



79  
**Au**  
Gold

.....  
196.967

# **DEVELOPING THE WORLD CLASS HIGH-GRADE WINDFALL DEPOSIT IN QUÉBEC**

**August 2022**



# Cautionary Statements



## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This presentation (the "Presentation") of Osisko Mining Inc. ("Osisko" or the "Corporation") contains "forward-looking information" within the meaning of the applicable Canadian securities legislation that is based on expectations, estimates, projections and interpretations as at the date of this Presentation. Any statement that involves predictions, expectations, interpretations, beliefs, plans, projections, objectives, assumptions, future events or performance (often, but not always, using phrases such as "expects", or "does not expect", "is expected", "interpreted", "management's view", "anticipates" or "does not anticipate", "plans", "budget", "scheduled", "forecasts", "estimates", "potential", "feasibility", "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 information and are intended to identify forward-looking information.

In this Presentation, forward-looking information pertaining to, among other things: the goals for 2022 (including timing, if at all) relating to a power line agreement, Triple Lynx bulk sample, feasibility study and expansion of Golden Bear Property; estimates and assumptions underlying 2022 MRE (as defined herein); projected production; sensitivity analysis and cut-off grades; life of mine estimates; after-tax free cash flows; capex estimates; tpd milling operations at the Windfall mill; processing estimates; average recovery; projected gross revenue and taxes; job creation estimates; the profitability of Windfall; future drilling results; Osisko's ability to convert additional inferred resource ounces into measured and indicated categories; timing for production (if at all); mining and processing infrastructure; environmental assessment and closure plans matters; stakeholder engagement and relationships; the significance of exploration results disclosed in this Presentation; the viability of ramp-access to the underground deposit; the advancement of the ramp; Osisko's ability to convert additional high-grade mineral resources and other analysis relating to resource progression; the timing and ability of Osisko to publish a feasibility study on Windfall, including in Q4 2022 (or at all); the key assumptions, parameters and methods used to estimate the mineral resource estimate in the 2022 MRE; the Windfall gold deposit being one of the highest-grade resource-stage gold projects in world and having world-class scale; the prospects, if any, of the Windfall gold deposit; the timing and ability of Osisko, if at all, to publish the feasibility study; the amount and type of drilling to be completed and the timing to complete such drilling; the focus of the remaining infill drilling; the trend of grade increase; the Lynx zone remaining open to expansion to the East and down plunge; upgrading a inferred mineral resource to a measured mineral resource or indicated mineral resource category; future drilling at the Windfall gold deposit; the significance of historic exploration activities and results.

Such factors include, among others, risks relating to the ability of exploration activities (including drill results) to accurately predict mineralization; errors in management's geological modelling; the ability of Osisko to complete further exploration activities, including (infill) drilling; property and royalty interests in the Windfall gold deposit; key assumptions, parameters or methods used in the 2022 MRE becoming untrue or unachievable; the ability of the Corporation to obtain required approvals; the results of exploration activities; title deficiencies; risks relating to mining activities; the global economic climate; metal prices; dilution; environmental risks; and community and non-governmental actions.

Risks and uncertainties about Osisko's business are more fully discussed in the disclosure materials filed with the securities regulatory authorities in Canada, which are available on SEDAR ([www.sedar.com](http://www.sedar.com)) under Osisko's issuer profile. Readers are urged to read these materials and should not place undue reliance on any forward-looking statement and information contained in this Presentation.

Although the forward-looking statements contained in this Presentation is based upon what management believes, or believed at the time, to be reasonable assumptions, Osisko cannot assure shareholders and prospective purchasers of securities of the Corporation that actual results will be consistent with such forward-looking statements, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither Osisko nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking statements. Osisko does not undertake, and assumes no obligation, to update or revise any such forward-looking statements contained herein to reflect new events or circumstances, except as may be required by law.

Unless otherwise noted, this Presentation has been prepared based on information available as of July 1, 2022.



