



OSISKO DEVELOPMENT

A PREMIER NORTH AMERICAN GOLD MINING COMPANY



NYSE:ODV
TSXV:ODV

INVESTOR PRESENTATION
MAY 2023

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This presentation (this "**Presentation**") contains forward-looking information and forward-looking statements (together, "**forward-looking statements**") within the meaning of applicable Canadian securities laws and the United States Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, are forward-looking statements and are based on expectations, estimates and projections as at the date of this Presentation. Any statement that involves discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "budget", "scheduled", "forecasts", "estimates", "believes" or "intends" or variations of such words and phrases or stating that certain actions, events or results "may" or "could", "would", "might" or "will" be taken to occur or be achieved) are not statements of historical fact and may be forward-looking statements.

In this Presentation, forward-looking statements relate, among other things: the ability of Osisko Development Corp. ("**Osisko Development**", the "**Company**" or "**ODV**") to achieve the results in the Cariboo FS (as defined herein); the assumptions, qualifications and limitations of the results of the Cariboo FS, including the economic results (NPV, IRR, FCF and AISC calculations) and the sensitivity analysis of the variables included therein; LOM estimates; production capacity and expectations; expected mining methods; Cariboo being a large-scale, cash producing, long-life and profitable gold mine (or any of those things); capital cost estimates; operating cost estimates; AISC gold prices and exchange rate assumptions; the assumptions, limitations and qualifications relating to the Trixie MRE (as defined herein); mining and mine design expectations; processing expectations; infrastructure assumptions; permitting, environmental and closure expectations (timing and if at all); steps required to obtain an EAC; cooperation of stakeholders, community and partners; royalties; any potential value enhancement opportunities; the benefits (if any) of the sorting facility on reducing processing costs, increasing gold recoveries and reducing waste materials; our ability to define grade continuity within the mineralized vein corridors; future gold productions; the ability of exploration results (including drilling) to accurately predict mineralization; future mining activities; the ability of Osisko Development to identify mineral resources at our properties; the ability of Osisko Development to expand mineral resources beyond current mineral resource estimates; the utility of the existing infrastructure at the Trixie test mine ("**Trixie**"); the utility of historic data in respect of Trixie; the ability to adapt to changes in gold prices; estimates of costs, estimates of planned exploration and development expenditures; the ability of Osisko Development to obtain further capital on reasonable terms; the profitability of our mining operations; Osisko Development being well-positioned as a gold development company in Canada, U.S.A. and Mexico; indicative valuations; expected investor returns; mineral inventory; and estimates of gold prices. All forward-looking statements entail various risks and uncertainties that are based on current expectations and actual results may differ materially from those contained in such information.

Although Osisko Development believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements involve known and unknown risks, uncertainties and other factors and are not guarantees of future performance and actual results may accordingly differ materially from those in forward-looking statements. These uncertainties and risks relate, among other things, to: the Company's ability to achieve the results in the Cariboo FS; the realization of the assumptions, limitations, qualifications and sensitivities in the Cariboo FS; the assumptions, limitations and qualifications relating to the Trixie MRE; the ability of exploration activities (including drill results) to accurately predict mineralization; the ability to realize upon geological modelling; the ability of Osisko Development to complete further exploration activities, including drilling; property interests in the assets of Osisko Development; the ability of the results of exploration activities; risks relating to mining activities; fluctuations in spot and forward prices of gold, silver, base metals or certain other commodities; fluctuations in currency markets (such as the Canadian dollar to United States dollar exchange rate); change in international, national and local government, legislation, taxation, controls, regulations and political or economic developments; risks and hazards associated with the business of mineral exploration, development and mining (including environmental hazards, industrial accidents, unusual or unexpected formations pressures, cave-ins and flooding); inability to obtain adequate insurance to cover risks and hazards; the presence of laws and regulations that may impose restrictions on mining; employee relations; relationships with and claims by local communities and indigenous populations; availability of increasing costs associated with mining inputs and labour; the speculative nature of mineral exploration and development (including the risks of obtaining necessary licenses, permits and approvals from government authorities); and title to properties. However, there can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Investors are cautioned that forward-looking statements are not guarantees of future performance. Osisko Development cannot assure investors that actual results will be consistent with these forward-looking statements and investors should not place undue reliance on forward-looking statements due to the inherent uncertainty therein.

For additional information with respect to these and other factors and assumptions underlying the forward-looking statements made herein concerning Osisko Development, please refer to the public disclosure record of Osisko Development, including the restated annual information form of Osisko Development for the year ended December 31, 2022 as amended, and the most recent annual and interim financial statements and related management's discussion and analysis of Osisko Development, which are available on SEDAR (www.sedar.com) and EDGAR (www.sec.gov) under Osisko Development's issuer profile. The forward-looking statements in this presentation reflect management's expectations as of the date of this news release and are subject to change after such date. Osisko Development disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, other than as required by law.

This Presentation does not constitute an offer to sell or a solicitation of an offer to buy any securities in the United States or any other jurisdiction. No securities may be offered or sold in the United States or in any other jurisdiction in which such offer or sale would be unlawful prior to registration under the U.S. Securities Act of 1933 or an exemption therefrom or qualification under the securities laws of such other jurisdiction or an exemption therefrom.

Unless otherwise noted, this Presentation has been prepared based on information available as of May 17, 2023. All currency references are to Canadian dollars, unless specified otherwise.

NON-IFRS MEASURES

ODV used in this Presentation, certain non-IFRS measures including, "all-in sustaining cost" or "AISC" and "total cash cost". All-in sustaining cost per gold ounce is defined as production costs less silver sales plus general and administrative, exploration, other expenses and sustaining capital expenditures divided by gold ounces. Cash costs are a non-IFRS measure reported by ODV on an ounces of gold sold basis. Cash costs include mining, processing, refining, general and administration costs and royalties but excludes depreciation, reclamation, income taxes, capital and exploration costs for the life of the mine. The Company believes that such measures provide investors with an alternative view to evaluate the performance of the Company. Non-IFRS measures do not have any standardized meaning prescribed under International Financial Reporting Standards ("**IFRS**"). Therefore they may not be comparable to similar measures employed by other companies. The data is intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. See the section entitled "Non-IFRS Measures" in the news release of the Company dated January 3, 2022 and the Cariboo FS (as defined herein), which are available on SEDAR (www.sedar.com) and EDGAR (www.sec.gov) under Osisko Development's issuer profile, and on Osisko Development's corporate website (<https://osiskodev.com/cariboo-gold-project/>).

CAUTIONARY NOTE TO U.S. INVESTORS

Osisko Development is subject to the reporting requirements of the applicable Canadian securities laws, and as a result, reports information regarding mineral properties, mineralization and estimates of mineral reserves and mineral resources in accordance with Canadian reporting requirements, which are governed by National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("**NI 43-101**"). NI 43-101 differs significantly from the disclosure requirements of the United States Securities and Exchange Commission (the "**SEC**") generally applicable to US companies. As such, the information included in this Presentation concerning mineral properties, mineralization and estimates of mineral reserves and mineral resources is not comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements of the SEC.

CAUTION REGARDING MINERAL RESOURCE ESTIMATES

This Presentation uses the terms measured mineral resources, indicated mineral resources, and inferred mineral resources as a relative measure of the level of confidence in the resource estimate. Readers are cautioned that mineral resources are not economic mineral reserves and that the economic viability of mineral resources that are not mineral reserves has not been demonstrated. Mineral resource estimates may be materially affected by geology, environmental, permitting, legal, title, socio-political, marketing or other relevant issues. However, other than as disclosed in this Presentation, Osisko Development is not aware of any known environmental, permitting, legal, title, socio-political, marketing or other relevant issues that could materially affect the estimates of mineral resources disclosed herein. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to the category of indicated mineral resource or measured mineral resource. The mineral resource estimate is classified in accordance with the *Canadian Institute of Mining, Metallurgy and Petroleum's CIM Definition Standards on Mineral Resources and Mineral Reserves* adopted in 2019 and incorporated by reference into NI 43-101. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or pre-feasibility studies or economic studies except for a preliminary economic assessment as defined under NI 43-101. Readers are cautioned not to assume that further work on the stated resources will lead to mineral reserves that can be mined economically.

CAUTION REGARDING TEST MINING WITHOUT FEASIBILITY STUDY

The Company cautions that the decision to commence small-scale underground mining activities and batch vat leaching at the Trixie test mine has been made without the benefit of a feasibility study, or reported mineral resources or mineral reserves, demonstrating economic and technical viability, and, as a result there may be increased uncertainty of achieving any particular level of recovery of material or the cost of such recovery. The Company cautions that historically, such projects have a much higher risk of economic and technical failure. Small scale test-mining at Trixie was suspended in December 2022, if and when test mining re-commences there is no guarantee that production will continue as anticipated or at all or that anticipated production costs will be achieved. The failure to continue production may have a material adverse impact on the Company's ability to generate revenue and cash flow to fund operations. Failure to achieve the anticipated production costs may have a material adverse impact on the Company's cash flow and potential profitability. In continuing current operations at Trixie after closing, the Company will not be basing its decision to continue such operations on a feasibility study, or reported mineral resources or mineral reserves demonstrating economic and technical viability. The Company cautions that mining at Trixie could be suspended at any time.

BURGIN HISTORIC RESOURCE

The past producing Burgin mine, previously operated by Kennecott until 1978, has potential for a significant silver-lead-zinc-gold deposit. The historic resource as outlined in the 2011 PEA is referenced herein. Osisko Development believes that the historic resource continues to be relevant and reliable as an indication of the potential of the Burgin Mine. Further exploration work including drilling will be required to upgrade the historic resource to current. Osisko Development cautions sufficient work has not been done to classify the historic resources as a current resource and Osisko Development is not treating the historic resources as a current resource.

SCIENTIFIC AND TECHNICAL INFORMATION

The scientific and technical information in this Presentation relating to the Cariboo Gold Project is supported by a technical report entitled "*NI 43-101 Technical Report – Feasibility Study for the Cariboo Gold Project*" and dated January 12, 2023 (with an effective date of December 30, 2022), which was prepared for Osisko Development by BBA Engineering Ltd. with contributions from several independent consulting firms, including Falkirk Environmental Consultants Ltd., Golder Associates Ltd, InnovExplo Inc., JDS Energy and Mining Inc., KCC Geoconsulting Inc., Klohn Crippen Berger Ltd., SRK Consulting (Canada) Inc., and WSP USA Inc. (the "**Cariboo FS**"). Each author of the Cariboo FS is a "qualified person" within the meaning of NI 43-101 and considered to be "independent" of Osisko Development for purposes of Section 1.5 of NI 43-101. Please see the full text of the Cariboo FS for assumptions, qualifications and limitations relating to the disclosure about the Feasibility Study on the Cariboo Gold Project. An electronic copy of the Cariboo FS is available on SEDAR (www.sedar.com) and EDGAR (www.sec.gov) under Osisko Development's issuer profile, and on Osisko Development's corporate website (<https://osiskodev.com/cariboo-gold-project/>). The Cariboo FS supersedes the technical report entitled "*NI 43-101 Technical Report – Preliminary Economic Assessment for the Cariboo Gold Project*" and dated June 22, 2022 (with an effective date of May 24, 2022) (the "**Cariboo PEA**") as the current technical report in respect of the Cariboo Project for purposes of NI 43-101. Therefore, the Cariboo PEA should no longer be relied upon.

The scientific and technical information in this Presentation relating to the initial mineral resource estimate for Trixie, Tintic Project is supported by a technical report entitled "*NI 43-101 Technical Report, Initial Mineral Resource Estimate for the Trixie Deposit, Tintic Project, Utah, United States of America*" dated January 27, 2023, with an effective date of January 10, 2023 (the "**Trixie MRE**") prepared, reviewed, and approved by William J. Lewis, P. Geo, Ing. Alan J. San Martin, MAusIMM (CP) and Richard Gowans, P. Eng. Mr. Lewis, Mr. San Martin and Mr. Gowans are employees of Micon International Limited (Micon). Each author of the Trixie MRE is a "qualified person" within the meaning of NI 43-101 and considered to be "independent" of Osisko Development for purposes of Section 1.5 of NI 43-101. Please see the full text of the Trixie MRE for assumptions, qualifications and limitations relating to the disclosure about the initial mineral resource estimate for Trixie, Tintic Project. An electronic copy of the Trixie MRE is available on SEDAR (www.sedar.com) and EDGAR (www.sec.gov) under Osisko Development's issuer profile, and on Osisko Development's corporate website (<https://osiskodev.com/tintic-project/>).

The scientific and technical information in this Presentation relating to the San Antonio Project is supported by the technical report entitled "*NI 43-101 Technical Report for the 2022 Mineral Resource Estimate on the San Antonio Project, Sonora, Mexico*" and dated July 12, 2022 (with an effective date of June 24, 2022) prepared for Osisko Development by Micon International Limited (the "**San Antonio Technical Report**"). Each author of the San Antonio Technical Report is a "qualified person" within the meaning of NI 43-101 and considered to be "independent" of Osisko Development for purposes of Section 1.5 of NI 43-101. Please see the full text of the San Antonio Technical Report for assumptions, qualifications and limitations relating to the disclosure about the San Antonio Project. An electronic copy of the San Antonio Technical Report is available on SEDAR (www.sedar.com) and EDGAR (www.sec.gov) under Osisko Development's issuer profile, and on Osisko Development's corporate website (<https://osiskodev.com/san-antonio/>).

QUALIFIED PERSONS

Maggie Layman, P. Geo, Vice President Exploration of Osisko Development, and Mr. François Vézina, ing., P. Eng., MBA, Senior Vice President, Project Development, Technical Services and Environment of Osisko Development Corp., each of whom is a "qualified person" for purposes of NI 43-101, have reviewed and approved the scientific and technical information in this Presentation.

ABBREVIATIONS AND UNITS OF MEASUREMENT

In this Presentation, the Company uses certain abbreviations, including: measured and indicated ("**M&I**"), million ("**M**"), thousand ("**k**"), metric tonnes ("**t**"), troy ounces ("**oz**"), grams per tonne ("**g/t**"), gold ("**Au**"), silver ("**Ag**"), copper ("**Cu**"), lead ("**Pb**"), zinc ("**Zn**").

INVESTMENT HIGHLIGHTS

Building a Premier North American Mid-tier Gold Mining Company



OSISKO DEVELOPMENT



HIGH-QUALITY ADVANCED BROWNFIELD PROJECTS IN TIER 1 JURISDICTIONS

Assets located in North America with access to brownfield infrastructure benefitting from grid power and skilled labour pools



WORLD-CLASS TEAM LED BY CEO SEAN ROOSEN WITH STRONG FOCUS ON ESG

Successfully discovered, funded, developed and operated Canadian Malartic, one of the world's largest gold mines



DEVELOPING THE TINTIC PROJECT IN UTAH, USA

Trixie initial M&I resource of 213 koz Au (28.1 g/t Au) and Inferred resource of 243 koz Au (19.6 g/t Au)¹



PHASED LOWER-RISK DEVELOPMENT OF THE CARIBOO PROJECT IN CANADA

Feasibility production ~164 kozpa over 12 year LOM; C\$502M NPV5% and 20.7% IRR; 2.0 Moz Reserves²



LARGE, HIGHLY-PROSPECTIVE EXPLORATION PROPERTIES IN NORTH AMERICA



OSISKO
DEVELOPMENT

PREMIER MINING JURISDICTIONS

Brownfield properties with existing accessible infrastructure and meaningful exploration upside



OSISKO DEVELOPMENT

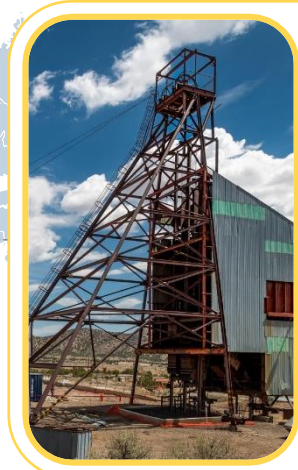


CARIBOO GOLD PROJECT (BC, CANADA)

100%
Ownership

Feasibility Study Completed (Jan 2023) | Advancing Mine Permitting

- 2.0 Moz reserves (16.7 Mt at 3.8 g/t Au) | 1.6 Moz M&I resources | 1.7 Moz inferred resources¹
- Phased approach with lower-risk development → C\$137M initial capital to first production by 2024
- Feasibility production ~164 kozpa over 12 years LOM | C\$502M NPV5% and 20.7% IRR
- District exploration upside with a 192,000 ha property (83 km strike), excellent infrastructure, BC government support



TINTIC PROJECT – TRIXIE (UTAH, USA)

100%
Ownership

Decline ~75% complete | Target processing run-rate of ~500 tons per day

- Initial MRE: 213 koz Au M&I resources grading 28.1 g/t Au | Inferred 243 koz grading 19.6 g/t Au²
- ~4,550 chip samples collected over ~2,000 ft strike length with 74.2 g/t Au & 95.65 g/t Ag average grades
- >17,000 acres of patented (private) mining claims
- Existing site infrastructure, extensive UG workings, grid power, VAT leach facility and mining fleet

TINTIC PROJECT – REGIONAL TARGETS (UTAH, USA)

100%
Ownership

- Highly prospective 5 km long corridor with 23 historic mines, legacy datasets and established UG infrastructure
- Targets include potential high-sulphidation epithermal Au-Ag, carbonate replacement and porphyry deposits

