0.87	1.92	0.66	0.10	24.69	2.09

2.5% CuEq	From (m)	To (m)	Length (m)	Cu (%)	Zn (%)	Pb (%)	Au (g/t)	Ag (g/t)	CuEq (%)*
SC19-018	139.52	144.76	5.24	2.08	3.13	0.63	0.15	41.64	3.93
	241.80	244.26	2.46	2.19	2.97	0.13	0.10	20.90	3.61
	253.64	255.06	1.42	1.16	3.78	0.13	0.02	6.50	2.70
SC19-020	176.37	179.74	3.37	4.15	3.42	0.83	0.26	74.35	6.54
	204.15	209.09	4.94	4.47	3.42	0.01	0.00	0.12	5.77
	219.30	221.98	2.68	3.70	0.44	0.00	0.00	0.40	3.87
SC19-021	146.62	156.28	9.66	3.93	3.00	0.77	0.22	73.10	6.10
SC19-022	114.12	115.47	1.35	2.89	4.87	1.41	0.17	68.30	5.90
	143.73	159.01	15.28	1.35	2.91	0.78	0.16	32.58	3.08
SC19-023	163.50	164.94	1.44	1.32	3.10	0.87	0.10	32.40	3.12

# BORNITE CORE



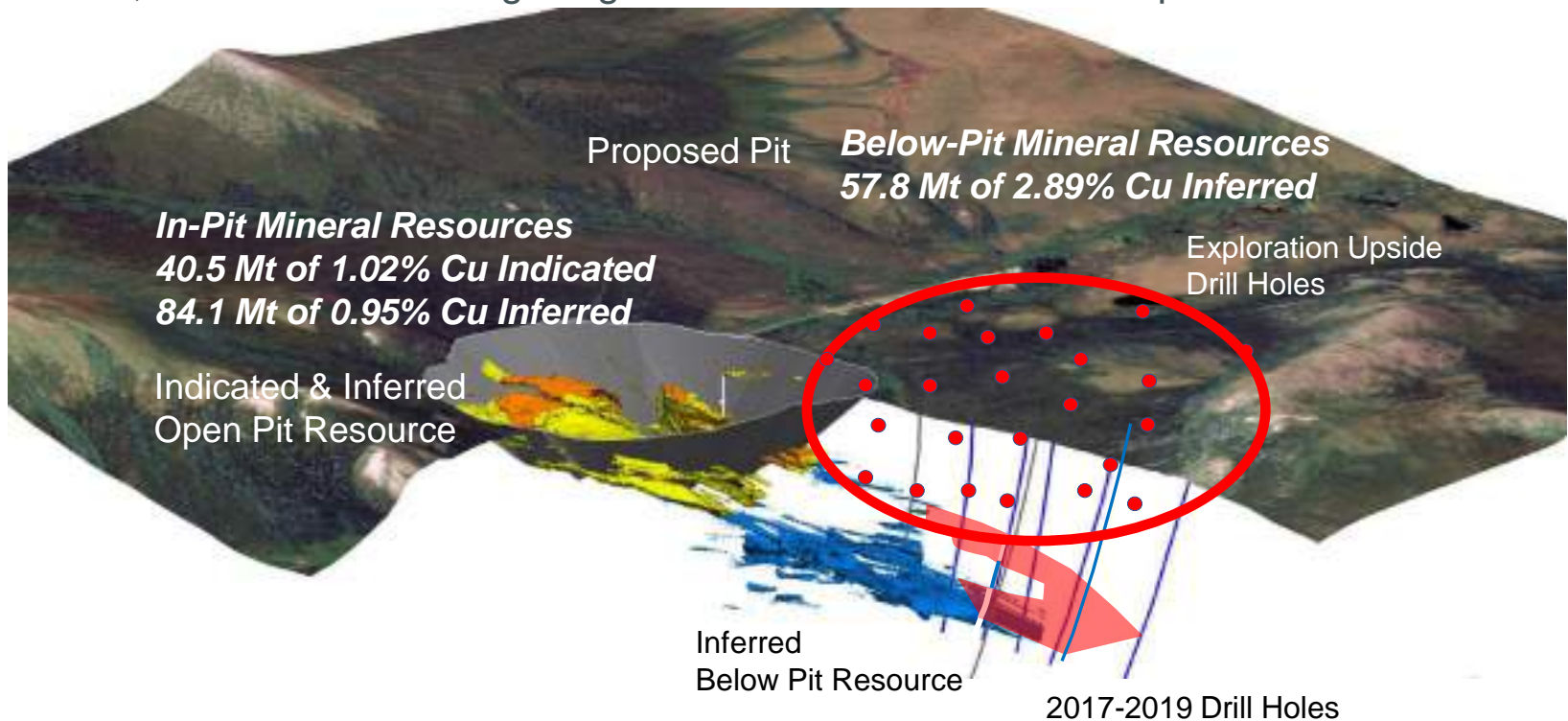
# BORNITE

## Testing Northern Extension

	<b>COPPER</b> billion pounds	<b>COBALT</b> million pounds
Indicated	<b>0.91</b>	<b>0</b>
Inferred	<b>5.50</b>	<b>77</b>

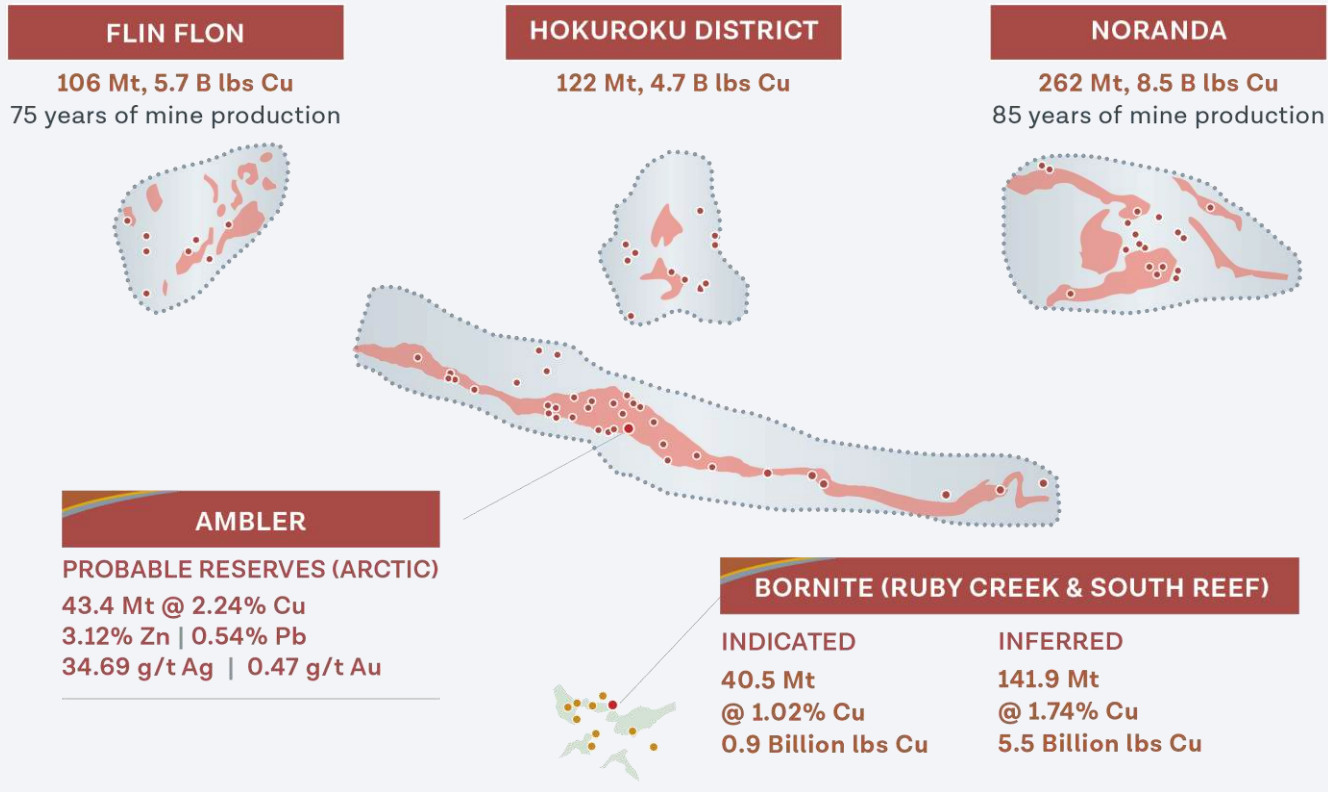
**US\$31 million** expended by South32 during 2017, 2018 & 2019 Drilling Programs