# Cautionary Statements



## TECHNICAL REPORTS

### *Mineral Resource Estimate*

The scientific and technical information in this Presentation relating to the mineral resource estimate (the "MRE") on Windfall is supported by the technical report entitled "*Mineral Resource Estimate Update for the Windfall Project, Eeyou Istchee James Bay, Québec, Canada*" dated February 10, 2022 (with an effective date of October 20, 2021) (the "2022 MRE"), which was prepared for Osisko by Pierre-Luc Richard, M.Sc., P.Geo (OGQ No. 1119) and Mathieu Bélisle P. Eng (OIQ No. 128149) of BBA Inc., each of whom is a "qualified person" for purposes of National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101"). Mr. Richard and Mr. Bélisle are employees of BBA Inc. and are considered to be "independent" of Osisko for purposes of Section 1.5 of NI 43-101. The full report of the 2022 MRE, which was prepared in accordance with NI 43-101, is available on SEDAR ([www.sedar.com](http://www.sedar.com)) under Osisko's issuer profile. Please refer to the 2022 MRE for the key assumptions, parameters and methods used in the MRE disclosed in this Presentation. The 2022 MRE is the current technical report on Windfall and supersedes any prior technical report (including any PEA) in respect of Windfall.

## CAUTIONARY STATEMENT REGARDING MINERAL RESOURCE ESTIMATES

This Presentation uses the terms measured, indicated 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 mineral reserves and that the economic viability of resources that are not mineral reserves has not been demonstrated. The mineral resource estimate disclosed in this Presentation may be materially affected by geology, environmental, permitting, legal, title, socio-political, marketing or other relevant issues. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to an indicated or measured mineral resource category, however, it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. 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*" incorporated by reference into NI 43-101. Under NI 43-101, estimates of inferred mineral resources may not form the basis of feasibility or pre-feasibility studies or economic studies except for preliminary economic assessments. Readers are cautioned not to assume that further work on the stated resources will lead to mineral reserves that can be mined economically.