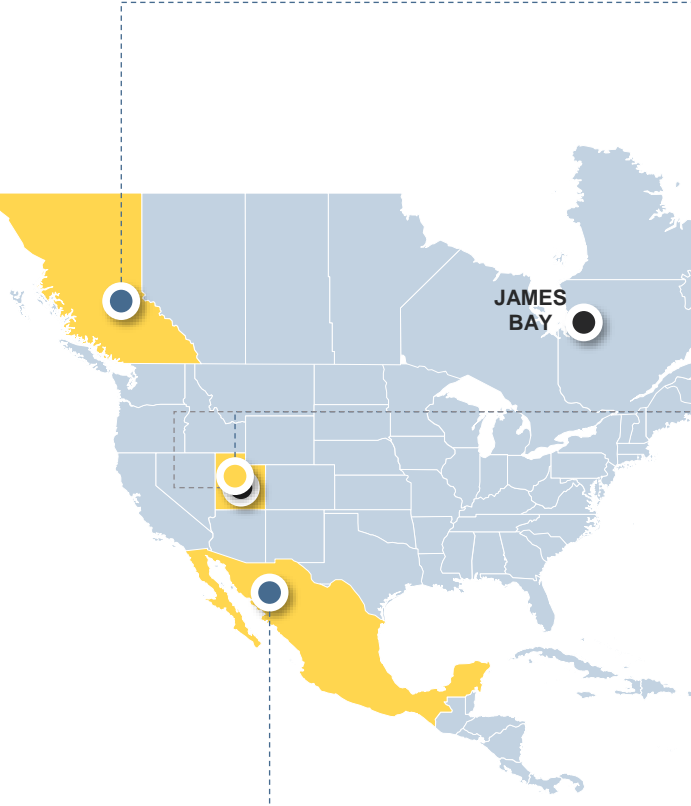


SAN ANTONIO GOLD PROJECT (SONORA, MEXICO)

100%
Ownership

Advancing mine permitting | Processing stockpile material

- 576 koz indicated resources (1.20 g/t Au) | 544 koz inferred resources (1.02 g/t Au)³
- 5 known deposits and at least a dozen other gold exploration targets over 11,338 hectares
- Located 160 km from airport and towns of Hermosillo; mine infrastructure and water on site



EXECUTING ON OUR VISION & STRATEGY



OSISKO DEVELOPMENT

GOLD DEVELOPER

TINTIC PROJECT
ADVANCING HIGH-GRADE TRIXIE

CARIBOO GOLD
FEASIBILITY STUDY

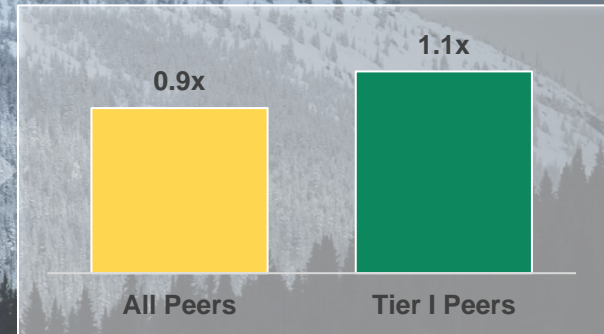
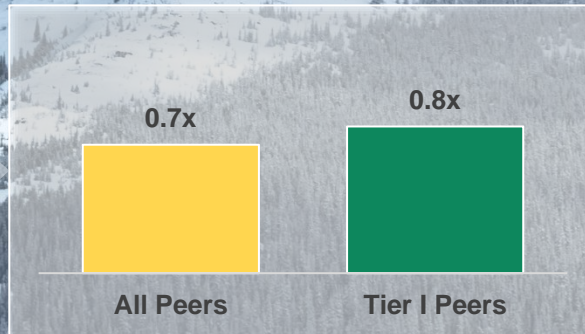
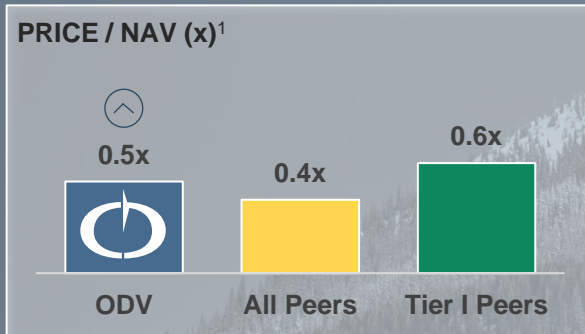
JUNIOR PRODUCER

100 – 250
KOZ PER YEAR

INTERMEDIATE PRODUCER

350 – 500
KOZ PER YEAR

RE-RATE
POTENTIAL



BUILDING A NORTH AMERICAN FOCUSED INTERMEDIATE GOLD PRODUCER – STEP-BY-STEP

CAPITAL STRUCTURE SNAPSHOT

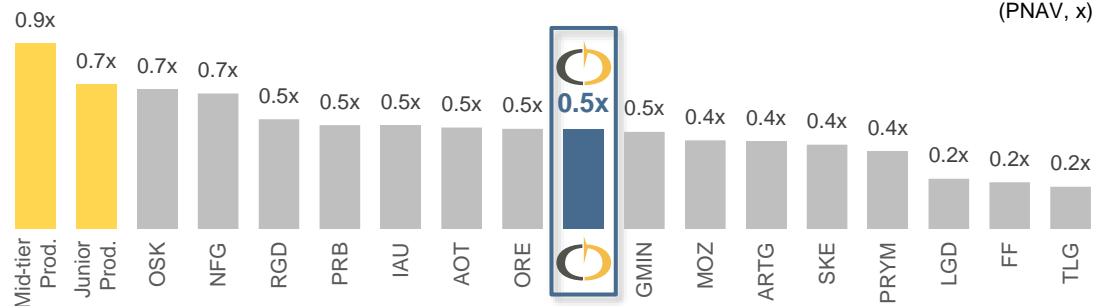


OSISKO DEVELOPMENT

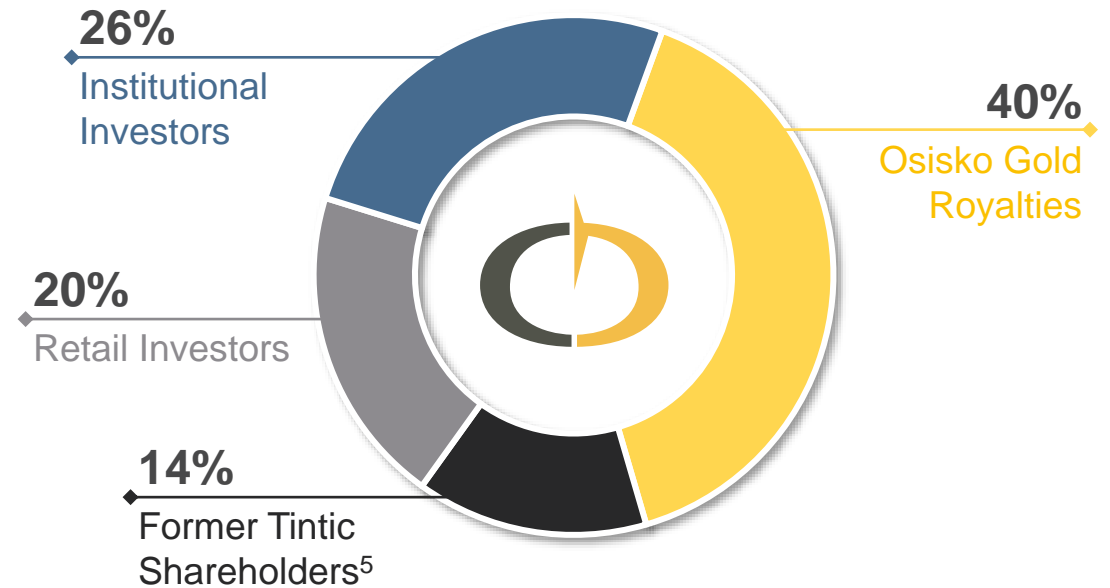
OSISKO DEVELOPMENT CORP.^{1,2}

Current Share Price (closing price on May 17, 2023)	C\$6.59 /share
Basic Shares Outstanding	83.5 million
Options, DSUs, and RSUs	4.6 million
Warrants ³	31.9 million
Fully Diluted Shares Outstanding	120.0 million
Market Capitalization – Basic	C\$542.0 million
Cash & Cash Equivalents	C\$122.2 million
Investment Holdings (marketable securities)	C\$34.1 million
Total Debt ⁴	C\$22.1 million
Enterprise Value – Basic	C\$407.8 million

RELATIVE PRICE / NAV VALUATION¹



SHAREHOLDER OWNERSHIP



ANALYST COVERAGE





TINTIC PROJECT

Utah, USA

100% ODV ownership

TINTIC PROJECT: ASSET SNAPSHOT

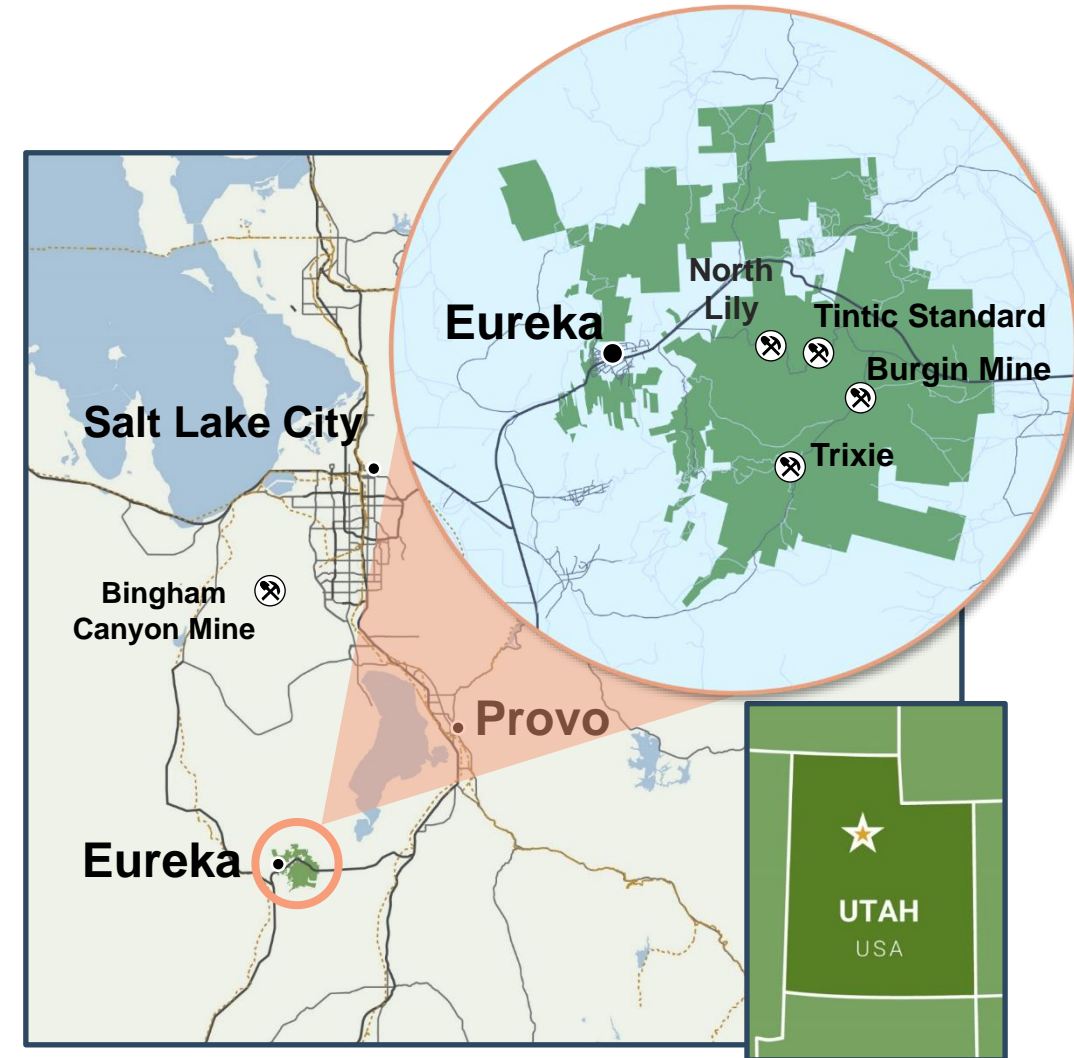


OSISKO DEVELOPMENT

OWNERSHIP	LOCATION / LAND PACKAGE	MINE TYPE	METALS	STAGE
100% ODV	Utah, USA >17,000 acres of patented (private) claims	Underground	Gold, Silver Cu, Pb, Zn	Initial Resource (Q1 2023)

HIGHLY PRODUCTIVE HISTORICAL MINING DISTRICT

- Located 95 km south of Salt Lake City, Utah, ~65 km from the prolific Bingham Canyon copper mine, one of the largest operating open pit mines globally
- Fast-tracking Trixie while advancing other prospective exploration targets, including high quality porphyry, epithermal and CRD targets
- Second largest metal producing district in Utah following Bingham, with 23 past-producing mines located within Tintic property
- Upcoming catalysts:** Trixie initial MRE (Q1 2023) ; Decline completion to Trixie main level (~75% complete¹); Target processing capacity of up to 500 tons per day



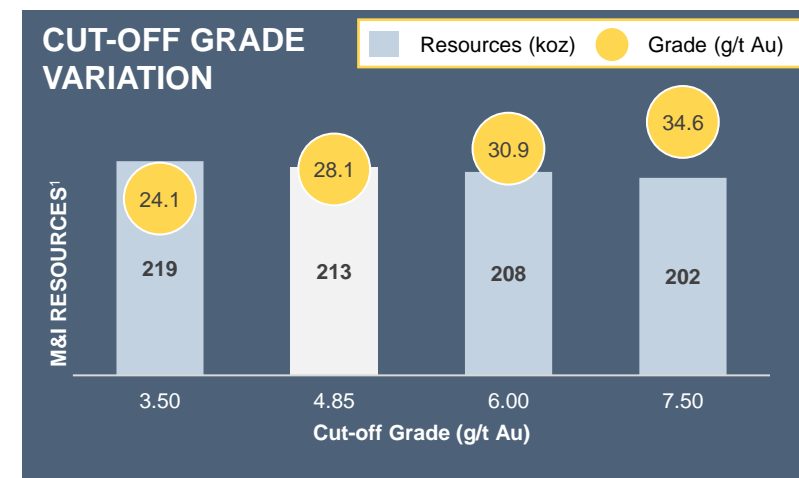
TRIXIE INITIAL MINERAL RESOURCE ESTIMATE (“MRE”)



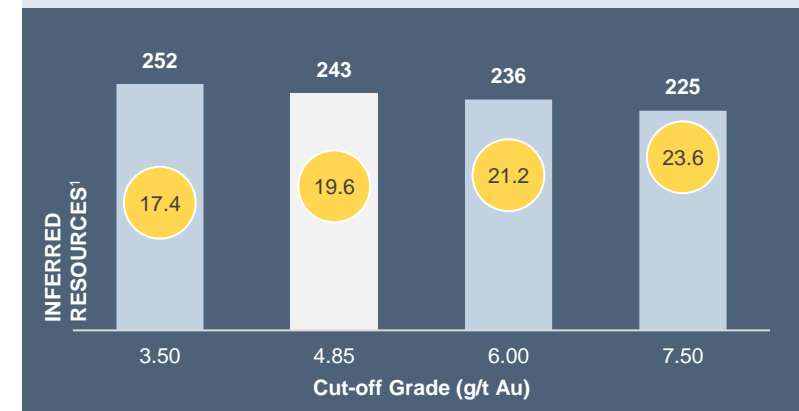
OSISKO DEVELOPMENT

TRIXIE MINERAL RESOURCES ESTIMATE – January 10, 2023¹

RESOURCE CATEGORY	TONNES (000's)	METAL GRADE		CONTAINED METAL	
		(g/t Au)	(g/t Ag)	(000's oz Au)	(000's oz Ag)
MEASURED	11	190.61	195.53	67	69
INDICATED	225	20.17	43.73	146	316
MEASURED & INDICATED	236	28.08	50.77	213	385
INFERRED	385	19.64	42.82	243	530



**DEPOSIT STABLE TO COG VARIATION
M&I OUNCES DECREASE 5% AT 7.50 G/T AU COG**



HIGH-GRADE DEPOSIT

MRE comprises small footprint (380 m length x 85 m width x 140 m depth)¹

MEANINGFUL UPSIDE

~10% of the main Trixie area explored to date

74.2 g/t Au AND 95.65 g/t Ag

Average length weighted grade of all 4,550 chip samples collected to date²

UNDERGROUND RAMP DEVELOPMENT ~75% COMPLETE¹

Completion of the ramp a critical path item in unlocking value at Trixie



OSISKO DEVELOPMENT

RAMP DEVELOPMENT: ~1,390 M (4,550 ft.)

