

OSISKO DEVELOPMENT

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**A PREMIER NORTH AMERICAN GOLD MINING COMPANY**

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NYSE: **ODV** | TSXV: **ODV**  
[www.osiskodev.com](http://www.osiskodev.com)

INVESTOR PRESENTATION  
JANUARY 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); the ability of the Company to publish the Trixie MRE Report (as defined herein) within within 45 days of the date of the news release announcing the Trixie MRE; 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, 2021 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](http://www.sedar.com)) and EDGAR ([www.sec.gov](http://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 January 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](http://www.sedar.com)) and EDGAR ([www.sec.gov](http://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 HISTORIC ACTIVITIES – TRIXIE TEST MINE

Certain scientific and technical information in this Presentation relating to the Trixie is historic in nature and provided by Tintic Consolidated Metals LLC ("Tintic") in connection with Osisko Development's acquisition of Tintic. This information is being provided for illustrative purposes only and readers should not infer that historical mining activities, including production, can be achieved by Osisko Development. The historical information in this presentation in nature and does not comply with NI 43-101. To that end, a qualified person has not done sufficient work on behalf of Osisko Development to classify any historical estimate as current mineral resources or mineral reserves and Osisko Development is not treating the historical estimate as current mineral resources or reserves.

## 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](http://www.sedar.com)) and EDGAR ([www.sec.gov](http://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.

On January 17, 2023, Osisko Development announced by news release an initial mineral resource estimate for Trixie (the "**Trixie MRE**"), within the Company's wider Tintic project, located in the historic East Tintic Mining District in Central Utah, U.S.A. The Company intends to file a technical report (the "**Trixie MRE Report**") in respect of the Trixie MRE, in accordance with NI 43-101 on SEDAR ([www.sedar.com](http://www.sedar.com)) and EDGAR ([www.sec.gov](http://www.sec.gov)) under Osisko Development's issuer profile within 45 days of the date of the news release announcing the Trixie MRE. Please see the full text of the Trixie MRE for assumptions, qualifications and limitations relating to the Trixie MRE.

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](http://www.sedar.com)) and EDGAR ([www.sec.gov](http://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: 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)<sup>2</sup>



## 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 Reserves<sup>3</sup>



## LARGE, HIGHLY-PROSPECTIVE EXPLORATION PROPERTIES IN NORTH AMERICA



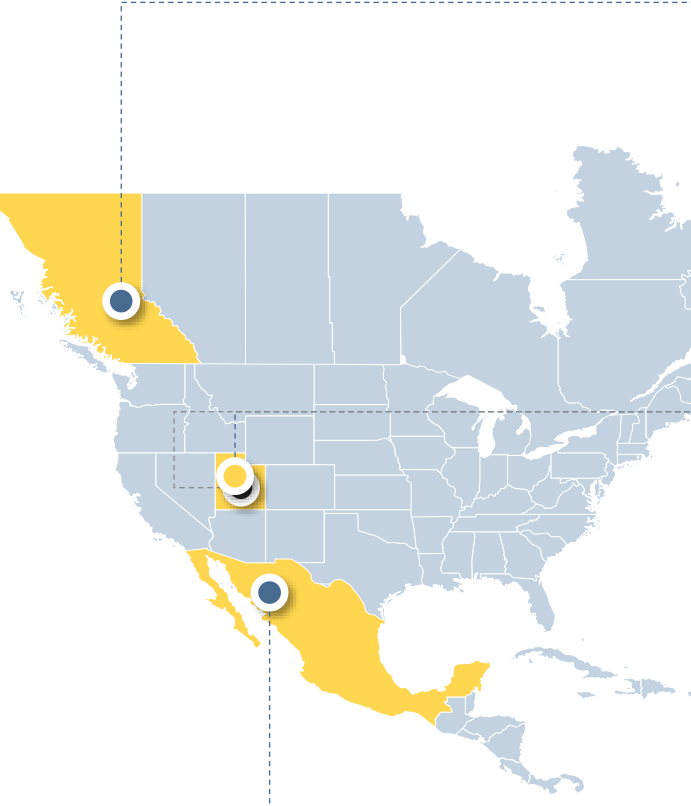
OSISKO  
DEVELOPMENT

# PREMIER MINING JURISDICTIONS

Brownfield properties with existing accessible infrastructure and meaningful exploration upside



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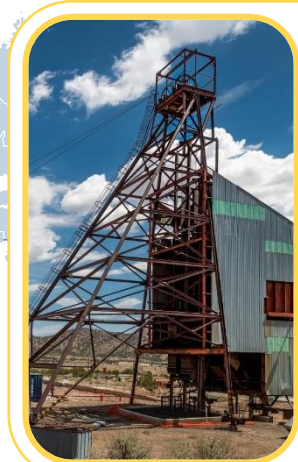


## CARIBOO GOLD PROJECT (BC, CANADA)

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 resources<sup>1</sup>
- 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 expected Q2 2023 | Ramping up to bulk processing of up to ~500tpd by YE23**

- Initial MRE: 213 koz Au M&I resources grading 28.1 g/t Au | Inferred 243 koz grading 19.6 g/t Au<sup>2</sup>
- ~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)<sup>3</sup>
- 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 TRIIXIE

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**CARIBOO GOLD**  
FEASIBILITY STUDY

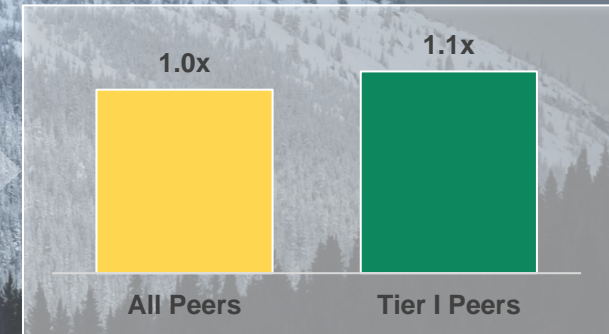
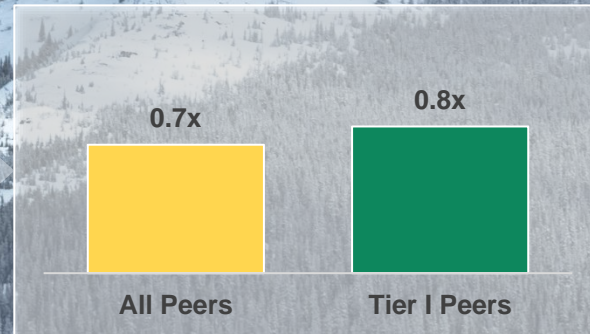
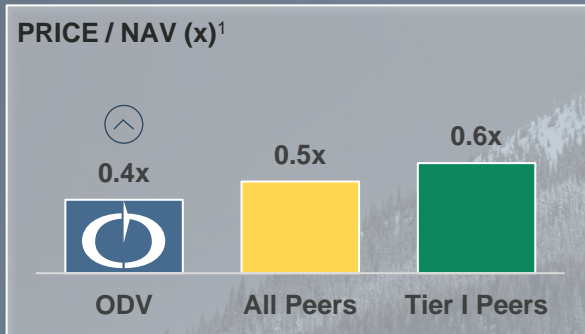
**JUNIOR PRODUCER**

**100 – 250**  
KOZ PER YEAR

**INTERMEDIATE PRODUCER**

**350 – 500**  
KOZ PER YEAR

RE-RATE POTENTIAL



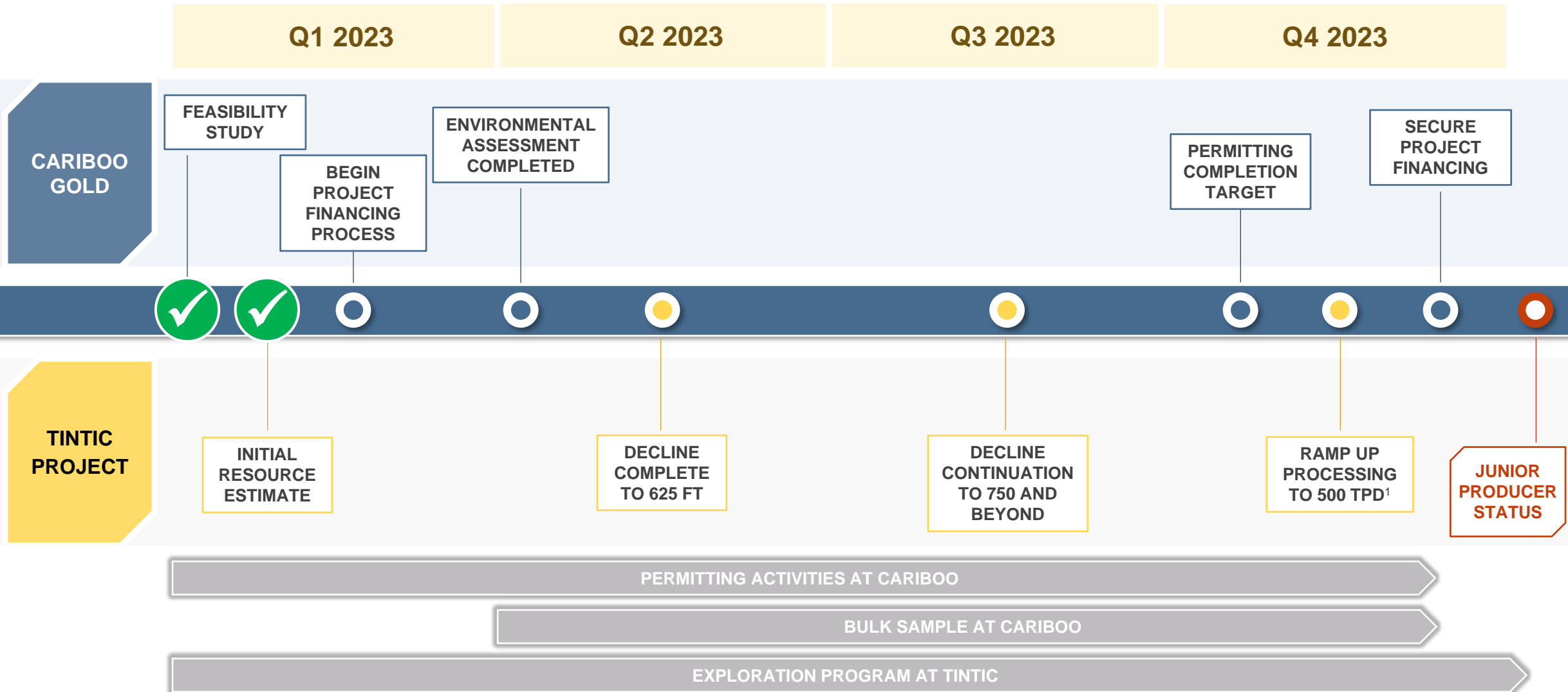
**BUILDING A NORTH AMERICAN FOCUSED INTERMEDIATE GOLD PRODUCER – STEP-BY-STEP**

# EXECUTING ON OUR STRATEGY – 2023 IN FOCUS

Path to Building an Intermediate Gold Producer



OSISKO DEVELOPMENT





# SIGNIFICANT RE-RATE POTENTIAL

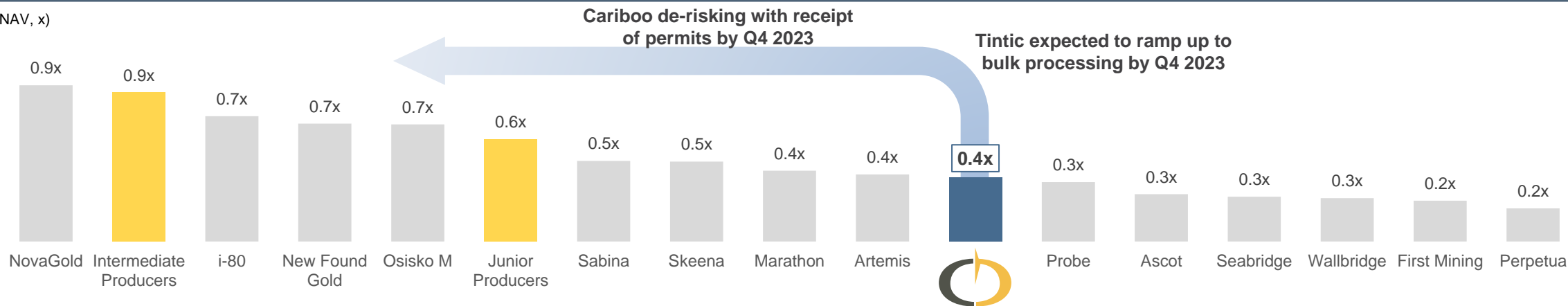
...as Projects De-Risk and Production Scales Up



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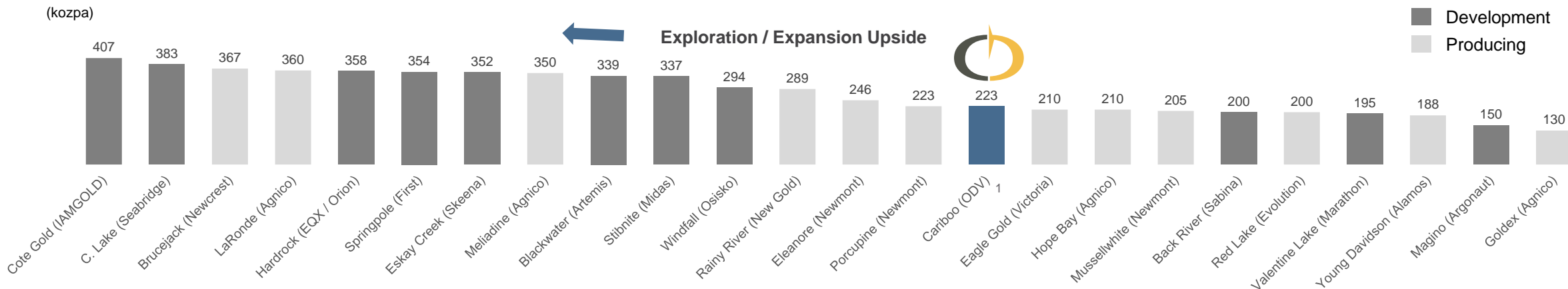
## PRICE / NAV – NORTH AMERICAN GOLD DEVELOPERS

(PNAV, x)



## ANNUAL PRODUCTION – NORTH AMERICAN GOLD ASSETS

(kozpa)



# CURRENT CAPITAL STRUCTURE

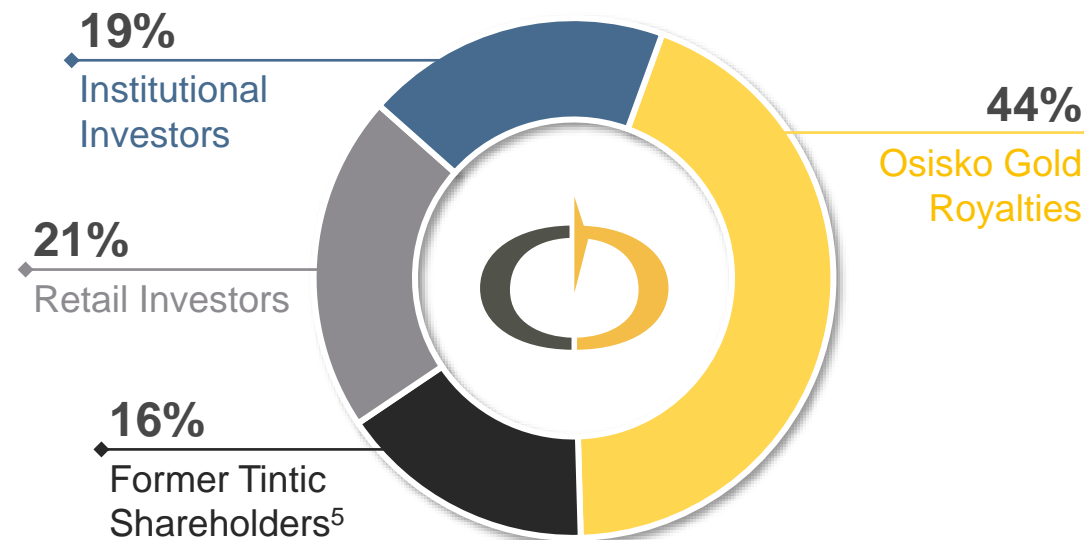


OSISKO DEVELOPMENT

## OSISKO DEVELOPMENT CORP.<sup>1,2</sup>

<b>Current Share Price</b> (closing price on Jan 6, 2023)	<b>C\$6.48 /share</b>
<b>Basic Shares Outstanding</b>	<b>75.6 million</b>
Options, DSUs, and RSUs Outstanding	3.1 million
Warrants Outstanding <sup>3</sup>	24.0 million
<b>Fully Diluted Shares Outstanding</b>	<b>102.8 million</b>
<b>Market Capitalization – Basic</b>	<b>C\$490.9 million</b>
Cash & Cash Equivalents	C\$133.1 million
Investment Holdings (marketable securities)	C\$40.8 million
Total Debt <sup>4</sup>	C\$10.7 million
<b>Enterprise Value – Basic</b>	<b>C\$327.6 million</b>

## SHAREHOLDER OWNERSHIP



## ANALYST COVERAGE



# BEST IN CLASS ESG

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



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## 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
- In the final stage of the Revised Application Phase for submission in October 2022
- Anticipating receiving the Environmental Assessment Certificate in March 2023