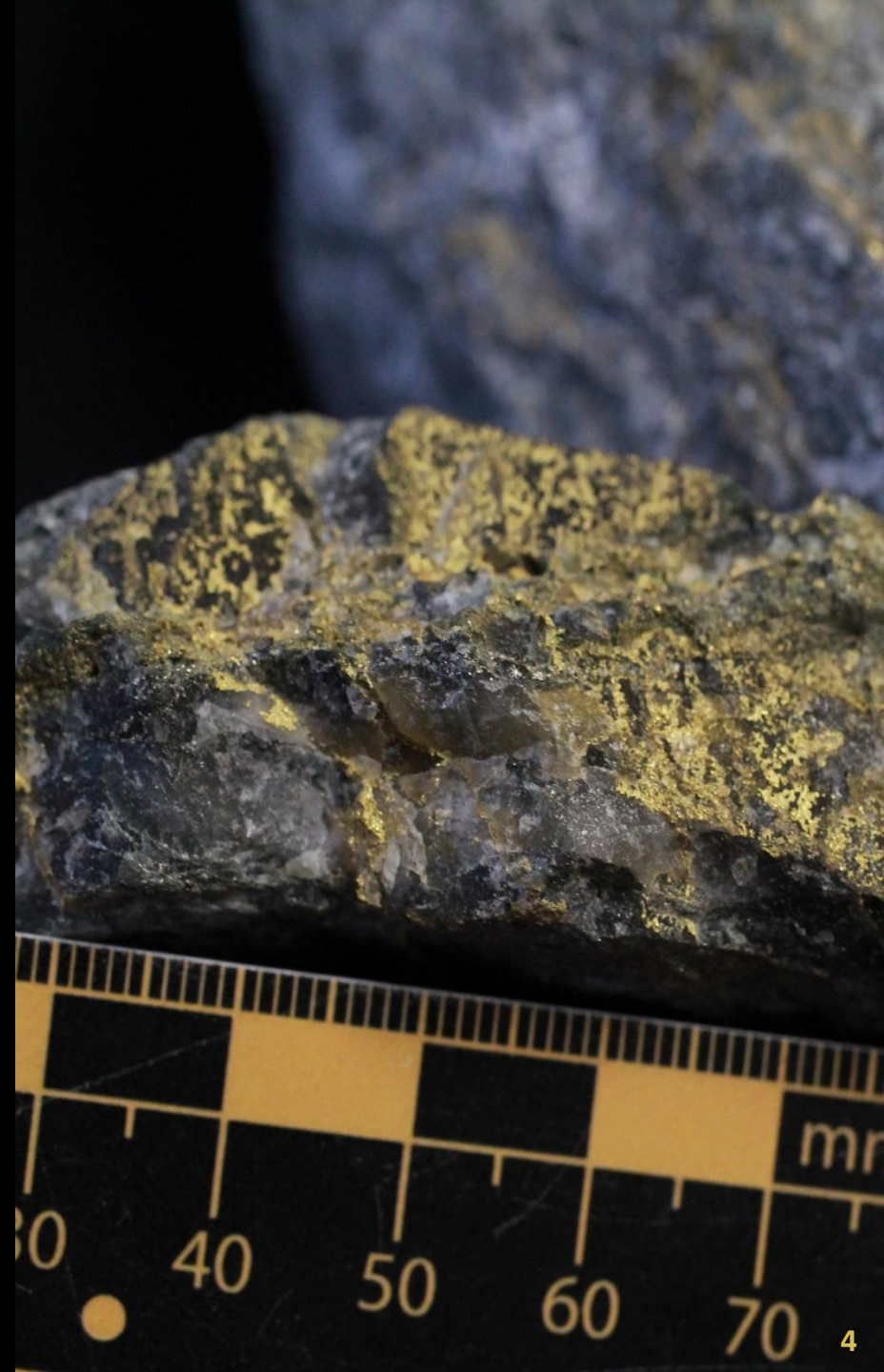
## QUALIFIED PERSON

The scientific and technical content in Presentation has been reviewed and approved by Mr. Mathieu Savard, P.Geo (OGQ #510), President of Osisko, who is a "qualified person" within the meaning of NI 43-101.