**35 drill holes** to in-fill and expand current resources



# COMPARISON OF THE AMBLER VMS BELT WITH OTHER KNOWN BELTS

## Multi-Billion Pound Copper VMS Districts of the World

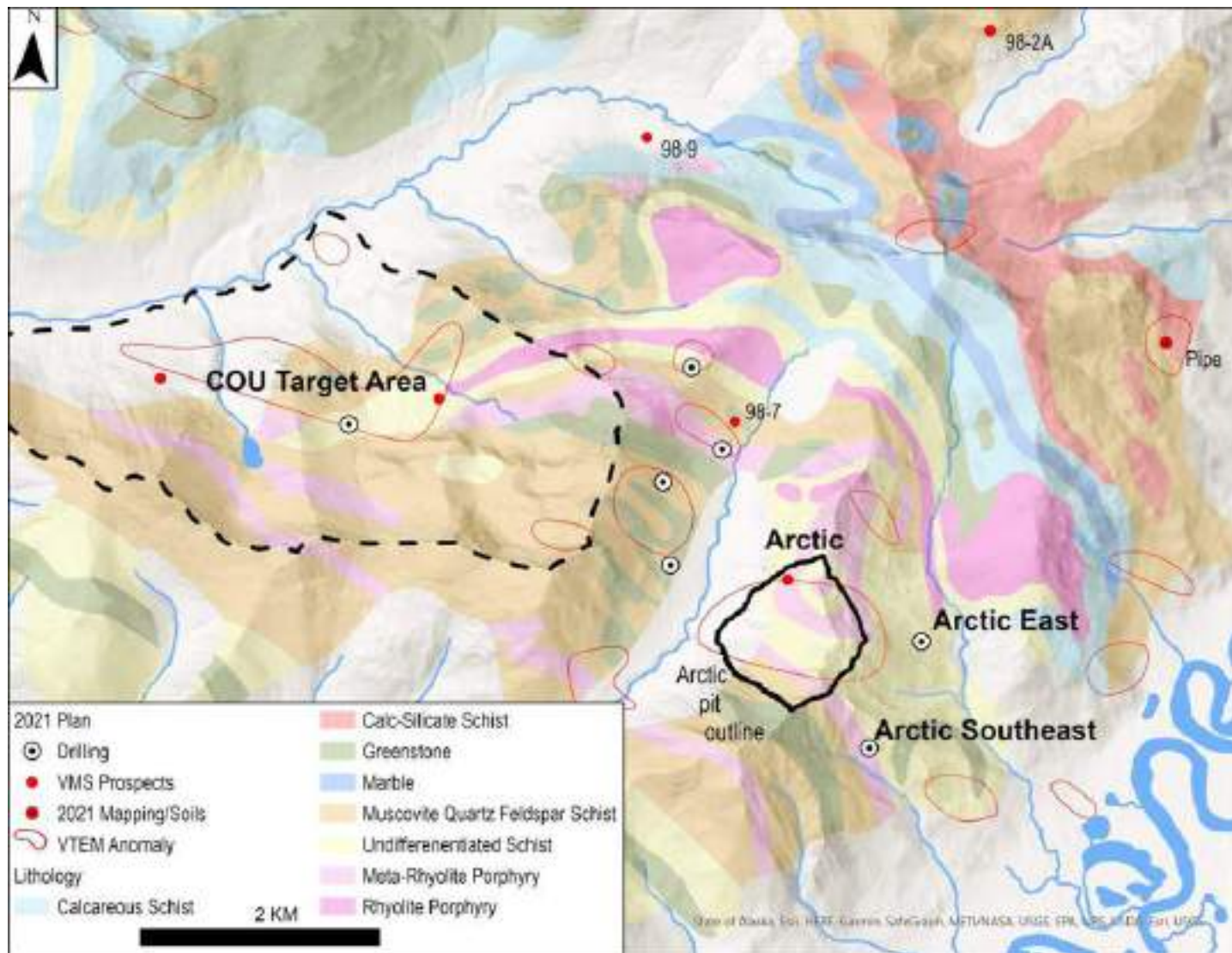


Source: Franklin et al., 2005, Volcanic-associated massive sulphides, Econ.Geol., Data includes all type of reserves and resources (inferred, indicated and measured resources, proven and probable reserves).

