



Focused on Expansion and Discovery of District-Scale Gold and Copper Assets in British Columbia

APRIL 2024 | SUNSUMMITMINERALS.COM | TSX-V: SMN | OTCQB: SMREF

FORWARD LOOKING STATEMENTS



Forward-Looking Information

Statements contained in this presentation that are not historical facts may be forward-looking statements, which involve risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements. In addition, the forward-looking statements require management to make assumptions and are subject to inherent risks and uncertainties. There is significant risk that the forward-looking statements will not prove to be accurate, that the management's assumptions may not be correct and that actual results may differ materially from such forward-looking statements. Accordingly, readers should not place undue reliance on the forward-looking statements. Generally forward-looking statements can be identified by the use of terminology such as "anticipate", "will", "expect", "may", "continue", "could", "estimate", "forecast", "plan", "potential" and similar expressions. These forward-looking statements are based on a number of assumptions which may prove to be incorrect which, without limiting the generality of the following, include: risks inherent in exploration activities; the impact of exploration competition; unexpected geological or hydrological conditions; changes in government regulations and policies, including trade laws and policies; failure to obtain necessary permits and approvals from government authorities; volatility and sensitivity to market prices; volatility and sensitivity to capital market fluctuations; the ability to raise funds through private or public equity financings; environmental asfety risks including increased regulatory burdens; weather natural phenomena; and other exploration, development, operating, financial market and regulatory risks. The forward-looking statements or the dates specifically referenced in this presentation are made as of the date hereof or the dates specifically referenced in this presentation, future events or otherwise, except as required by applicable securities laws. All forward-looking

National Instrument 43-101 Disclosure

This presentation has been approved by Sun Summit's Vice President Exploration, Ken MacDonald, P.Geo. and Technical Advisor, Christopher Leslie, P.Geo. a "Qualified Person" as defined in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* of the Canadian Securities Administrators. They have not been able to verify the historical exploration data disclosed, including sampling, analytical and test data underlying the technical information in this presentation since such data is historical and the original drill core and samples are not readily available. Some technical information contained in this presentation is historical in nature and has been compiled from public sources believed to be accurate. This technical information has not been verified by Sun Summit and may in some instances be unverifiable dependent on the existence of historical drill core and samples.

Quality Assurance & Quality Control

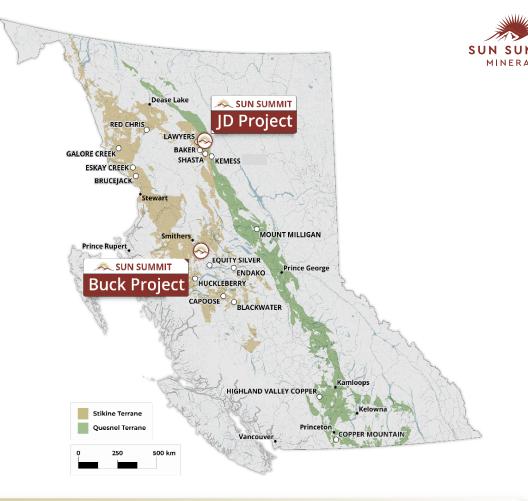
Sun Summit has implemented a quality assurance and quality control program to ensure sampling and analysis of all exploration work is conducted in accordance with the best possible practices. All sampling programs are carried out in a careful and diligent manner using scientifically established sampling practices designed and tested to ensure that the results are representative and reliable. Quality control programs appropriate to the type of sample and the mineralization are implemented, including such measures as insertion of external blanks, standards and duplicate samples into the sample stream. The security of samples from sample acquisition to analysis is a vital component of the sampling process. Procedures include the use of secure core logging, sampling, storage and preparation facilities as appropriate and the prompt, secure and direct shipping of samples to the laboratories. Appropriate sample security procedures are employed given the geographic and topographic conditions and the logistics created by the site location.

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Sun Summit – Investment Highlights

FOCUSED ON EXPANSION AND DISCOVERY IN BRITISH COLUMBIA

- Located in a premier / Tier 1 jurisdiction
- Diverse portfolio includes two Gold-Copper projects:
 - JD Project (epithermal Au-Ag, porphyry Cu-Au)
 - <u>Buck Project</u> (epithermal Au-Ag, porphyry Cu-Mo)
- Existing infrastructure and excellent accessibility
- Both projects have significant growth potential
- Advanced exploration and grassroots targets
- Proven discovery team, BC jurisdictional advantage
- Potential for wealth creation project advancement, drill ready targets, news flow, near-term catalysts
- Compelling current valuation significant potential for re-rating upwards as the team pursues new discovery



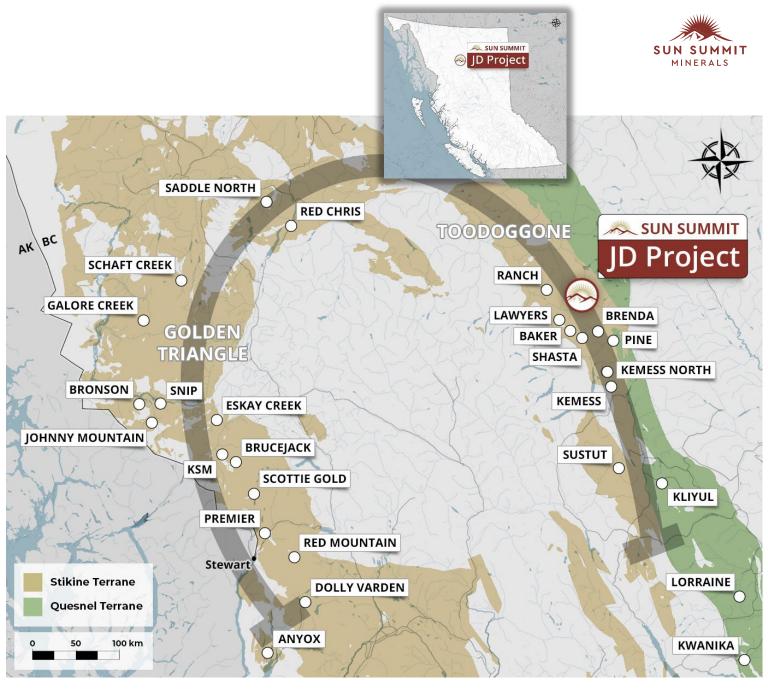
VALUE DRIVERS

- Near-term value creation by rapid project advancement
- Creating tangible value on existing assets
- Expansion and discovery potential