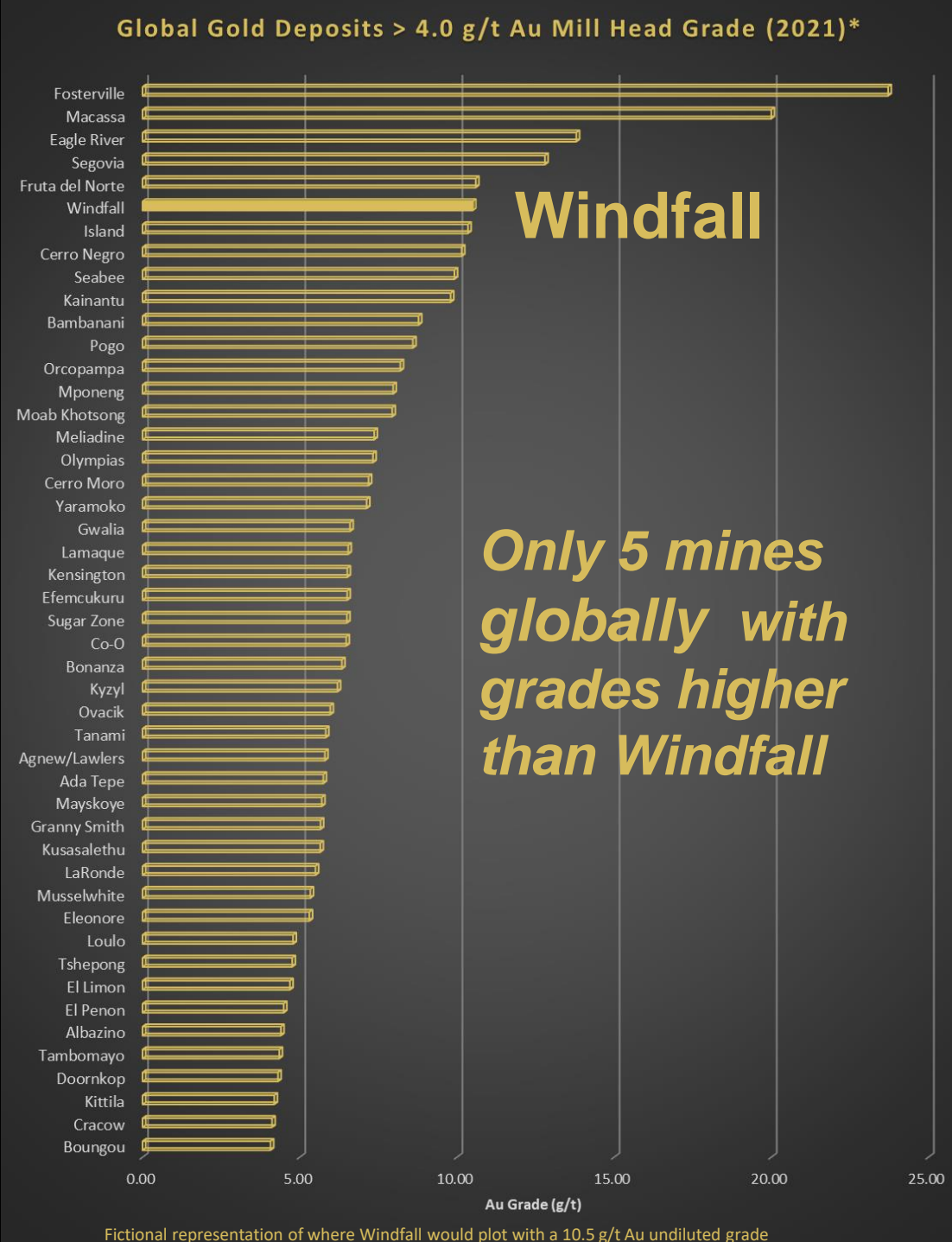
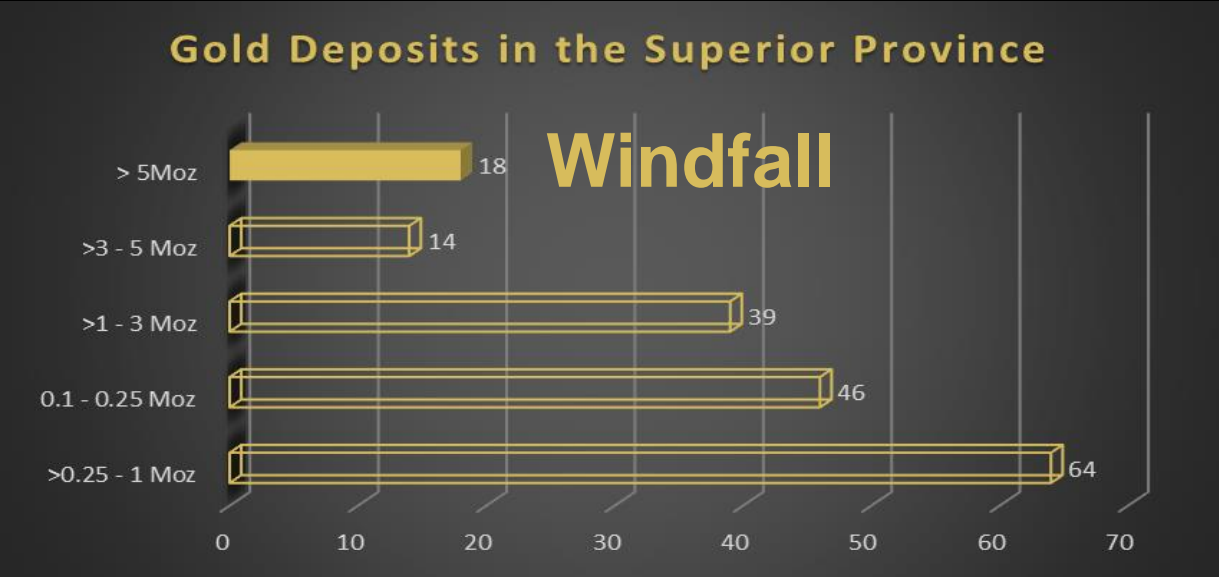
# TIER ONE POTENTIAL

- M&I: 3.2M ounces Au @ 10.5 g/t , and
- Inferred: 3.6M ounces Au @ 8.6 g/t (2022 MRE)
- Targeting significant near-term production
- Management with proven Tier One experience (the World Class Canadian Malartic Mine: discovery, delineation, permitting, financing, building and production)
- 2022 Catalysts
  - Triple Lynx bulk sample results
  - Updated MRE
  - FS Q4/22
  - On-going underground exploration
  - On-going regional exploration