RAMP FROM SURFACE TO 625 LEVEL

- Enables bulk extraction at higher tonnage by providing underground access to a modern, mechanized fleet
- Accelerates development and exploration activities at lower levels

PROGRESS: ~75% COMPLETED TO DATE¹

- ~4,300 ft. (1310 m) to be driven from surface, and 350 ft. (106 m) to be driven from underground
- Decline size 16x16 ft. (5x5 m), with muckbays excavated every 300 ft. (100 m) – potential to later use for UG exploration platforms
- Designed to intercept major known structures in the area at 90°



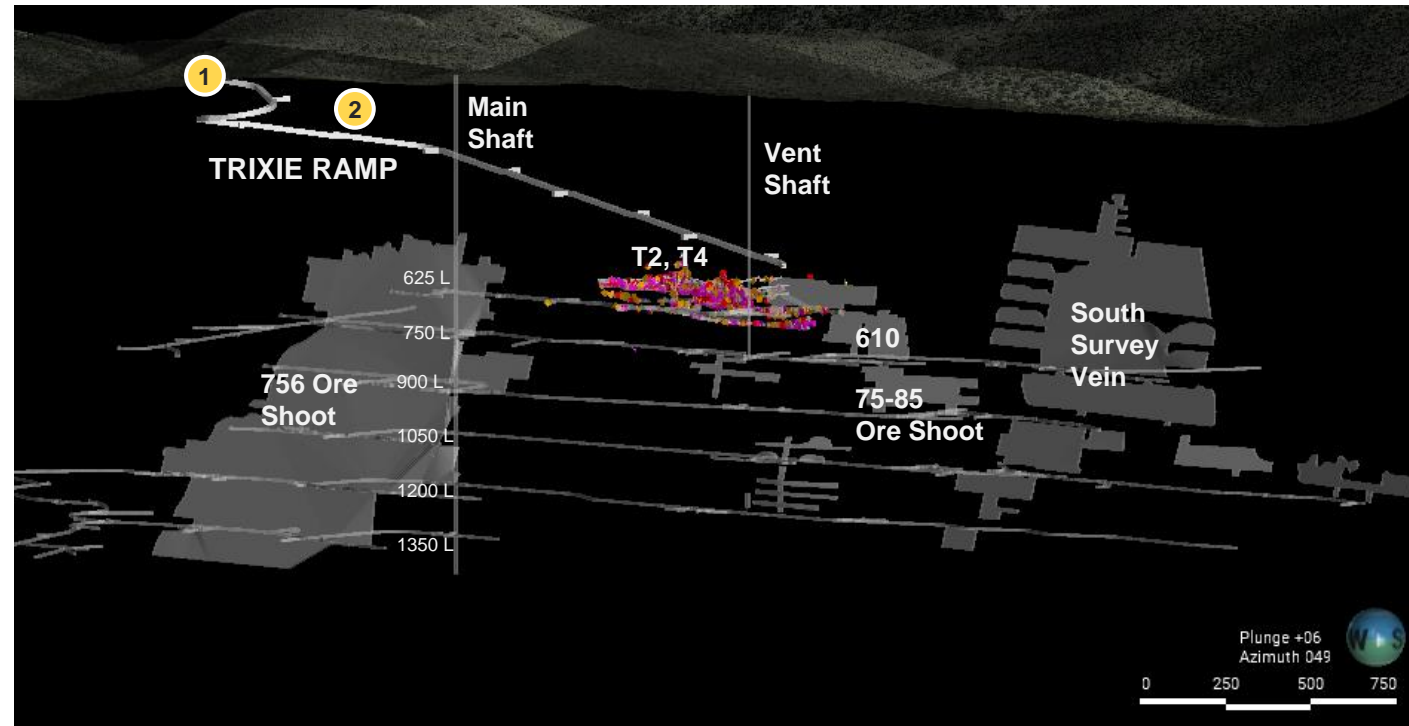
Ramp Entrance



Ramp construction

3 HISTORIC MINERALIZED ZONES OPEN AT DEPTH AND STRIKE

756 ORE SHOOT	610 ORE SHOOT	SOUTH SURVEY VEIN
<ul style="list-style-type: none"> Developed over 900 ft. (275 m) strike and 1,000 ft. (300 m) vertical Mined for flux by Kennecott Average grades 6 to 8 g/t Au 	<ul style="list-style-type: none"> Focus of 2001-2002 mining activity Mined down to the 1,200 ft. level Average grades 21 g/t Au 	<ul style="list-style-type: none"> Mined by Kennecott in the 1980's Extends for 3,400 ft. (1,030 m) south of the main shaft



TRIXIE EXPLORATION POTENTIAL

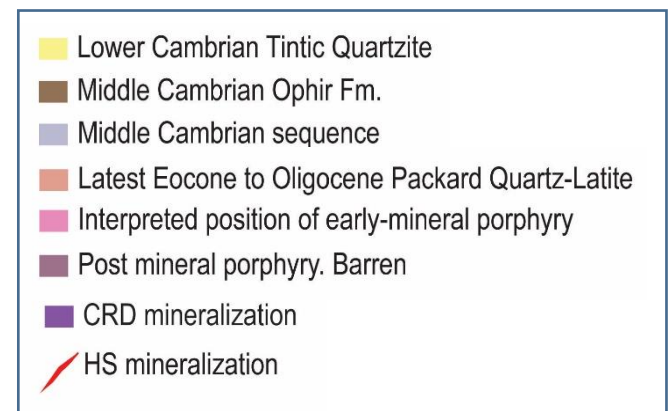
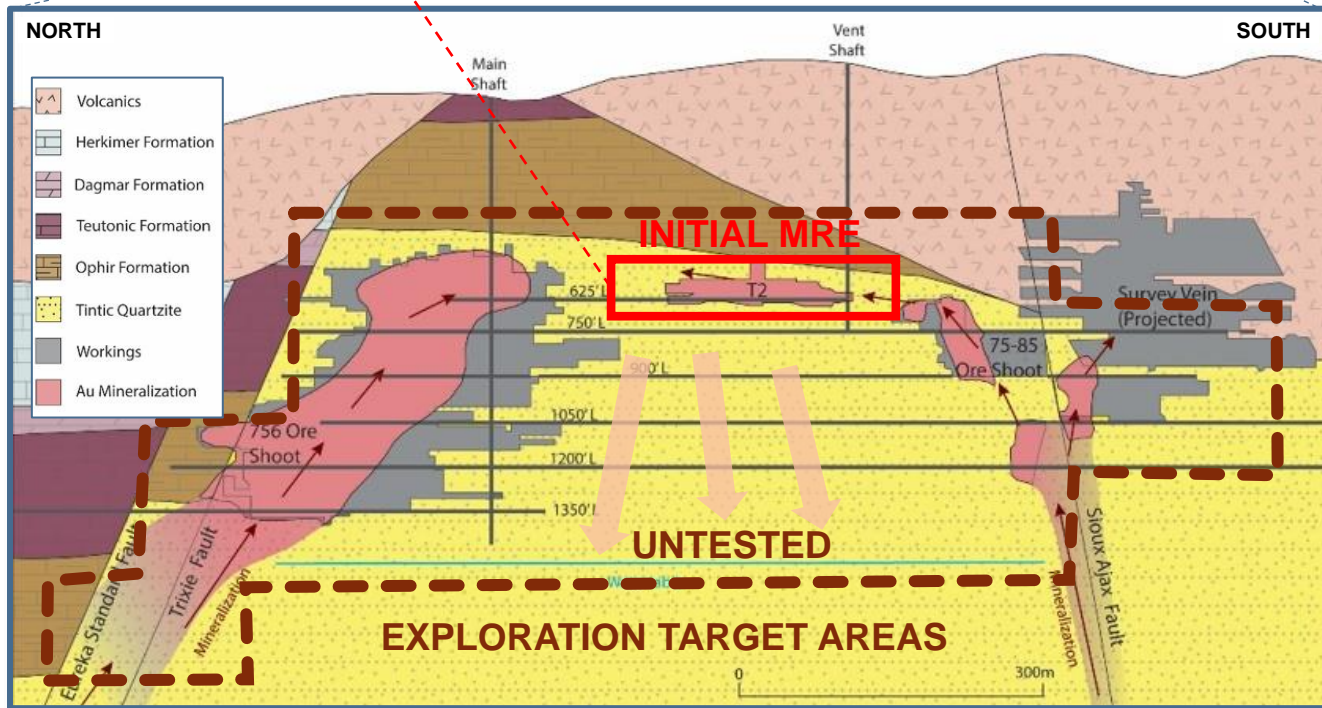
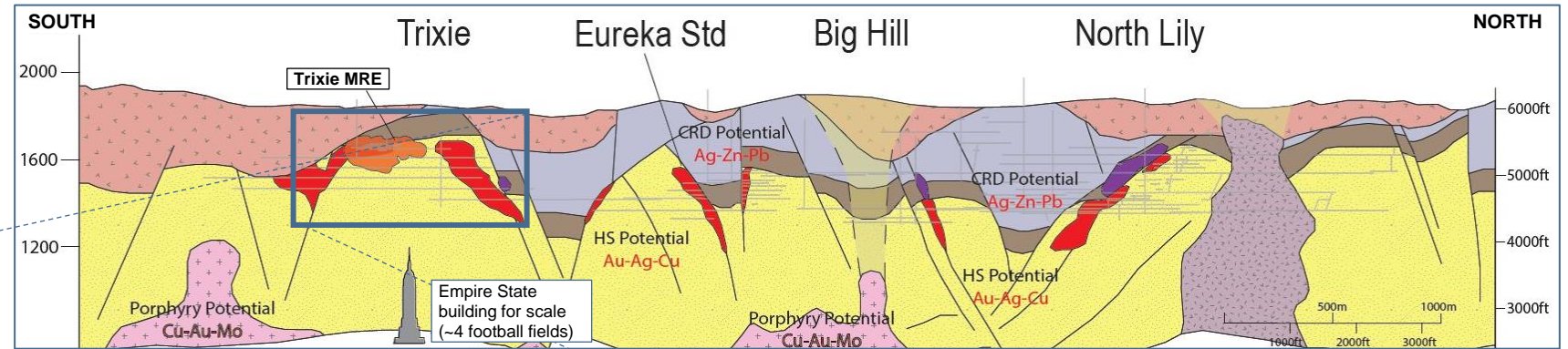
Initial MRE at Trixie represents a very small footprint of the overall underground potential



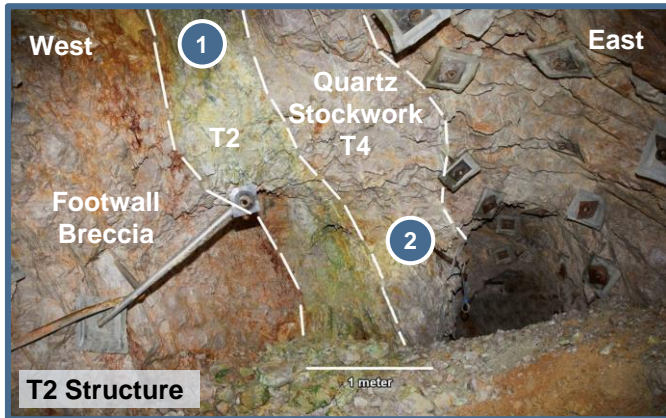
OSISKO DEVELOPMENT

TRIXIE INITIAL MRE¹

- 380 meter strike length
- 85 meter width
- 140 meter depth

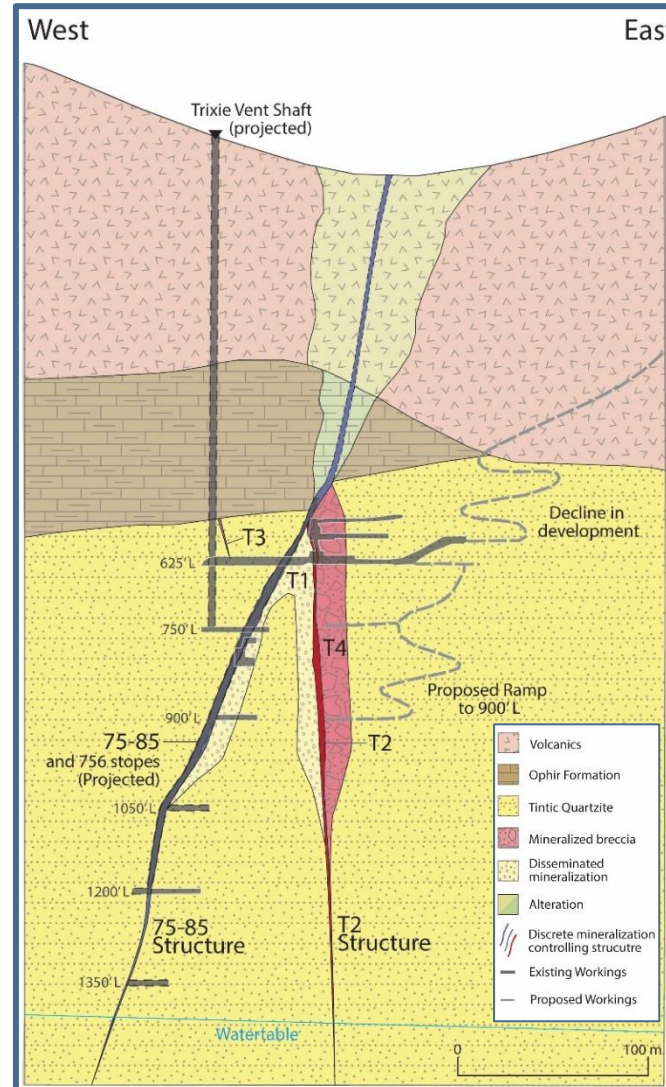
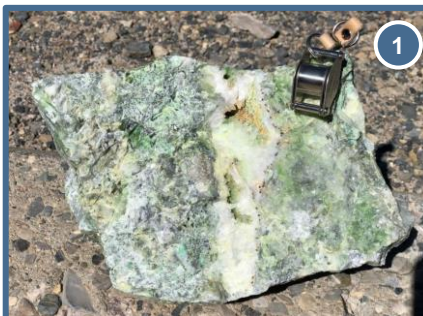


1. Refer to the full text of the Trixie MRE technical report for the assumptions, qualifications and limitations relating to disclosure about the initial mineral resource estimate for Trixie, Tintic Project. The Trixie MRE comprises five mineralized zones within the greater Trixie deposit, including T1, T2, T3, T4 and 75-85 zones over a strike length of 610 m, a maximum width of 105 m and to a maximum depth of 295 m. These dimensions are for the overall size of the mineralized zone structures, with the Trixie MRE blocks contained within a smaller 380 m strike length, 85 m width and 140 m depth footprint.



T4 Stockwork Zone

T2 Discrete Breccia Zone



TRIXIE MINERALIZATION

OVERVIEW

- High-sulphidation epithermal mineralization structurally controlled and hosted within the brittle Tintic Quartzite
- Mineralization capped by impermeable shales of the Lower Ophir Formation

T2 DISCRETE BRECCIA ZONE (~0.2-3.0 m wide) 1

- Native Au and rare Au–Ag-rich +/- Cu- telluride minerals with quartz
- Highest assays to date **16,381 g/t Au** and 2,541 g/t Ag over 0.43 meters in a chip sample

T4 STOCKWORK ZONE (up to ~25 m wide) 2

- Typical grade of 0.3 to 1.0 oz/t (10 to 34 g/t), which is in the hanging-wall to the T2 zone
- Au – Ag-rich mineralization in host rock quartzite with quartz-barite-sulfosalt stockwork veining

75-85 STRUCTURE

- All historic mining focused on west dipping 75-85 structure
- Within the T4 zone of high-density, smaller-scale T2 parallel structures

SAMPLING AND DRILLING HAVE SHOWN CONTINUITY OF T2 / T4

2023 program includes initial 5,000 m of underground exploration and delineation drilling of MRE