JD Project – Prolific Region

BC'S NEXT PREMIERE MINING JURISDICTION

- Metal endowed Toodoggone Mining District
- Significant deposits / proven mineralization
- Renewal of historic mining camp
- Emerging district: recent project activity and infrastructure development
- "Golden Horseshoe", similar geological environment to Golden Triangle
- Au-Ag-Cu mineralization throughout Stikine Terrane
- Ideal geological setting for discovery of highvalue copper-gold deposits
- Mining friendly and low-risk jurisdiction
- Targeted by major mining companies

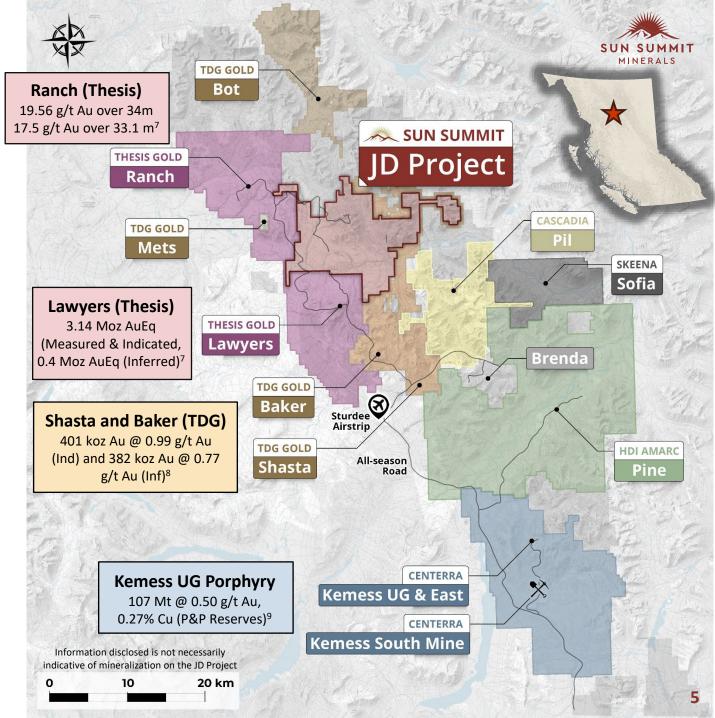


JD Project – Toodoggone

SIGNIFICANT LAND PACKAGE ~15,000 ha

- Under-explored, significant discovery potential
- Opportunity to explore for two deposit types:
 - Epithermal gold-silver mineralization
 - Porphyry-related copper-gold mineralization
- Adjacent to high-grade epithermal gold systems:
 - Lawyers, Ranch (Thesis Gold)
 - Shasta, Baker, Mets (TDG Gold)
- Captures northern extension of Kemess Cu-Au belt:
 - Kemess South, Kemess East & North UG (Centerra)
 - Joy District (HDI Amarc)
- Potential for significant expansion
- Developing infrastructure from recent activity
- Sturdee Airstrip (Terrace, Smithers, Prince George)
- Kemess South mine hydroelectric power grid

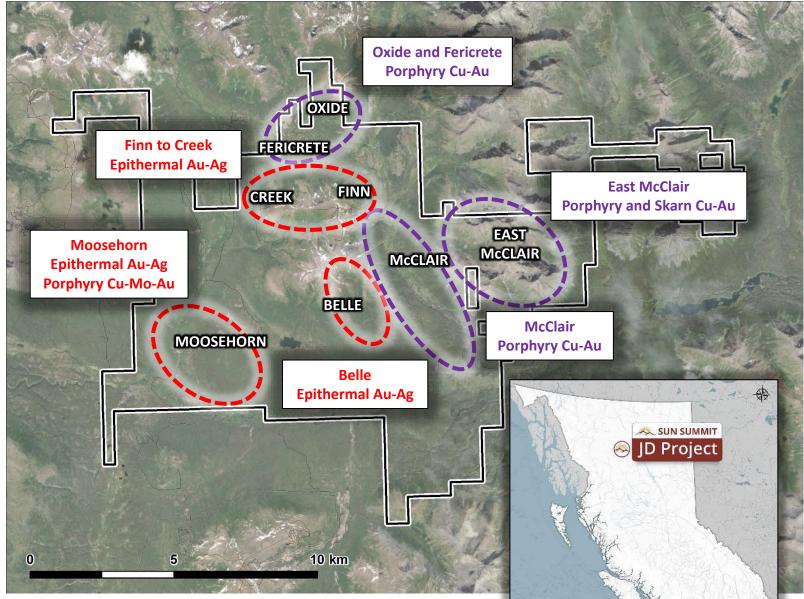
References resource and reserve statements can be found at the end of this presentation.



JD PROJECT Multiple Priority Targets

High-grade Epithermal Au-Ag and Porphyry Cu-Au potential

- Significant data compilation has defined multiple priority targets
- Historical data dates back to the 1970's; data compilation is the first modern attempt at the JD project
 - ~16,000 soil samples, 2,000 rock samples, 130 trenches, over 330 drill holes, groundand airborne-based geophysical surveys
- Data review and compilation critical to ongoing target selection and prioritization
- Will lead to boots-on-ground exploration in 2024