## 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)







## TINTIC PROJECT

Utah, USA

100% ODV ownership

# TINTIC PROJECT: ASSET SNAPSHOT

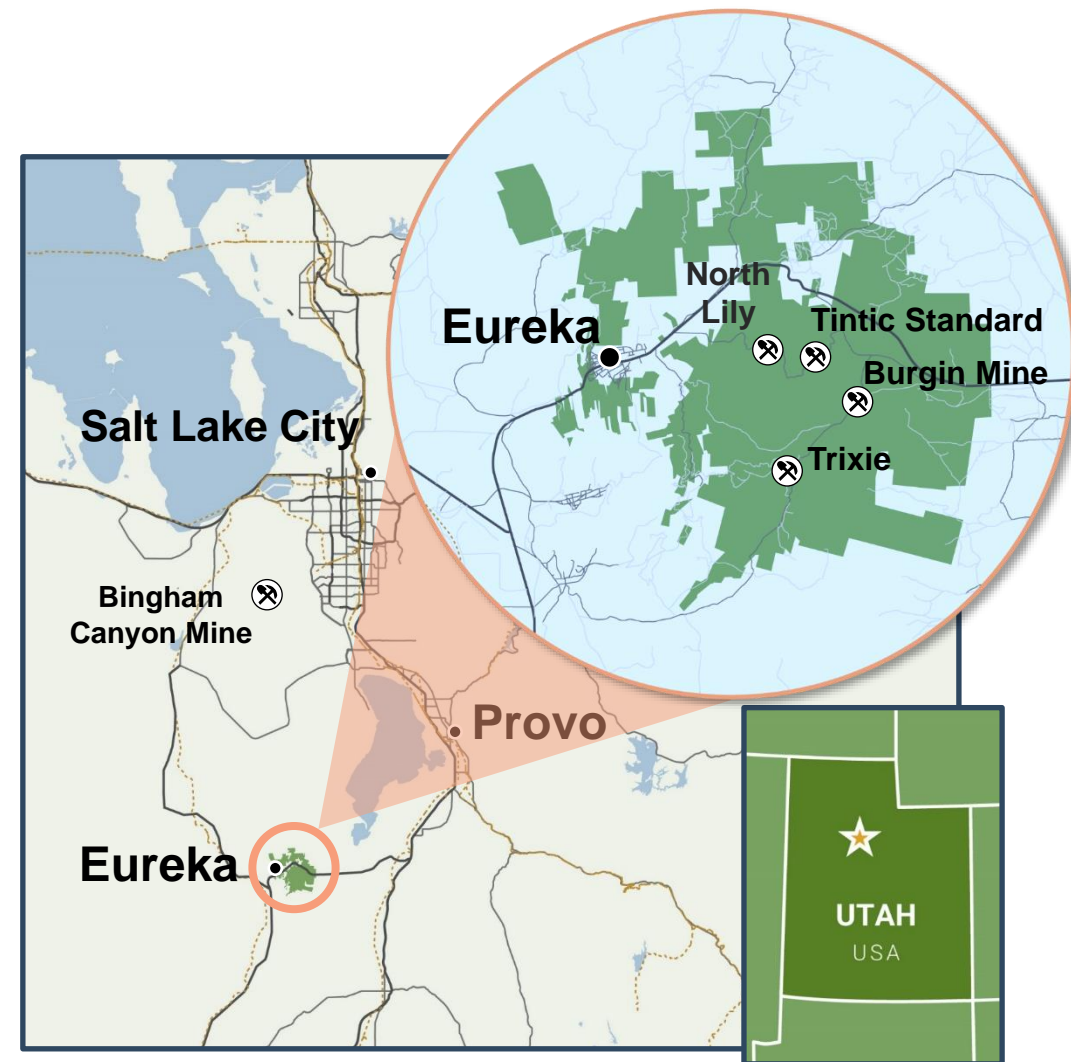


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OWNERSHIP	LOCATION / LAND PACKAGE	MINE TYPE	METALS	STAGE
100% ODV	Utah, USA >17,000 acres of patented (private) claims	Underground	Gold, Silver Cu, Pb, Zn	Initial Resource (Q1 2023)

## WELL-ENDOWED 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 carbonate 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 (Q2 2023); Improve processing capacity up to 500 tons per day (YE23)





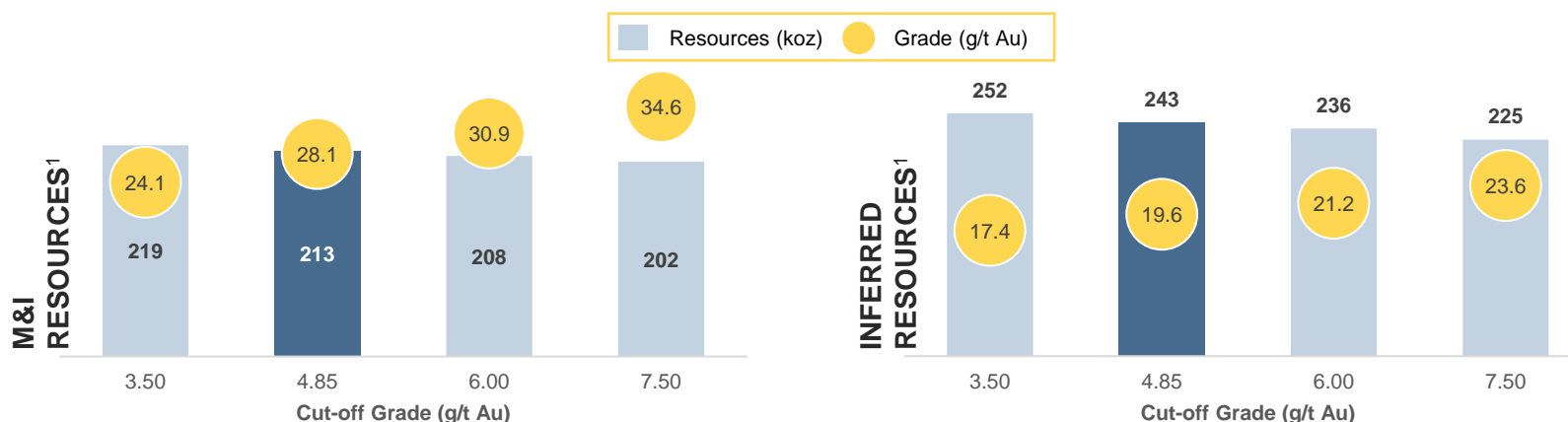
# TRIXIE INITIAL MINERAL RESOURCE ESTIMATE (“MRE”)



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## TRIXIE MINERAL RESOURCES ESTIMATE – January 10, 2023<sup>1</sup>

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
<b>MEASURED &amp; INDICATED</b>	<b>236</b>	<b>28.08</b>	<b>50.77</b>	<b>213</b>	<b>385</b>
INFERRED	385	19.64	42.82	243	530



### HIGH-GRADE DEPOSIT

- 28.1 g/t gold in the M&I Resources categories for a total of 213 koz gold
- MRE comprises a small footprint including T1, T2, T4 & 75-85 zones
- Based on 4,467 underground chip samples, 4,780.1 m of current and verified historic drilling in 50 holes (3,228.9 m drilled in 2022)
- Cut-off grade (“COG”) of 4.85 g/t Au

### ONLY ~10% OF THE MAIN TRIXIE AREA EXPLORED TO DATE

### DEPOSIT STABLE TO COG VARIATION

- M&I grade improves to 34.6 g/t Au while ounces decrease by only 5% at a 7.50 g/t Au COG (from 4.85 g/t Au)



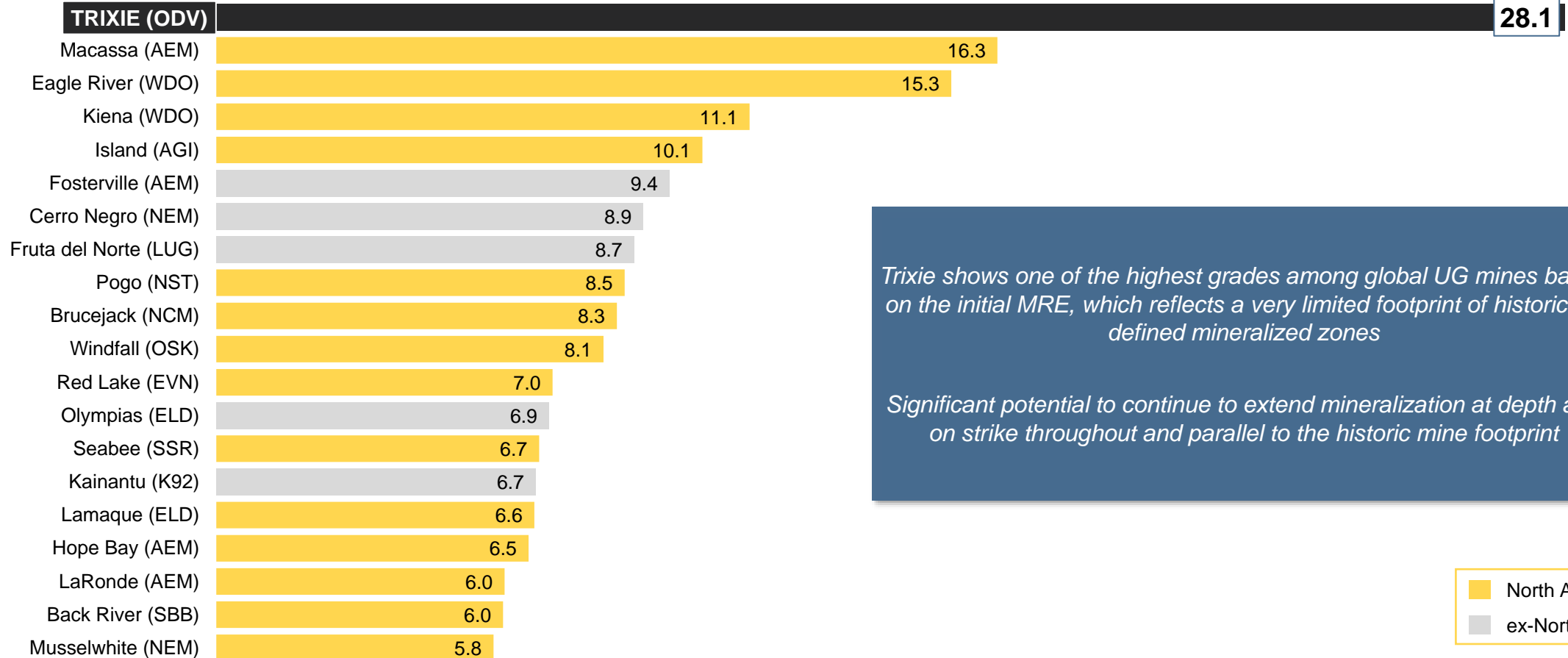
# TRIXIE COMPARES FAVOURABLY WITH HIGH GRADE DEPOSITS



## TOP GLOBAL HIGH-GRADE UG MINES

### GOLD RESERVE GRADE (g/t Au)

M&I Grade<sup>1</sup>



*Trixie shows one of the highest grades among global UG mines based on the initial MRE, which reflects a very limited footprint of historically defined mineralized zones*

*Significant potential to continue to extend mineralization at depth and on strike throughout and parallel to the historic mine footprint*

■ North America  
■ ex-North America

# UNDERGROUND RAMP DEVELOPMENT ~50% COMPLETE

Completion of the ramp by Q2 2023 a critical path item in unlocking value at Trixie



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

### RAMP FROM SURFACE TO 625 LEVEL

- Expected completion in Q2 2023 (625 L) and to 750 L by Q4 2023
- Enables bulk extraction at higher tonnage by providing underground access to a modern, mechanized fleet
- Accelerates development and exploration activities at lower levels

### PROGRESS: ~50% COMPLETED TO DATE

- 820 ft. (250 m) of new surface road constructed, and 700 ft. (215 m) of existing road has been improved between the Trixie and the decline portal entrance
- Drainage in the portal area has been established and a 30-inch corrugated metal culvert installed



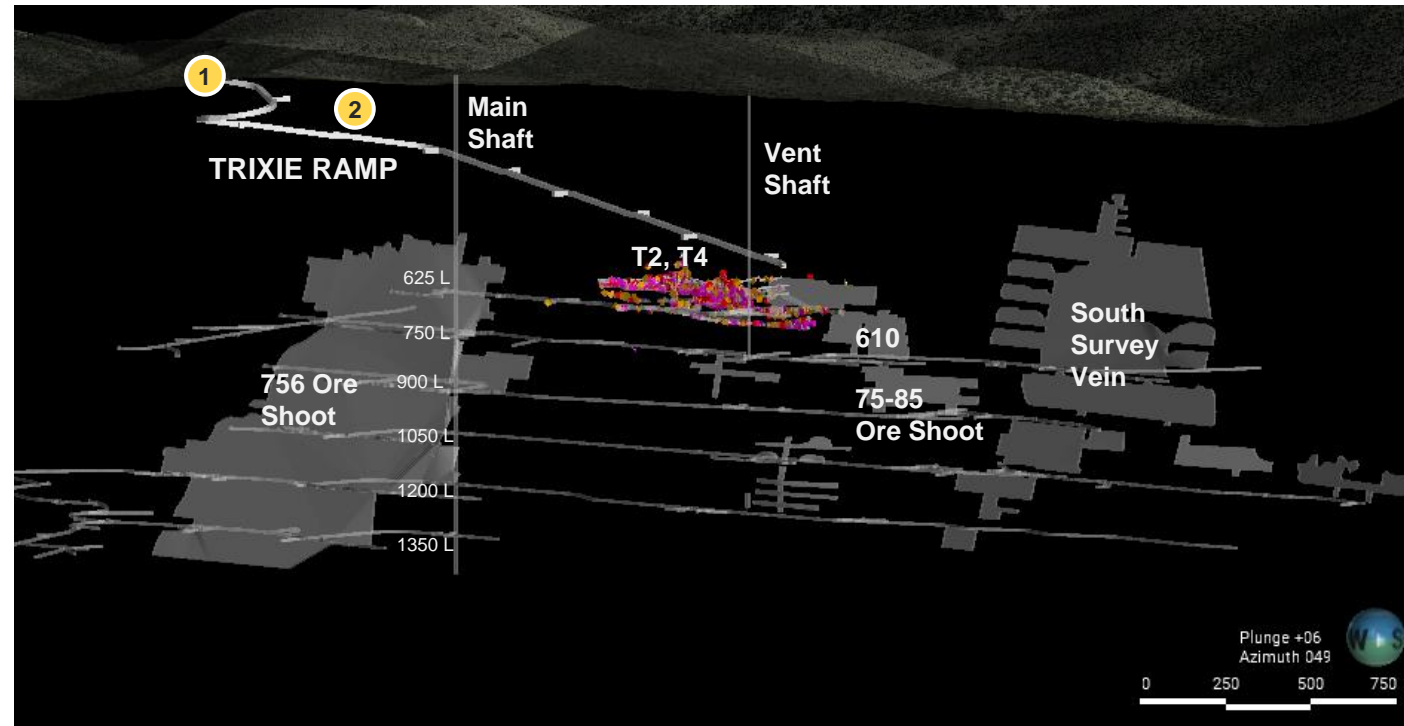
Ramp Entrance



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



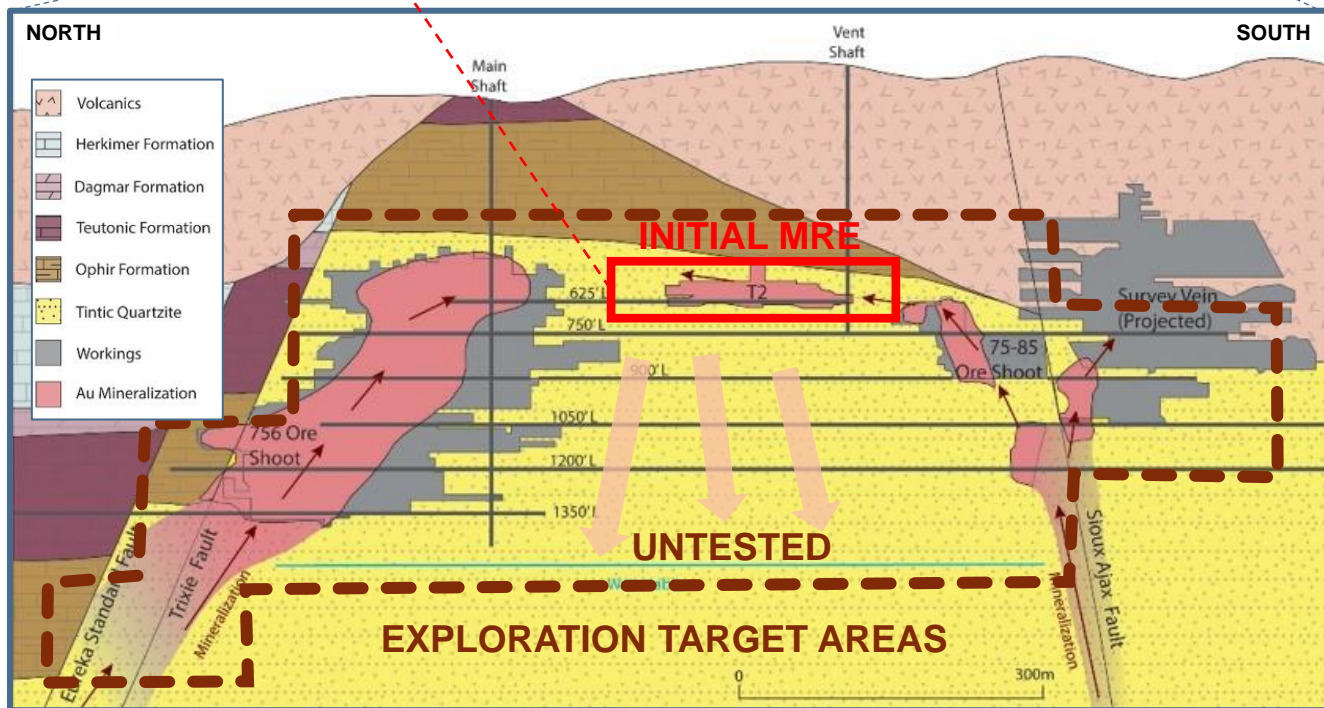
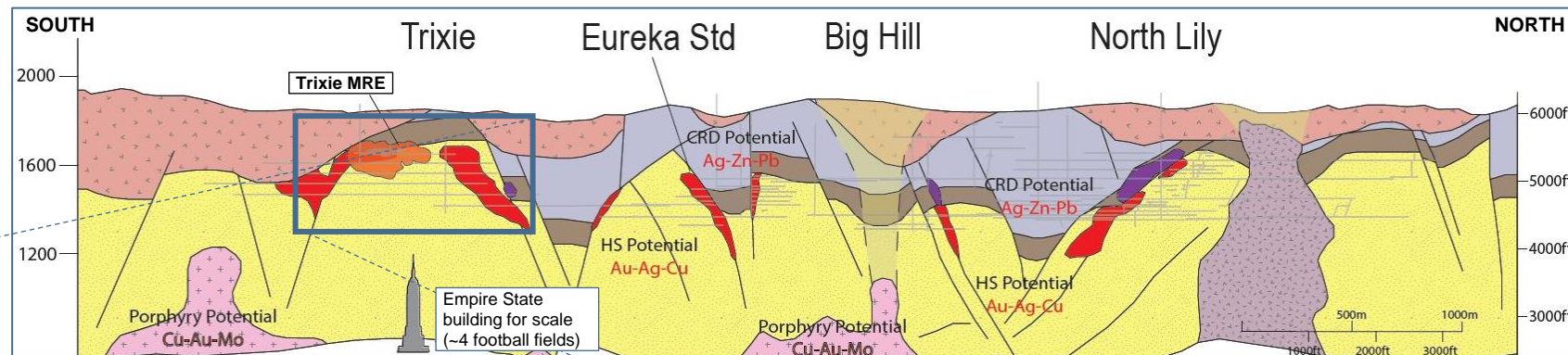
# TRIXIE EXPLORATION POTENTIAL