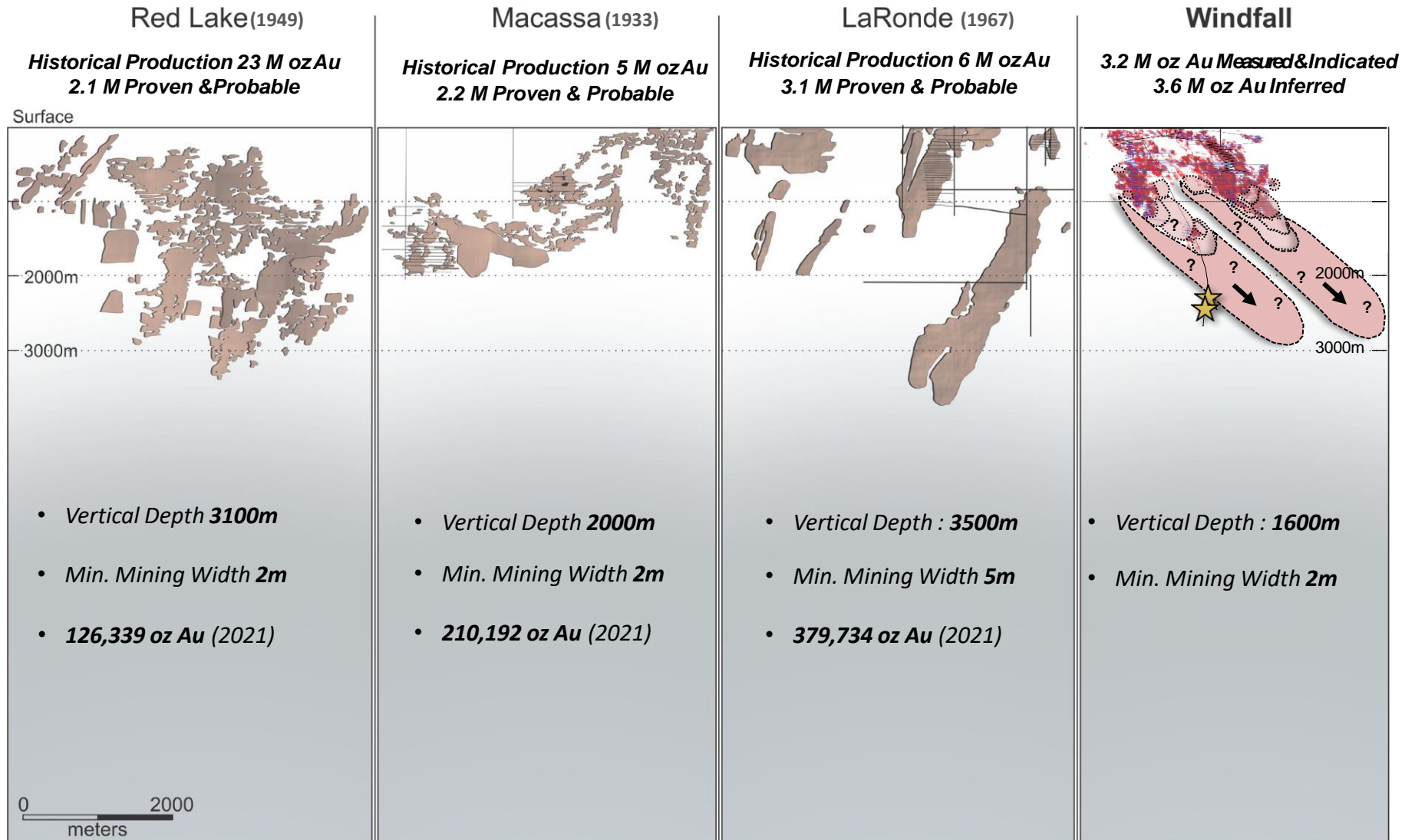
# WORLD CLASS SCALE & WORLD CLASS GRADE

- ❖ **GRADE:** M&I grade of 10.5 g/t Au – Top 10 global \*
- ❖ **OUNCES:** only 10% of deposits ever discovered in the Superior Province (Timmins to Val D’Or) were >5 Moz