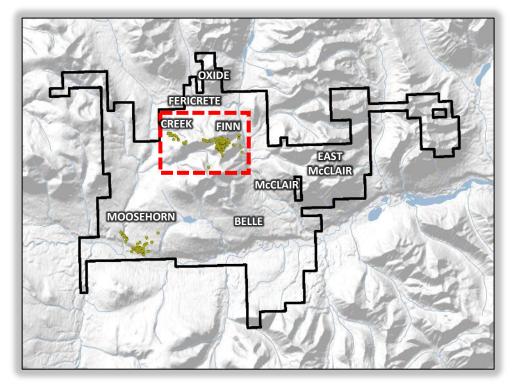


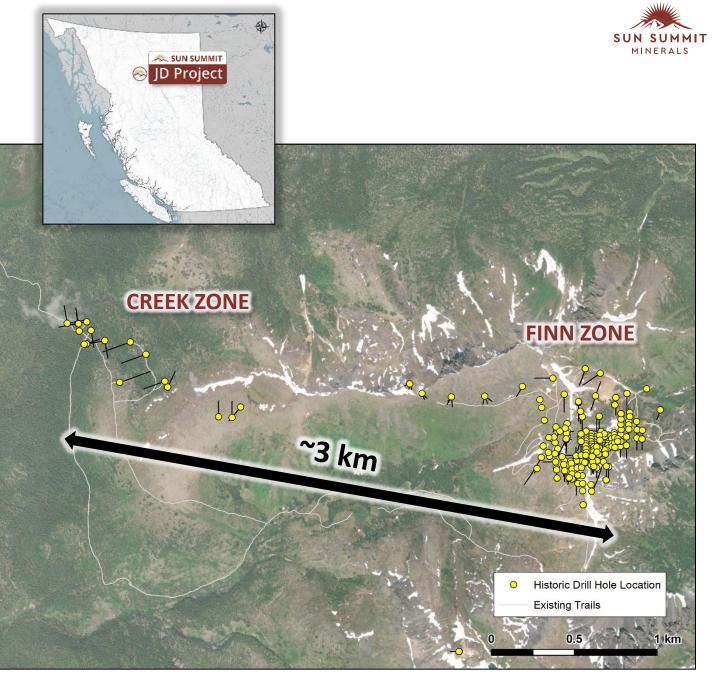
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JD PROJECT Epithermal Gold Targets

High-Grade Epithermal Gold-Silver

FINN ZONE ~270 historical drillholes CREEK ZONE ~20 historical drillholes MOOSEHORN ZONE ~40 historical drillholes





JD PROJECT Finn Zone

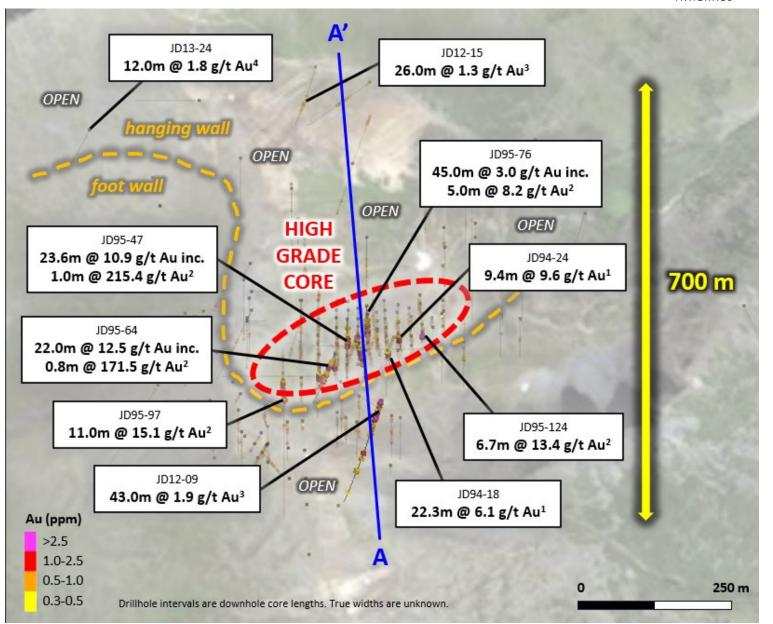
- Broad zone of near-surface, epithermalrelated gold-silver mineralization
- Structurally controlled mineralization; hosted within low angled fault zone
- Open along strike and down dip
- Historical drill core only selectively sampled; left significant gaps in prospective geology
- Priority drill target areas defined at Finn; target high grade core, understand structural controls, high grade shoots

FINN ZONE ~270 historical drillholes

Hangingwall

35.7 m @ 7.3 g/t Au incl. **1.0 m @ 215.4 g/t Au** (JD95-047²) **22 m @ 12.5 g/t Au** incl. **0.8 m of 171.5 g/t Au** (JD95-064²) **27.8 m @ 6.6 g/t Au** incl. **11.0 m @ 15.1 g/t Au** (JD95-097²) **77 m @ 2.4 g/t Au** incl. **12.6 m @ 10.8 g/t Au** (JD12-003⁵) *Footwall*

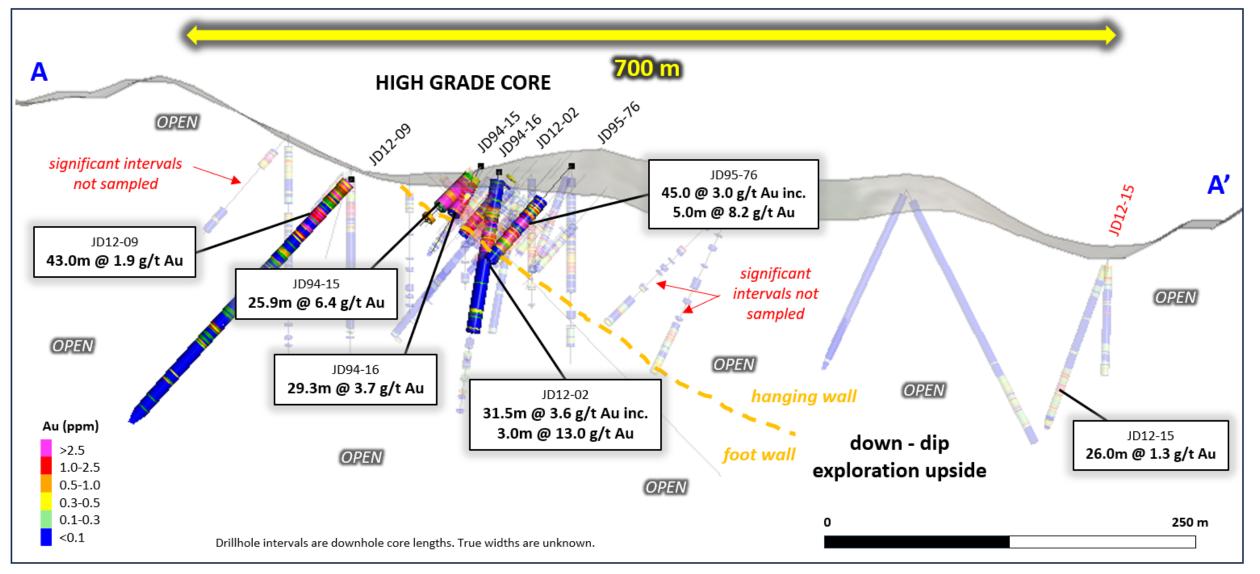
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91 m @ 1.0 g/t Au incl. 43 m @ 1.9 g/t Au (JD12-009<sup>5</sup>)
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MINERALS