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



OSISKO DEVELOPMENT

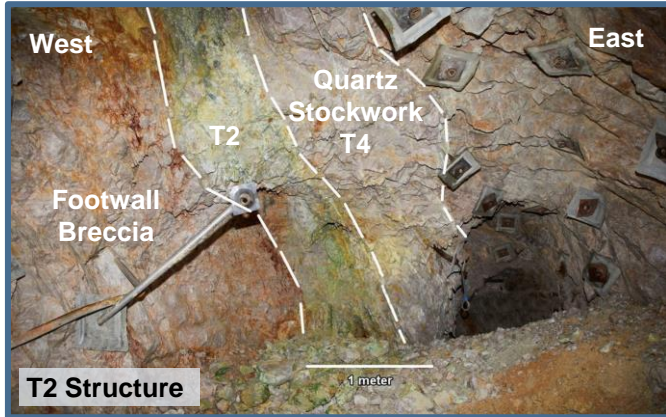
- TRIXIE INITIAL MRE<sup>1</sup>**
- 380 meter strike length
  - 85 meter width
  - 140 meter depth



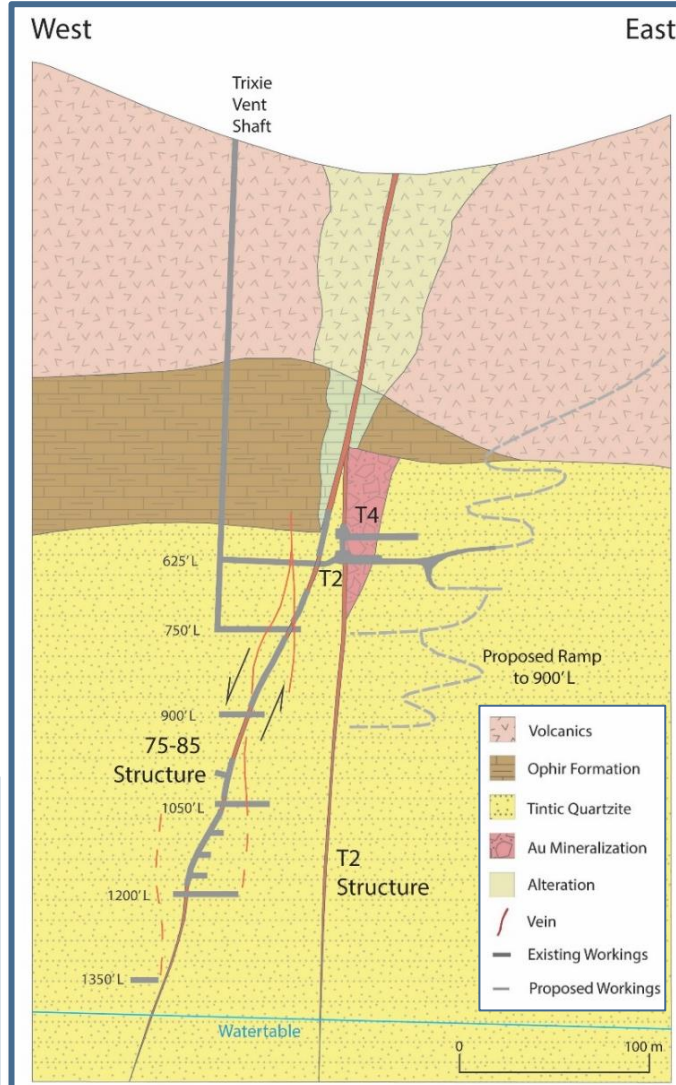
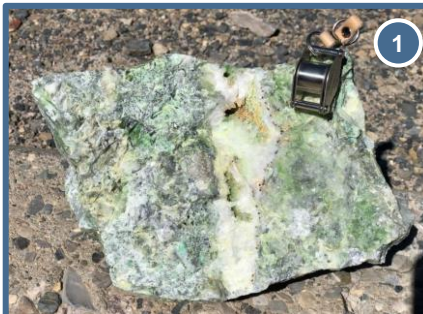
- Lower Cambrian Tintic Quartzite
- Middle Cambrian Ophir Fm.
- Middle Cambrian sequence
- Latest Eocene to Oligocene Packard Quartz-Latite
- Interpreted position of early-mineral porphyry
- Post mineral porphyry. Barren
- CRD mineralization
- HS mineralization

1. The Trixie MRE was disclosed in ODV's news release dated January 17, 2023. 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.





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 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 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

Only ~25% of assay results received from RC and DD drilling completed in 2022

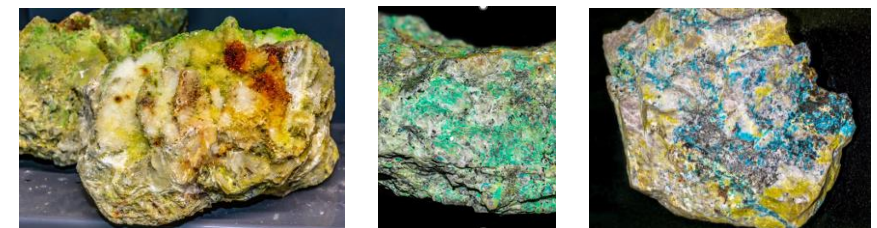
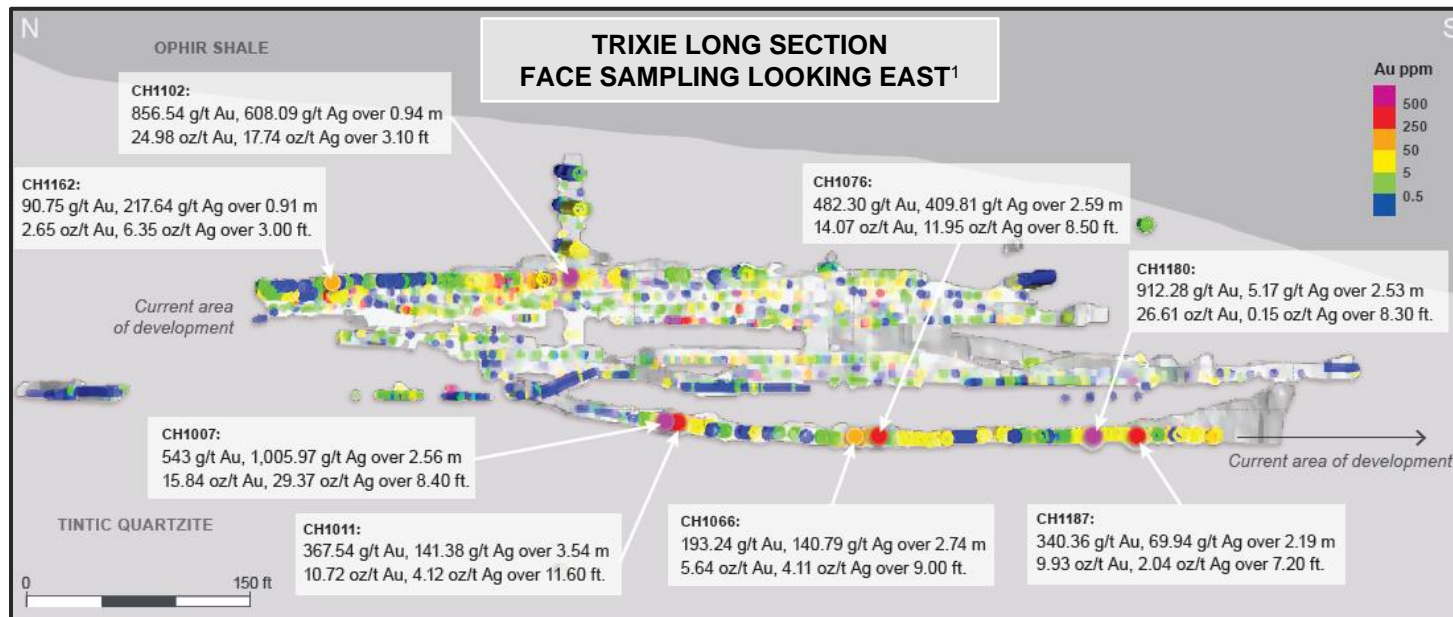
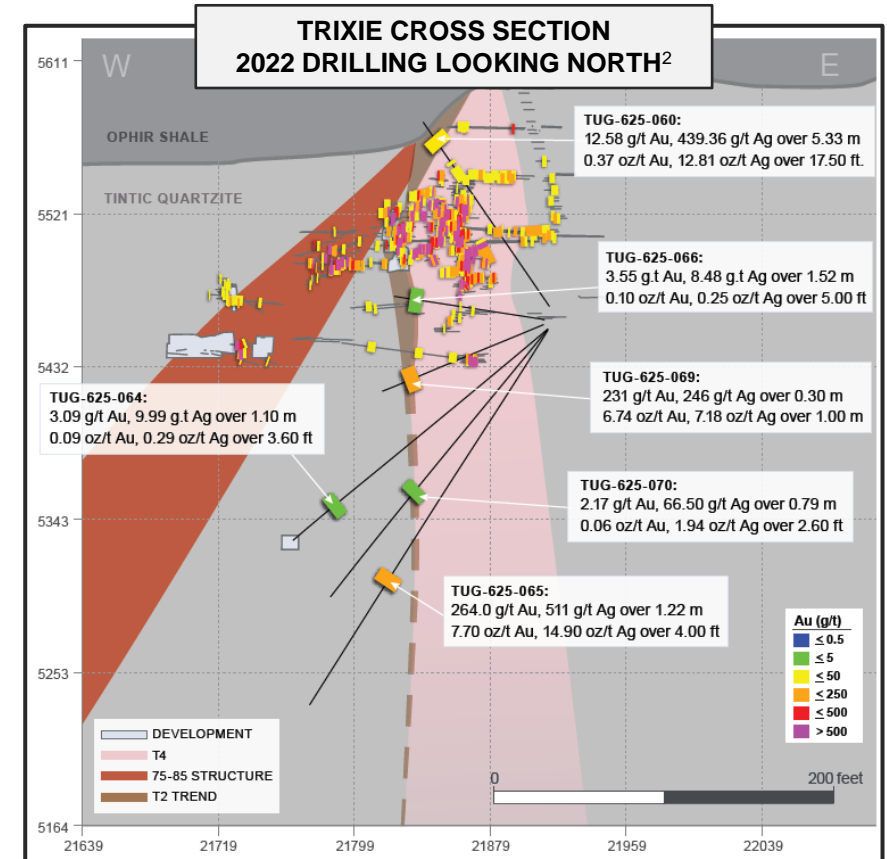


OSISKO DEVELOPMENT

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) **with ~25% of results received to date**
- 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





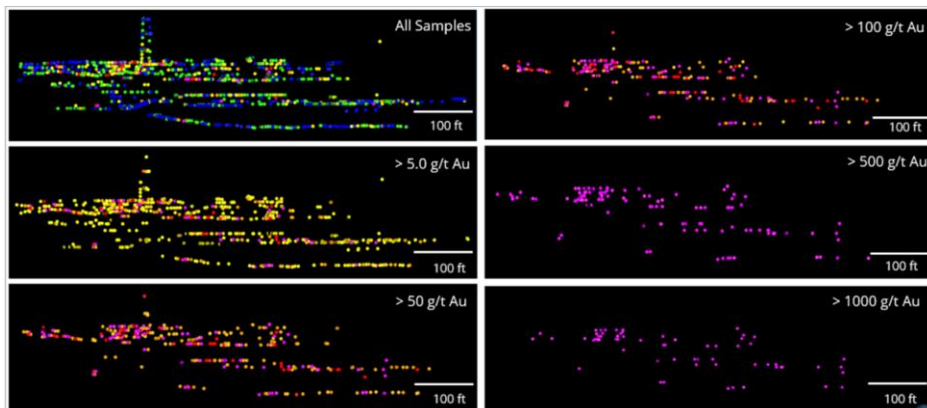
# RECENT CHIP SAMPLING AND DRILLING HIGHLIGHTS



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

- 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

## TRIXIE LONG SECTION, GRADE DISTRIBUTION (625 LEVEL)



## SELECT CHIP SAMPLING<sup>1,2</sup>

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

## SELECT DRILLING<sup>2</sup>

HOLE ID (TUG)	WIDTH (m)	GRADE (g/t)	
		SILVER	GOLD
625-029	3.81	21.48	<b>25.95</b>
<i>including</i>	1.52	41.80	<b>43.80</b>
625-050	2.47	113.85	<b>14.97</b>
<i>including</i>	1.07	90.00	<b>25.50</b>
625-060	5.33	439.26	<b>12.58</b>
625-065	1.22	511.00	<b>264.00</b>
625-069	1.22	84.30	<b>65.50</b>
<i>including</i>	0.30	246.00	<b>231.00</b>
625-028	0.37	155.00	<b>10.70</b>

*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*



# 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

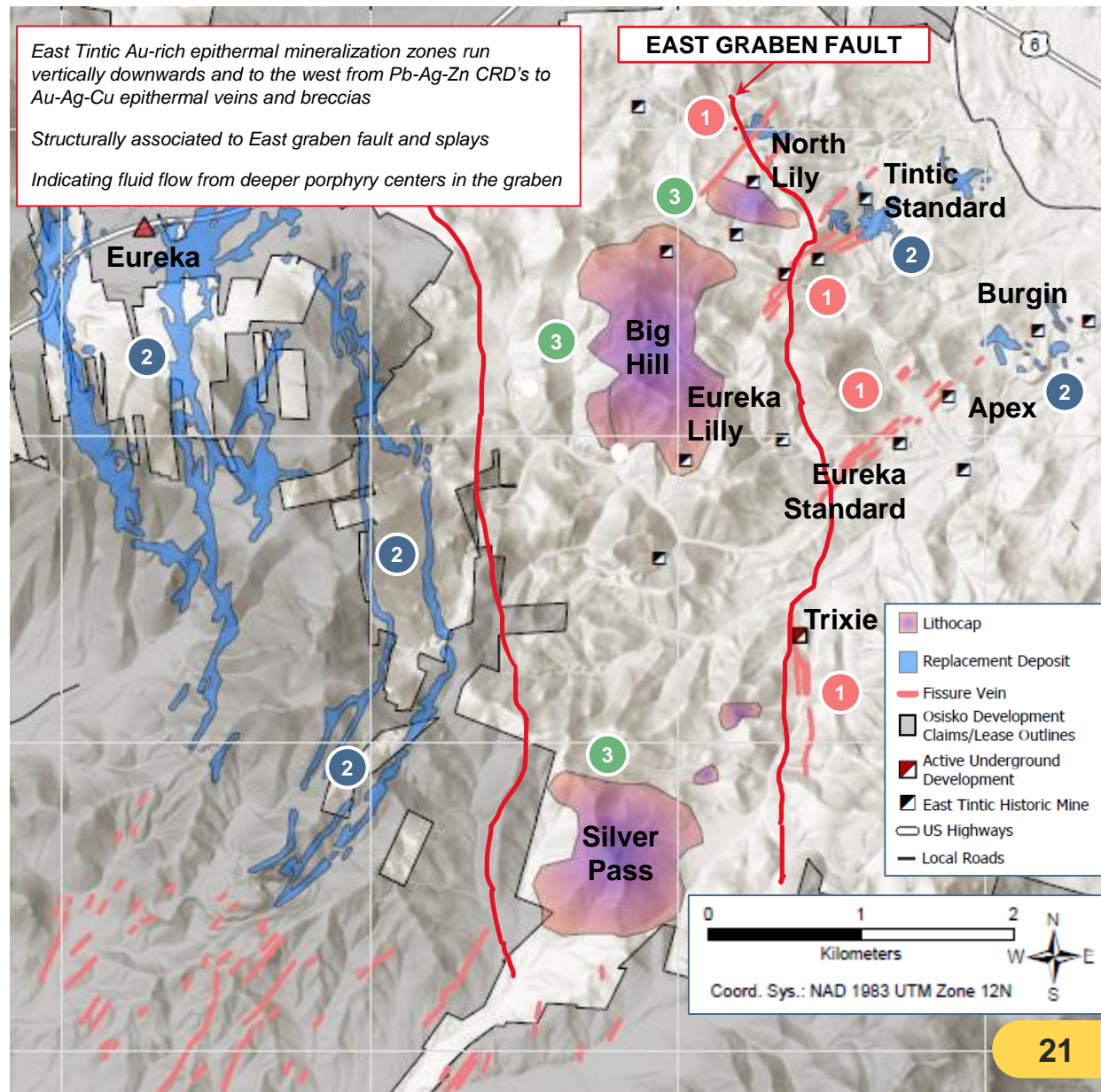
Replacement of reactive limestone more distal from causative porphyry centers on the margins of district

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 (purple) potentially marks a lineament of porphyry centers at depth. **Historic drill testing intersected low grade porphyry mineralization.**