20 Km

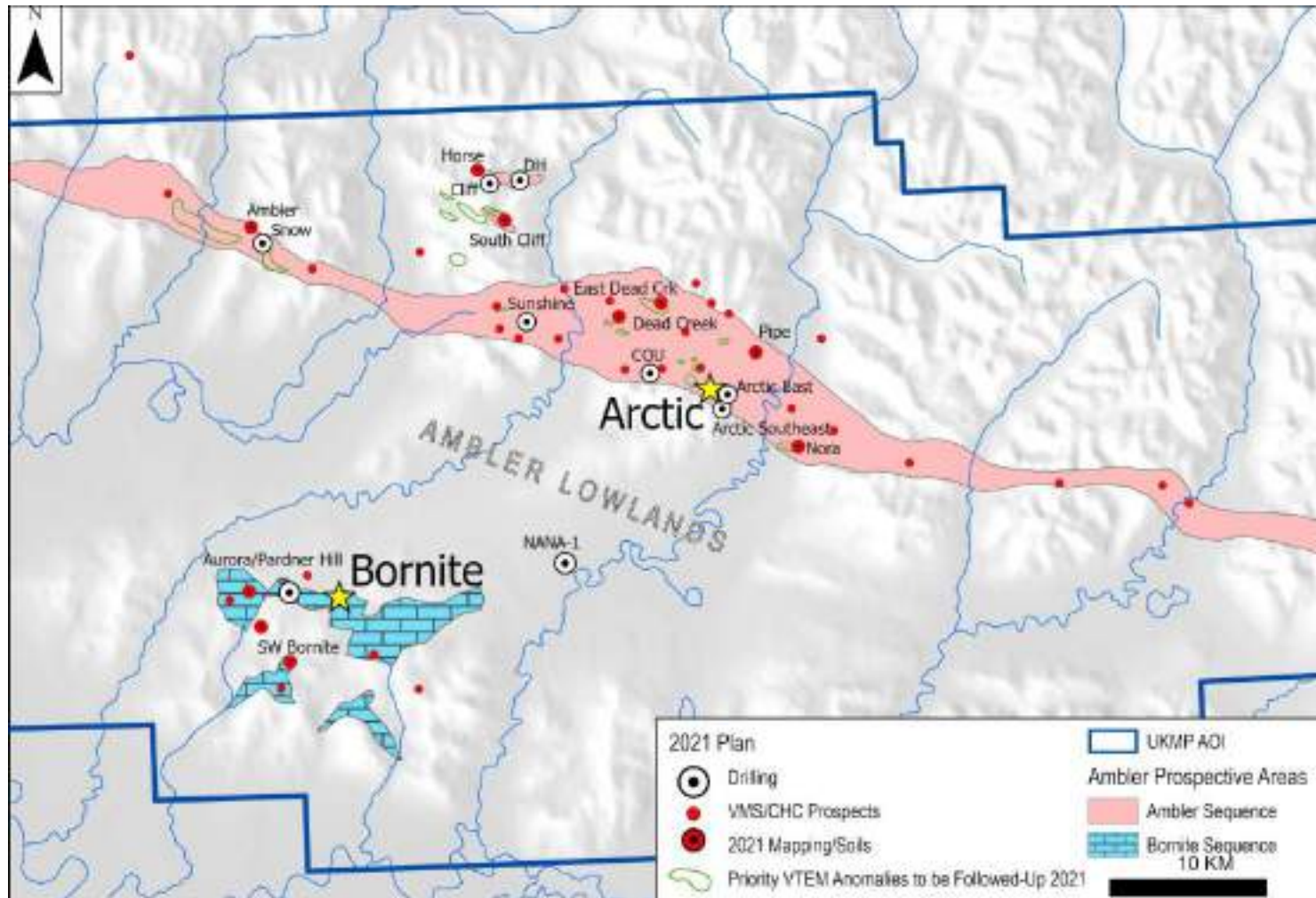
# 2021 FIELD EXPLORATION SEASON

Drilling within the 172,636-hectare (426,600-acre) UKMP



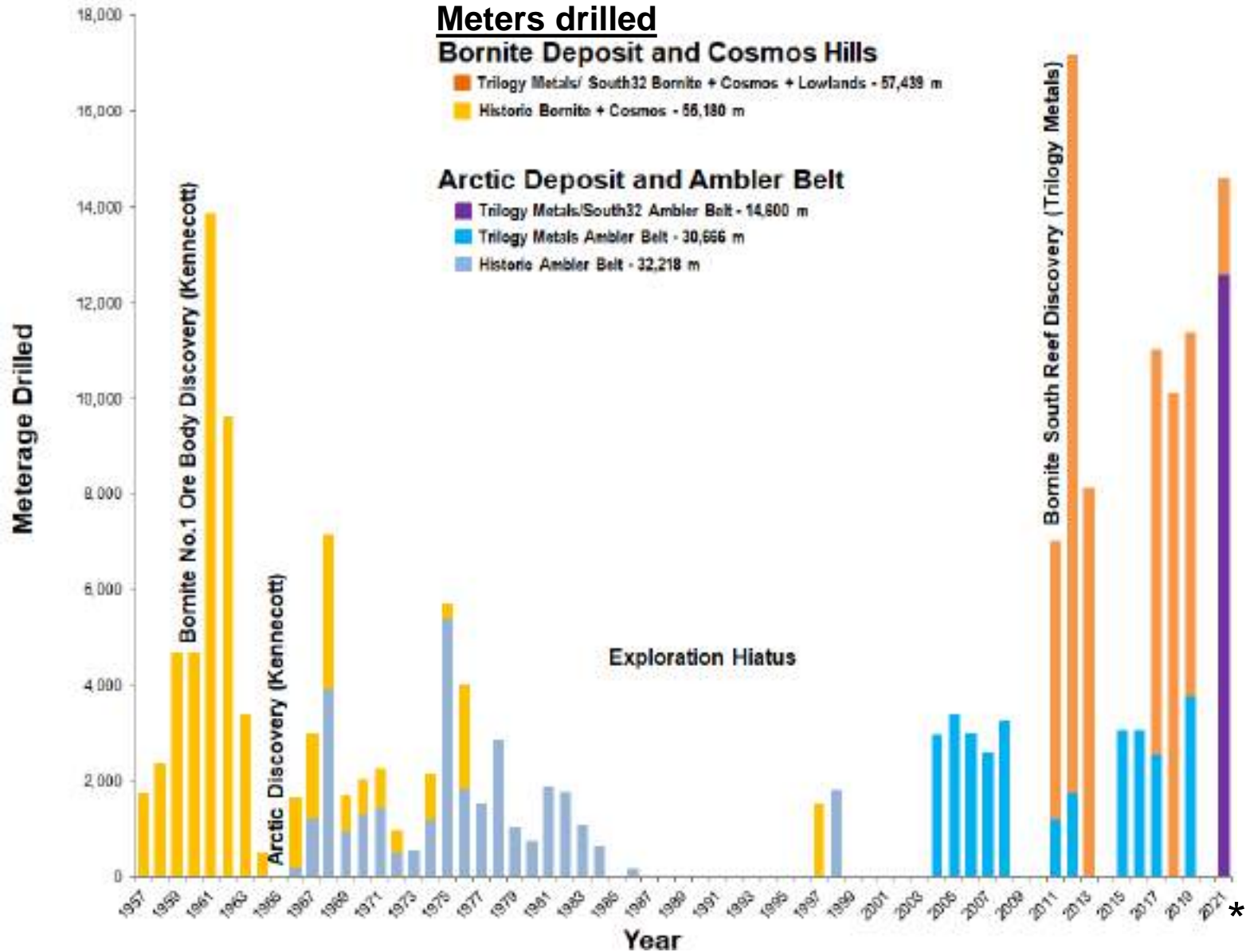
# 2021 FIELD EXPLORATION SEASON

District-Area Drilling Focused on Volcanogenic Massive Sulphide (VMS) Prospects with Best Potential for Shallow Open-Pit Mineralization





# UPPER KOBUK MINERAL PROJECTS



# GETTING THINGS DONE



FEB 2020

Formed Ambler Metals LLC, a **50/50 joint venture** with South 32 Ltd.



JUL 2020

Record of Decision for Ambler Access Project and 404 Permit, **approving the development of the northern route** for a 211-mile-long gravel private industrial road access to the Ambler Mining District



AUG 2020

**Feasibility Study results for the Arctic Project** estimated to have an after-tax NPV8% of \$1.1 billion and an IRR of 27%



SEP 2020

**Appointment of Ramzi Fawaz** as President and CEO of Ambler Metals



NOV 2020

Announced **2021 work program and budgets** for the Upper Kobuk Mineral Projects, with details of the work program provided in May 2021



JAN 2021

AIDEA received **Right-of-Ways for the Ambler Access Road Project** from US Bureau of Land Management and National Park Service



FEB 2021

Ambler Metals entered into a **Development Funding Agreement** with AIDEA to cooperate on the pre-development work for the Ambler Access Project

# UPCOMING CATALYSTS

## News Flow

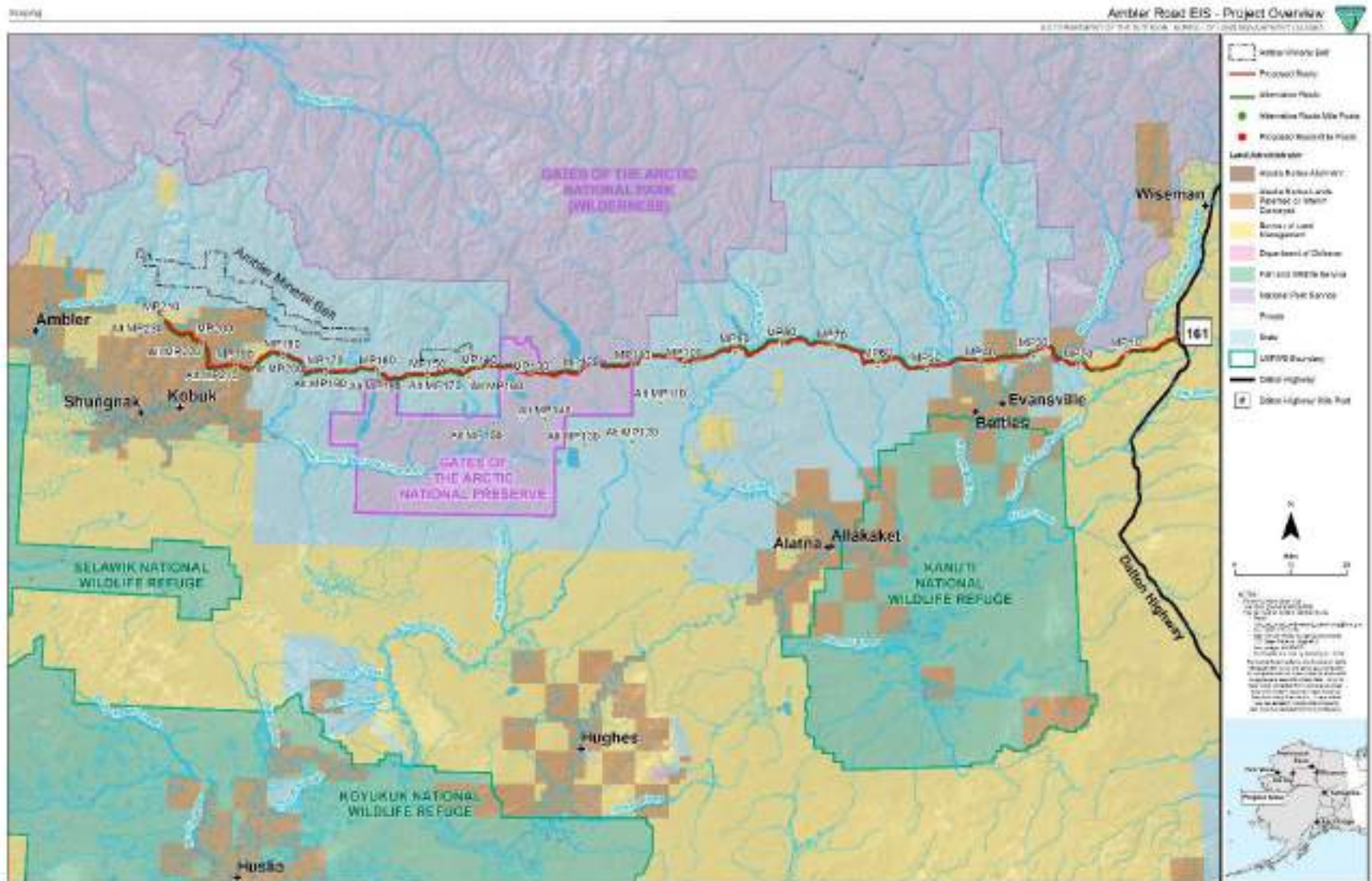
- 🕒 H2 2021 – Optimization of Arctic Feasibility Study by Ambler Metals
- 🕒 Fall 2021 – Assay results from 14,600 m Summer Drilling Campaign
- 🕒 H2 2021 – Commencement of Permitting of Arctic Project