JD PROJECT – Finn Zone





References for historical drill hole results can be found at the end of this presentation.

JD PROJECT Creek Zone

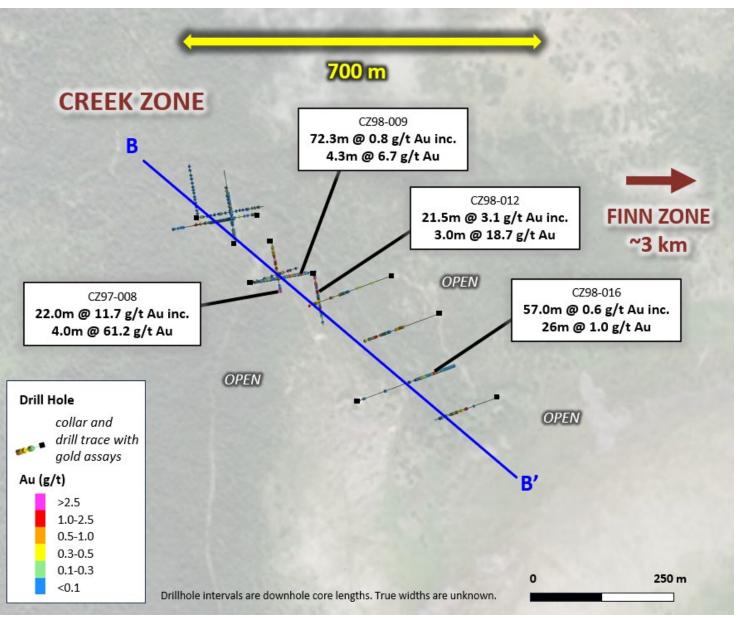
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- Limited drilling, open in all directions
- High-grade gold potential of structurally controlled, sulfide-rich mineralization
- Intermittent down-hole sampling; holes that were continuously sampled demonstrate presence of continuous mineralization
- Priority drill target areas defined at Creek; systematic drilling to follow up on high grade
- High-resolution IP geophysics
- Detailed mapping and surface geochemistry

CREEK ZONE ~20 historical drillholes

87 m @ 3.6 g/t Au incl. 22 m @ 11.7 g/t Au and incl. 4.0 m @ 61.2 g/t Au (CZ97-008³)

21.5 m @ 3.1 g/t Au incl. 3.0 m @ 18.7 g/t Au (CZ98-012⁴)

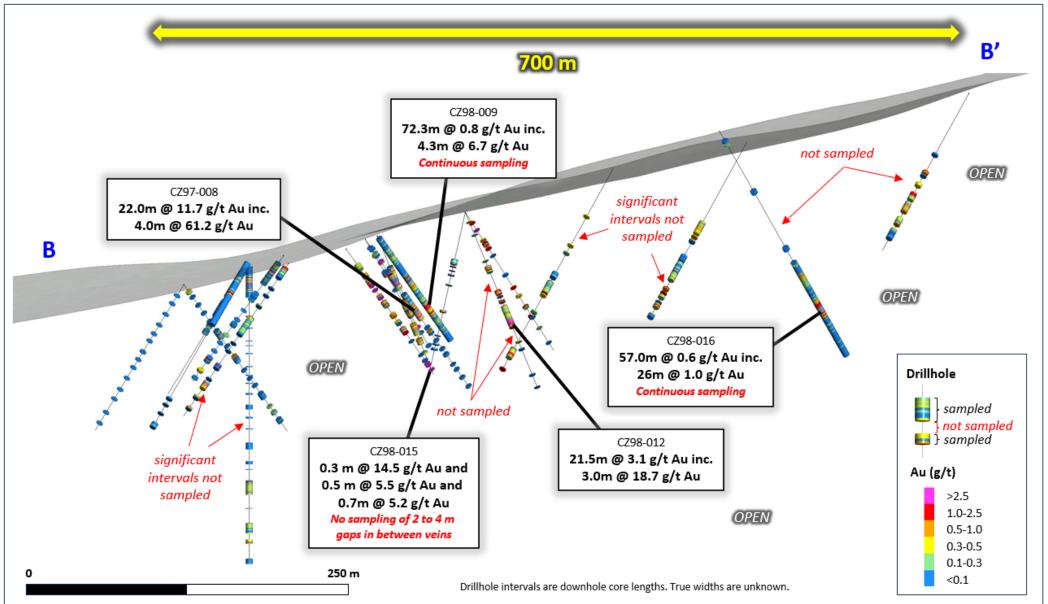


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References for historical drill hole results can be found at the end of this presentation.