### EAST TINTIC HISTORICAL PRODUCTION<sup>1</sup>



# REGIONAL TARGETS: EPITHERMAL HIGH-GRADE Au-Ag

Targets identified based on 3D geological modelling completed to date



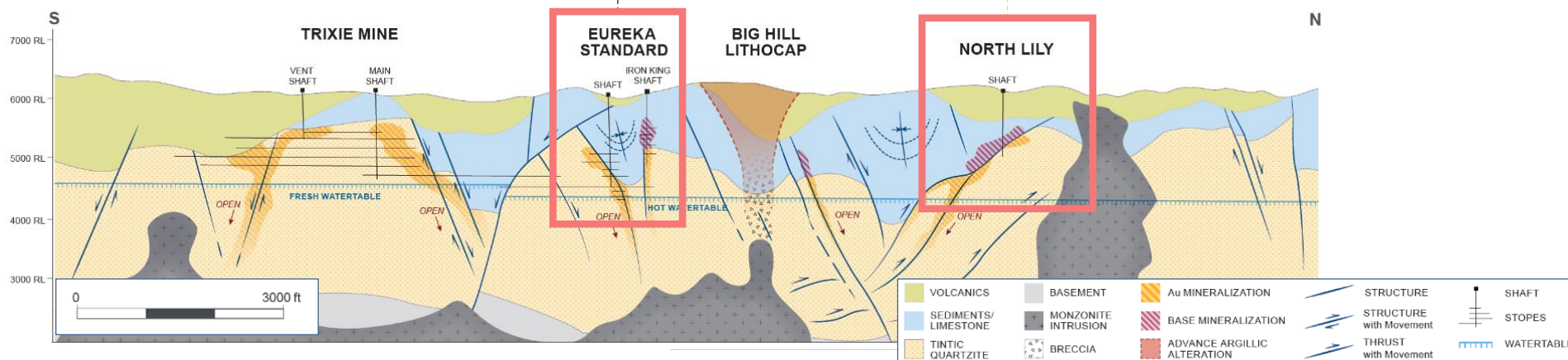
## EUREKA STANDARD

- 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





# REGIONAL TARGETS: CARBONATE REPLACEMENT Ag-Pb-Zn

Data compilation and geologic modelling ongoing



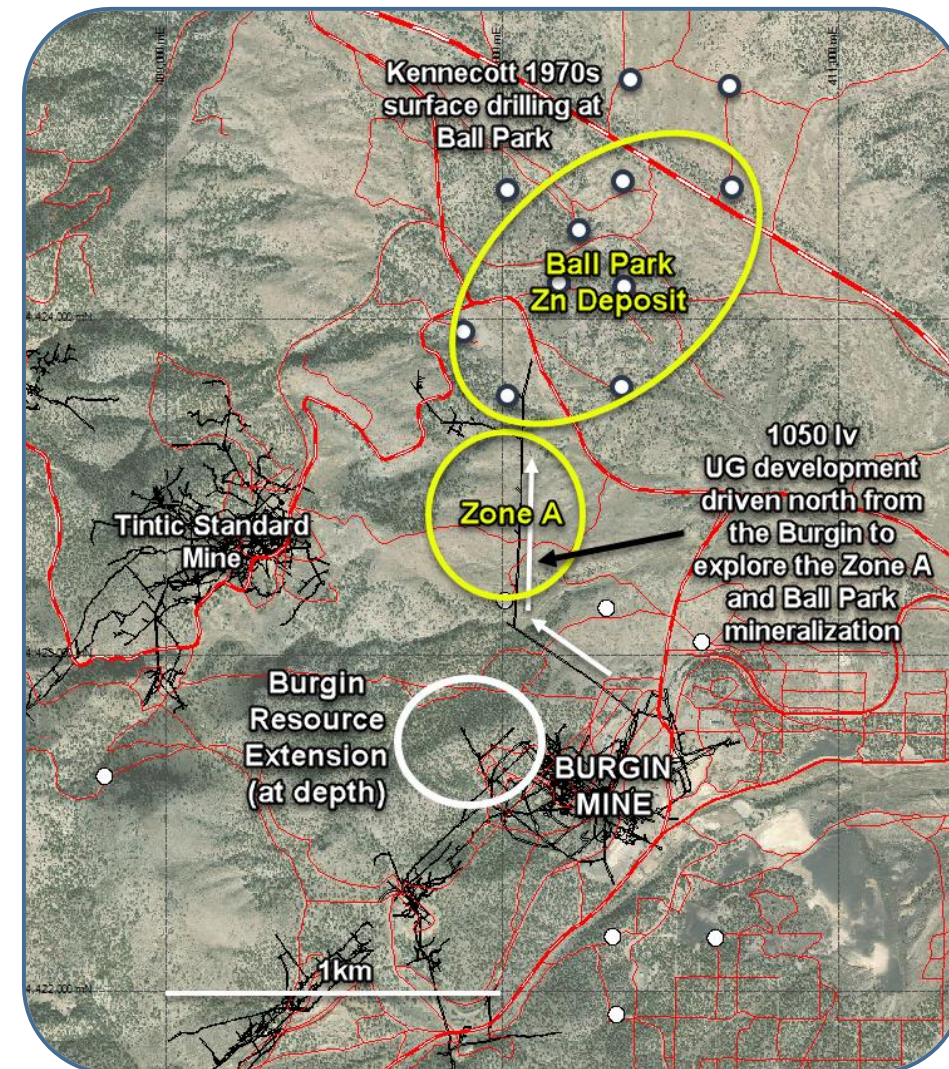
OSISKO DEVELOPMENT

## 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 PEA<sup>1</sup>

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

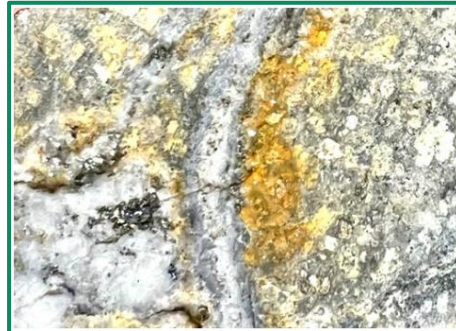


OSISKO DEVELOPMENT

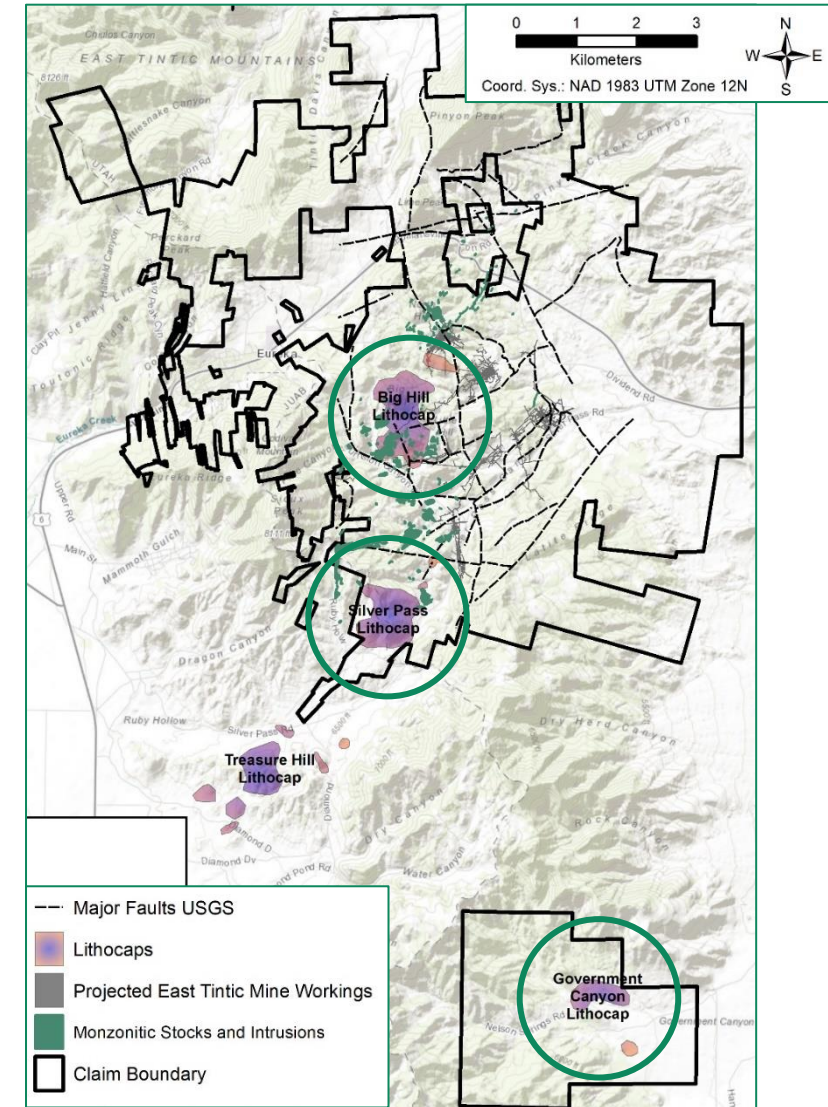
## BIG HILL PORPHYRY TARGET

- Located 65 km south of Bingham Canyon Mine, which has produced 19 Mt of copper since 1906
  - District Endowment of 24.6 MT copper and 43 Moz Au, 425 Moz Ag
- 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

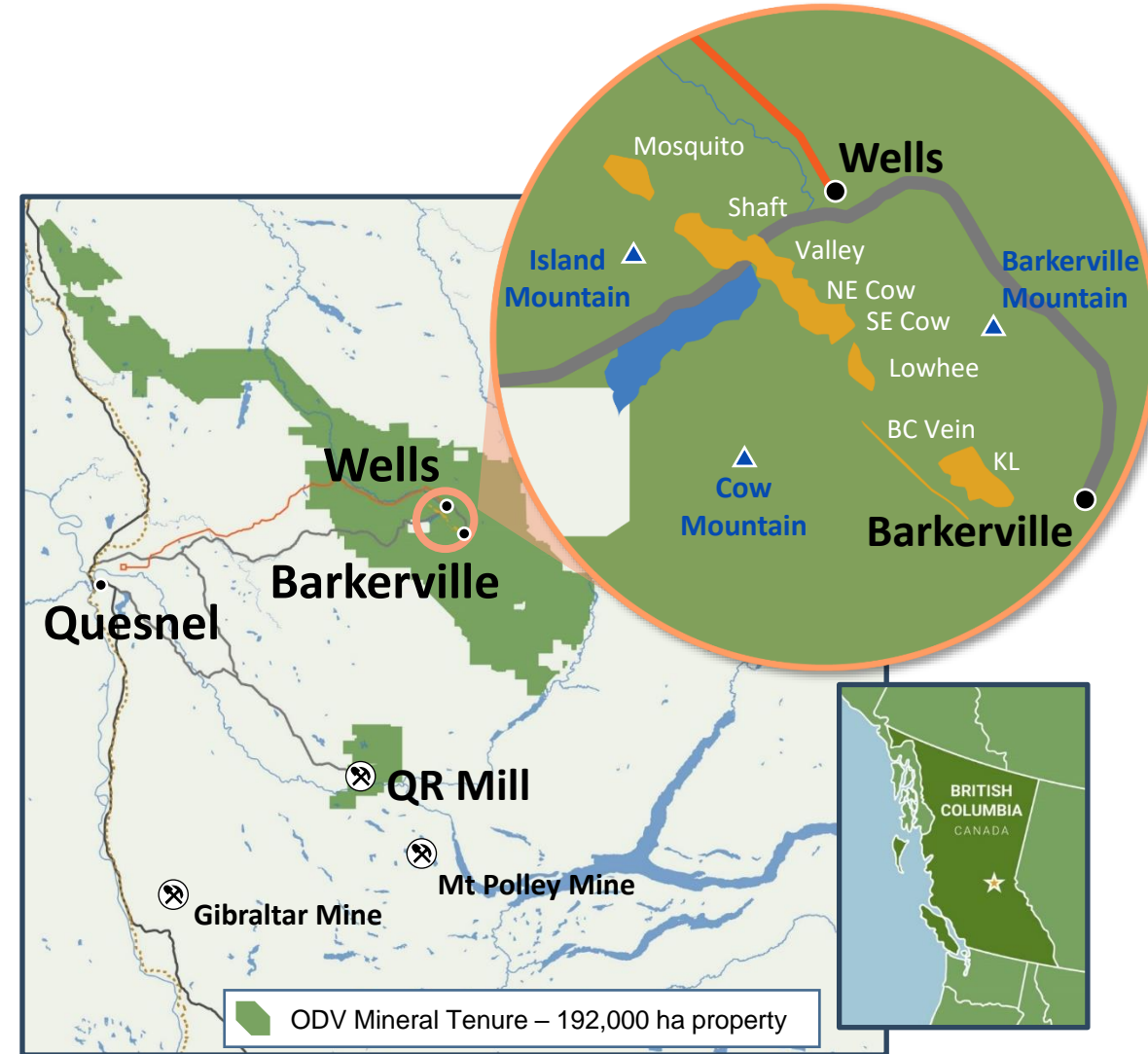
- Two prospective mineralized trends over 83 km strike (192,000 ha property) with 700 km drilled over the last 7 years
- Completed a Feasibility Study envisioning a phased 12-year mine life with a C\$502M NPV5% and producing up to 223 koz/yr of gold ✓
- Brownfield site with year-round access, infrastructure and work force, and strong support from the BC government
- Upcoming catalysts:** EA Certificate (Q2 2023); Receipt of permits (YE23)

## RESERVES & RESOURCES<sup>1</sup>

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
<b>Measured &amp; indicated</b>	<b>14,682</b>	<b>3.33</b>	<b>1,571</b>
Inferred resources	15,470	3.44	1,712

NYSE: ODV | TSXV: ODV  
[www.osiskodev.com](http://www.osiskodev.com)

1. The Cariboo FS was disclosed in ODV's news release dated January 3, 2023, and supported by the Cariboo Technical Report. The Mineral Resource includes in the Measured category, 8 koz Au in 47 kt grading 5.06 g/t Au; in Indicated, 1.564 Moz Au in 14.635 Mt grading 3.32 g/t Au; in Inferred, 1.712 Moz Au in 15.470 Mt grading 3.44 g/t Au. Measured and indicated resources are exclusive of mineral reserves. Refer to Slides 52-53 for further details.

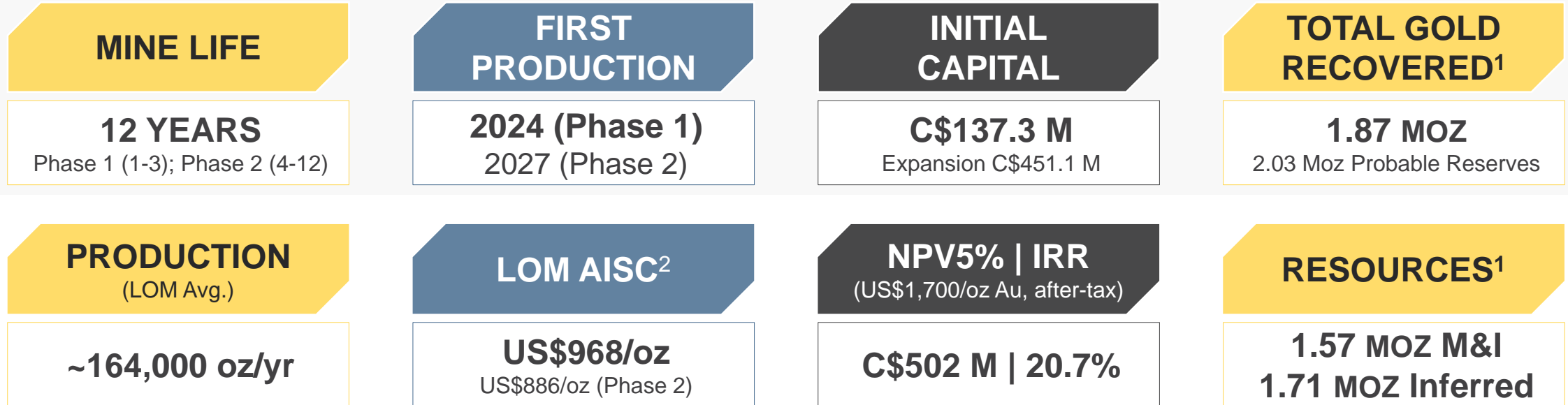




# CARIBOO FEASIBILITY STUDY AT A GLANCE<sup>1</sup>

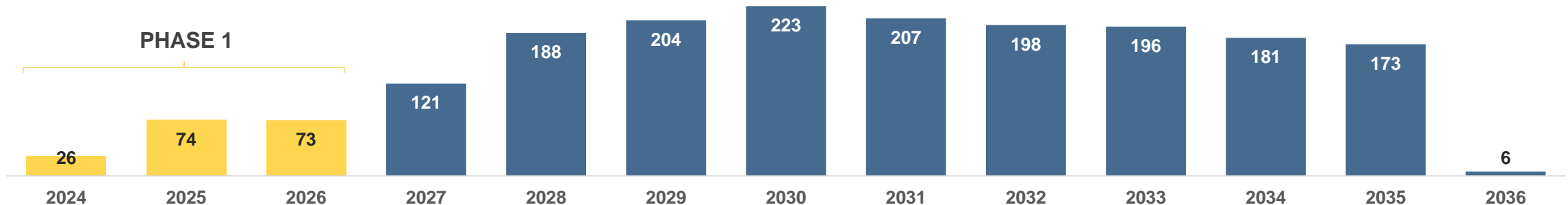


OSISKO DEVELOPMENT



## SCALABLE PRODUCTION PROFILE WITH POTENTIAL FOR INCREMENTAL GROWTH

(Gold production, kozpa)



1. The Cariboo FS was disclosed in ODV's news release dated January 3, 2023, and supported by the Cariboo Technical Report. The Probable Mineral Reserve consists of 2.031 Moz Au in 16.703 Mt at a grade of 3.78 g/t Au; the Mineral Resource includes in the Measured category, 8 koz Au in 47 kt grading 5.06 g/t Au; in Indicated, 1.564 Moz Au in 14.635 Mt grading 3.32 g/t Au, in Inferred, 1.712 Moz Au in 15.470 Mt grading 3.44 g/t Au. Measured and indicated resources are exclusive of mineral reserves. Refer to Slides 52-53 for further details. 2. This is a non-IFRS measure. Refer to "Non-IFRS Financial Measures" on page 3.