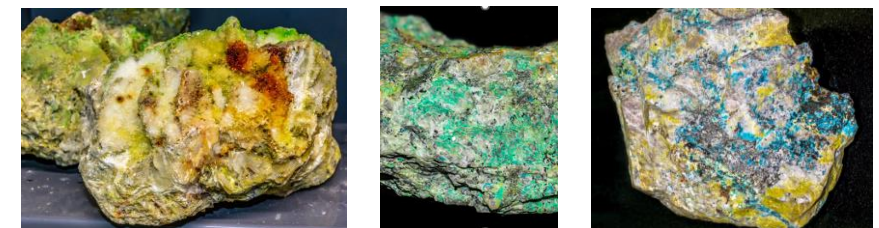
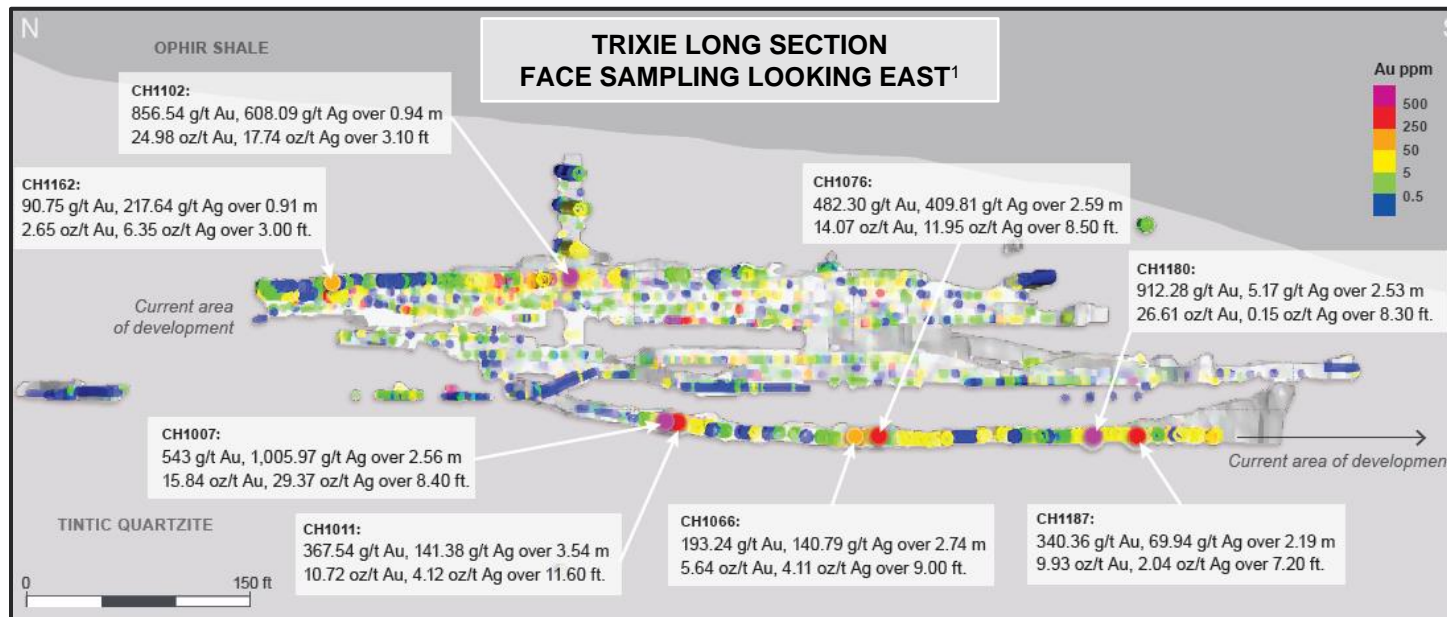
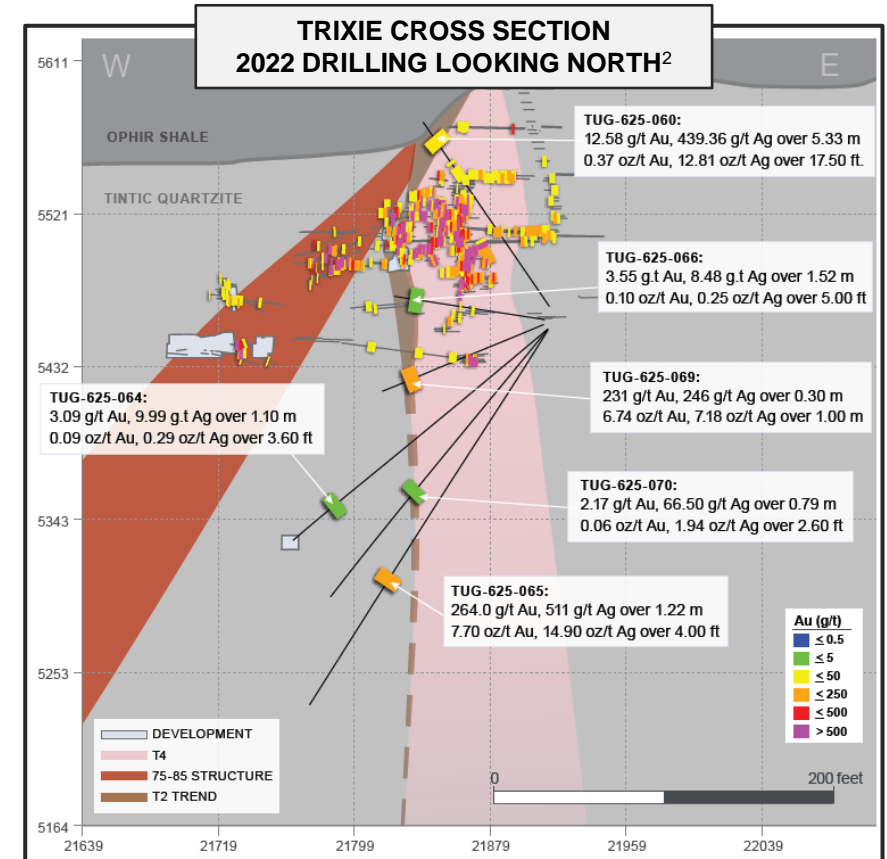


OSISKO DEVELOPMENT

2022 HIGHLIGHTS

High-grade gold results greater than 100 g/t are present throughout the entire sampled area, on all levels, including recent development

- Completed ~8,442 m (27,700 ft.) of RC Drilling (28 holes) and ~3,232 m (10,060 ft.) of underground diamond drilling (62 holes)
- 4,550 chip samples (average length weighted grade of 74.2 g/t Au and 95.65 g/t Ag)
- High-grade drilling results include 264 g/t Au and 511 g/t Ag over 1.22 m
- Two underground diamond drill rigs are in operation showing greatly improved core recovery and drill production challenges faced early in the 2022 program



RECENT CHIP SAMPLING AND DRILLING HIGHLIGHTS

Results have shown chip samples of up to ~67 oz/t (2,311 g/t) over 2.3 meters



OSISKO DEVELOPMENT

- Drilling assays generally report lower grades than sampling assays due to the nuggety nature of the gold system
- Drill assays underscore the importance of “drilling for structure, drifting for grade”**
- Wider bore HQ drill samples have shown more success in providing realistic assay results
- Existing underground development at Trixie allows fast tracking of drilling and exploration cross cuts
- Underground drill stations can be placed near the target zones with minimal additional mine development

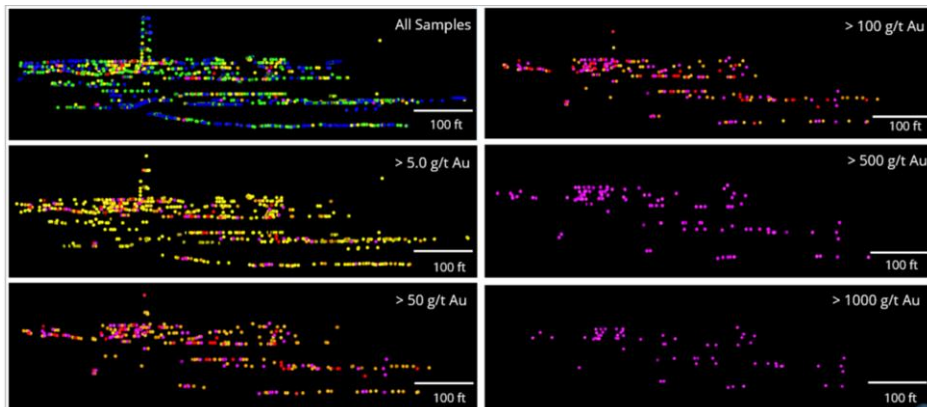
SELECT CHIP SAMPLING^{1,2}

HOLE ID (CH)	WIDTH (m)	GRADE (g/t)	
		SILVER	GOLD
1187	0.73	209.8	1,017.0
1180	0.55	–	4,186.5
1163	0.61	6,699.0	5,197.8
1114	1.52	1,224.9	1,553.1
<i>including</i>	0.82	2,263.4	2,873.1
1110	2.07	316.0	2,800.1
<i>including</i>	1.22	528.9	4,757.4
1105	0.40	102.4	1,769.3
1102	0.37	1,560.0	2,202.9
1011	0.55	911.1	2,352.2
1007	1.01	2,546.1	1,381.6
1351	2.29	1,146.5	2,311.2
1256	0.91	78.7	3,901.3
1326	0.82	1,587.6	3,419.9

SELECT DRILLING^{2,3}

HOLE ID	WIDTH (m)	GRADE (g/t)	
		SILVER	GOLD
TUG-625-029	3.81	21.48	25.95
<i>including</i>	1.52	41.80	43.80
TUG-625-060	5.33	439.26	12.58
TUG-625-065	1.22	511.00	264.00
TUG-625-069	1.22	84.30	65.50
<i>including</i>	0.30	246.00	231.00
TUG-625-032	6.25	404.19	28.72
TUG-625-086	4.57	96.98	27.26
TUG-625-037	2.44	90.24	53.27
TUG-625-036	3.35	30.89	36.81
TRXU-DD-23-003	6.86	231.46	62.82

TRIXIE LONG SECTION, GRADE DISTRIBUTION (625 LEVEL)



High grade gold exists along strike, at depth down dip and down plunge and along fault zones known to be fluid pathways for gold mineralization

EAST TINTIC REGIONAL EXPLORATION POTENTIAL

Highly prospective 5 km long corridor with 23 historic mines, extensive legacy datasets



OSISKO DEVELOPMENT

EPITHERMAL HIGH-GRADE Au-Ag 1

Epithermal vein / breccia systems hosted primarily within the basal Tintic Quartzite host rock, found at the Trixie, Eureka Standard and the deeper levels of North Lily mines

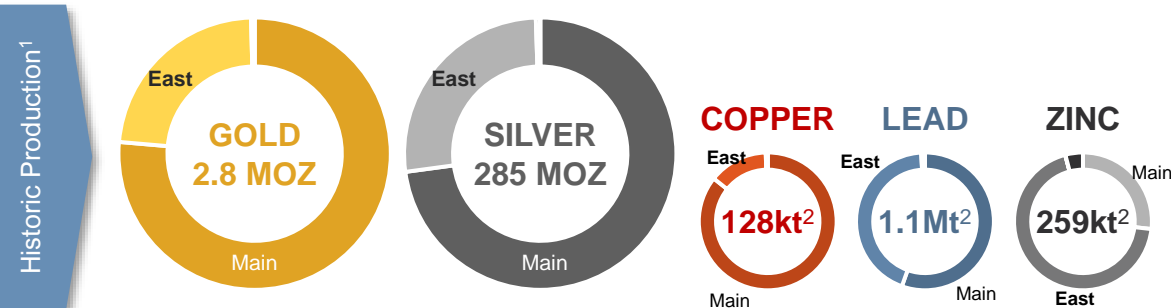
CARBONATE REPLACEMENT ("CRD") Ag-Pb-Zn 2

Replacement of reactive limestone more distal from causative porphyry centers on the margins of district

Accounts for most historical production within Tintic, including Burgin, Tintic Standard, and North Lily mines

PORPHYRY Cu-Au-Mo POTENTIAL 3

Advanced argillic alteration in a NNE trend of remnant lithocaps 4 potentially marks a lineament of porphyry centers at depth. **Historic drill testing intersected low grade porphyry mineralization**



East Tintic Au-rich epithermal mineralization zones run vertically downwards and to the west from Pb-Ag-Zn CRD's to Au-Ag-Cu epithermal veins and breccias
Structurally associated to East graben fault and splays
Indicating fluid flow from deeper porphyry centers in the graben



REGIONAL TARGETS: EPITHERMAL HIGH-GRADE Au-Ag

Targets identified based on 3D geological modelling completed to date



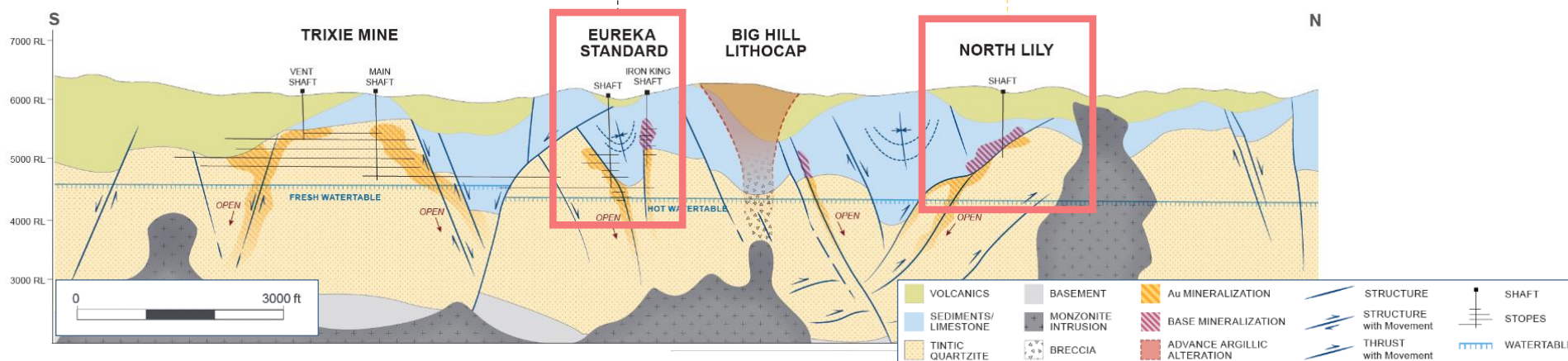
EUREKA STANDARD

- Epithermal Au-Ag along trend NNE of Trixie
- Mineralization hosted in the brittle Tintic Quartzite with structural control along the East Tintic thrust fault and pebble dikes
- The main high-grade mineralized shoot plunges into the water table at 1,400 ft. (426 m) and remains open at depth
- Gold grades averaged **>45 g/t Au (1.3 oz/t Au)** into the water table
- Approx. historic production 360,000 tons 24 g/t Au and 319 g/t Ag
- STATUS: Geologic model complete and drilling is proposed; Potential to rehab workings from Trixie to Eureka Standard**

NORTH LILY

- North Lily operated between 1927 and 1940s
- Endline Dike Fissure produced 375,000 tons, 151 koz gold at an average grade of **45 g/t Au (1.33 oz/t)** and 3.5 Moz Ag
- Zones of characteristic high-sulfidation mineral associations (enargite/tetrahedrite, barite, Au +- sphalerite) exist in the deeper parts of the mine at the Endline Fissure and in the Baltimore/7A51 zone
- NE trending dyke swarm emanating from Big Hill lithocap / porphyry
- STATUS: Data compilation and drillholes proposed along NE strike of Endline and structures parallel to Endline**

Eureka Standard Ore Pile Hand Sample

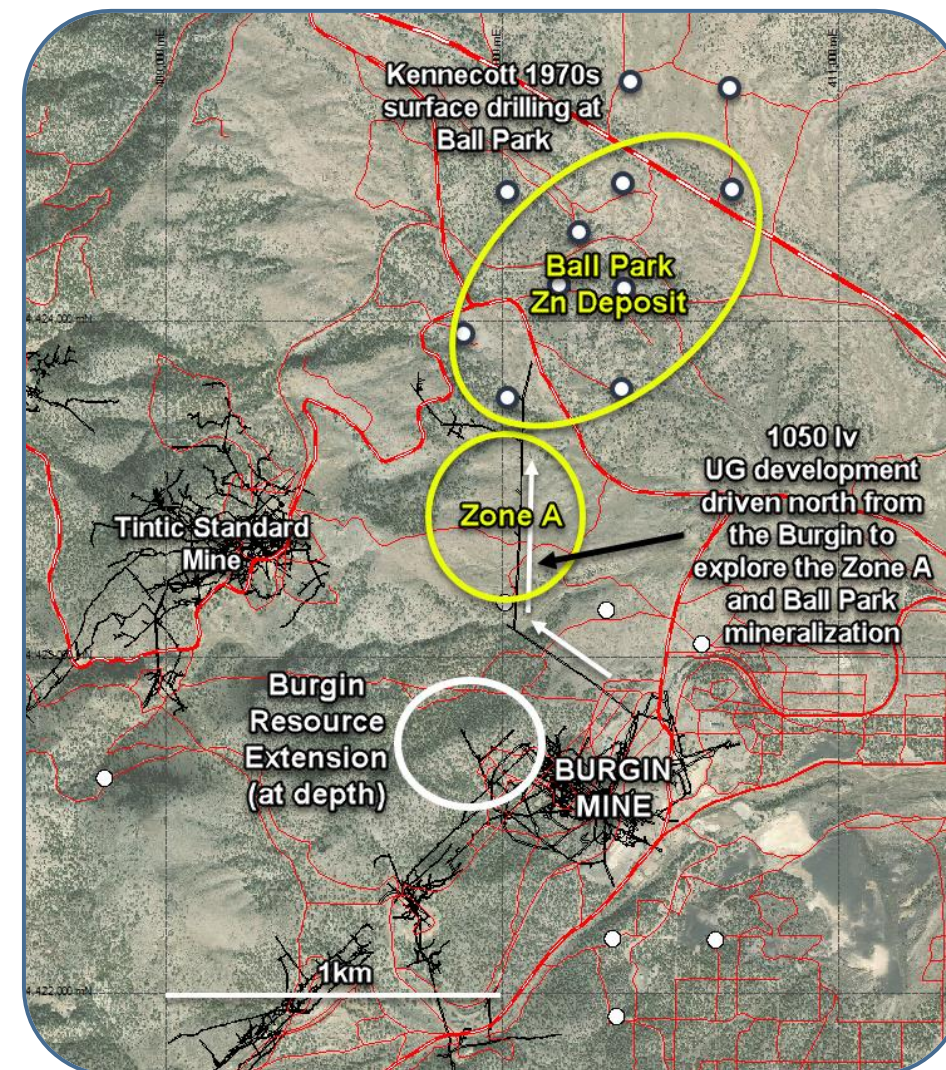


HISTORIC BURGIN MINE

- Mined by Kennecott until 1978, with the “Burgin Extension” discovered from drilling undertaken in 1980
- The Burgin mine hosts a significant Pb-Zn-Ag-Au replacement style deposit
- Ball Park target (Zn-Pb) is located 5000 ft. (1.5 km) north of the Burgin mine (Kennecott surface drilling in 1970s intersected significant Zn-Pb mineralization at Ball Park)
 - During the 1970’s Kennecott developed the 1050 level north of Burgin to explore this area, with underground drilling intersecting significant base and precious metals mineralization associated with the Tintic Thrust, in a similar structural setting to the Burgin deposit
- STATUS: Early stages of data compilation, core relogging. Significant potential exists for addition CRD mineralization throughout the property**

Historic Burgin Extension Resource – 2011 NI 43-101 PEA¹

Class	Cut-off (oz AgEq/t)	Tons (000's)	oz Ag/t	koz Ag	oz Au/t	koz Au	% Pb	klbs Pb	% Zn	klbs Zn
Indicated	3.81	920	7.28	6,694	0.025	23	9.27	170,461	3.45	63,497
Inferred	1.52	1,357	8.71	11,823	0.013	17	14.43	391,589	5.19	140,846