# TAIKUU!

# AMBLER MINING DISTRICT Industrial Access Project (AMDIAP)



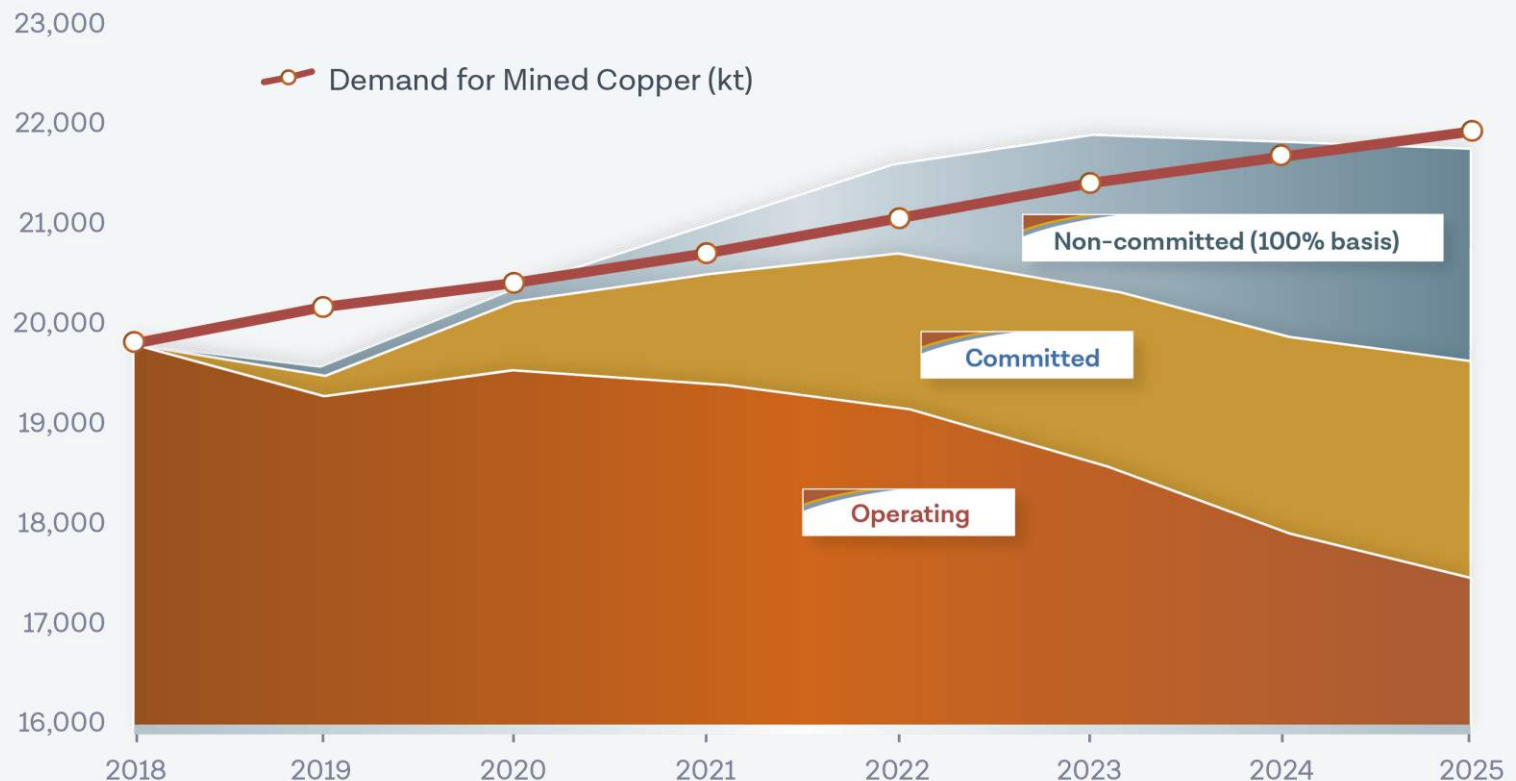
# COPPER AND COBALT

## Critical for a Green Future



# IS THERE ENOUGH SUPPLY OUT THERE?

## A Significant Demand/Supply Deficit is Looming



Source: Company data, Morgan Stanley Research estimates

# NEW PRESIDENT AND CEO

## Tony Giardini



- Mr. Giardini has been a director of the Company since 2012
- Was previously President of Ivanhoe Mines Ltd. which is developing its Platreef, Kipushi and Kamo-a-Kakula projects
- Was also previously CFO of Kinross Gold Corp. which operates the Fort Knox gold mine near Fairbanks, Alaska
- Mr. Giardini has assumed his new role on June 1, 2020
- Jim Gowans, the interim President and CEO, will remain on the Company's BoD
- Jim and Tony on the Board of Ambler Metals LLC