# Major High-Grade Canadian Archean Gold Deposits



## MRE Cut-off Grade Sensitivity Table

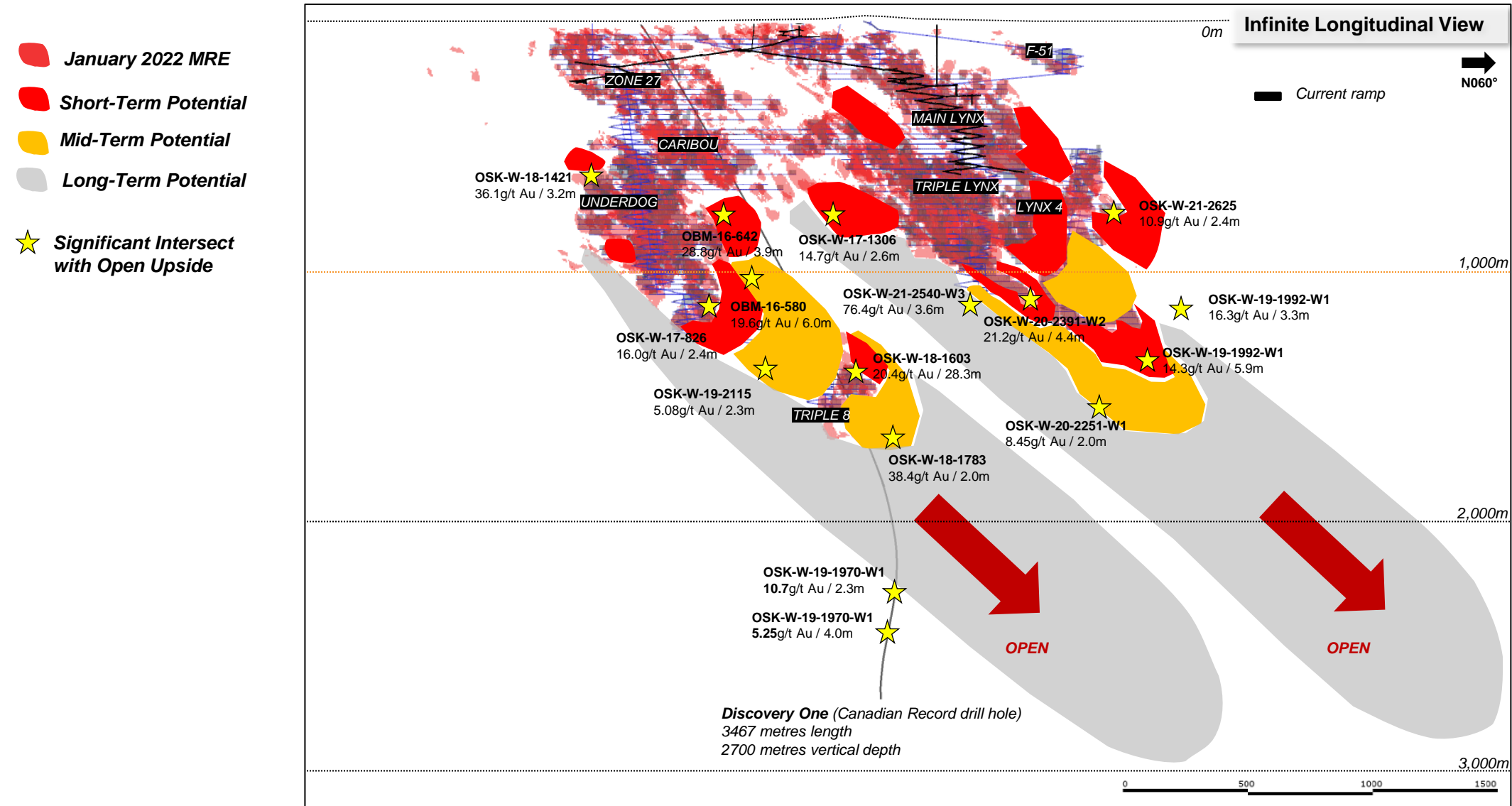
Cut-off (g/t Gold)	Measured + Indicated					Inferred				
	Tonnes (000 t)	Gold (g/t)	Ag (g/t)	Gold (000 oz)	Ag (000 oz)	Tonnes (000 t)	Gold (g/t)	Ag (g/t)	Gold (000 oz)	Ag (000 oz)
5.00	6,904	12.9	6.0	2,859	1,336	8,568	10.8	6.0	2,986	1,648
4.50	7,635	12.1	5.7	2,971	1,406	9,709	10.1	5.6	3,160	1,734
4.00	8,472	11.3	5.4	3,084	1,483	11,241	9.3	5.1	3,369	1,849
3.50	9,472	10.5	5.2	3,204	1,570	13,035	8.6	4.7	3,585	1,984
3.00	10,680	9.7	4.8	3,330	1,662	15,282	7.8	4.3	3,819	2,132
2.50	12,127	8.9	4.5	3,456	1,766	18,554	6.9	3.9	4,108	2,327