REGIONAL TARGETS: PORPHYRY Cu-Au-Mo POTENTIAL

Strong evidence for multiple potential porphyry centers within the district

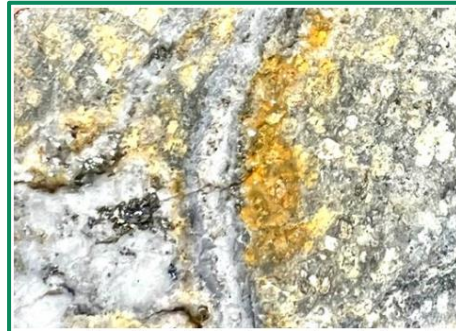


OSISKO DEVELOPMENT

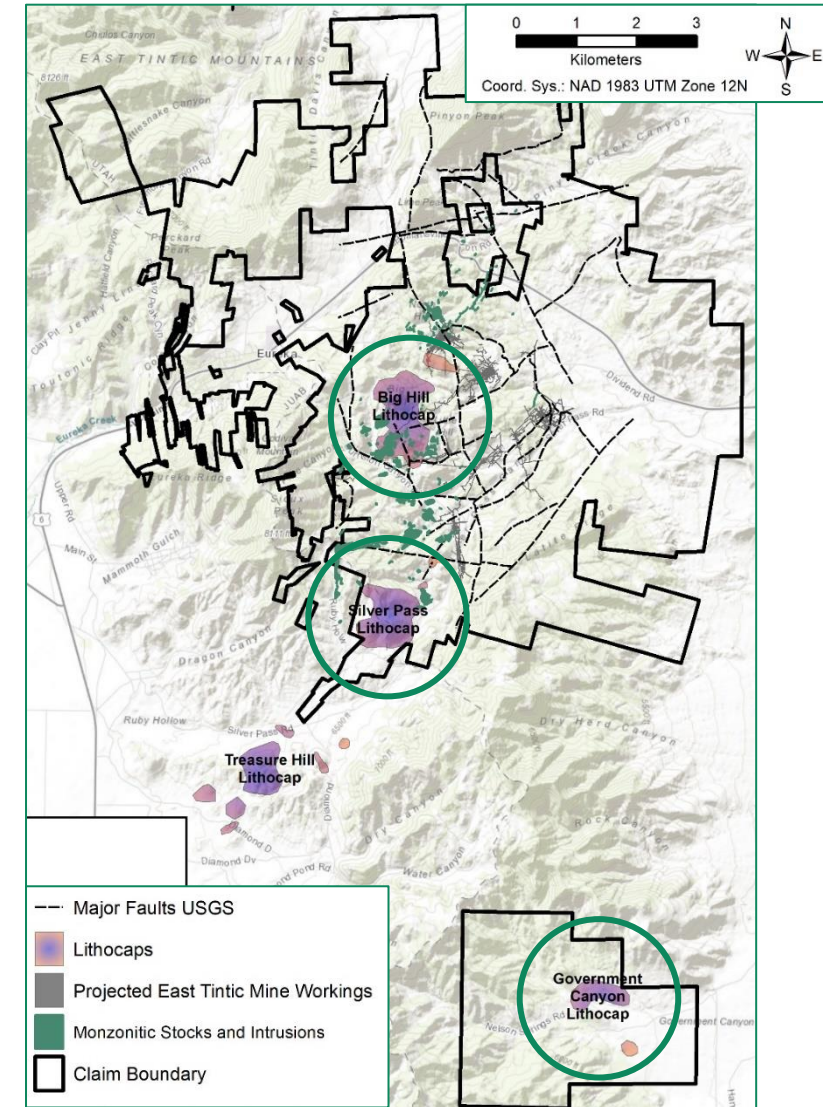
BIG HILL PORPHYRY TARGET

- Located 65 km south of Bingham Canyon Mine operated by Rio Tinto since 1906
 - To date produced over ~25 MT copper, ~1.5 MT moly, ~43 Moz gold, and ~425 Moz silver
- Indicator clay assemblages and elevated Mo and/or Cu geochem anomalies at **Big Hill, Silver Pass and Government Canyon**
- Limited drilling from previous operators (8 holes) intersected low grade porphyry mineralization; Multiple lithocaps mapped in the area;
- Abundant stocks and intrusions throughout the district overlap the timing of mineralization
- Geochemical data indicating favorable alteration and metal assemblages
- Evidence for pre- and post-mineral normal faulting which could reduce local depth from surface to the porphyry level
- **STATUS: Integration of geology, geophysics and geochemistry as well as surface mapping and relogging of drill core from previous operators has identified Big Hill as a target**

Biotite rim retrograde to skarnified wall rock clast in intrusion breccia



B-type quartz veinlet with molybdenite along margins cutting intermineral monzonite porphyry, Big Hill





CARIBOO GOLD PROJECT

British Columbia, Canada
100% ODV ownership

CARIBOO GOLD PROJECT: ASSET SNAPSHOT

District scale exploration upside potential in an under-explored Cariboo gold belt



OSISKO DEVELOPMENT

OWNERSHIP	LOCATION / LAND PACKAGE	MINE TYPE	METALS	STAGE
100% ODV	BC, Canada 192,000 ha	Underground	Gold Silver	Feasibility Study (Jan-23) ✓

DEVELOPING A MINING CAMP

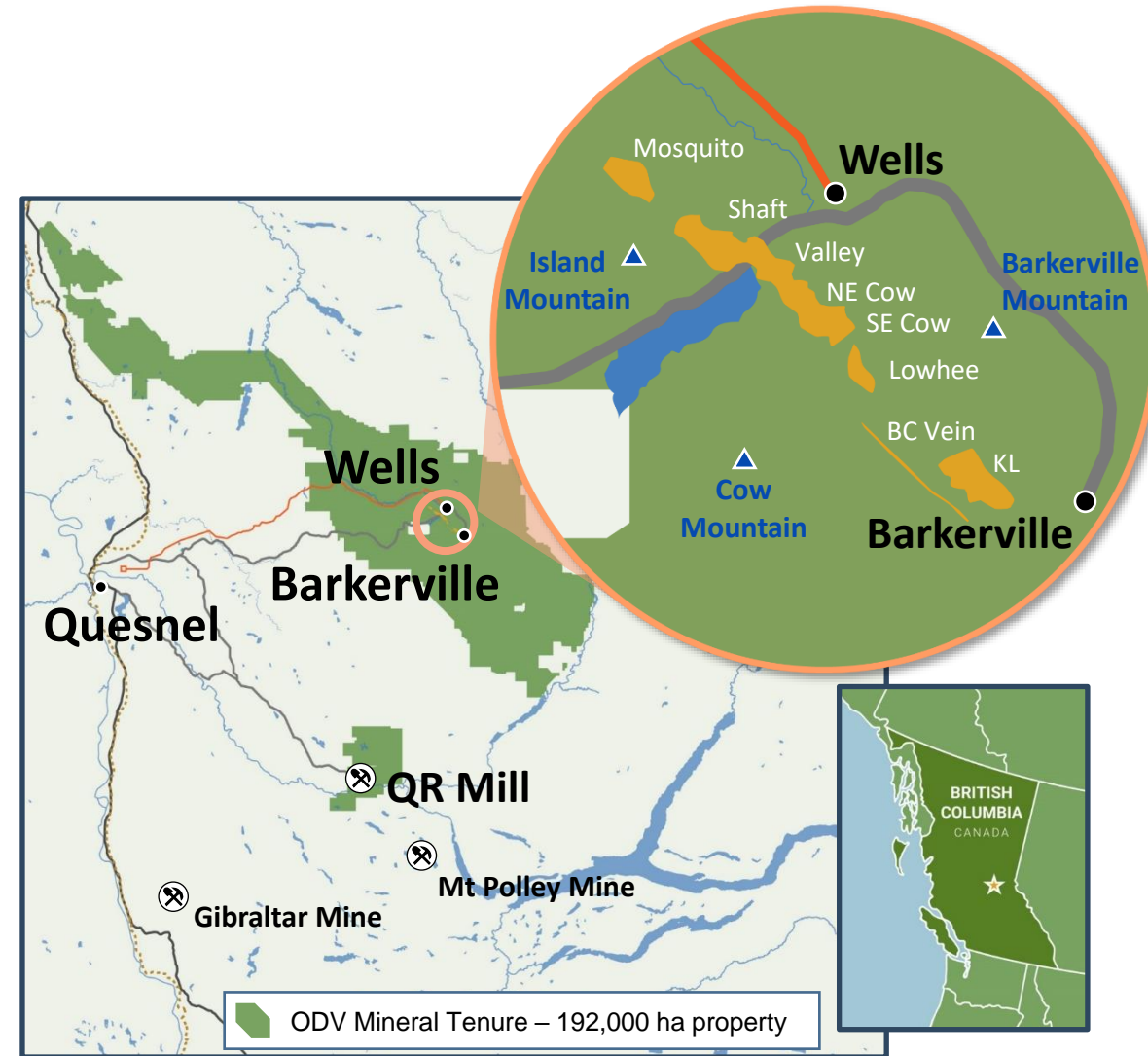
- Two prospective mineralized trends over 83 km strike (192,000 ha property) with 700 km drilled over the last 7 years
- Completed a Feasibility Study envisioning a phased 12-year mine life with a C\$502M NPV5% and producing up to 223 koz/yr of gold ✓
- Brownfield site with year-round access, infrastructure and work force, and strong support from the BC government
- Upcoming catalysts:** EA Certificate (Q3 2023); Permits (Q1 2024)

RESERVES & RESOURCES¹

Classification	Tonnes (000's)	Gold Grade (g/t)	Contained Gold (000's oz)
Probable reserves	16,703	3.78	2,031
Measured resources	47	5.06	8
Indicated resources	14,635	3.32	1,564
Measured & indicated	14,682	3.33	1,571
Inferred resources	15,470	3.44	1,712

NYSE: ODV | TSXV: ODV
www.osiskodev.com

1. Refer to the full text of the Cariboo FS technical report for the assumptions, qualifications and limitations relating to disclosure about the Feasibility Study on the Cariboo Gold Project. Mineral resources include in the measured category, 8 koz Au (47 kt grading 5.06 g/t Au); in Indicated, 1,564 Moz Au (14.635 Mt grading 3.32 g/t Au); in Inferred, 1,712 Moz Au (15.470 Mt grading 3.44 g/t Au). M&I resources are exclusive of mineral reserves.



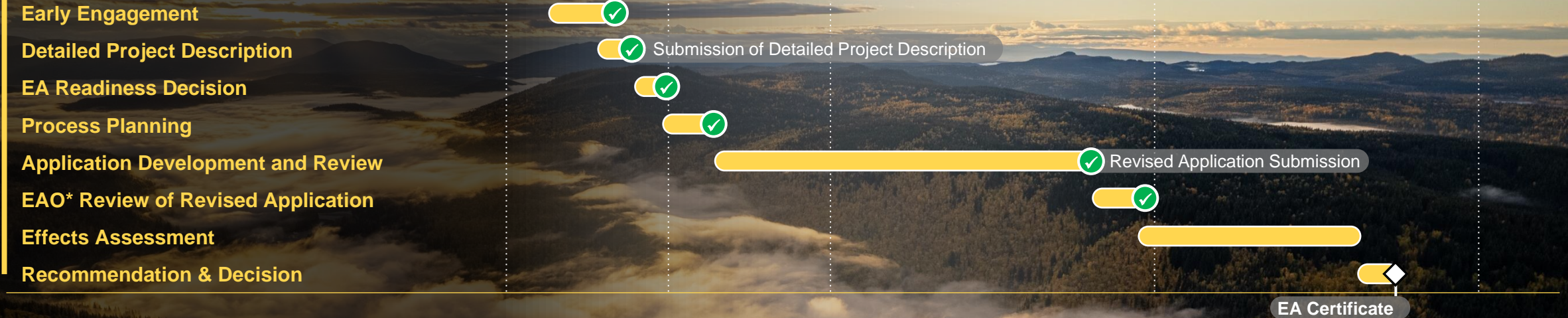
CARIBOO PROJECT PERMITTING TIMELINE

Significant progress made in de-risking the project through the permitting process



OSISKO DEVELOPMENT

ENVIRONMENTAL ASSESSMENT



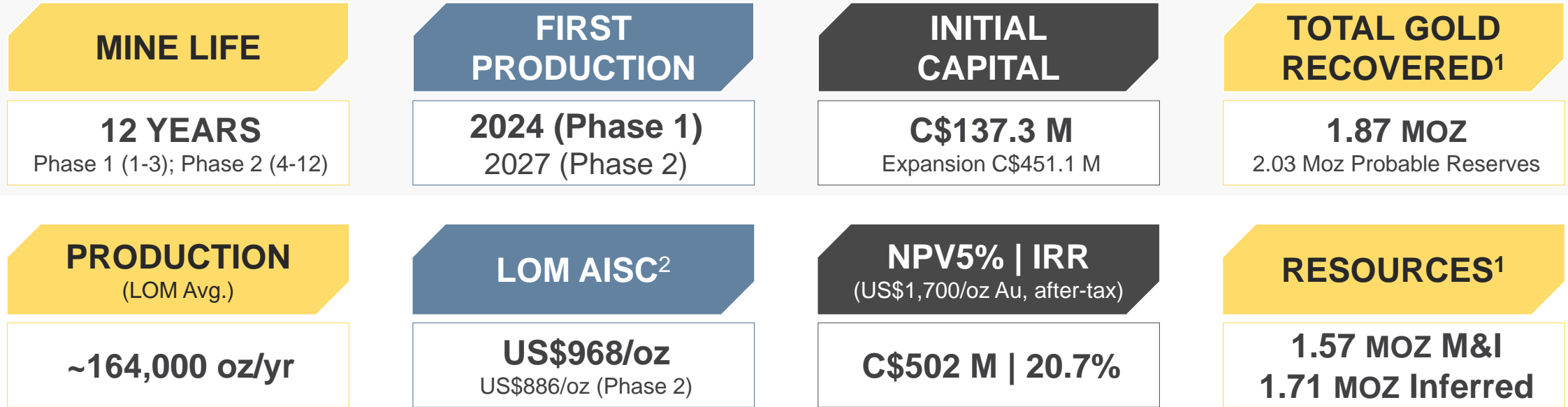
PERMIT APPLICATION



CARIBOO FEASIBILITY STUDY AT A GLANCE¹

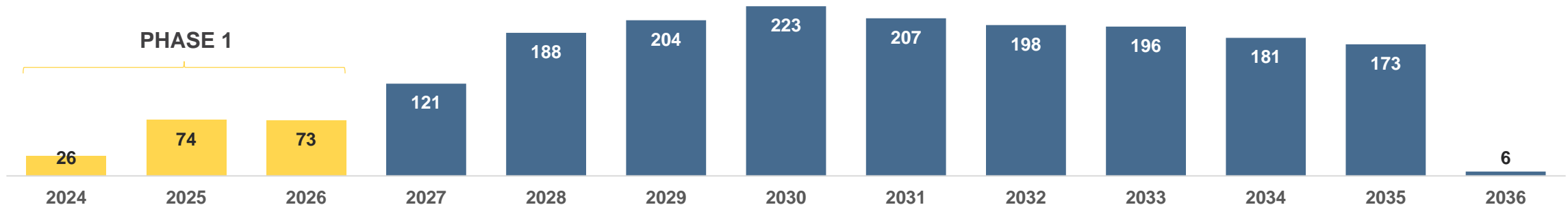


OSISKO DEVELOPMENT



SCALABLE PRODUCTION PROFILE WITH POTENTIAL FOR INCREMENTAL GROWTH

(Gold production, kozpa)



CARIBOO 2023 FEASIBILITY STUDY HIGHLIGHTS¹

FS demonstrates that Cariboo will be a large-scale, long-life and profitable gold mine



OSISKO DEVELOPMENT

SCALABLE PHASED DEVELOPMENT

LOW INITIAL CAPITAL OF \$137M
INITIAL 12 YEAR MINE LIFE

- Minimizing exposure to development risk with flexibility to scale up
 - Phase 1: 1,500 tpd operation at **~73 koz / year** (first 3 years)
 - Phase 2: 4,900 tpd with UG development and production increase to **~194 koz / year**
 - First gold pour expected in Q3 2024
- } **~164 koz / yr LOM Avg.**

BULK TONNAGE UG MINING WITH ORE SORTING MINIMIZING COST & ENVIRONMENTAL FOOTPRINT

- Deploying highly mechanized, low-cost, bulk tonnage mining methods
- Ore sorting facility expected to significantly improve processed grades, reduce processing volumes, reduce energy costs, reduce water usage and tailings volumes
- Mining and processing designed to minimize overall environmental and carbon footprint

ACCESS & INFRASTRUCTURE: A KEY DIFFERENTIATOR AMONG SIMILAR STAGE PROJECTS IN CANADA

- Property accessible via Highway 26 with proximity to the CN Railway
- Located near major towns with access to skilled labour pools
- Plugged into the BC Hydro grid with kWh costs ranging between 6.4¢-7.8¢
- Existing wholly-owned QR mill and fully permitted milling/tailings facility ~100 km from minesite

SIGNIFICANT UPSIDE POTENTIAL BEYOND BASE CASE

- Average depth of defined mineralization ~350 meters and remains open at depth – anomalous gold values at current depth of ~800 meters
- Potential to convert additional inferred resources located adjacent to reserve blocks at minimal incremental developmental cost

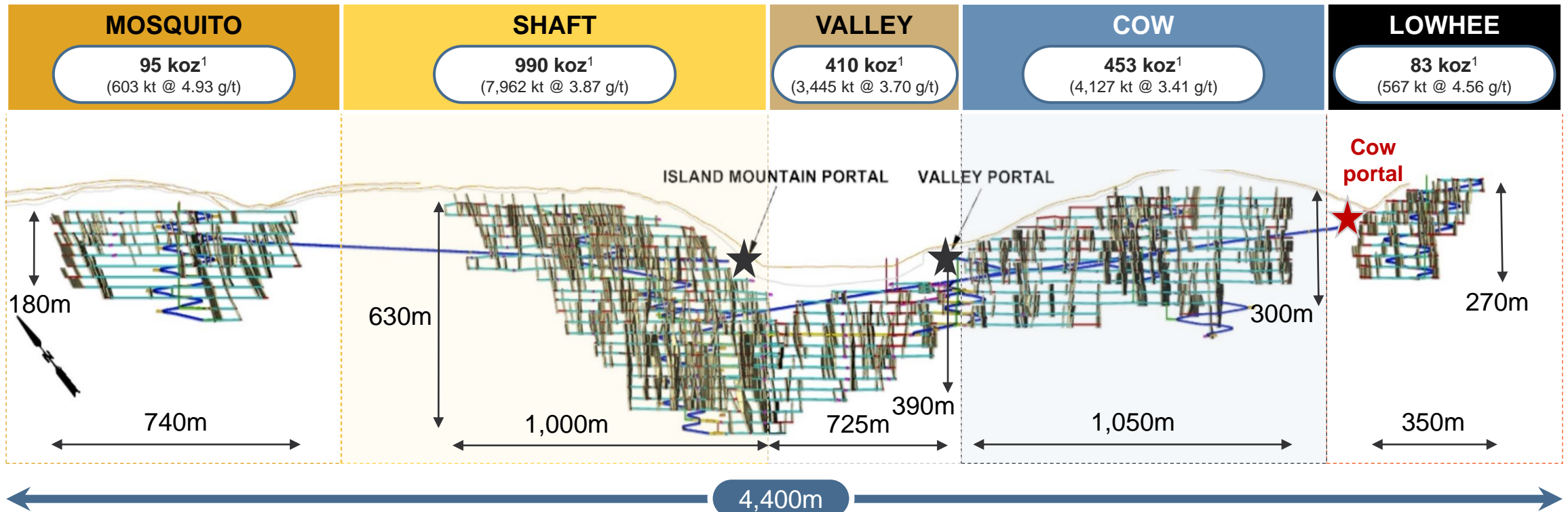
MINE DESIGN SUMMARY



OSISKO DEVELOPMENT

Phase 1 production to come from Lowhee, Shaft and Mosquito deposits

- The vertical extent of all mineable blocks averages ~350 meters and mineralization has been tested down to 900 meters
- The mine is planned to be accessed by two portals from surface (Cow and Valley portals)
- Mineralization is open at depth and along strike and between some deposits due to lack of surface drilling
- A series of internal ramps connected to the main ramps provide access to all mining zones, as illustrated below



LOCATION, LOCATION, LOCATION ...