# PORT OF ALASKA IS NEAR ANCHORAGE



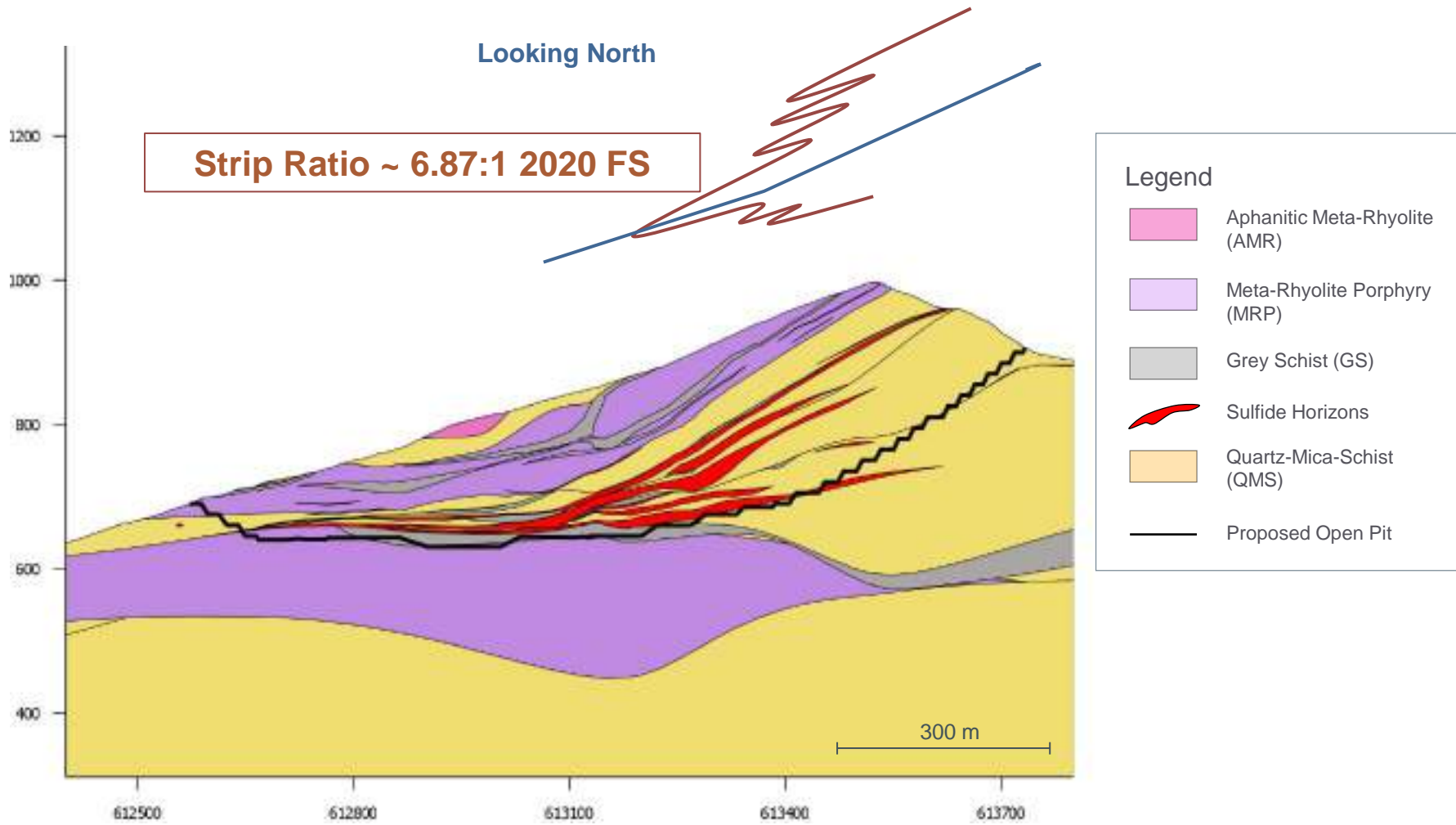
# PORT OF ALASKA - ANCHORAGE

## Concentrates Loaded Directly into Ship Hold

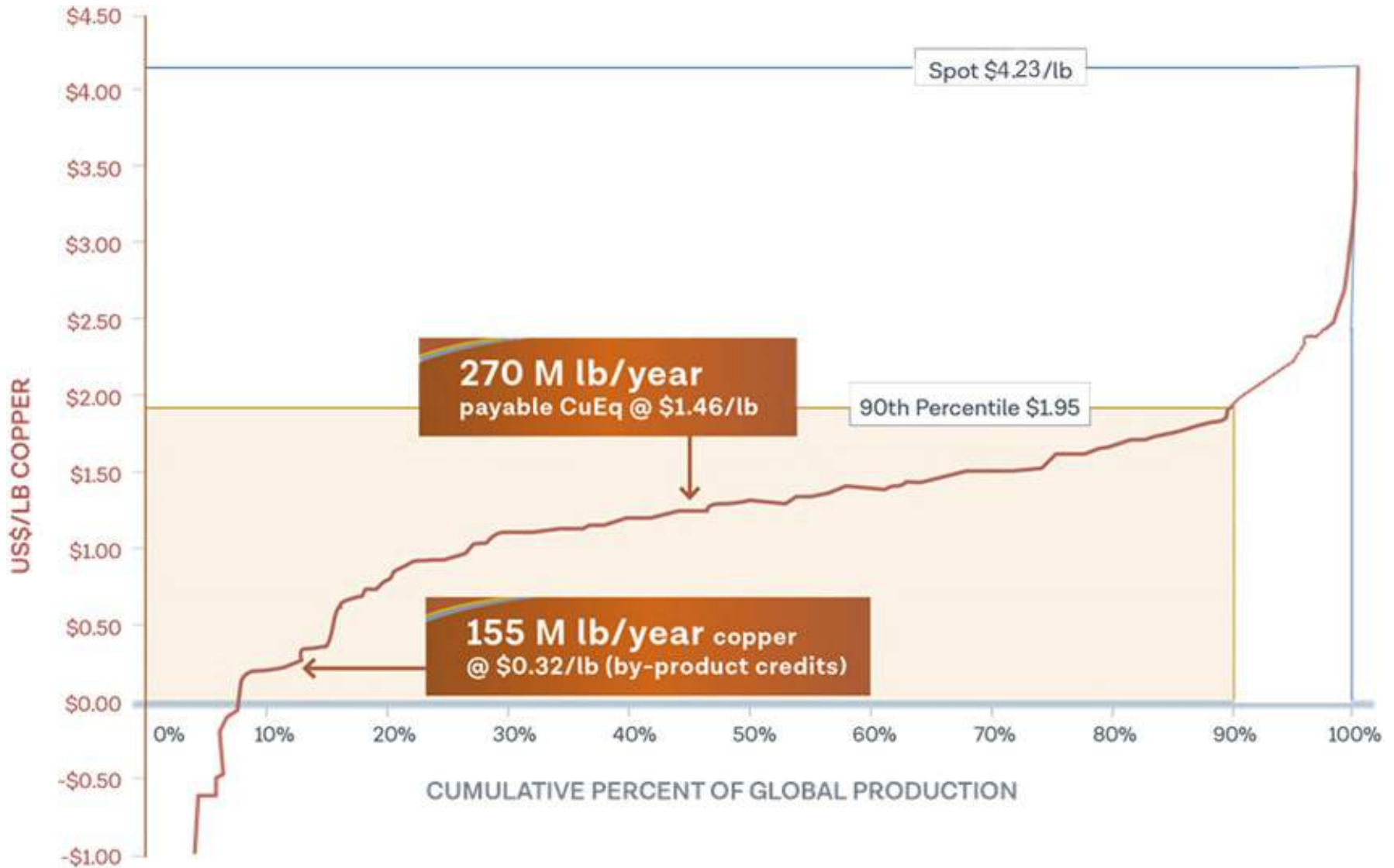
- Good for the **Environment**
- Saves **Money**
- Better **Green Solution**



# ARCTIC DEPOSIT: CROSS SECTION



# ARCTIC FS – ARCTIC CASH COSTS



Source: RBC Capital Markets, spot price as at September 16, 2021.