# CARIBOO 2023 FEASIBILITY STUDY HIGHLIGHTS

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

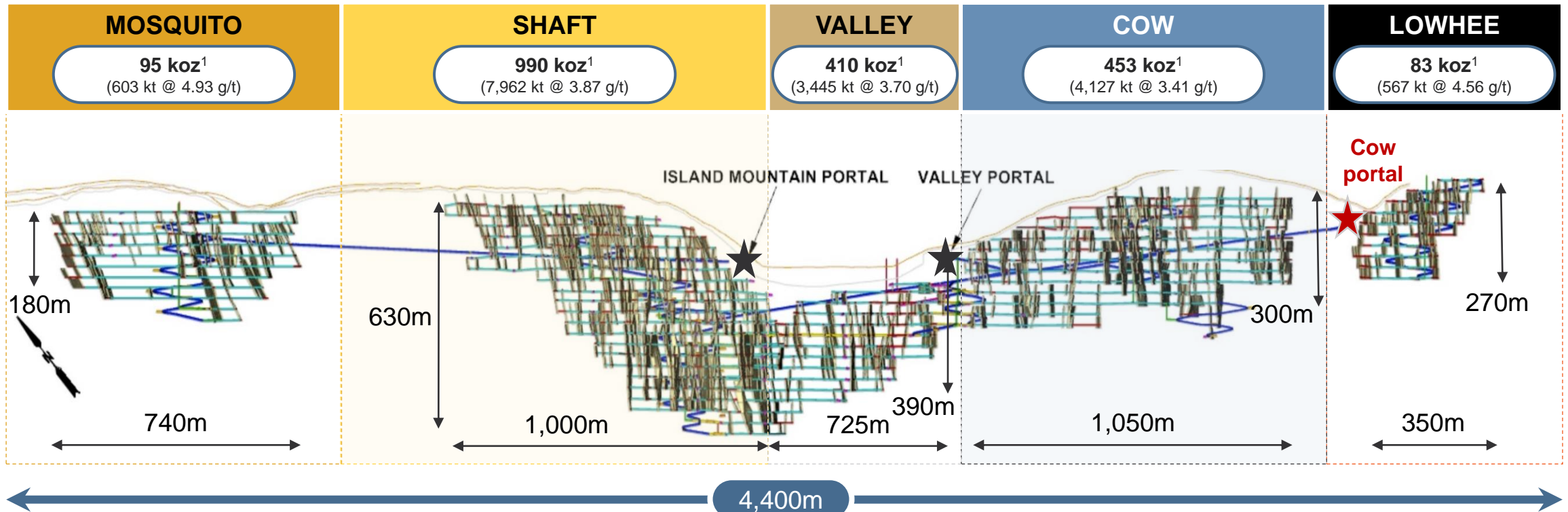
- Average depth of defined mineralization ~350 meters and remains open at depth – anomalous gold values at current depth of ~800 meters
- Potential to convert additional inferred resources located adjacent to reserve blocks at minimal incremental developmental cost

# MINE DESIGN SUMMARY



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

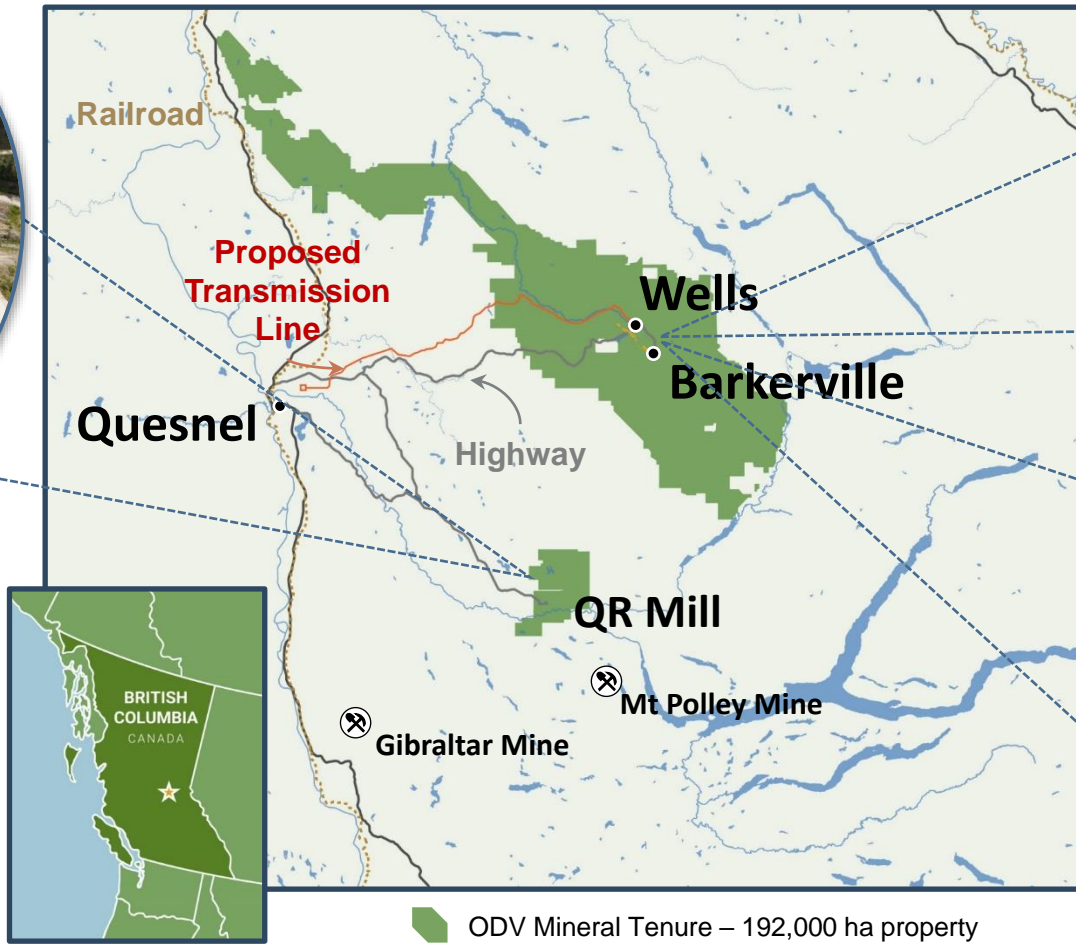


QR MILL

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



PORTAL TO LOWWEE ZONE



ROADHEADER AT SITE



# CARIBOO 2023 FEASIBILITY STUDY SUMMARY



OSISKO DEVELOPMENT

## SUMMARY OPERATING RESULTS<sup>1</sup>

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

## SUMMARY ECONOMIC RESULTS<sup>1</sup> (US\$1,700/OZ AU)

		LOM (12 years)	
Total Revenue	C\$M	\$4,126	
Cumulative Cash Flow (pre-tax) <sup>2</sup>	C\$M	\$1,192	
Average Annual CF (pre-tax) <sup>2</sup>	C\$M/year	\$104	
Total Taxes Paid	C\$M	\$291	
<b>Cumulative FCF (after-tax)<sup>2</sup></b>	<b>C\$M</b>	<b>\$901</b>	
<b>Average Annual FCF (after-tax)<sup>2</sup></b>	<b>C\$M/year</b>	<b>\$79</b>	
		<b>PRE-TAX</b>	<b>AFTER-TAX</b>
<b>Net Present Value (NPV5%)</b>	<b>C\$M</b>	<b>\$691</b>	<b>\$502</b>
<b>Internal Rate of Return (IRR)</b>	<b>%</b>	<b>24.4%</b>	<b>20.7%</b>

# CARIBOO: RESERVES AND RESOURCES



MINERAL CATEGORY	2022 PEA MRE <sup>1</sup>			2023 FEASIBILITY <sup>2</sup>		
	Tonnes (Mt)	Grade (g/t)	Ounces (000's)	Tonnes (Mt)	Grade (g/t)	Ounces (000's)
<b>PROVEN &amp; PROBABLE RESERVES</b>	–	–	–	<b>16,703</b>	<b>3.8</b>	<b>2,031</b>
<b>MEASURED &amp; INDICATED RESOURCES</b>	<b>27,102</b>	<b>4.0</b>	<b>3,470</b>	<b>14,682</b>	<b>3.3</b>	<b>1,571</b>
<b>INFERRED RESOURCES</b>	<b>14,407</b>	<b>3.5</b>	<b>1,621</b>	<b>15,470</b>	<b>3.4</b>	<b>1,712</b>

**M&I RESOURCES CONVERSION TO RESERVES**

1. Refer to ODV news release dated May 24, 2022 and the technical report filed in relation thereto a description of this historic estimate. ODV believes this historic estimate continues to be reliable and relevant to understanding the progress to the current understanding of the project geology. The 2023 Feasibility supersedes this historic resource. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves and the issuer is not treating the historical estimate as current mineral resources or mineral reserves. The historic estimate consisted of a Measured Resource of 8 koz Au (47 kt grading 5.1 g/t Au) and an Indicated Resource of 3.46 Moz Au (27 Mt grading 4.0 g/t Au) and 14.4 Mt at a grade of 3.5 g/t Au for a total of 1.6 Moz in the Inferred category.

2. The Cariboo FS was disclosed in ODV's news release dated January 3, 2023, and supported by the Cariboo Technical Report. The Probable Mineral Reserve consists of 2.031 Moz Au in 16.703 Mt at a grade of 3.78 g/t Au; the Mineral Resource includes in the Measured category, 8 koz Au in 47 kt grading 5.06 g/t Au; in Indicated, 1.564 Moz Au in 14.635 Mt grading 3.32 g/t Au, in Inferred, 1.712 Moz Au in 15.470 Mt grading 3.44 g/t Au. Measured and indicated resources are exclusive of mineral reserves. Refer to Slides 52-53 for further details.



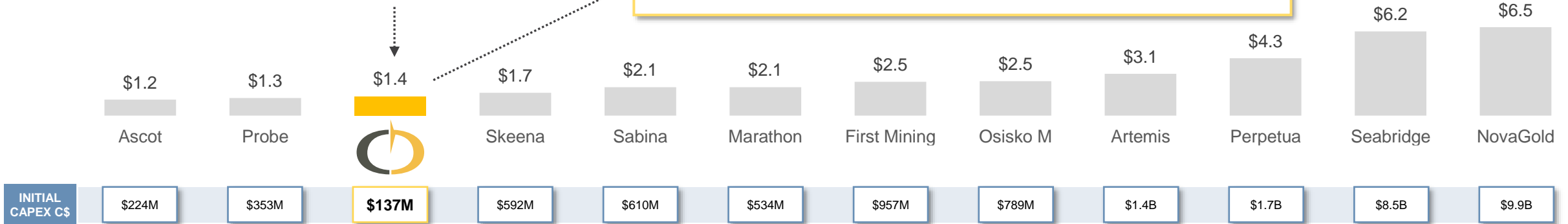


## CAPITAL INTENSITY – NORTH AMERICAN GOLD DEVELOPERS

(Development Capex / Annual Gold Production, US\$/kozpa)

Phased approach with low initial capex to first production

- ✓ Low capital intensity
- ✓ Peer leading initial construction cost
- ✓ Access, infrastructure, labour, rail proximity, power → key differentiators



## ESTIMATED FIRST PRODUCTION – NORTH AMERICAN GOLD DEVELOPERS



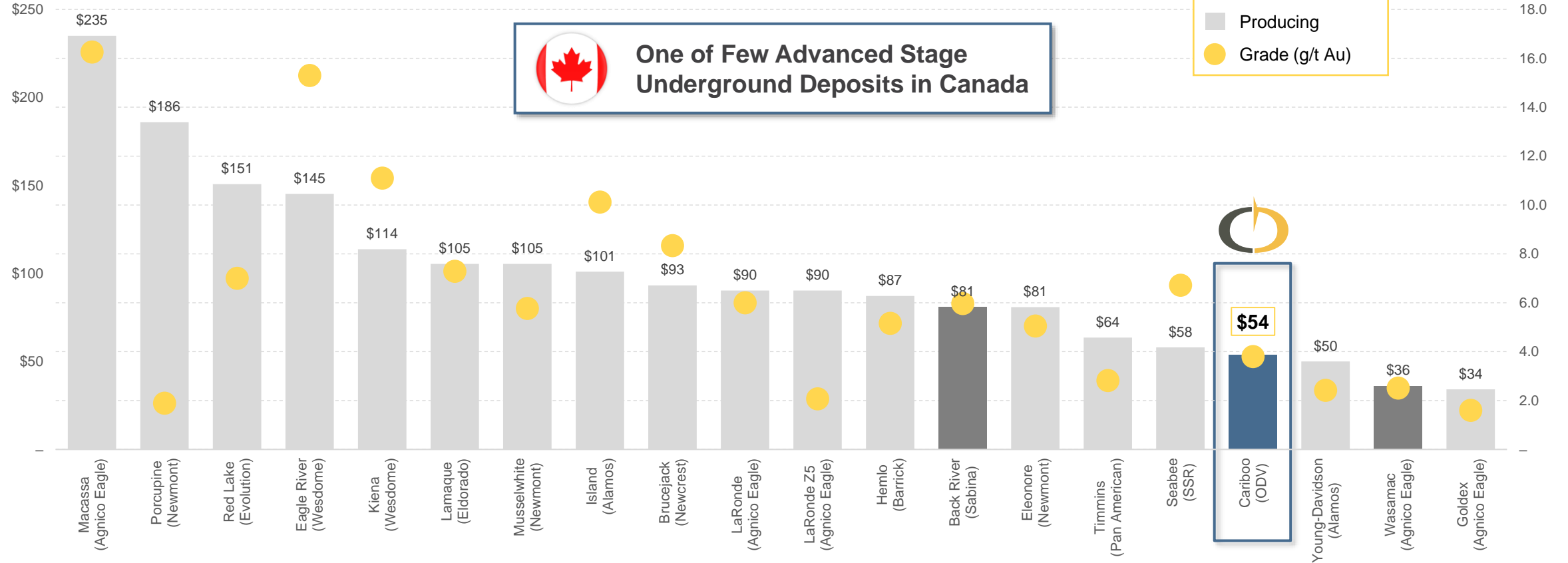
# CARIBOO BENCHMARKING: CANADIAN UNDERGROUND MINES