JD PROJECT – Creek Zone





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JD PROJECT Finn to Creek Corridor

Size and Scale Potential

- Highly anomalous samples can be traced along strike from Finn to Creek
- Strong Au-Ag anomalism in soils/rocks
- Separated by ~3 km with limited drilling
- Underexplored, untested targets
- Significant expansion potential along strike to the west of Finn Zone

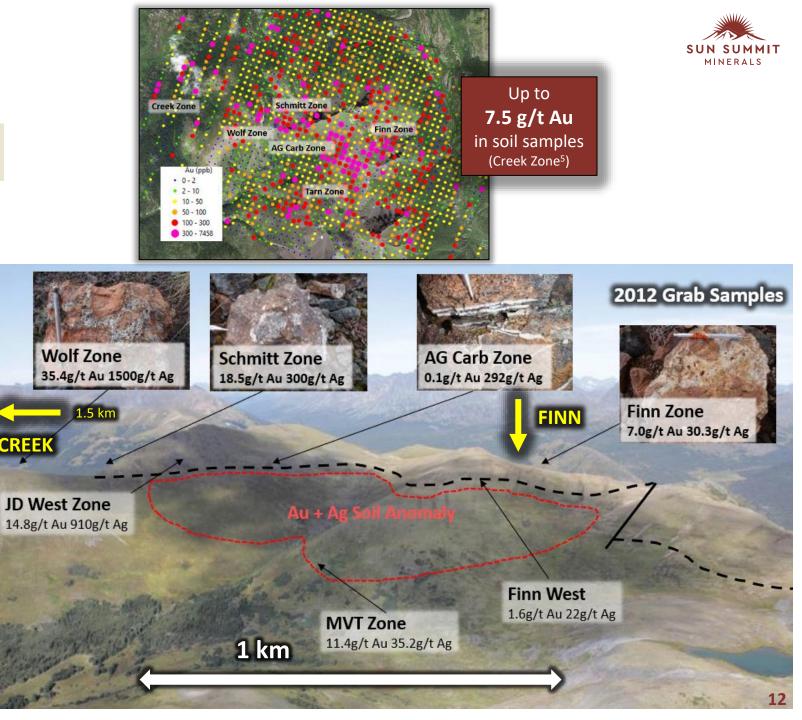
Rock samples 5/6

35.4 g/t Au1500 g/t Ag18.5 g/t Au300 g/t Ag14.8 g/t Au910 g/t Ag

Soil samples ⁵

Up to 7.5 g/t Au (Creek Zone)

References for historical drill hole results can be found at the end of this presentation. **SUNSUMMITMINERALS.COM** | TSX-V: **SMN** | OTCQB: **SMR**



JD PROJECT Porphyry Targets

Porphyry Copper-Gold Potential

- Numerous poorly tested porphyry-related copper targets that warrant significant exploration
- Strong porphyry-related alteration
- Potential "porphyry roots" to shallow epithermal systems
- Flat-lying stratigraphy; epithermal-related systems are preserved on ridge tops and porphyry systems found in valley bottoms

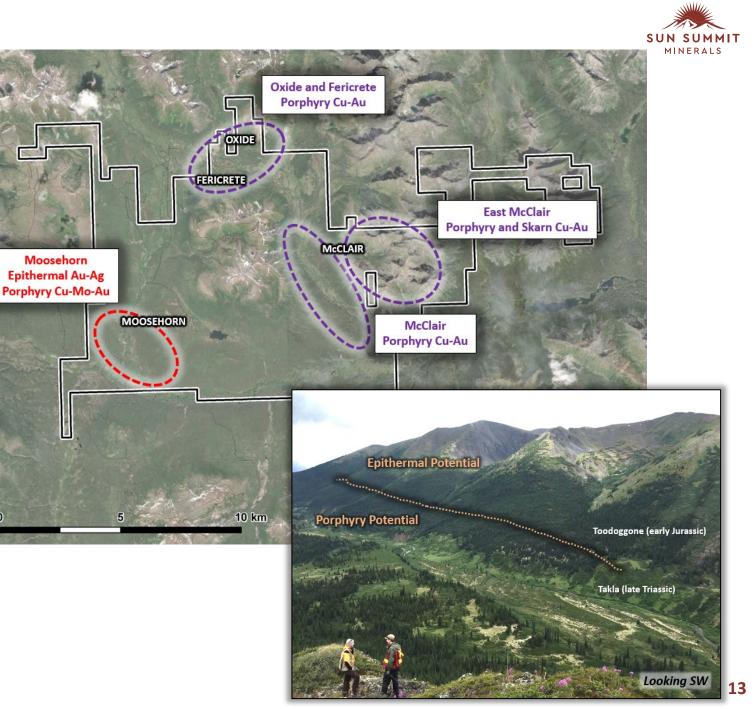
McCLAIR PORPHYRY TARGET

JD-13-025⁶ bottomed in **0.46% Cu over 1.4 m** (@230 m)

McCLAIR EAST TARGET

1.5% Cu, 1.32% Cu, 0.77% Cu in rock samples^{5/6}

Drill intervals highlighted are downhole core lengths. True widths are unknown. References for historical drill hole results can be found at the end of this presentation.

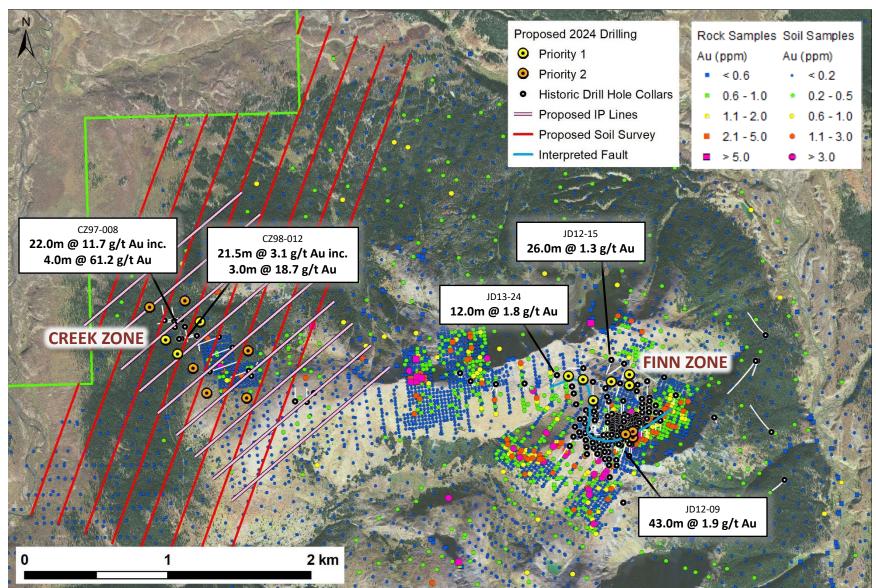


JD PROJECT Exploration Program

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PROPOSED 2024 PROGRAM

- Priority drill targets at Finn; stepout drilling to target high grade core, understand structural controls, high grade shoots
- Priority drill targets at Creek; stepout drilling to evaluate orientation/ extent of high-grade zones
- Tightly spaced ground IP geophysics at Creek
- Geochemical surveys (soil, rock and stream sampling)
- Detailed geological and structural mapping and prospecting
- High-resolution airborne LiDAR
 data collection