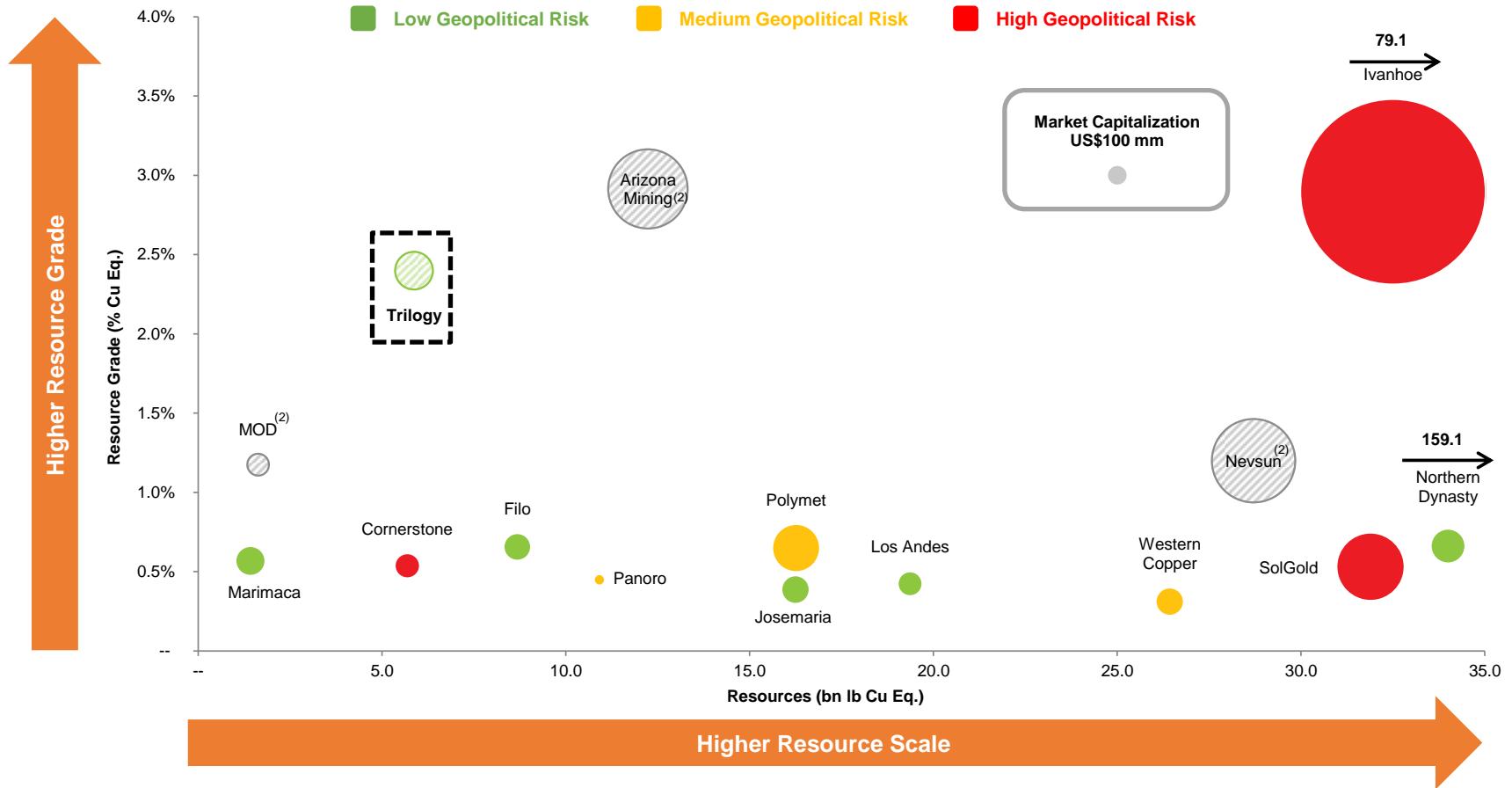
# ARCTIC PROJECT DEVELOPMENT PLAN

## Overview of Valley – Looking Northeast



# Resource Scale vs. Resource Grade

RESOURCES<sup>(1)</sup> (BN LB CU EQ.) VS. RESOURCE GRADE<sup>(1)</sup> (% CU EQ.)



Source: BMO Capital Markets database, company filings, FactSet, Fraser Institute, street research

Note: Metrics shown on an attributable basis where applicable; assumes 50% Trilogy interest in Arctic and Bornite, 39.6% Ivanhoe interest in Kamo-Kakula, 85% SolGold interest in Cascabel and 15% Cornerstone interest in Cascabel.

1. Resources and resource grade based on all assets.

2. Based on transaction equity value.

# RESERVE ESTIMATE FOR ARCTIC PROJECT

Category	Tonnage	Average Grade:				
	t x 1000	Cu (%)	Zn (%)	Pb (%)	Au (g/t)	Ag (g/t)
Proven Mineral Reserves	-	-	-	-	-	-
Probable Mineral Reserves	43,442	2.24	3.12	0.54	0.47	34.69
<b>Proven &amp; Probable Mineral Reserves</b>	<b>43,442</b>	<b>2.24</b>	<b>3.12</b>	<b>0.54</b>	<b>0.47</b>	<b>34.69</b>
Waste within Designed Pit	298,626					
Total Tonnage within Designed Pit	342,068					

## Notes:

1. Reserves estimated assuming open pit mining methods and include a combination of planned and contact dilution. Total dilution is expected to be between 30% and 35%. Pit slopes vary by sector and range from 26° to 43°.
2. Reserves are based on prices of \$3.00/lb Cu, \$1.00/lb Pb, \$1.10/lb Zn, \$1300/oz Au and \$18/oz Fixed process recoveries of 91.2% Cu, 80.0% Pb, 91.0% Zn, 58.9% Au and 80.0% Ag
3. Mining costs: \$2.78/t incremented at \$0.02/t/5m and \$0.015/t/5m below and above 730m elevation respectively.
4. Processing costs: \$29.39/t. Include process operating cost: \$15.09/t, G&A: \$6.55/t, sustaining capital: \$1.53/t, closure cost: \$1.52/t, road toll: \$4.70/t.
5. Treatment costs of \$80/t Cu concentrate, \$180/t Pb concentrate and \$200/t Zn concentrate. Refining costs of \$0.08/lb Cu, \$10/oz Au, \$0.80/oz Ag. Transport cost \$270.38/t concentrate.
6. Fixed royalty percentage of 1% .
7. There is a risk to the mineral reserves if the toll road is not built in the time frame required for the Arctic Project, or if the toll charges are significantly different from what was assumed.
8. The presence of talc layers in the rock could affect recoveries in the process plant. To mitigate this risk the inclusion of a talc recovery circuit is considered in the process plant. Talc content per period has been estimated in the mine production schedule.
9. The geotechnical assumptions used in the pit design may vary in future assessments and could materially affect the strip ratio, or mine access design.
10. The Qualified Person for the reserves estimates is Antonio Peralta Romero P.Eng. who visited the project site in July 2017 as part of the data verification process.
11. The effective date of mineral reserves estimate is January 31, 2020.

# NATURALLY DIVERSIFIED

	<b>COPPER</b> billion pounds	<b>ZINC</b> billion pounds	<b>GOLD</b> million ounces	<b>SILVER</b> million ounces
Indicated	<b>3.35</b>	<b>3.36</b>	<b>0.73</b>	<b>55.0</b>
Inferred	<b>5.58</b>	<b>0.21</b>	<b>0.04</b>	<b>3.0</b>

	Resource Category	Tonnes Millions	Grade (%)	Contained Metal (Mlbs)
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## COPPER

Arctic	Indicated	36.0	3.07	2,441
	Inferred	3.5	1.71	131
Bornite In-Pit	Indicated	40.5	1.02	913
	Inferred	84.1	0.95	1,768
Bornite Below-Pit	Inferred	57.8	2.89	3,683

## ZINC

Arctic	Indicated	36.0	4.23	3,356
	Inferred	3.5	2.72	210

## LEAD

Arctic	Indicated	36.0	0.73	541
	Inferred	3.5	0.60	47.0

	Resource Category	Tonnes Millions	Grade (g/t)	Contained Metal (Moz)
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## GOLD

Arctic	Indicated	36.0	0.63	0.73
	Inferred	3.5	0.36	0.04

## SILVER

Arctic	Indicated	36.0	47.6	55.0
	Inferred	3.5	28.7	3.0



# MINERAL RESOURCES for the Arctic & Bornite Projects

Deposit	Cut-off	Tonnes (M)	Cu%	Zn%	Pb%	Ag g/t	Au g/t	Cu (Mlbs)	Cu Eq <sup>4</sup> (Mlbs)	Tonnes Cu	Tonnes Cu Eq <sup>4</sup>
<b>INDICATED</b>											
Arctic <sup>1</sup>	0.5% Cu	36.0	3.07	4.23	0.73	47.6	0.63	2,441	4,376	1,107,200	1,984,900
Bornite (In-Pit) <sup>2</sup>	0.5% Cu	40.5	1.02					913	913	413,000	413,000
<b>Total Indicated</b>								<b>3,354</b>	<b>5,289</b>	<b>1,520,200</b>	<b>2,397,900</b>
<b>INFERRED</b>											
Arctic <sup>1</sup>	0.5% Cu	3.5	1.71	2.72	0.60	28.7	0.36	131	251	59,400	113,900
Bornite (In-Pit) <sup>2</sup>	0.5% Cu	84.1	0.95					1,768	1,768	802,000	802,000
Bornite (Below Pit) <sup>3</sup>	1.5% Cu	57.8	2.89					3,683	3,683	1,671,000	1,671,000
<b>Total Inferred</b>								<b>5,582</b>	<b>5,702</b>	<b>2,532,400</b>	<b>2,586,900</b>

Type	Cut-off (Cu%)	Tonnes (million)	Co (%)	Contained Co (Mlbs)
Bornite In-Pit	0.5	124.6	0.017	45
Bornite Below-Pit	1.5	57.8	0.025	32
<b>Total Inferred</b>	<b>--</b>	<b>182.4</b>	<b>0.019</b>	<b>77</b>

## Notes:

- Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources will be converted into Mineral Reserves.
- These resource estimates have been prepared in accordance with NI 43-101 and the CIM Definition Standard, unless otherwise noted.
- See numbered footnotes below on resource information.
- Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content.
- Tonnage and grade measurements are in metric units. Contained gold and silver ounces are reported as troy ounces; contained copper, zinc, and lead pounds as imperial pounds.
- g/t = grams per tonne
- All amounts are stated in U.S. dollars unless otherwise noted.