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**

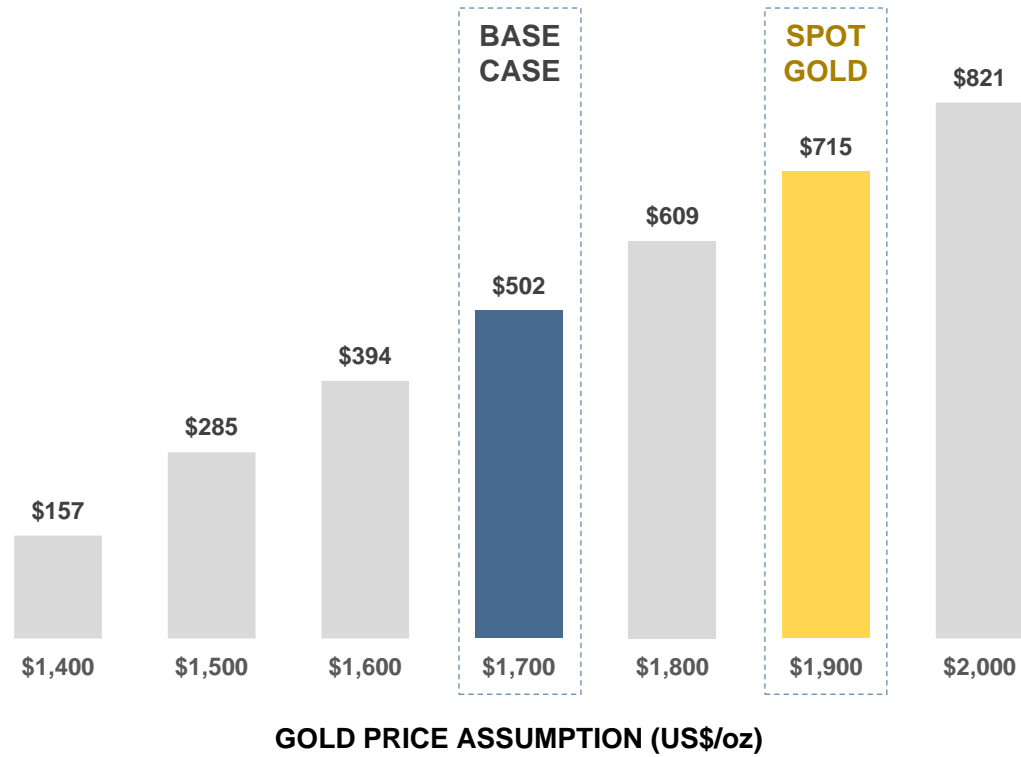
**MAJORITY OF PRODUCING UNDERGROUND MINES IN CANADA OWNED BY MAJORS**

# CARIBOO GOLD PROJECT: NPV & IRR SENSITIVITY ANALYSIS

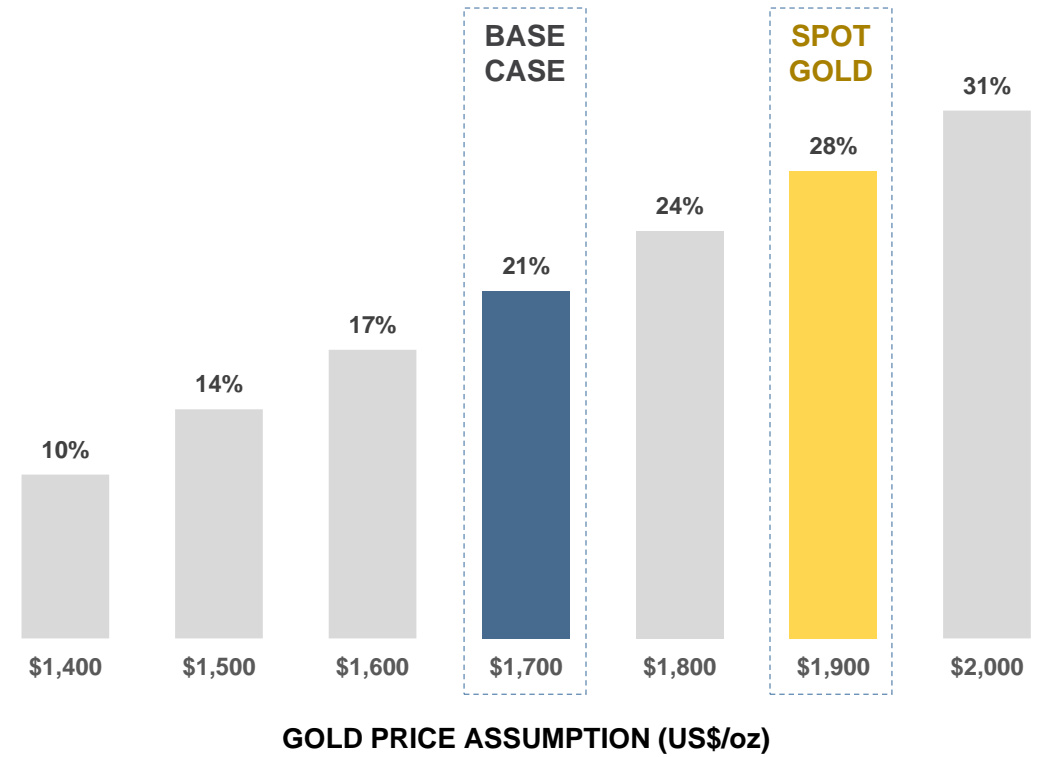


OSISKO DEVELOPMENT

## NPV5% SENSITIVITY | AFTER-TAX (C\$M)<sup>1</sup>

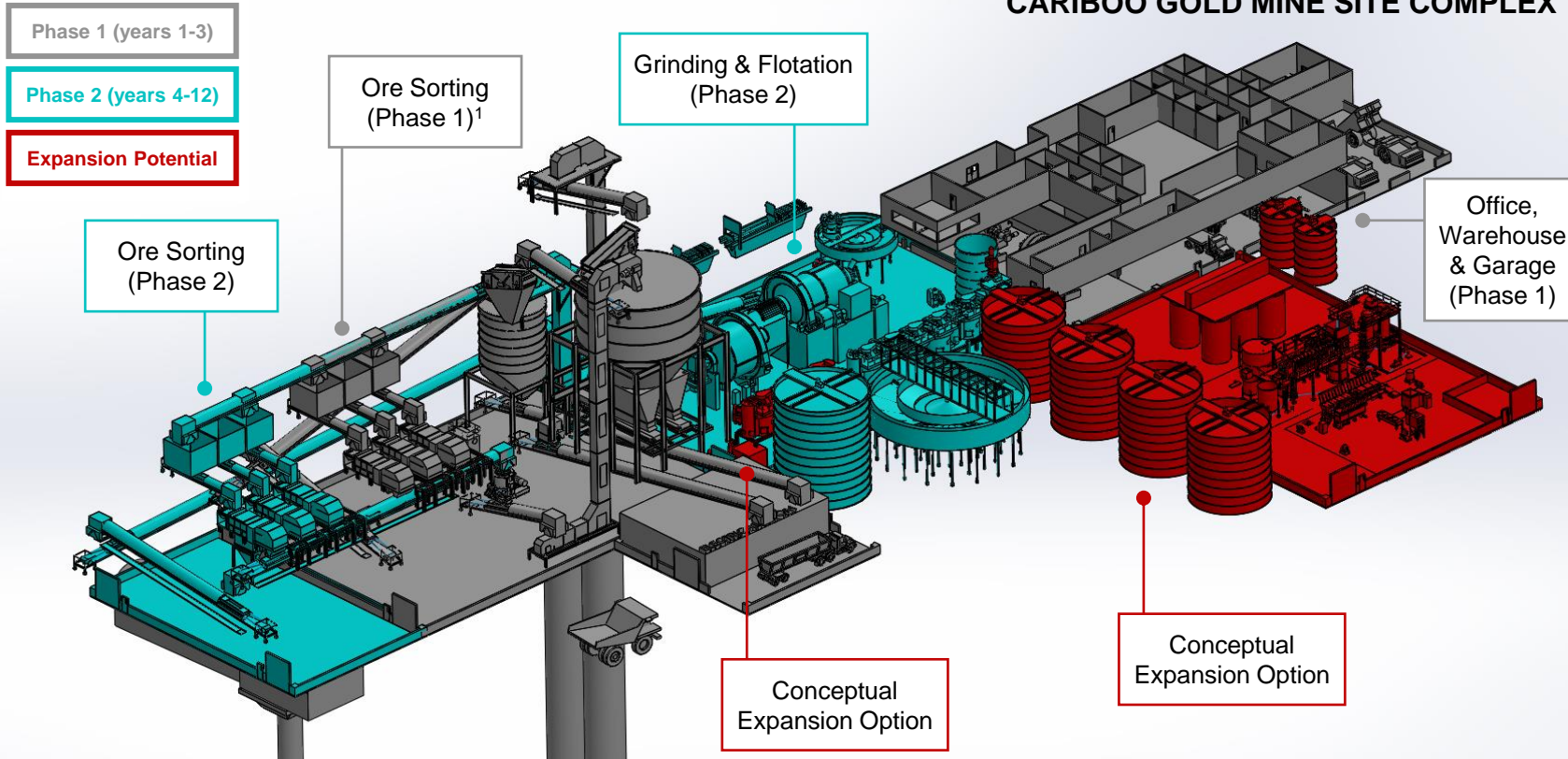


## IRR SENSITIVITY | AFTER-TAX (%)<sup>1</sup>





## 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



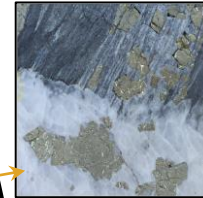
OSISKO DEVELOPMENT

## Ore Sorting Separates Gold Rich (11.0 g/t<sup>1</sup>) Host Rock From Unmineralized Sandstone

Pyrite hosted in quartz veins  
High Density Material (~5 g/cm<sup>3</sup>)

Sandstone  
Low Density Material (~2.5 g/cm<sup>3</sup>)  
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 CORRIDORS<sup>1</sup>



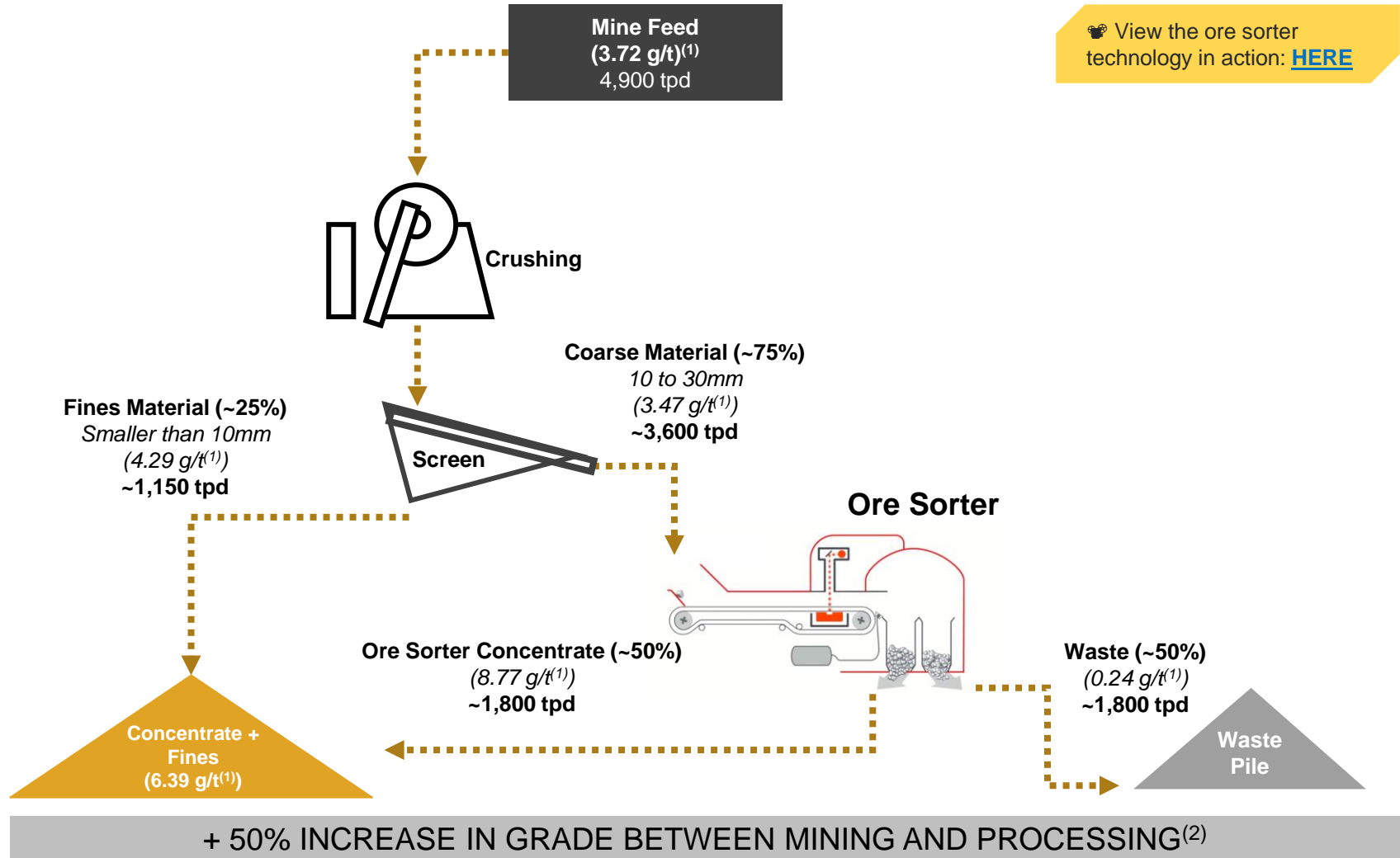
# ORE SORTER TECHNOLOGY: ILLUSTRATIVE EXAMPLE

Ore sorting provides significant benefits at low opex of ~\$1.00 per tonne feed

## ORE SORTING IS A GREEN TECHNOLOGY

- Significant reduction in energy, water and chemical usage
- ~40% of mined material removed as waste
- 10-15% of waste used as backfill and/or road construction
- Robust, low maintenance technology

View the ore sorter technology in action: [HERE](#)

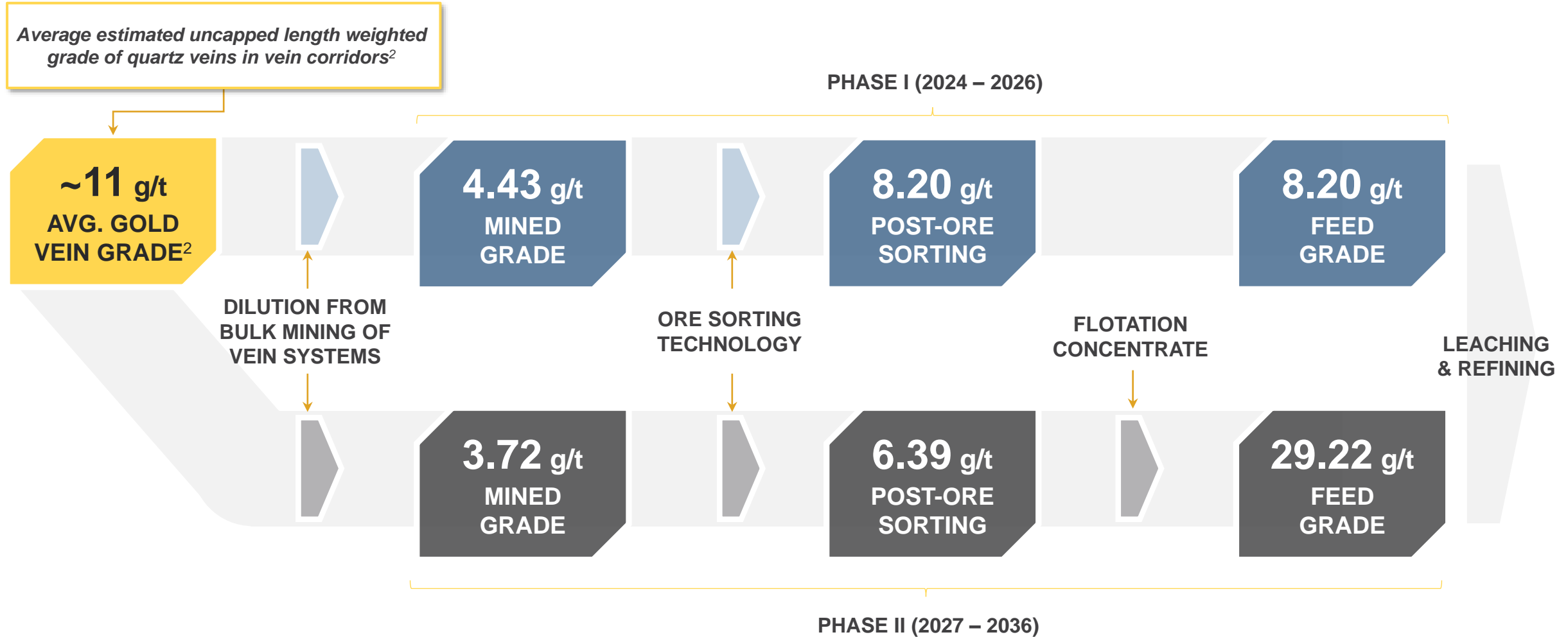


**Phase I**  
Comminution, Leaching,  
Refining @ QR Mill

**Phase II**  
Flotation Concentrate  
(29.22g/t<sup>(1)</sup>)

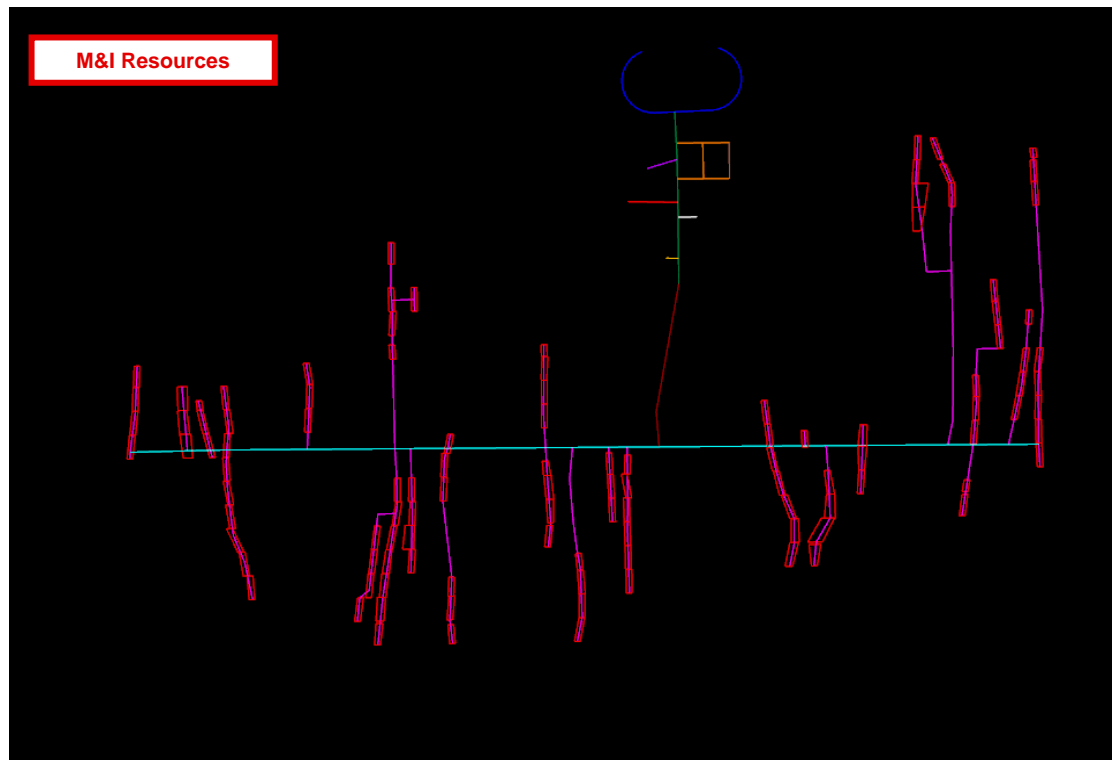


# UP “GRADE” PROCESS<sup>1</sup>



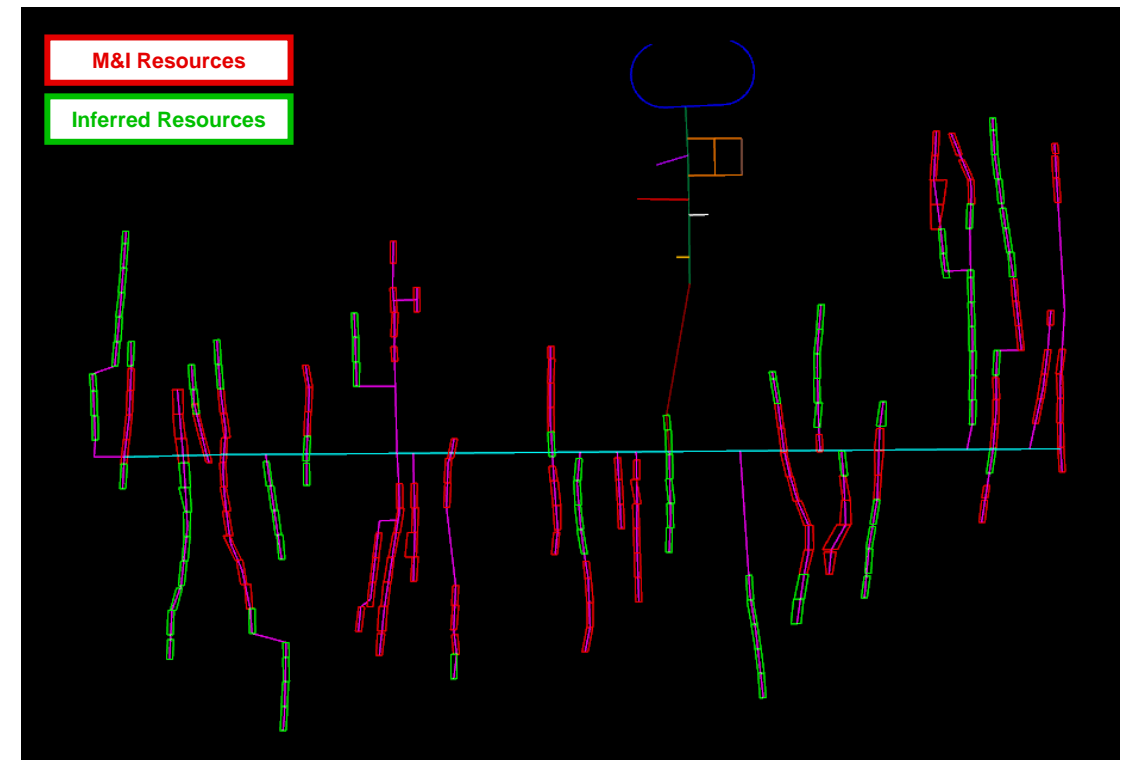
## FEASIBILITY STUDY – M&I RESOURCES ONLY<sup>1</sup>