JD Project – Untapped Potential



SCALE

Finn to Creek zones (~3km) show **continuous near-surface Au-Ag mineralization**



Limited drilling, promising geochemistry, systems open laterally and at depth

GRADE

• High-grade Au-Ag intersected in historic holes (e.g., 35.7 m @ 7.26 g/t Au, JD95-047²)



DISTRICT

- Renewal of historic mining camp (Kemess South open pit Cu-Au mine)
- Highly prospective and emerging region in British Columbia

TEAM

- Proven technical team with track record of discovery and delineation
- BC mining experience and strong jurisdictional advantage

BUCK PROJECT District Scale Potential

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Large 52,000 ha / 520 km² property Near Houston, B.C., 100% controlled

> Houston 20 min drive Smithers 1 hr drive

Emerging mineralized belt

Mining friendly jurisdiction, close proximity to former and developing mines:

Equity Silver Mine (Newmont) Huckleberry Copper Mine (Imperial Metals) Blackwater Gold Mine (Artemis Gold)



Recent transactions and acquisitions

Existing infrastructure

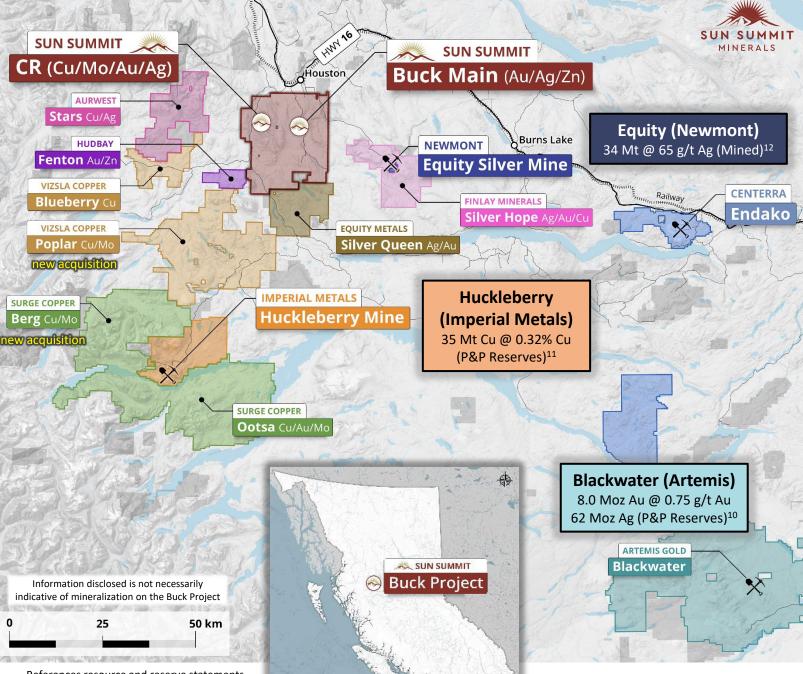
Major highway, roads, power, rail, gas line

Direct access to target area being explored Through forestry roads and trails



Year-round low cost of exploration

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BUCK MAIN Drilling and Initial MRE

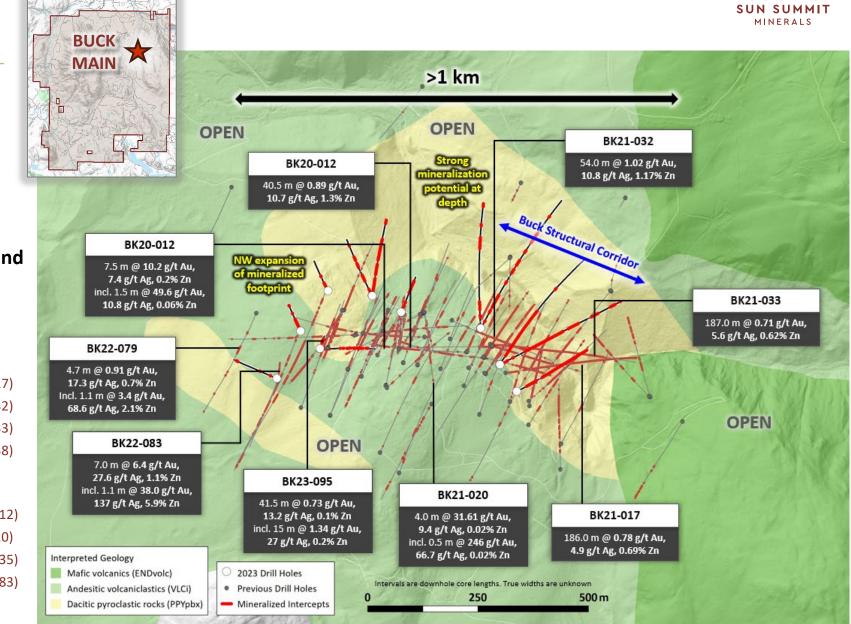
- Initial Mineral Resource Estimate (MRE): Expected completion Q1 2024
- Over 34,000 m drilled in 98 drill holes
- Open in all directions and at depth: Results indicate significant mineralization extends laterally beyond limits of previous drilling and defines strong depth potential
- Broad intercepts of near surface bulk tonnage-style disseminated mineralization:

1.07 g/t Au, 5.5 g/t Ag, 0.65% Zn over 109 m (BK21-017) 0.67 g/t Au, 4.4 g/t Ag, 0.46% Zn over 187 m (BK21-032) 0.71 g/t Au, 5.6 g/t Ag, 0.62% Zn over 187 m (BK21-033) 0.68 g/t Au, 4.8 g/t Ag, 0.46% Zn over 175 m (BK21-038)

Significant high-grade zones:

49.6 g/t Au, 10.8 g/t Ag, 0.06% Zn over 1.5 m (BK20-012) **246 g/t Au, 66.7 g/t Ag, 0.02% Zn over 0.5 m** (BK21-020) **31.3 g/t Au, 37.0 g/t Ag, 3.68% Zn over 1.0 m** (BK21-035) **38.0 g/t Au, 137.0 g/t Ag, 5.9% Zn over 1.1 m** (BK22-083)

Drill intervals highlighted are downhole core lengths. True widths are unknown.