## Resource Footnotes

- Resources stated as contained within a pit shell developed using metals prices of \$3.00/lb for copper, \$0.90/lb lead, \$1.00/lb zinc, \$1,300/oz gold, \$18/oz silver, mining costs of \$3.00/tonne, milling and G&A costs of \$35/tonne, metallurgical recoveries of 92% for copper, 77% for lead, 88% for zinc, 63% for gold, 56% for silver and an average pit slope of 43 degrees.
- Resources stated as contained within a pit shell developed using a metal price of \$3.00/lb for copper, mining costs of \$2.00/tonne, milling costs of \$11/tonne, G&A cost of \$5.00/tonne, 87% metallurgical recoveries and an average pit slope of 43 degrees.
- Mineral resources at a 1.5% cut-off are considered as potentially economically viable in an underground mining scenario based on an assumed projected copper price of \$3.00/lb, underground mining costs of \$65.00 per tonne, milling costs of \$11.00 per tonne, G&A of \$5.00 per tonne, and an average metallurgical recovery of 87%.
- The Arctic copper-equivalent resource is calculated using the following metal price assumptions: \$3.00/lb Cu, \$1.00/lb Zn, \$0.90/lb Pb, \$18.00 oz Ag, and \$1,300/oz Au. Calculation excludes any adjustments for metal recoveries. Net of by-product credit.

Cobalt resources stated as contained within a pit shell developed using a metal price of US\$3.00/lb Cu, mining costs of US\$2.00/tonne, milling costs of US\$11/tonne, G&A cost of US\$5.00/tonne, 87% metallurgical recoveries and an average pit slope of 43 degrees.

Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources will be converted into Mineral Reserves. It is reasonably expected that the majority of Inferred mineral resources could be upgraded to Indicated mineral resources with additional exploration.

# NI 43-101 COMPLIANT RESOURCES

## CAUTIONARY NOTE CONCERNING RESOURCE ESTIMATES

This summary table may use the term "resources", "measured resources", "indicated resources" and "inferred resources". United States investors are advised that, while such terms are recognized and required by Canadian securities laws, the United States Securities and Exchange Commission (the "SEC") does not recognize them. Under United States standards, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. Mineral resources that are not mineral reserves do not have demonstrated economic viability. United States investors are cautioned not to assume that all or any part of measured or indicated resources will ever be converted into reserves. Further, inferred resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It cannot be assumed that all or any part of the inferred resources will ever be upgraded to a higher category. Therefore, United States investors are also cautioned not to assume that all or any part of the inferred resources exist, or that they can be mined legally or economically. Disclosure of "contained ounces" is permitted disclosure under Canadian regulations, however, the SEC normally only permits issuers to report "resources" as in place tonnage and grade without reference to unit measures. Accordingly, information concerning descriptions of mineralization and resources contained in this release may not be comparable to information made public by United States companies subject to the reporting and disclosure requirements of the SEC.

NI 43-101 is a rule developed by the Canadian Securities Administrators, which established standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. Unless otherwise indicated, all resource estimates contained in this circular have been prepared in accordance with NI 43-101 and the CIM Definition of Standards.

## TECHNICAL REPORT AND QUALIFIED PERSONS

The documents referenced below provide supporting technical information for each of the Company's projects.

Project	Qualified Person(s)	Most Recent Disclosure & Filing Date
Arctic	Dr. Bruce M. Davis, FAusIMM, BD Resource Consulting Inc. Robert Sim, P.Geo., Sim Geological Inc.	Company's press release dated February 20, 2018
Arctic	Paul Staples, P.Eng., Ausenco Engineering Canada Inc. AJ MacDonald, P.Eng, Integrated Sustainability Consultants Antonio Peralta Romero, PhD, P.Eng., Wood Bruce Davis, FAusIMM, BD Resource Consulting, Inc. Jeffrey B. Austin, P.Eng., International Metallurgical & Environmental Inc. Robert Sim, P.Geo., SIM Geological Inc. Calvin Boese, P.Eng., M.Sc., SRK Consulting (Canada) Inc. Bruce Murphy, P.Eng., SRK Consulting (Canada) Inc. Tom Sharp, PhD, P.Eng., SRK Consulting (Canada) Inc.	Arctic Feasibility Study, Alaska, USA, NI 43-101 Technical Report– Effective date August 20, 2020; Filed October 2, 2020
Bornite	Dr. Bruce M. Davis, FAusIMM, BD Resource Consulting Inc. Robert Sim, P.Geo., Sim Geological Inc. Jeff Austin, P.Eng., International Metallurgical & Environmental Inc.	Company's press release dated June 5, 2018  NI 43-101 Technical Report on the Bornite Project, Northwest Alaska, USA – Effective date June 5, 2018; Filed July 20, 2018

# MINERAL RESOURCES

## for the Arctic & Bornite Projects

### DEFINITIONS & NOTES

Mineral Resources: “measured”, “indicated” and “inferred” mineral resources are estimated in accordance with the definitions of these terms adopted by the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) in November, 2010 updated in May 2014 and incorporated in National Instrument 43-101, Standards of Disclosure for Mineral Projects (“NI 43-101”), by Canadian securities regulatory authorities. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources will be converted to Mineral Reserves.

Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content. Tonnage and grade measurements are in metric units. Contained gold and silver ounces are reported as troy ounces; contained copper, zinc, and lead pounds as imperial pounds. All amounts are stated in U.S. dollars unless otherwise noted.

g/t = grams per tonne

### COMMENTS ON INDIVIDUAL PROJECTS

#### ARCTIC

Resources stated as contained within a pit shell developed using metal prices of \$3.00/lb for copper, \$1.00/lb for zinc, \$0.90/lb for lead, \$18.00/oz for silver, \$1,300/oz for gold, mining costs of \$3.00/tonne, milling and G&A costs of \$35/tonne, metallurgical recoveries of 92% for copper, 77% for lead, 88% for zinc, 63% for gold, 56% for silver and an average pit slope of 43 degrees.

#### BORNITE

In-Pit mineral resources stated as contained within a pit shell developed using metal prices of \$3.00/lb for copper, mining costs of \$2.00/tonne, milling costs of \$11/tonne, G&A cost of \$5.00/tonne, 87% metallurgical recoveries and an average pit slope of 43 degrees. Below-Pit mineral resources at a 1.5% cut-off are considered as potentially economically viable in an underground mining scenario based on an assumed projected copper price of \$3.00/lb, underground mining costs of \$65.00 per tonne, milling costs of \$11.00 per tonne, G&A of \$5.00 per tonne, and an average metallurgical recovery of 87%.

# DISCLOSURE

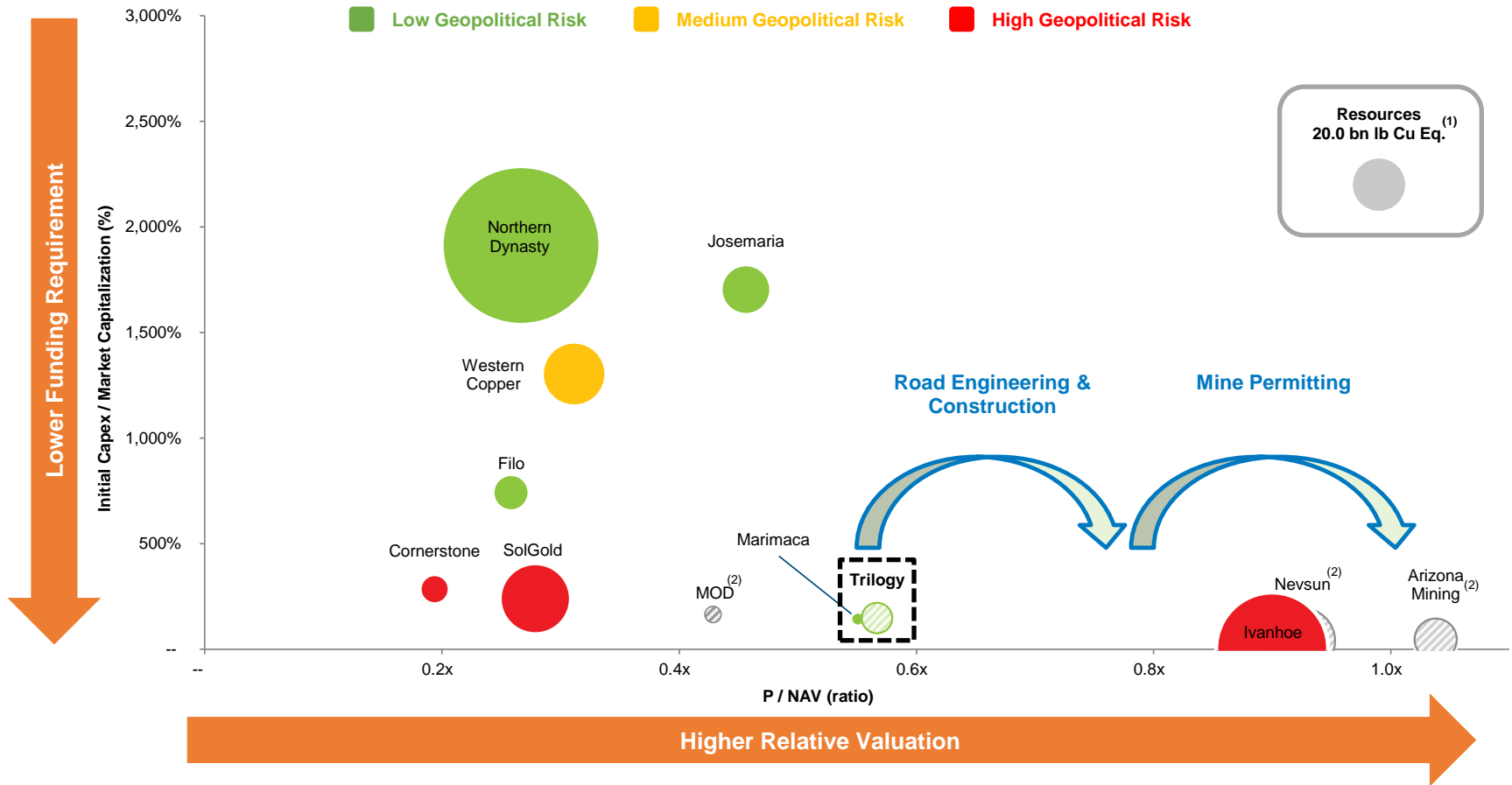
## Regarding Scientific and Technical Information