OSISKO DEVELOPMENT

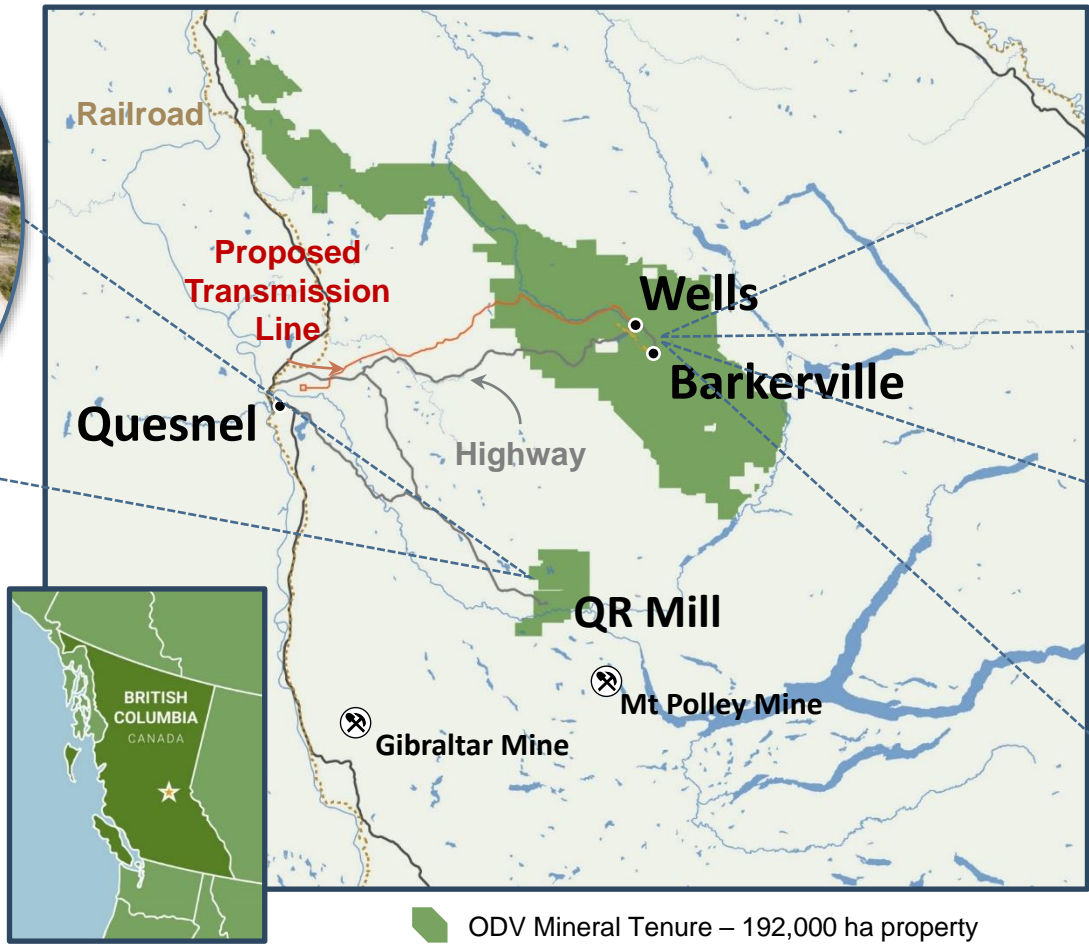


QR MILL

100% OWNED, FULLY PERMITTED AND OPERATIONAL
Produced gold in 2022



PORTAL TO LOWHEE ZONE



ROADHEADER AT SITE



CARIBOO 2023 FEASIBILITY STUDY SUMMARY



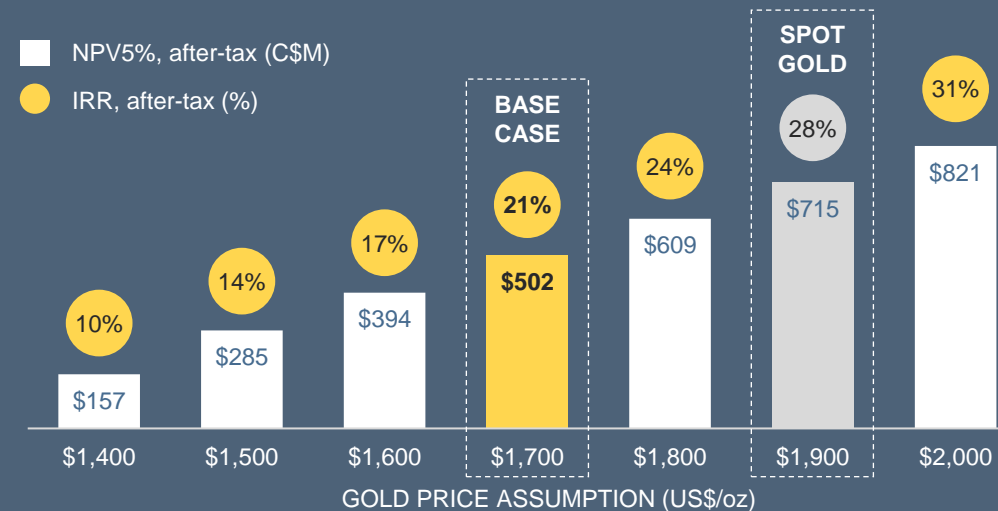
OSISKO DEVELOPMENT

SUMMARY OPERATING RESULTS¹

		Phase 1 (2024 – 2026)	Phase 2 (2027 – 2036)	LOM (12 years)
Ore Mined	Mt	1.5	15.2	16.7
Throughput	tpd	1,500	4,900	4,056
Average Grade	g/t Au	4.43	3.72	3.78
Average Recovery	%	93.6%	91.8%	92.0%
Gold Production	koz	205	1,663	1,869
Avg. Gold Production	koz/yr	73	194	164
Operating Costs	C\$/t mined	\$170	\$96	\$103
Initial / Expansion Capex	C\$M	\$137	\$451	\$588
Sustaining Capex	C\$M	\$134	\$332	\$467
Total Cash Costs ²	US\$/oz	\$1,149	\$748	\$792
AISC ²	US\$/oz	\$1,634	\$886	\$968

SUMMARY ECONOMIC RESULTS¹ (US\$1,700/OZ AU)

		LOM (12 years)
Total Revenue	C\$M	\$4,126
Cumulative Cash Flow (pre-tax) ²	C\$M	\$1,192
Average Annual CF (pre-tax) ²	C\$M/year	\$104
Total Taxes Paid	C\$M	\$291
Cumulative FCF (after-tax)²	C\$M	\$901
Average Annual FCF (after-tax)²	C\$M/year	\$79



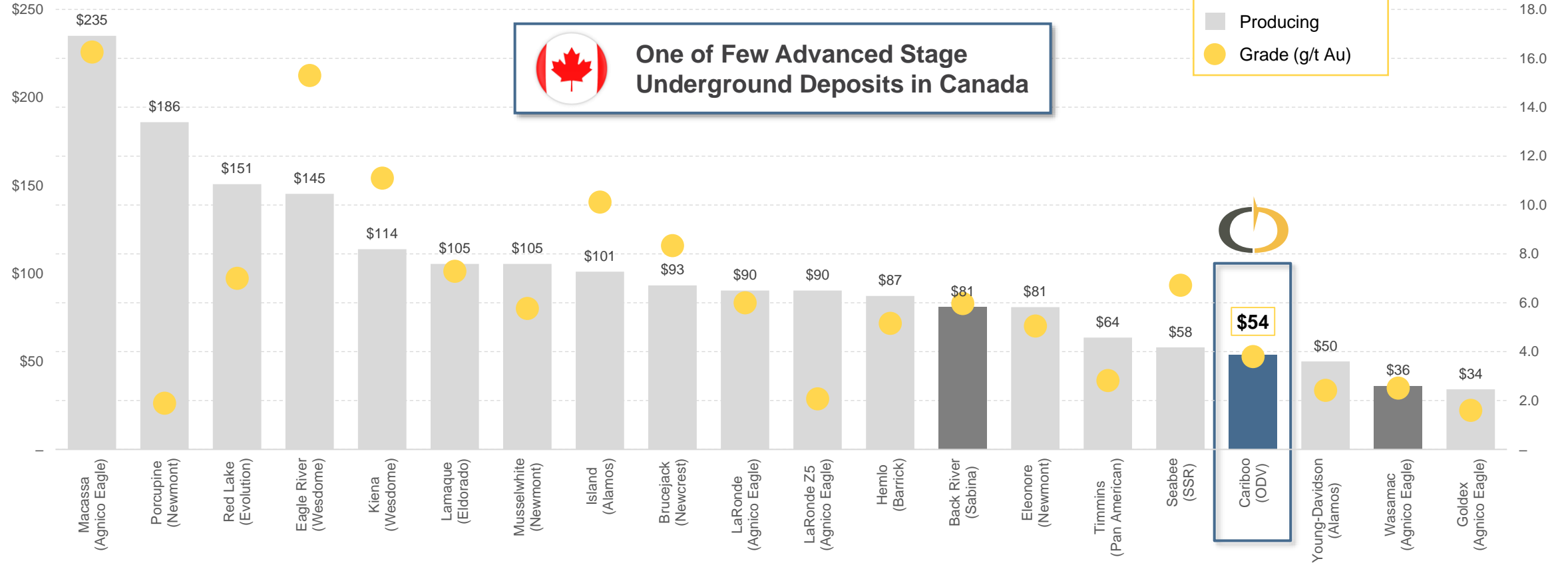
CARIBOO BENCHMARKING: CANADIAN UNDERGROUND MINES



OSISKO DEVELOPMENT

CANADIAN UNDERGROUND GOLD ASSETS: UG MINING COSTS (C\$/tonne) vs. GRADE (Au g/t)

(C\$/tonne, UG mining costs)



One of Few Advanced Stage Underground Deposits in Canada

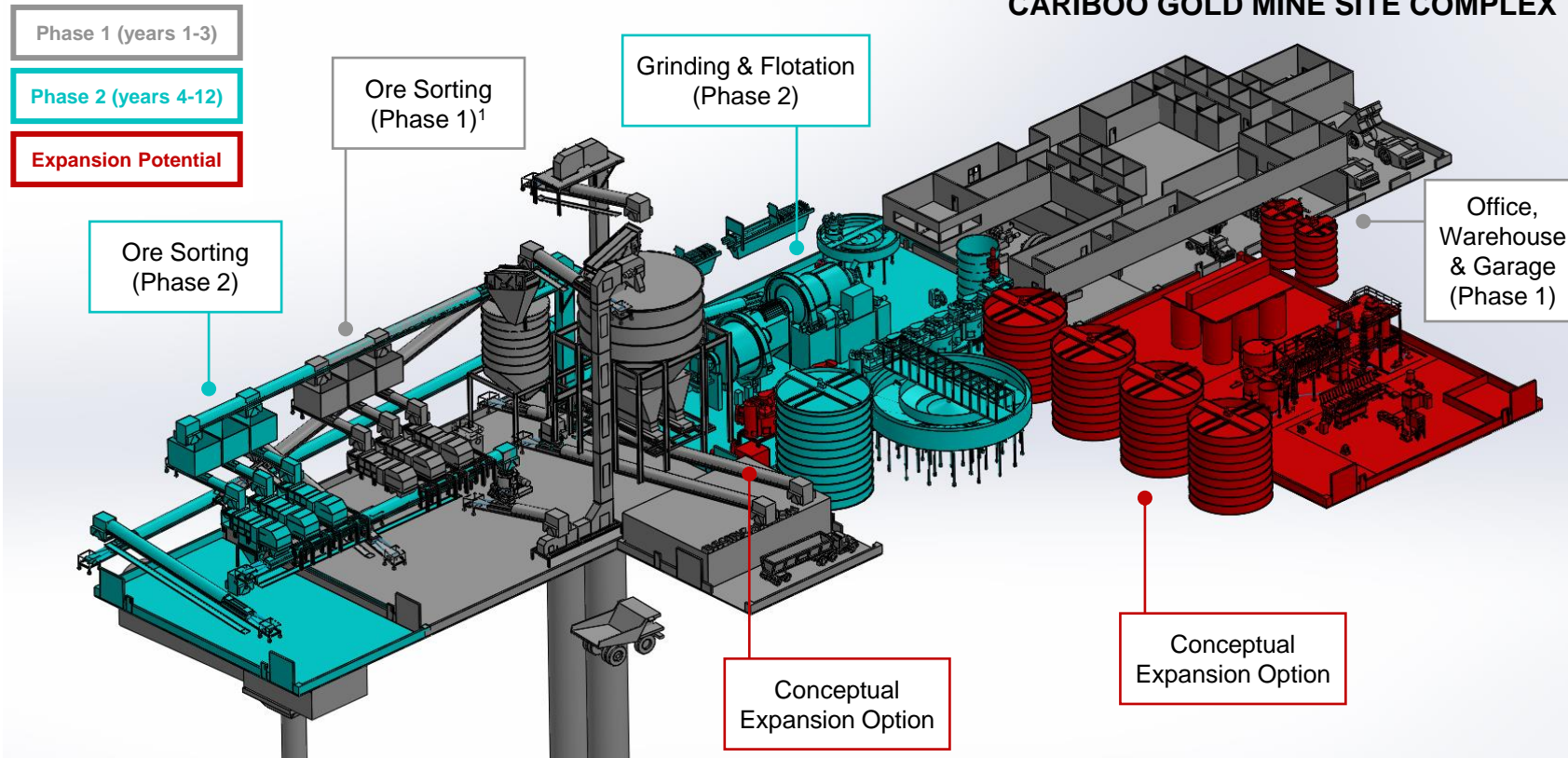
- Development
- Producing
- Grade (g/t Au)



\$54

MAJORITY OF PRODUCING UNDERGROUND MINES IN CANADA OWNED BY MAJORS

CARIBOO GOLD MINE SITE COMPLEX



**STREAMLINED
DESIGN THAT
ALLOWS SCALING
PROCESSING
CAPACITY BEYOND
4,900 TPD**

Current Phase II design layout incorporates sufficient room for future throughput expansion potential

NATURE OF MINERALIZATION FAVORABLE TO ORE SORTING

Metallurgical testing to date indicates that Cariboo mineralization is well suited for ore sorting



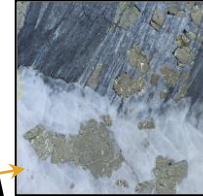
OSISKO DEVELOPMENT

Ore Sorting Separates Gold Rich (11.0 g/t¹) Host Rock From Unmineralized Sandstone

Pyrite hosted in quartz veins
High Density Material (~5 g/cm³)

Sandstone
Low Density Material (~2.5 g/cm³)
Unmineralized Waste

Stope



- Stopes designed to follow vein corridors
- Gold uniquely pyrite hosted within a high-density network of mineralized quartz veins
- Ore sorting effective at separating sandstone (waste) from the high-density gold-associated pyrite
- 95.6% average gold recovery and 62.1% separation of the waste material based on testing to date