- 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 RESOURCES<sup>1</sup>

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



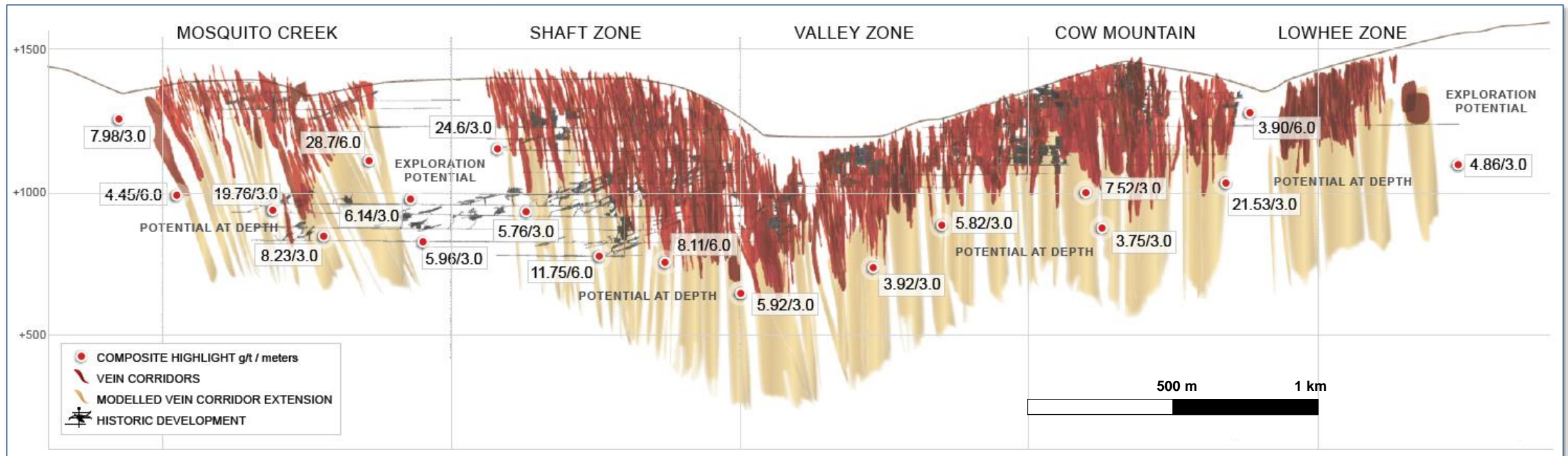
# CARIBOO EXPLORATION POTENTIAL AT DEPTH



OSISKO DEVELOPMENT

- 2.03 Moz Au at 3.8 g/t Au in Probable Reserves<sup>1</sup>
- 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 converted<sup>1</sup>
- >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



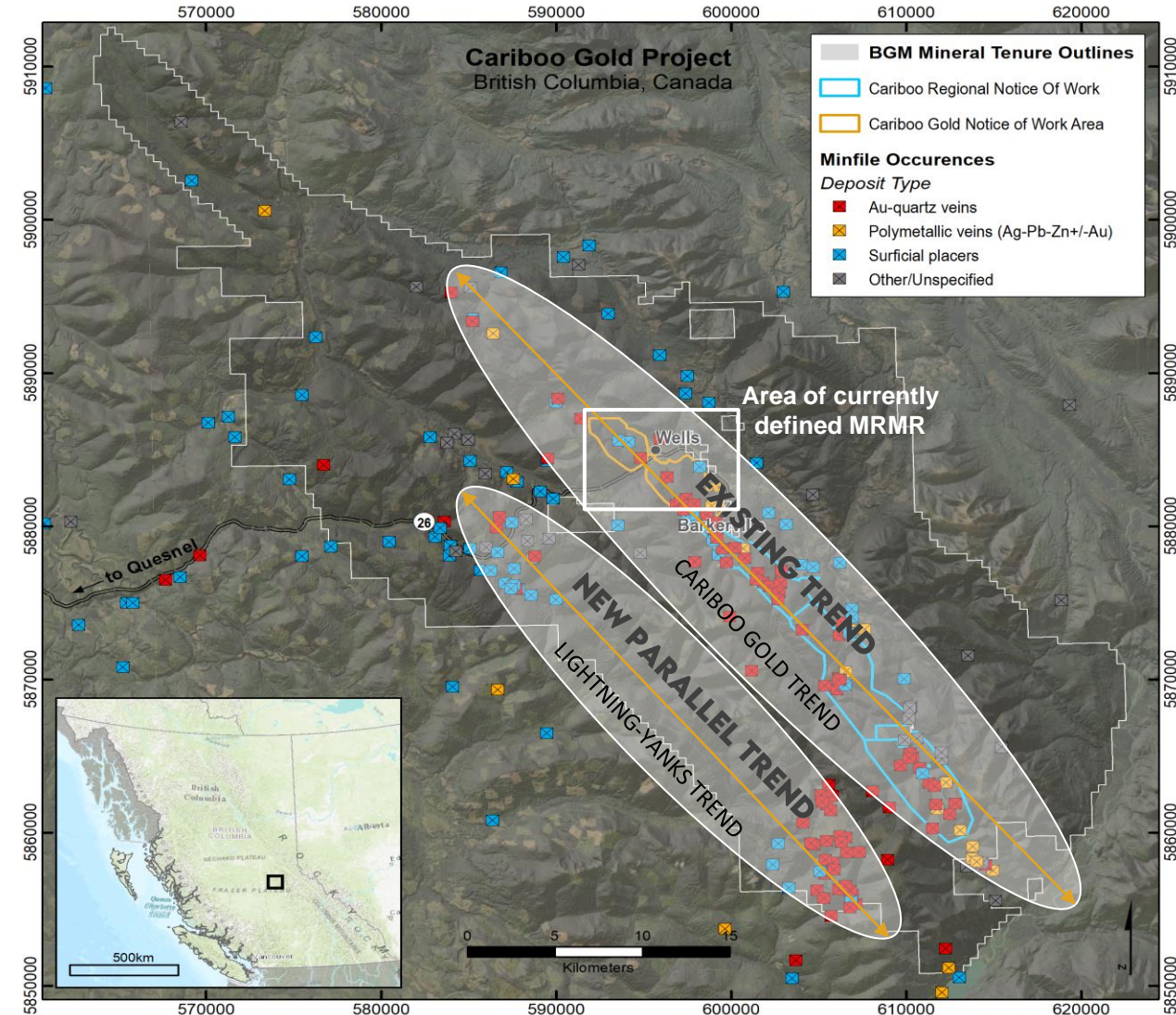


# DEVELOPING A MINING CAMP



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



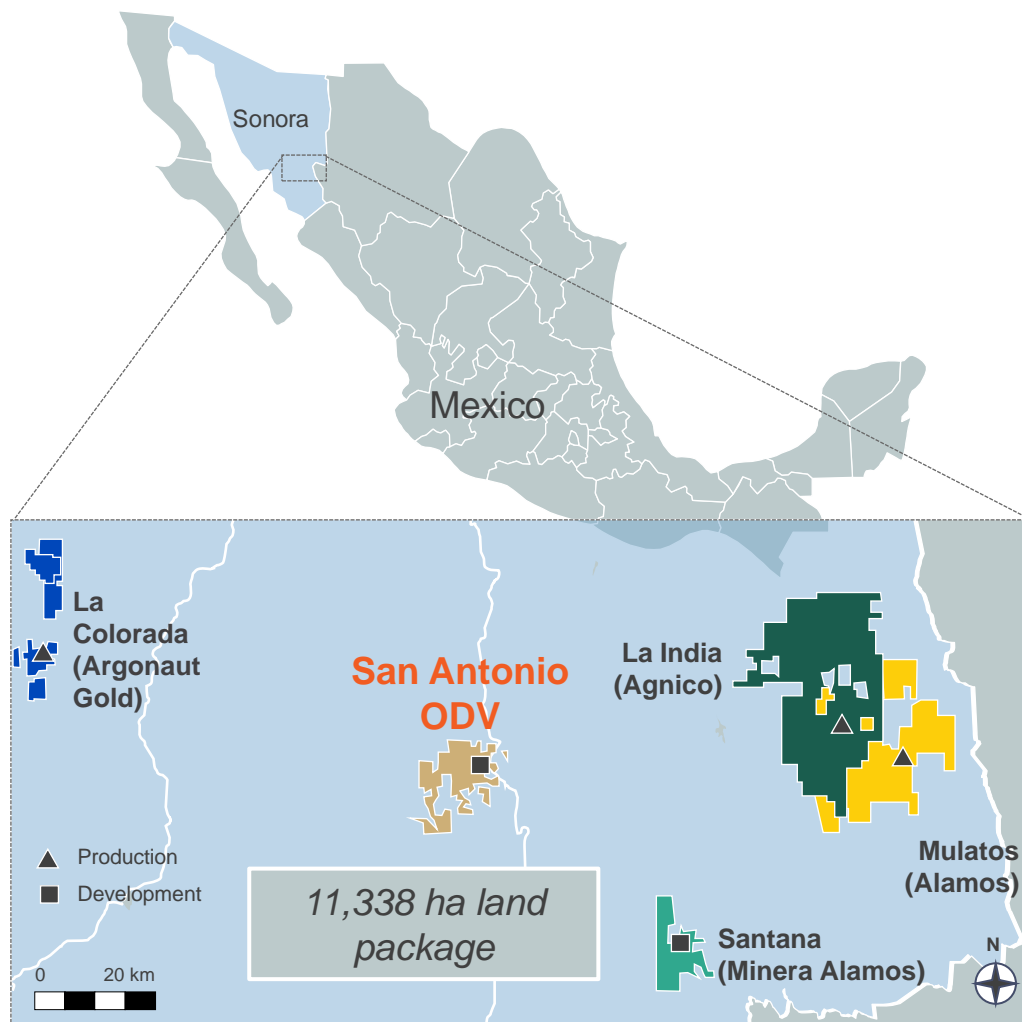




## SAN ANTONIO PROJECT

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
  - 7,358 ounces sold as at September 30, 2022
- Gold mineralization identified over 10 km strike
- Permitted for mining (permit amendment for gold in progress)
- Mine infrastructure and water on site
- 27,000 meters drilled in 2021

## MINERAL RESOURCES<sup>1</sup>

- In pit resource with 5 zones
- Ordinary kriging
- 584 holes in 85,000 meters of drilling (historic and current)
- 3-meter composites with 10 x 10 x 5 block size

Resource Category	Tonnes (Mt)	Grade (g/t)		Ounces (000's)	
		Gold	Silver	Gold	Silver
Indicated	14.9	1.20	2.9	576	1,370
Inferred	16.6	1.02	3.3	544	1,760



# 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

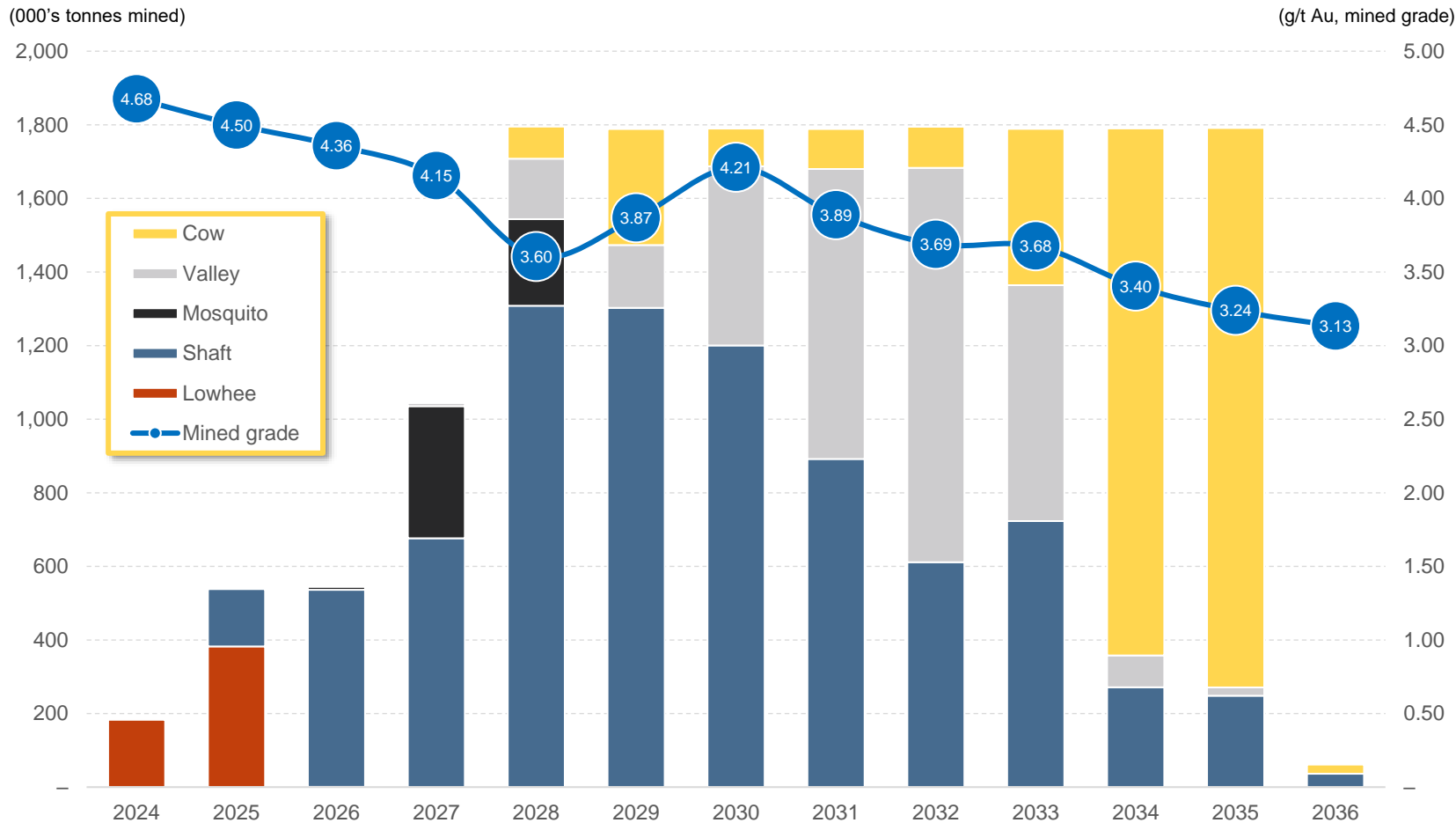
- 25 years of environmental and resource management experience in British Columbia
- Involved with the Cariboo project since 2013 developing long-term personal and professional relationships with indigenous and local communities and regulatory agencies

## BOARD OF DIRECTORS

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



## MINED TONNES vs. GRADE BY DEPOSIT<sup>1</sup>



## LOWHEE, SHAFT AND MOSQUITO

Expected to be mined in Phase 1

# 48%

of mined material expected to be sourced from the Shaft Deposit

# 4.32 g/t Au

Mined grade in the first 4 years of operations

# PHASE I – LARGE SCALE PRODUCTION AT LOW CAPEX

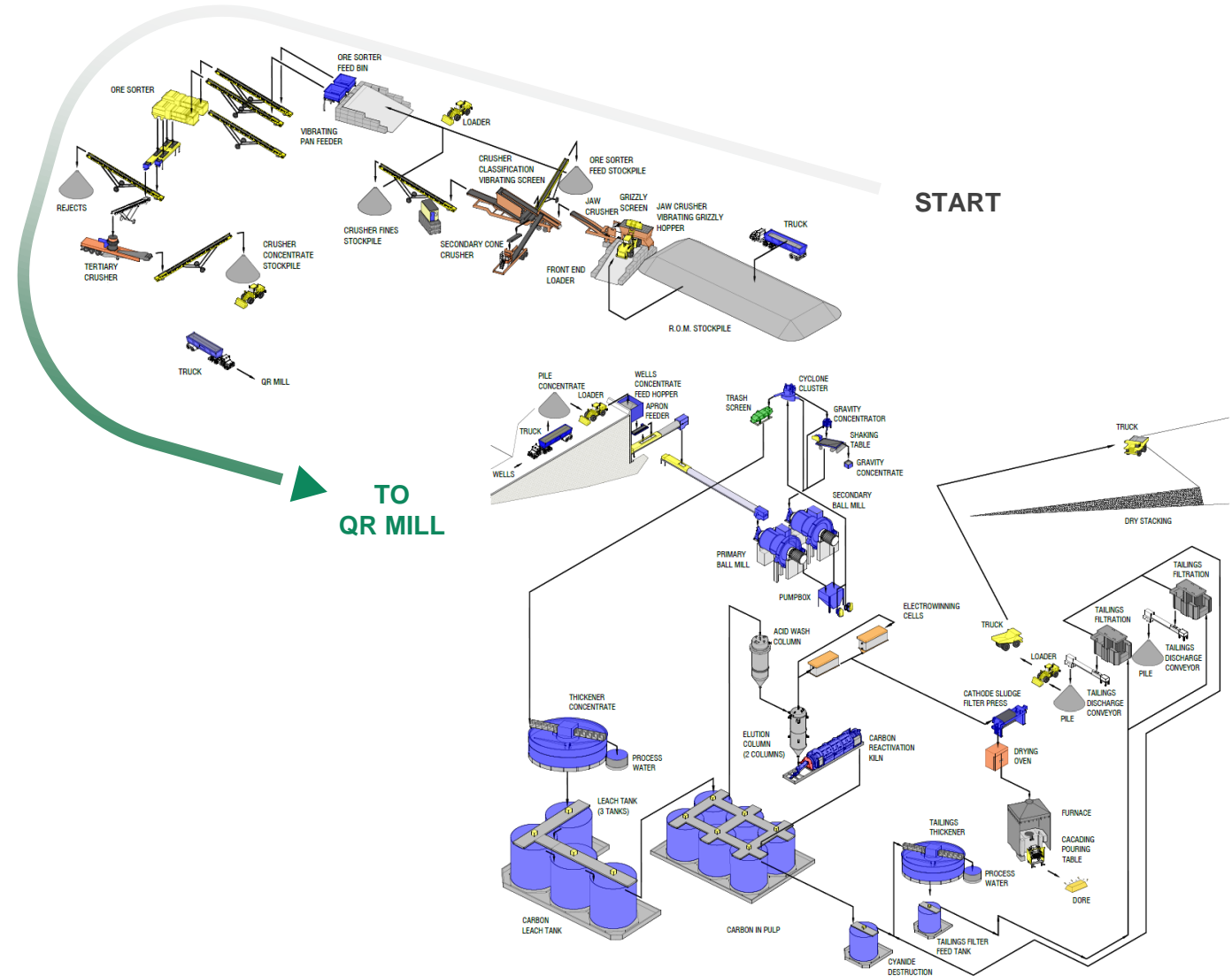


OSISKO DEVELOPMENT

## KEY METRICS AND BENEFITS

- 1,500 tpd initial throughput (first 3 years)
- Crushing and sorting located at mine site
- Reduced capital cost by leveraging existing infrastructure at QR Mill for comminution and leaching
- Low initial construction cost of \$137 million
- Average feed grade of 4.43 g/t Au and post-ore sorting feed grade of 8.20 g/t Au
- Flowsheet and engineering designed to accommodate and streamline Phase II expansion