BUCK MAIN Progression from 2020 to 2023

~400% expansion of mineralized envelope over 4 yrs

Based on Sun Summit's drill programs



2020 Drilling 2021 Drilling 2022 Drilling 2023 Drilling 66 holes for 23,500 m (total drilling) 98 holes for 34,500 m 15 holes for 6,000 m 84 holes for 30,600 m (total drilling) (total drilling) (total drilling) **Plan View** (Looking Down) 700 m width >1 km along strik 500 m 700 m **Long Section** (Looking North) 600 m de

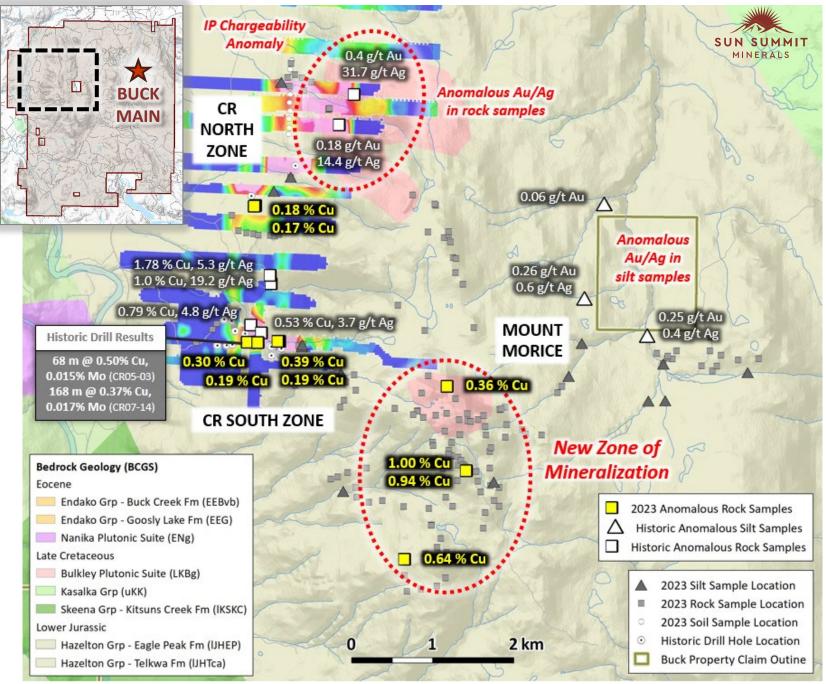
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Mineralized Envelope Greater then 0.2 g/t AuEq

BUCK PROJECT CR and Mount Morice

- Multiple under-explored targets within recently expanded 52,000 ha tenure package
- Significant discovery potential across the project: Multi-element soil anomalies with coincident geophysical anomalies
- Acquisition of the CR property from Teck, a drill-ready Au-Ag-Cu-Mo property
- Cu-Mo porphyry-style mineralization at CR
 South Zone; historical drill highlights include:
 - 168 m at 0.37% Cu, 0.017% Mo (CR-07-14)
 - 68 m at 0.50% Cu, 0.015% Mo (CR05-03)
 - 105 m at 0.35% Cu, 0.024% Mo, ending in 0.50% Cu (CR07-15)
- Strong porphyry-related mineralization and alteration and remain open for expansion:
 - 1.00% Cu and 3.2 g/t Ag
 - 0.94% Cu and 4.1 g/t Ag
- Anomalous Au-Ag samples near Mt Morice:
 - 0.26 g/t Au, 0.25 g/t Au, 0.6 g/t Ag

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Drill intervals highlighted are downhole core lengths. True widths are unknown.

Share Structure

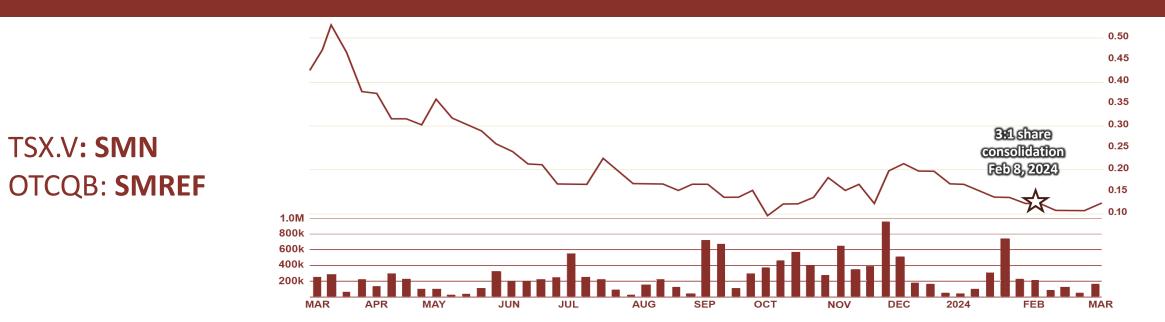


Outstanding Shares	37,200,561
Warrants	8,668,535
Options	1,481,667
Fully Diluted	47,350,763

Share structure as of March 26, 2024

52 week high/low	\$0.56/\$0.08
Market Capitalization	~\$4 Million cad
Working Capital	~\$0.5 Million CAD

~8.7M warrants expiring May 10, 2025 (\$0.495) Options are exercisable at prices varying from \$0.48 to \$1.71 per share



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Sun Summit Minerals Value Proposition