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Unless otherwise indicated, all reserve and resource estimates included in this presentation have been prepared in accordance with Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”) and the Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards for Mineral Resources and Mineral Reserves (“CIM Definition Standards”). Canadian standards, including NI 43-101, differ significantly from the requirements of the United States Securities and Exchange Commission (“SEC”), and reserve and resource information in this presentation may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, the term “resource” does not equate to the term “reserves”. Under U.S. standards, mineralization may not be classified as a “reserve” unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. The SEC’s disclosure standards normally do not permit the inclusion of information concerning “measured mineral resources”, “indicated mineral resources” or “inferred mineral resources” or other descriptions of the amount of mineralization in mineral deposits that do not constitute “reserves” by U.S. standards in documents filed with the SEC. U.S. investors should also understand that “inferred mineral resources” have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an “inferred mineral resource” will ever be upgraded to a higher category. Under Canadian rules, estimated “inferred mineral resources” may not form the basis of feasibility or pre-feasibility studies except in rare cases. Investors are cautioned not to assume that all or any part of an “inferred mineral resource” exists or is economically or legally mineable. Disclosure of “contained ounces” in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute “reserves” by SEC standards as in-place tonnage and grade without reference to unit measures. The requirements of NI 43-101 for identification of “reserves” are also not the same as those of the SEC, and reserves reported in compliance with NI 43-101 may not qualify as “reserves” under SEC standards. Accordingly, information concerning mineral deposits set forth herein may not be comparable to information made public by companies that report in accordance with United States standards.

# Funding Requirements vs. Valuation

P / NAV (RATIO) VS. INITIAL CAPEX / MARKET CAPITALIZATION (%)



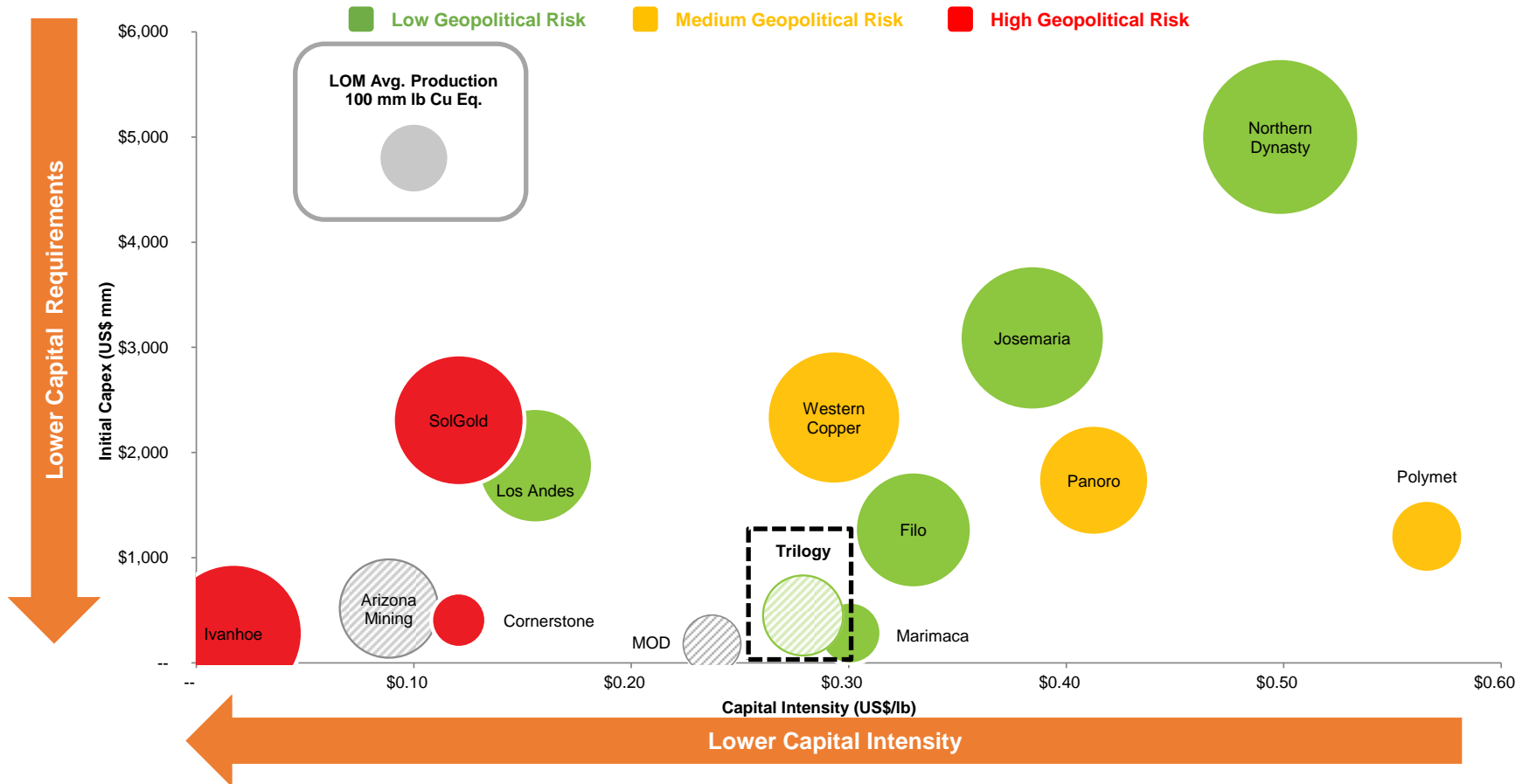
Source: BMO Capital Markets database, company filings, FactSet, Fraser Institute, street research

Note: Metrics shown on an attributable basis where applicable; assumes 50% Trilogy interest in Arctic and Bornite, 39.6% Ivanhoe interest in Kamao-Kakula, 85% SolGold interest in Cascabel and 15% Cornerstone interest in Cascabel.

- Resources based on all assets.
- Based on transaction P / NAV multiples.

# Capital Requirements

CAPITAL INTENSITY (US\$/LB CU EQ. PRODUCTION) VS. INITIAL CAPEX (US\$ MM)



Source: BMO Capital Markets database, company filings, FactSet, Fraser Institute, street research

Note: Metrics shown on an attributable basis where applicable; assumes 50% Trilogy interest in Arctic and Bornite, 39.6% Ivanhoe interest in Kamao-Kakula, 85% SolGold interest in Cascabel and 15% Cornerstone interest in Cascabel.



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**Corporate Office**

Suite 1150 – 609 Granville Street  
Vancouver, British Columbia, V7Y 1G5 Canada  
Toll Free **1.855.638.8088**

**NYSE American, TSX: TMQ**

**[www.trilogymetals.com](http://www.trilogymetals.com)**