481 VEIN CORRIDORS

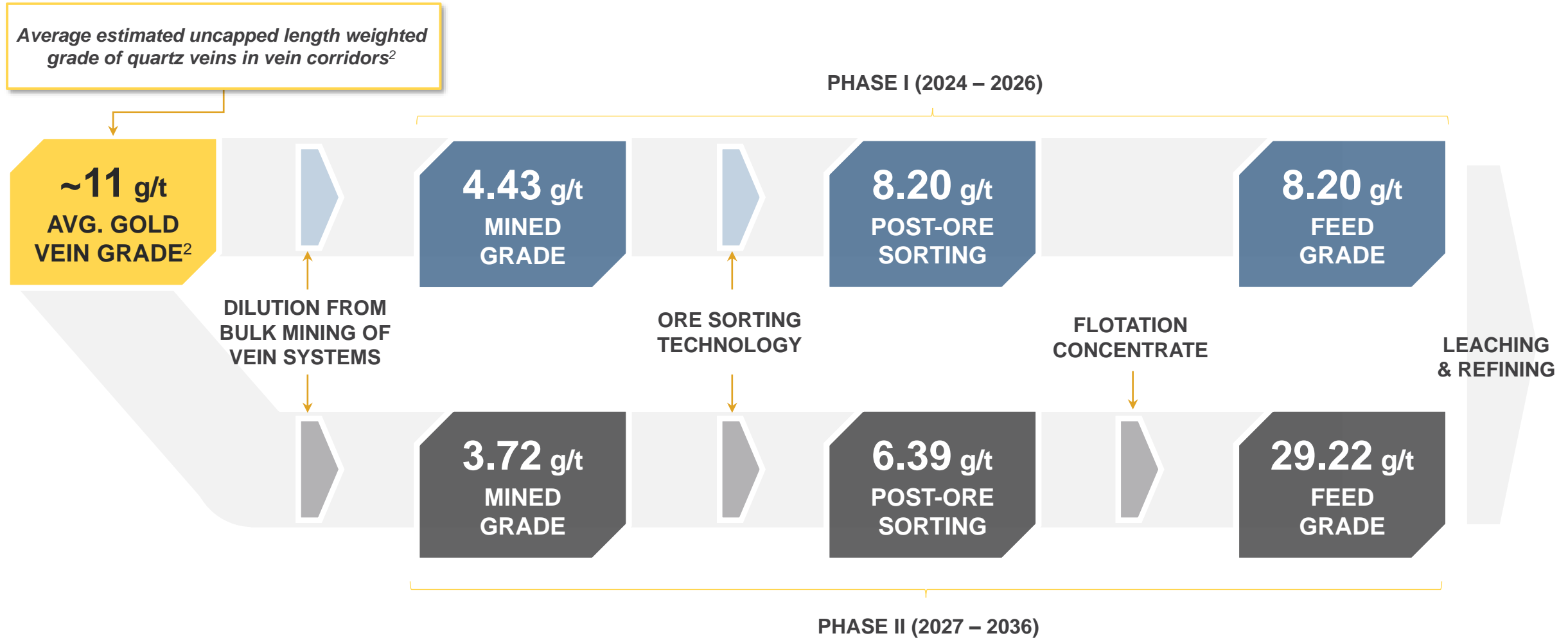
2 M MINIMUM WIDTH OF VEIN CORRIDORS

6.7 KM MODELLED STRIKE LENGTH

700 M WIDTH TO A DEPTH OF 600 M AND OPEN

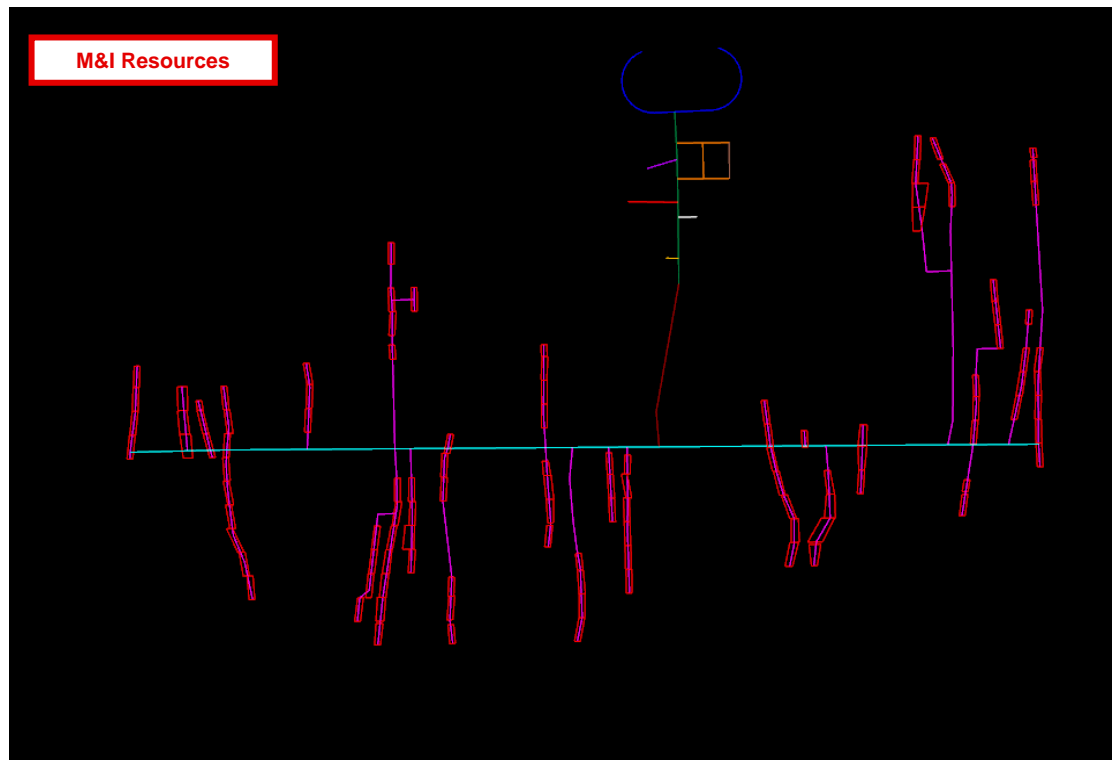
~11 G/T AVG ESTIMATED UNCAPPED LENGTH WEIGHTED GRADE OF QUARTZ VEINS IN VEIN CORRIDORS¹

UP “GRADE” PROCESS¹



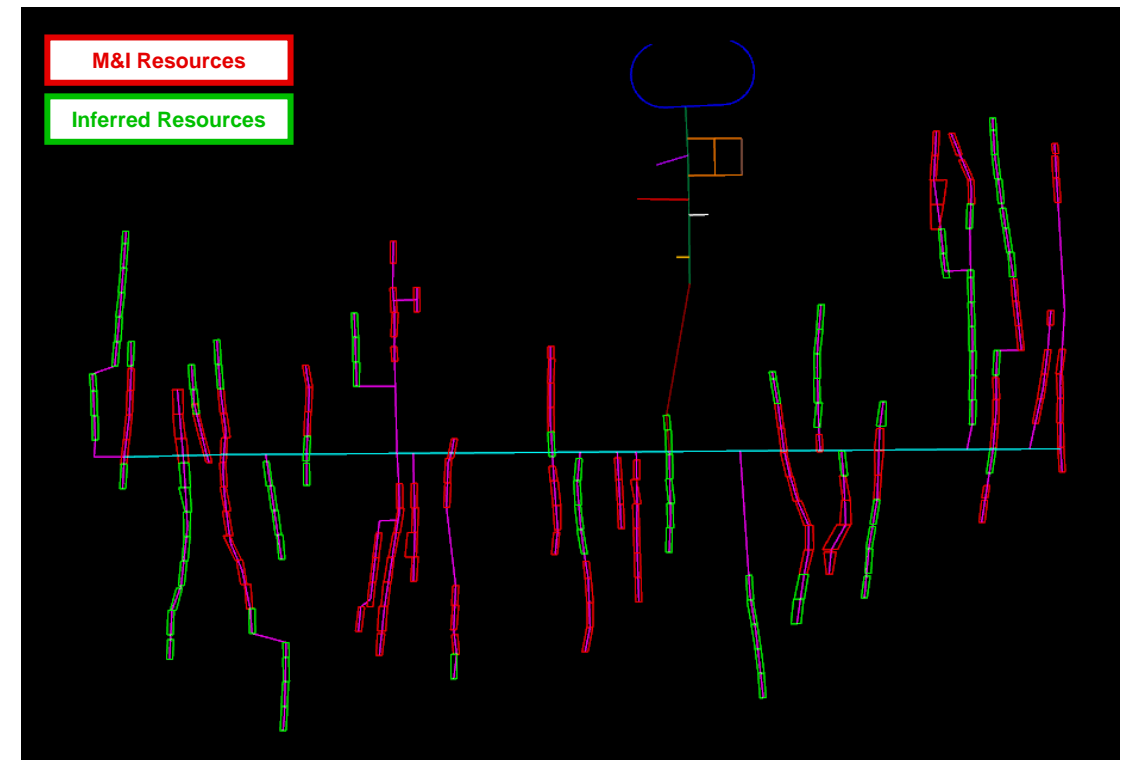
FEASIBILITY STUDY – M&I RESOURCES ONLY¹

- All ramp, access and haulage drifts and other primary infrastructure to be constructed to provide access to minable stopes as defined in the Feasibility Study



ADDITIONAL INFERRED RESOURCES¹

- Potential to convert inferred resources near mined ounces at minimal additional development capex
- Inferred resources appear to be extensions of existing veins



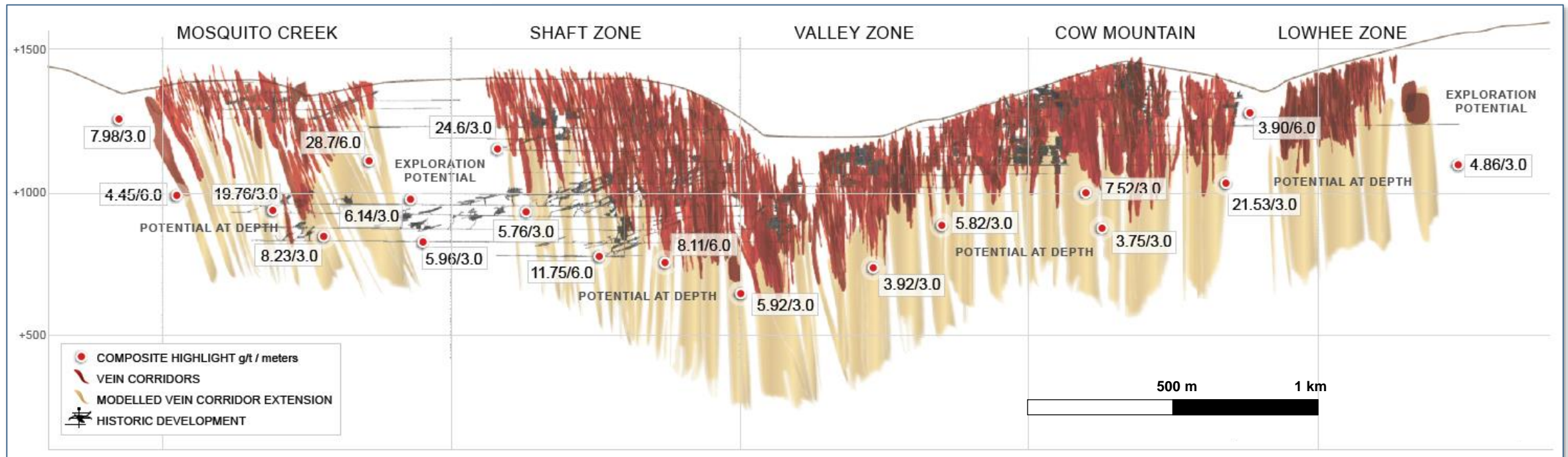
CARIBOO EXPLORATION POTENTIAL AT DEPTH



OSISKO DEVELOPMENT

- 2.03 Moz Au at 3.8 g/t Au in Probable Reserves¹
- 1.57 Moz Au at 3.3 g/t Au M&I resources, 1.71 Moz at 3.44 g/t Au Inferred Resources with potential to be converted¹
- >500 m additional depth potential of known vein corridors adjacent to mine plan untested – mineralized veins intersected at depth to ~800 m and still open. Average deposit depth is ~350 m

LONG SECTION: LOOKING NORTHEAST

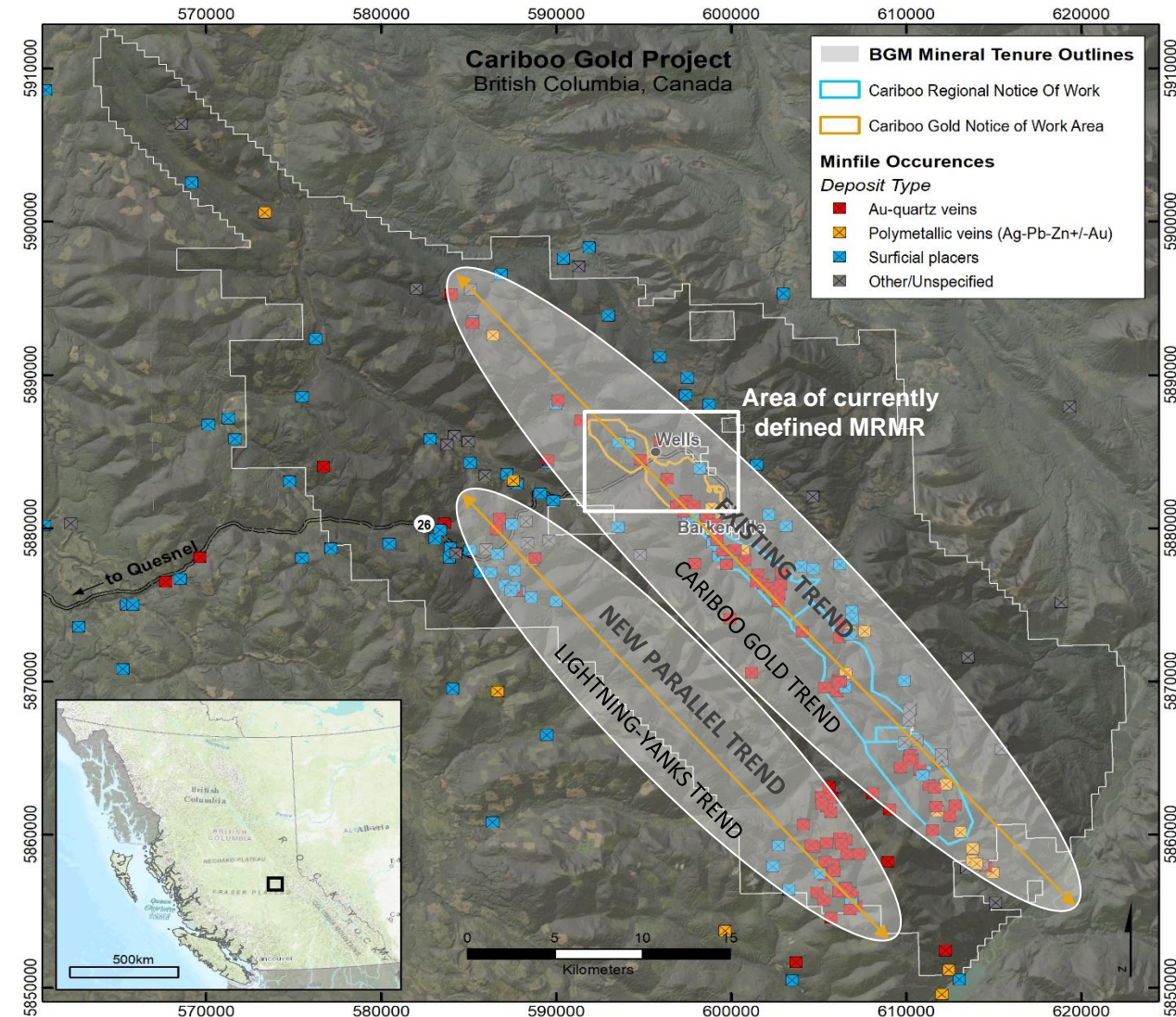


DEVELOPING A MINING CAMP



OSISKO DEVELOPMENT

- District-scale exploration upside in under-explored Cariboo Gold Belt
- High degree of confidence in geological model with anomalous gold values >2.0 g/t Au in $\sim 80\%$ of drill holes
- 155,000 ha property with 83 kilometers strike of gold targets
- $\sim 700,000$ meters drilled in the last seven years
- Strong support from the BC government
- Year-round exploration and access, infrastructure and work force