NEAR TERM VALUE CREATION

Rapid project advancement, creating value on existing assets with ounces in the ground, expansion and discovery potential



DIVERSIFIED PROJECT PORTFOLIO IN BRITISH COLUMBIA JD Project (Epithermal Au-Ag, Porphyry Cu-Au) Buck Project (Epithermal Au-Ag, Porphyry Cu-Mo)



LOW-RISK JURISDICTION, EMERGING REGIONS Near known deposits and existing mining camps Existing infrastructure & access, renewed interest



EXPERIENCED MANAGEMENT & PROVEN TECHNICAL TEAM Track record of discovery, BC jursidictional advantage



ACCESS TO CAPITAL FOR ONGOING EXPLORATION Compelling valuation with potential for upward re-rating

Catalysts For Growth

JD PROJECT

EXTENSIVE HISTORIC DATA REVIEW AND COMPILATION UNDERWAY

COMMENCEMENT OF AGGRESSIVE EXPLORATION PROGRAM; Summer 2024

BUCK PROJECT

INITIAL MINERAL RESOURCE ESTIMATE ON BUCK MAIN; Expected completion shortly

ADVANCEMENT OF EXPLORATION TARGETS TO DRILL-READY STAGE; Drill target generation at CR and Mount Morice

Sun Summit Minerals Directors & Management

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Brian Lock | Executive Chairman

Over 40 years of experience in the mining industry. Prior positions include Director, Executive VP, President and CEO of several public mining companies including Castle Peak Mining and Scorpio Gold Corp.

Sharyn Alexander, M.Sc. | President

Geologist with 20 years of experience in mineral exploration and mining. Prior positions at B2Gold, Barrick Gold (Australia), SRK Consulting, as well as VP Technical Services for Sun Summit Minerals.

Robert D. Willis, B.Sc., P.Eng. | Senior Advisor

Geological engineer with over 35 years of experience in the mining industry. Acquired and managed the development of projects through discovery, expansion, development and production. Founder of Geologix Resources, Manhattan Minerals, and Pioneer Metals.

Ken MacDonald, P.Geo. | Vice President of Exploration

Registered professional geologist with over 30 years of experience in the mining sector. Prior roles include exploration geologist and senior permitting official with the BC Mines Branch. Responsible for design and implementation of exploration programs from grassroots to advanced drill definition.

Christopher Leslie, Ph.D., M.Sc., P.Geo. | Technical Advisor

Economic geologist with 15 years of experience in project generation, project evaluation and district-scale targeting in porphyry to epithermal environments. Former Vice President Exploration for Tower Resources (JD Project) and Senior Project Geologist for Richfield Ventures (discovery of Blackwater Gold Mine).



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- 7. Ranch and Lawyers: Thesis Gold Inc. (<u>https://thesisgold.com</u>) and NI 43-101
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- 9. Kemess North UG: Centerra Gold 2022 Year-End Mineral R&R Summary (https://www.centerragold.com)
- 10. Blackwater Mineral Reserve Statement, <u>www.artemisgoldinc.com</u>
- 11. Huckleberry Mineral Reserve Statement, <u>www.imperialmetals.com</u>
- 12. Equity Silver Minfile Report, <u>www.minfile.gov.bc.ca</u>

JD Property Acquisition Terms to Earn 100%

- Upon signing formal agreement and Exchange approval: \$175,000 cash | 2,000,000 shares
- First Anniversary Dec 2024:

\$200,000 cash | 1,000,000 shares | \$1,000,000 expenditure

- Second Anniversary Dec 2025: \$200,000 cash | 1,000,000 shares | \$4,500,000 expenditure
- Third Anniversary Dec 2026:

\$200,000 cash | 1,000,000 shares | \$3,500,000 expenditure

• Fourth Anniversary Dec 2027:

\$200,000 cash | 1,000,000 shares | \$4,000,000 expenditure

• Fifth Anniversary Dec 2028:

\$200,000 cash | 1,000,000 shares | \$4,500,000 expenditure

Sixth Anniversary Dec 2029:

1,000,000 shares | \$5,000,000 expenditure

TOTAL\$1,175,000 payment8,000,000 shares\$22,500,000 exploration expenditure

As part of the option agreement, Sun Summit completed a 3:1 share consolidation (Feb 8, 2024)

- 2% net smelter return (NSR) royalty on the JD claims, which can be reduced to 1% NSR with the payment of \$7,500,000 no later than the receipt of production financing or \$10,000,000 upon commercial production being achieved; 1.0% NSR royalty on the Belle claims; and 1.0% NSR royalty on any interest acquired by Sun Summit in an area of interest north of the Project
- \$250,000 advance royalty payments to the optionors on each anniversary of such exercise until the commencement of any commercial production
- Upon the commencement of commercial production from the Property, Sun Summit will make a payment of \$1,000,000 to the optionors

Please refer to the news release dated *January 9, 2023*, for full details regarding the option terms



Buck Property Acquisition Terms to Earn 100%

- Upon signing at Exchange approval (October 2019): \$25,000 cash | 250,000 shares
- First Anniversary October 2020: \$25,000 cash | 400,000 shares
- Second Anniversary October 2021: \$25,000 cash | 500,000 shares
- Third Anniversary October 2022: \$25,000 cash | 750,000 shares
- Fourth Anniversary October 2023: \$50,000 cash | 1,000,000 shares
- Fifth Anniversary October 2024: \$150,000 cash | 1,100,000 shares

TOTAL \$300,000 payment 4,000,000 shares

On track to acquire 100% ownership Currently in 5th year of option agreement

- Sun Summit has paid \$150,000 cash and 2,900,000 shares to date (October 2023)
- 2.5% net smelter return (NSR) royalty on the property, which can be reduced to 1.5% NSR with the payment of \$2,500,000 to the Optioners prior to the first anniversary of the commencement of commercial production
- An additional 4,000,000 shares of Sun Summit is payable upon the earlier of completion of a bankable feasibility study or the eighth anniversary of the Effective Date

Note: The CR Project is 100% owned by Sun Summit Minerals and is not included in this option agreement