## FLOW SHEET



# PHASE II – STREAMLINED EXPANSION TO OPTIMIZE MINING

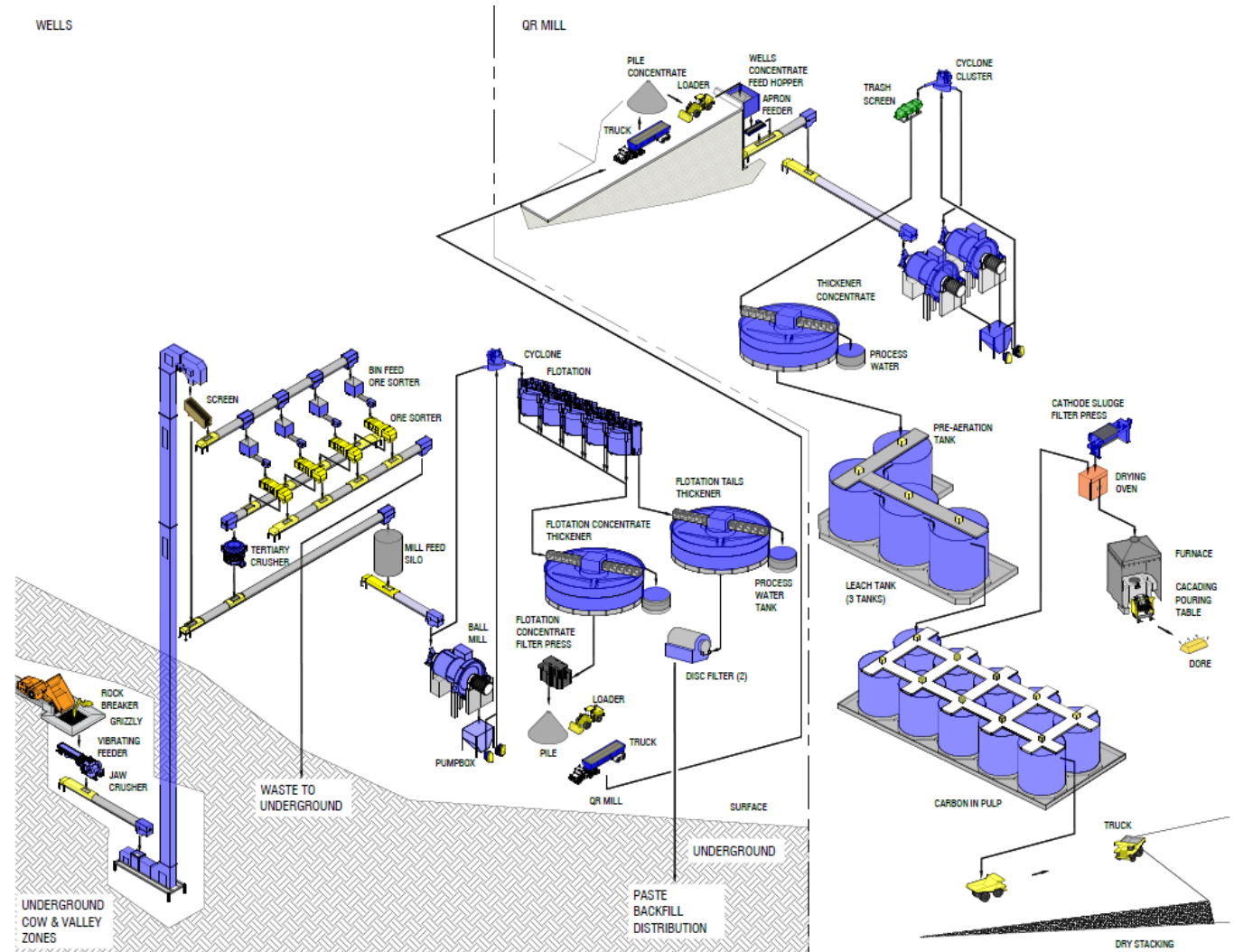


OSISKO DEVELOPMENT

## KEY METRICS AND BENEFITS

- 4,900 tpd expansion throughput
- Underground primary crushing with conveyor to surface
- Ore sorting, comminution and flotation conducted at mine site
- Flotation concentrate processed at QR Mill for further comminution, leaching and refining
- Expansion capital of \$451 million
- Avg. feed grade of 3.72 g/t Au and post-ore sorting feed grade of 6.39 g/t Au
- Designed to streamline expansion beyond 4,900 tpd

## FLOW SHEET

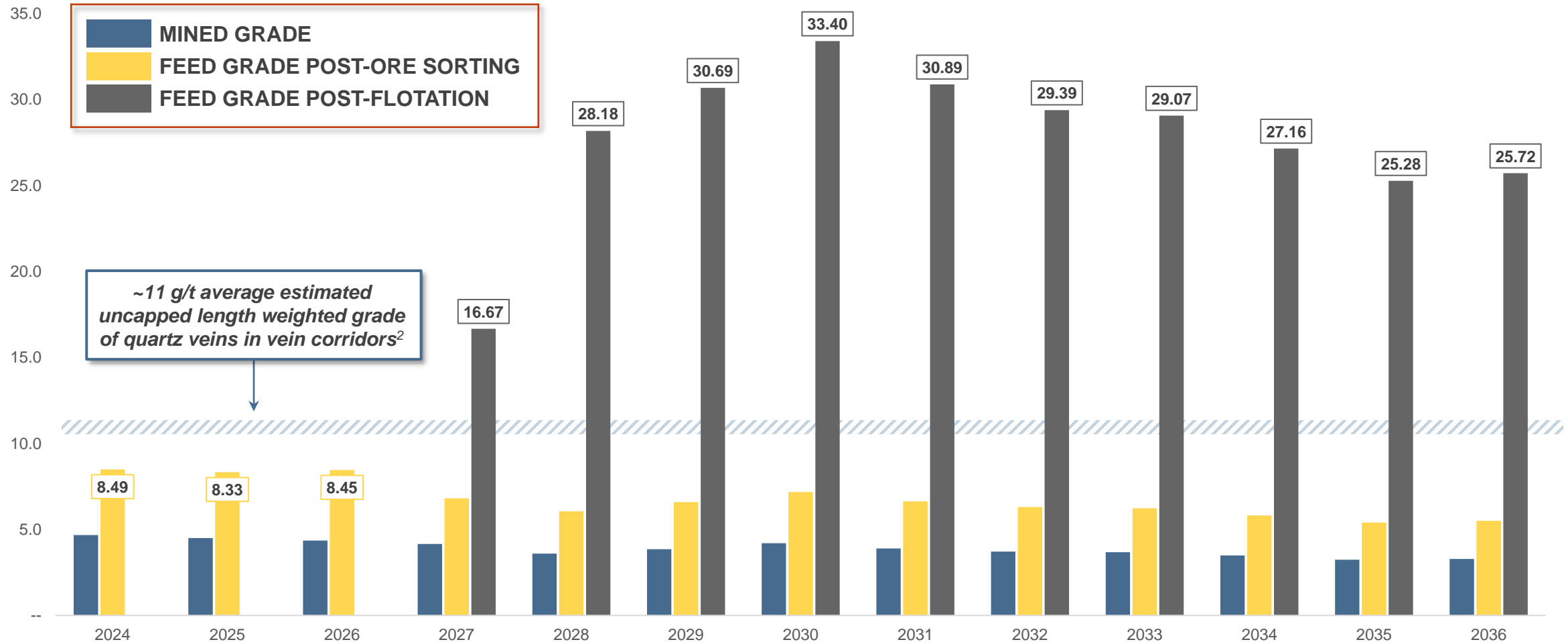




# FEED UP “GRADE”: ORE SORTING & FLOTATION<sup>1</sup>



(Gold grade, g/t)



# CARIBOO MINERAL RESERVES & RESOURCES

(Measured and Indicated Resources are exclusive of Reserves)



OSISKO DEVELOPMENT

MINERAL RESERVES	PROVEN			PROBABLE			PROVEN & PROBABLE		
	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)
Cow	–	–	–	4,127	3.41	453	4,127	3.41	453
Valley	–	–	–	3,445	3.70	410	3,445	3.70	410
Shaft	–	–	–	7,962	3.87	990	7,962	3.87	990
Mosquito	–	–	–	603	4.93	95	603	4.93	95
Lowhee	–	–	–	567	4.56	83	567	4.56	83
<b>TOTAL RESERVES</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>16,703</b>	<b>3.78</b>	<b>2,031</b>	<b>16,703</b>	<b>3.78</b>	<b>2,031</b>

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
<b>TOTAL RESOURCES</b>	<b>47</b>	<b>5.06</b>	<b>8</b>	<b>14,635</b>	<b>3.32</b>	<b>1,564</b>	<b>14,682</b>	<b>3.33</b>	<b>1,571</b>	<b>15,470</b>	<b>3.44</b>	<b>1,712</b>

## MINERAL RESERVES

1. Totals may not add up due to rounding.
2. 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.
3. 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.
4. 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

1. Mineral Resources are exclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
2. 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.
3. 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.
4. 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.).
5. Bulk density varies from 2.69 g/cm<sup>3</sup> to 3.20 g/cm<sup>3</sup>.
6. 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.
7. 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.
8. Results are presented in situ. Calculations used metric units (metres, tonnes, g/t). Any discrepancies in the totals are due to rounding effects.

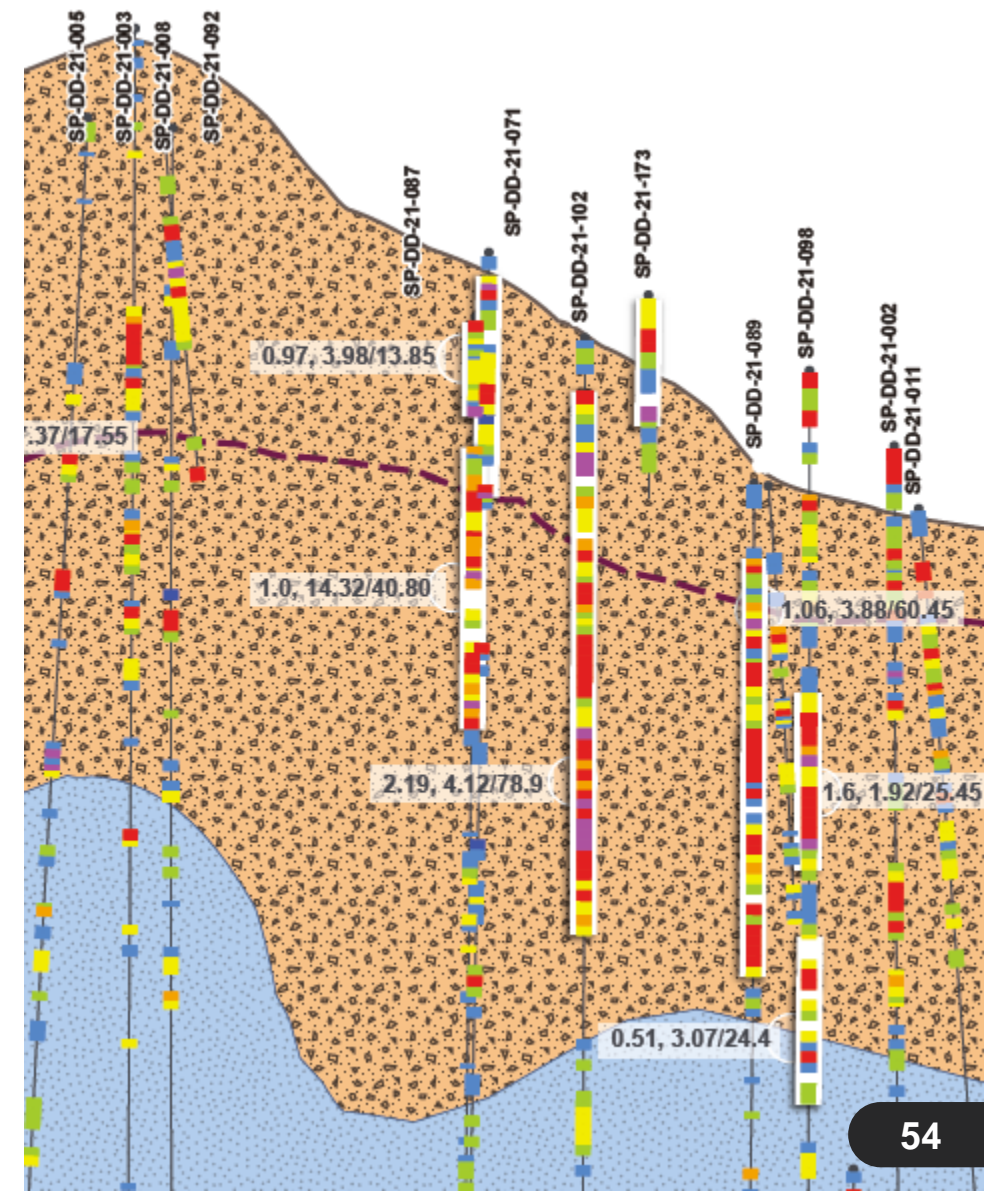


# SAPUCHI DRILL RESULTS



OSISKO DEVELOPMENT

Hole number		From	To	Length	Au ppm	Ag ppm
SP-DD-21-006		119.15	129.40	10.25	2.37	2.02
SP-DD-21-008		62.55	84.70	22.15	1.59	3.68
SP-DD-21-008		165.00	177.65	12.65	2.94	3.98
SP-DD-21-008	including	173.25	173.95	0.70	44.40	54.40
SP-DD-21-019		167.40	207.30	39.90	1.02	3.90
SP-DD-21-029		85.75	105.05	19.30	1.60	3.09
SP-DD-21-038		5.85	27.50	21.65	2.14	3.05
SP-DD-21-040		70.35	99.55	29.20	1.52	13.77
SP-DD-21-060		2.70	11.80	9.10	2.19	5.35
SP-DD-21-081		1.30	27.95	26.65	0.93	6.76
SP-DD-21-087		18.20	59.00	40.80	1.00	14.32
SP-DD-21-089		10.50	70.95	60.45	1.06	3.88
SP-DD-21-098		46.20	71.65	25.45	1.60	1.92
SP-DD-21-102		7.10	86.00	78.90	2.19	4.12
SP-DD-21-102	including	16.30	19.50	3.20	21.30	11.75
SP-DD-21-108		30.20	48.50	18.30	1.41	1.09
SP-DD-21-135		13.50	31.40	17.90	1.75	3.33



# MINERAL RESOURCE ESTIMATE – SAN ANTONIO PROJECT<sup>1</sup>



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	<b>Indicated</b>	<b>14.9</b>	<b>2.9</b>	<b>1.20</b>	<b>1.37</b>	<b>576</b>
	<b>Inferred</b>	<b>16.6</b>	<b>3.3</b>	<b>1.02</b>	<b>1.76</b>	<b>544</b>

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



## NOTES

1. Effective date of the Trixie MRE is January 10, 2023.
2. The Company intends to file a technical report (the "Technical Report") in respect of the Trixie MRE in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") on SEDAR ([www.sedar.com](http://www.sedar.com)) and on EDGAR ([www.sec.gov](http://www.sec.gov)) under Osisko Development's issuer profile within 45 days of the date of the news release.
3. 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.
4. 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.
5. 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.
6. 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.
7. Mineral resources are not mineral reserves and do not have demonstrated economic viability.
8. 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 software under the supervision of William Lewis and Alan San Martin of Micon International Ltd.
9. 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%.
10. Average bulk density values in the mineralized domains were assigned to the T1 (2.616 T/m<sup>3</sup>), T2 (2.955 T/m<sup>3</sup>), T3 (2.638 T/m<sup>3</sup>), T4 (2.621 T/m<sup>3</sup>), and 75-85 (2.617 T/m<sup>3</sup>) domains.
11. Inverse Distance Squared interpolation method was used with a parent block size of 1.2 m x 1.2 m x 1.8 m.
12. 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.
13. 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

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