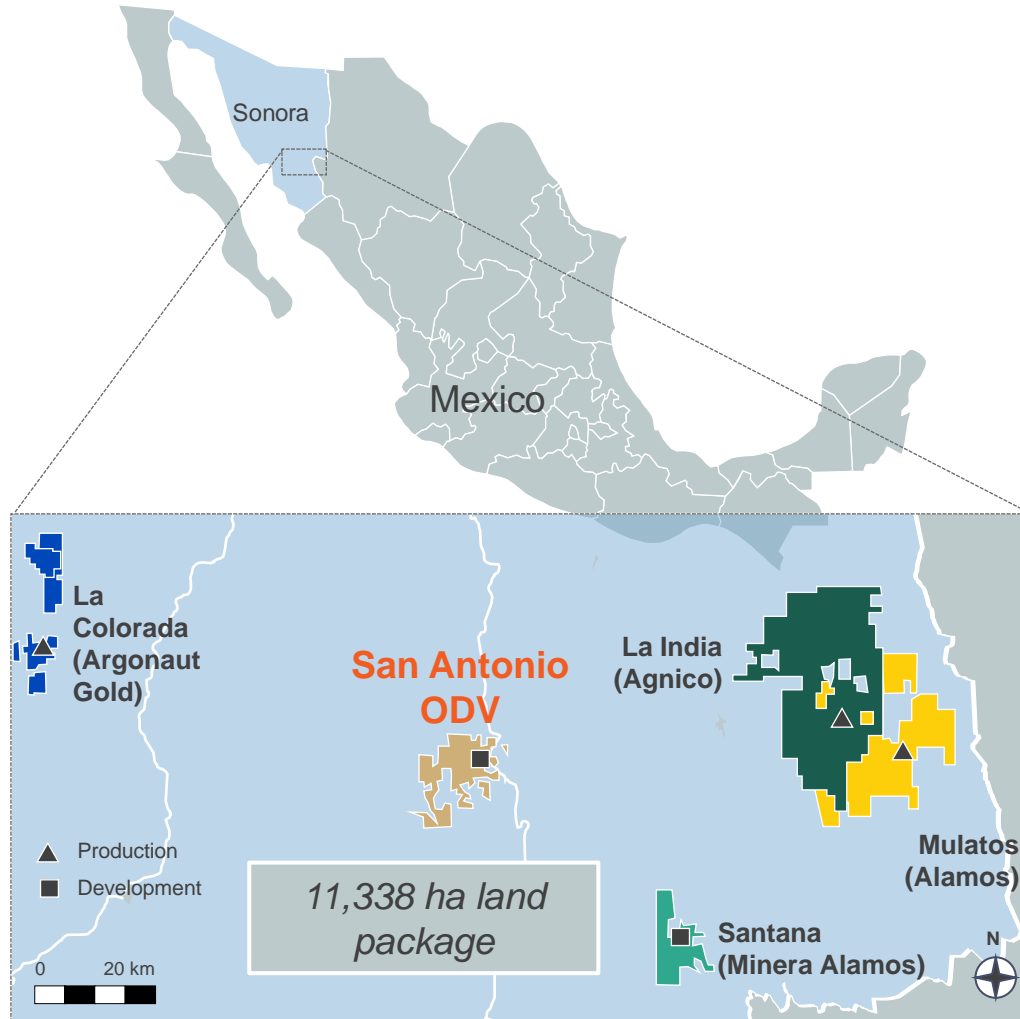




SAN ANTONIO PROJECT

Sonora, Mexico

100% ODV ownership



ASSET HIGHLIGHTS

- Located 160 km from airport and towns of Hermosillo and Obregon in mining-friendly Sonora
- Constructed a heap leach pad and a carbon in column plant at the end of 2021 to process stockpiled mineralized material
 - 1.1 Mt stockpile grading 0.58 g/t Au placed on the leach pad
 - 13,065 ounces sold as at March 31, 2023
- Gold mineralization identified over 10 km strike
- Mine infrastructure and water on site
- 27,000 meters drilled in 2021
- Awaiting next steps from the Mexican government on permitting

MINERAL RESOURCES¹

MATERIAL	INDICATED			INFERRED		
	Tonnes	Grade	Contained	Tonnes	Grade	Contained
	(Mt)	(g/t Au)	(koz Au)	(Mt)	(g/t Au)	(koz Au)
Oxide	2.7	0.89	77	4.6	0.74	111
Transitional	1.8	1.02	59	2.1	0.9	61
Sulfide	10.4	1.31	441	9.8	1.18	371
TOTAL	14.9	1.20	577	16.5	1.02	543

SAN ANTONIO GOLD PROJECT

Stockpile placed on newly constructed heap leach pad



OSISKO DEVELOPMENT





APPENDIX

SEAN ROOSEN, CEO

- Founding member of Osisko Mining Corporation (2003-2014)
- Responsible for developing the strategic plan for the discovery, financing and development of the Canadian Malartic Mine
- Led the efforts for the maximization of shareholders' value in the sale of Osisko Mining Corporation, that resulted in the creation of Osisko Gold Royalties
- Former Chairman of Osisko Mining Corp. – partner in the development of Windfall

CHRIS LODDER, PRESIDENT

- 30 years' experience working on and managing Greenfields exploration, Brownfields exploration, and mine development
- Led teams responsible for discoveries of 34+ Moz of gold
- President and CEO of Barkerville Gold Mines until its acquisition by Osisko Gold Royalties in 2019.

LUC LESSARD, COO, P.ENG.

- 30+ years of experience designing, building and operating mines
- Previously COO of the Canadian Malartic Partnership
- Responsible for the design, construction and commissioning of the world class Canadian Malartic gold mine
- Worked on 11 open pit and underground mine builds prior to Osisko

ALEXANDER DANN, CFO, CPA, CA

- 25 years of experience leading finance operations and strategic planning for companies in the mining and manufacturing sectors
- He obtained his Chartered Accountant designation in 1995, and holds a Bachelor degree in Business Administration from L'Université Laval in Quebec

FRANÇOIS VÉZINA, Senior VP Project development, TECHNICAL services and environment, ing., P.ENG., MBA

- 20 years' experience in OP and UG operations in Canada, Mexico and Finland
- Responsible for overseeing the completion of the feasibility studies of LaRonde II, Pinos Altos and Kittilä
- Participated in the construction and commissioning of Pinos Altos and Kittilä and the construction of the Canadian Malartic Mine

MAGGIE LAYMAN, VP EXPLORATION, P.GEO

- 18 years of experience in greenfield and brownfield exploration
- Previously Barkerville's Exploration Manager

LAURENCE FARMER, GENERAL COUNSEL & VP STRATEGIC DEVELOPMENT

- Over 10 years of experience in investment banking & corporate law with RBC Capital Markets and Norton Rose Fulbright LLP
- Previously Senior Counsel of Osisko Gold Royalties

PHILIP RABENOK, DIRECTOR, INVESTOR RELATIONS

- Over 10 years of transactional, capital markets, and corporate experience in the resources sector, most recently in an Investor Relations role at IAMGOLD Corp.
- Previously worked in mining investment banking and equity research at Société Générale and Scotiabank

CHRIS PHARNESS, VP SUSTAINABILITY

- 25 years of environmental and resource management experience in British Columbia
- Involved with the Cariboo project since 2013 developing long-term personal and professional relationships with indigenous and local communities and regulatory agencies

BOARD OF DIRECTORS

- **Sean Roosen – Executive Chair**
- **Charles Page**
- **Michèle McCarthy**
- **Duncan Middlemiss**
- **Éric Tremblay**
- **Marina Katusa**
- **David Danziger**

BEST IN CLASS ESG

Committed to responsible mining practices, strong relationships, and mutual support with all partners



OSISKO DEVELOPMENT

ENVIRONMENT



- Osisko Development constructed two water treatment plants to treat contact water and effluent
- Reclamation underway for the Mosquito Creek legacy tailings disposal
- Collaboration agreement sign with BC Government for the reclamation of the Jack of Club lake tailings disposal area
- Open and transparent dialogue with the Ministry of Energy, Mines and Low Carbon Innovation, and Ministry of Environment and Climate Change Strategy

INDIGENOUS NATIONS



- Positive relationship with Lhtako Dené Nation since 2015. Agreements include engagement protocol (signed in 2016), relationship agreements (2016) and life of project agreement (2020)
- Participation agreement sign with the Williams Lake First Nation in July 2022
- Positive relationship with Xatsull First Nation Indian Band since 2016

PERMITTING



- Positive permitting climate in central BC given dearth of high-quality jobs from logging industry slowdown
- Completed the Application Review process in January 2022
- On track for completing the Environmental Assessment Certificate process in Q3 2023
- Anticipating receipt of permits by Q1 2024

COMMUNITY



- Actively involved in the Wells community
- Provided funding to local organizations in support of various initiatives, including: Wells Community Foundation; Island Mountain Arts; Wells and Area Community Association and others
- Involved in the various activities in the Barkerville Historic Town (initiated the collection of funds in support of the development of an underground mining exhibit)



CARIBOO MINERAL RESERVES & RESOURCES

(Measured and Indicated Resources are exclusive of Reserves)



OSISKO DEVELOPMENT

MINERAL RESOURCES	MEASURED			INDICATED			MEASURED & INDICATED			INFERRED		
	Tonnes (000's)	Grade (g/t)	Ounces (000's)	Tonnes (000's)	Grade (g/t)	Ounces (000's)	Tonnes (000's)	Grade (g/t)	Ounces (000's)	Tonnes (000's)	Grade (g/t)	Ounces (000's)
Bonanza Ledge	47	5.06	8	32	4.02	4	79	4.64	12	–	–	–
BC Vein	–	–	–	1,030	3.12	103	1,030	3.12	103	461	3.55	53
KL	–	–	–	386	3.18	39	386	3.18	39	1,918	2.75	169
Lowhee	–	–	–	1,368	3.18	140	1,368	3.18	140	445	3.34	48
Mosquito	–	–	–	1,288	3.68	152	1,288	3.68	152	1,290	3.55	147
Shaft	–	–	–	4,781	3.39	523	4,781	3.39	523	6,468	3.84	800
Valley	–	–	–	2,104	3.14	213	2,104	3.14	213	2,119	3.30	225
Cow	–	–	–	3,644	3.31	388	3,644	3.31	388	2,769	3.03	270
TOTAL RESOURCES	47	5.06	8	14,635	3.32	1,564	14,682	3.33	1,571	15,470	3.44	1,712

MINERAL RESERVES	PROBABLE RESERVES		
Deposit	Tonnes (000's)	Grade (g/t)	Ounces (000's)
Cow	4,127	3.41	453
Valley	3,445	3.70	410
Shaft	7,962	3.87	990
Mosquito	603	4.93	95
Lowhee	567	4.56	83
TOTAL RESERVES	16,703	3.78	2,031

MINERAL RESERVES

- Totals may not add up due to rounding.
- Mineral Reserves have been estimated in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves (2014), which are incorporated by reference in NI 43-101.
- Mineral Reserves used the following assumptions: US\$1,700/oz gold price, USD:CAD exchange rate of 1.27, and variable cut-off value from 1.70 g/t to 4.00 g/t Au.
- Mineral Reserves include both internal and external dilution along with mining recovery. The external dilution is estimated to be 8%. The average mining recovery factor was set at 93.6% to account for ore left in each block in the margins of the deposit.

MINERAL RESOURCES

- Mineral Resources are exclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- The Mineral Resource Estimate conforms to the 2014 CIM Definition Standards on Mineral Resources and Reserves and follows the 2019 CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines.
- A total of 481 vein zones were modelled for the Cow Mountain (Cow and Valley), Island Mountain (Shaft and Mosquito), Barkerville Mountain (BC Vein, KL, and Lowhee) deposits and one gold zone for Bonanza Ledge. A minimum true thickness of 2.0 m was applied, using the Au gold grade of the adjacent material when assayed or a value of zero when not assayed.
- The estimate is reported for a potential underground scenario at a cut-off grade of 2.0 g/t Au, except for Bonanza Ledge at a cut-off grade of 3.5 g/t Au. The cut-off grade for the Cow, Valley, Shaft, Mosquito, BC Vein, KL, and Lowhee deposits was calculated using a gold price of US\$1,700/oz; USD:CAD exchange rate of 1.27; global mining cost of \$54.32/t; processing and transport cost of \$22.29/t; G&A plus Environmental cost of \$15.31/t; and sustaining CapEx cost of \$31.19/t. The cut-off grade for the Bonanza Ledge deposit was calculated using a gold price of US\$1,700/oz; USD:CAD exchange rate of 1.27; global mining cost of \$79.13/t; processing and transport cost of \$65.00/t; and G&A plus Environmental cost of \$51.65/t. The cut-off grades should be re-evaluated in light of future prevailing market conditions (metal prices, exchange rate, mining cost, etc.).
- Bulk density varies from 2.69 g/cm³ to 3.20 g/cm³.
- A four-step capping procedure was applied to composited data. Restricted search ellipsoids ranged from 7 to 50 g/t Au at four different distances ranging from 25 m to 250 m. High-grades at Bonanza Ledge were capped at 70 g/t Au on 2.0 m composited data.
- The gold Mineral Resources for the Cow, Valley, Shaft, Mosquito, BC Vein, KL, and Lowhee vein zones were estimated using Datamine Studio™ RM 1.9 software using hard boundaries on composited assays. The silver Mineral Resources and the dilution halo gold mineralization were estimated using Datamine Studio™ RM Pro 1.11. The OK method was used. Mineral Resources for Bonanza Ledge were estimated using GEOVIA GEMSTM 6.7 software using hard boundaries on composited assays. The OK method was used to interpolate a block model.
- Results are presented in situ. Calculations used metric units (metres, tonnes, g/t). Any discrepancies in the totals are due to rounding effects.

MINERAL RESOURCE ESTIMATE – SAN ANTONIO PROJECT¹



OSISKO DEVELOPMENT

DEPOSIT	CATEGORY	TONNES (Mt)	GRADE (g/t)		CONTAINED METAL	
			SILVER	GOLD	SILVER (Moz)	GOLD (koz)
CALIFORNIA	Indicated	3.9	2.5	1.22	0.31	153
	Inferred	1.6	3.3	1.10	0.17	58
GOLFO DE ORO	Indicated	5.7	2.5	1.44	0.46	262
	Inferred	6.4	2.5	1.24	0.52	254
HIGH LIFE	Indicated	–	–	–	–	–
	Inferred	0.8	4.9	0.83	0.13	22
SAPUCHI	Indicated	5.4	3.5	0.93	0.61	162
	Inferred	7.6	3.8	0.85	0.94	208
CALVARIO	Indicated	–	–	–	–	–
	Inferred	0.1	0.0	0.53	–	2
TOTAL	Indicated	14.9	2.9	1.20	1.37	576
	Inferred	16.6	3.3	1.02	1.76	544

TRIXIE MINERAL RESOURCES ESTIMATE – January 10, 2023



OSISKO DEVELOPMENT

DOMAIN	CATEGORY	TONNES	GRADE (AU G/T)	CONTAINED GOLD (OZ)	GRADE (AG G/T)	CONTAINED SILVER (OZ)
T1	Measured	–	–	–	–	–
	Indicated	34,470	16.39	18,159	30.55	33,856
	M+I	34,470	16.39	18,159	30.55	33,856
	Inferred	134,665	16.59	71,832	38.51	166,716
T2	Measured	10,938	190.61	67,029	195.53	68,757
	Indicated	6,705	138.30	29,815	107.95	23,272
	M+I	17,643	170.73	96,844	162.24	92,029
	Inferred	25,181	101.37	82,070	146.32	118,457
T4	Measured	–	–	–	–	–
	Indicated	178,825	16.64	95,667	43.65	250,941
	M+I	178,825	16.64	95,667	43.65	250,941
	Inferred	128,038	9.10	37,460	21.64	89,063
75-85	Measured	–	–	–	–	–
	Indicated	4,870	14.10	2,207	51.77	8,106
	M+I	4,870	14.10	2,207	51.77	8,106
	Inferred	96,962	16.58	51,691	49.89	155,530
TOTAL	Measured	10,938	190.61	67,029	195.53	68,757
	Indicated	224,870	20.17	145,849	43.73	316,175
	M+I	235,808	28.08	212,878	50.77	384,932
	Inferred	384,845	19.64	243,053	42.82	529,766

NOTES

- Effective date of the Trixie MRE is January 10, 2023.
- Each of Mr. William Lewis P. Geo, of Micon International Limited and Alan S J San Martin, AusIMM(CP), of Micon International Limited (i) has reviewed and validated the Trixie MRE, (ii) is considered to be independent of the Company for purposes of Section 1.5 of NI 43-101, and (iii) is a "qualified person" for purposes of NI 43-101.
- The Trixie MRE is comprised of five zones within the greater Trixie area: T1, T2, T3, T4 and 75-85. No blocks in the T3 meet the cut off grade used for the Trixie MRE.
- The Trixie MRE disclosed in this presentation were estimated using the CIM standards on mineral resources and reserves definitions, and guidelines prepared by the CIM standing committee on reserve definitions and adopted by the CIM council.
- Mineral Resources are reported when they are within potentially mineable shapes derived from a stope optimizer algorithm, assuming an underground longhole stoping mining method with stopes of 6.1 m x 6.1 m x minimum 1.5 m dimensions.
- Mineral resources are not mineral reserves and do not have demonstrated economic viability.
- Geologic modelling was completed by Osisko Development senior production geologist Courtney Kurtz, P.G. of Utah, USA using Leapfrog Geo software. The Trixie MRE was completed by Osisko Development Chief Resource Geologist, Daniel Downton, P. Geo. using Datamine Studio RM Pro 1.12. The Trixie MRE was reviewed and verified by William Lewis and Alan San Martin of Micon International Ltd.
- The estimate is reported for an underground mining scenario and with USD assumptions. The cut-off grade of 4.85 g/t Au was calculated using a gold price of US\$1,750 per ounce, a CAD:USD exchange rate of 1.30; total mining, processing and G&A costs of US\$226.62 per imperial ton a combined royalty of 4.5% and an average metallurgical recovery of 95%.
- Average bulk density values in the mineralized domains were assigned to the T1 (2.616 T/m³), T2 (2.955 T/m³), T3 (2.638 T/m³), T4 (2.621 T/m³), and 75-85 (2.617 T/m³) domains.
- Inverse Distance Squared interpolation method was used with a parent block size of 1.2 m x 1.2 m x 1.8 m.
- The results of the Trixie MRE are presented in-situ. Calculations used metric units (metres, tonnes, g/t). The number of tonnes is rounded to the nearest thousand. Any discrepancies in the totals are due to rounding effects.
- Neither the Company nor Micon International Limited is aware of any known environmental, permitting, legal, title-related, taxation, socio-political, marketing or other relevant issue that could materially affect the mineral resource estimate other than disclosed herein.



OSISKO DEVELOPMENT



NYSE:ODV
TSXV:ODV

PHILIP RABENOK, DIRECTOR, INVESTOR RELATIONS
prabenok@osiskodev.com | +1 (437) 423 3644

NYSE: **ODV** | TSXV: **ODV** | www.osiskodev.com