## Mineral Resource Estimate 2022 (3.5 g/t Au cut-off)

Cut-off Grade (g/t Au)	Measured + Indicated					Inferred				
	Tonnes (000 t)	Grade Au (g/t)	Grade Ag (g/t)	Ounces Au (000 oz)	Ounces Ag (000 oz)	Tonnes (000 t)	Grade Au (g/t)	Grade Ag (g/t)	Ounces Au (000 oz)	Ounces Ag (000 oz)
Lynx	5,996	12.0	5.6	2,307	1,075	5,052	10.9	7.1	1,777	1,147
Underdog	800	9.5	3.3	244	85	4,419	7.9	3.0	1,119	432
Main Zone	2,676	7.6	4.8	654	410	2,909	5.8	3.3	540	306
T8	-	0.0	0.0	-	-	655	7.1	4.7	149	99
Total	9,472	10.5	5.2	3,204	1,570	13,035	8.6	4.7	3,585	1,984



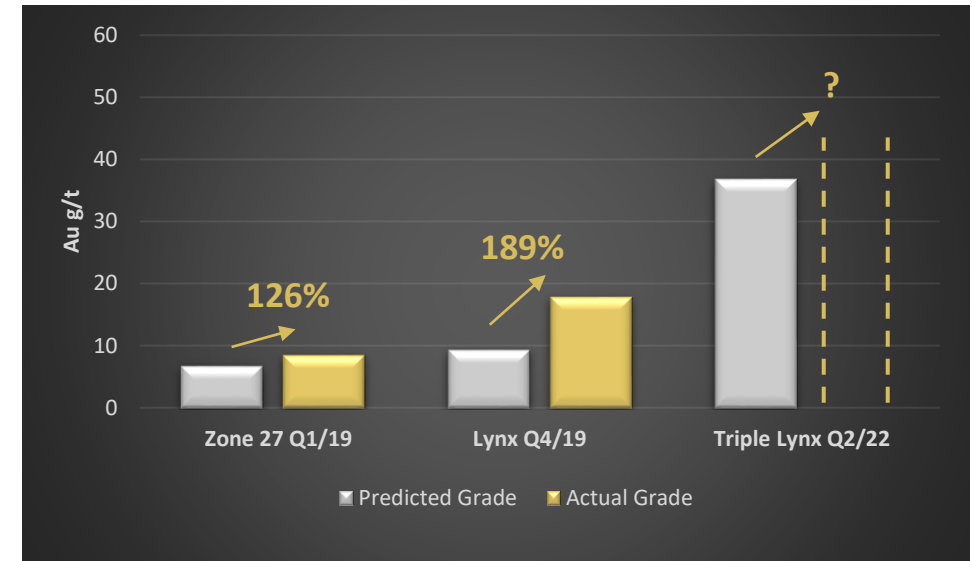
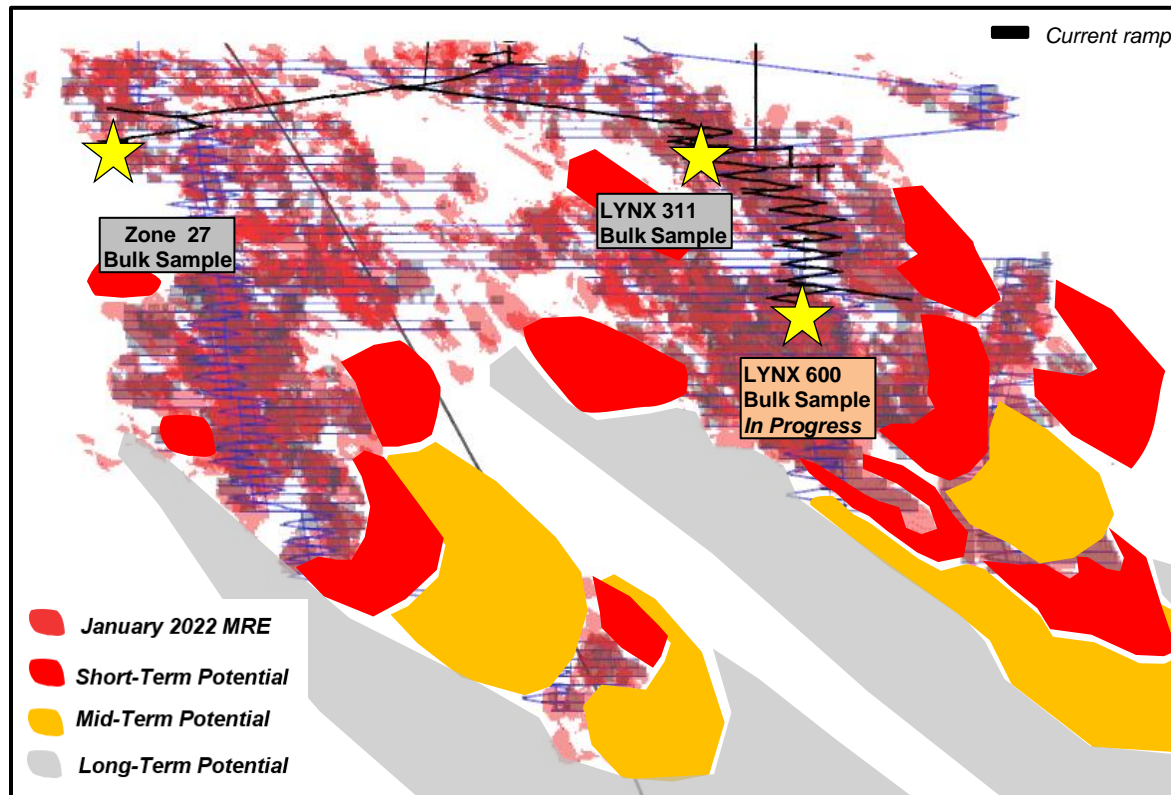
# Windfall January 2022 MRE and Upside Potential





# Underground Exploration – Bulk Samples

- Two previous bulk samples reconciled positively
- Third bulk sample expected in H2/2022



Area		Predicted	Actual	Reconciliation
Zone 27 Q1/19	Tonnage (t)	5,512	5,500	100%
	Au g/t	6.8	8.5	126%
	Au oz	1,198	1,508	126%
Lynx Q4/19	Tonnage (t)	5,717	5,716	100%
	Au g/t	9.4	17.8	189%
	Au oz	1,736	3,271	189%
Triple Lynx Q2/22 <sup>+</sup>	Tonnage (t)	4,977		
	Au g/t	36.7		
	Au oz	5,872		

\*see Osisko news releases dated June 11, 2019, and December 11, 2019

# ENVIRONMENT - SOCIAL - GOVERNANCE

## Environment

- Evaluate effects of our work and **minimize risk** to the environment through **active management**
- Ensure the conservation of natural resources and reasonable use of consumable goods

## Social

- Promote a safe, healthy, respectful, diverse and inclusive workplace
- Establish and maintain respectful relationships with host communities and contribute to their socio-economic development through local hiring, responsible procurement and sponsorships (>100 First Nations employees)

## Governance

- 6 of 8 members of the Board of Directors are independent
- Board gender diversity: 37.5% women

## ESG Highlights

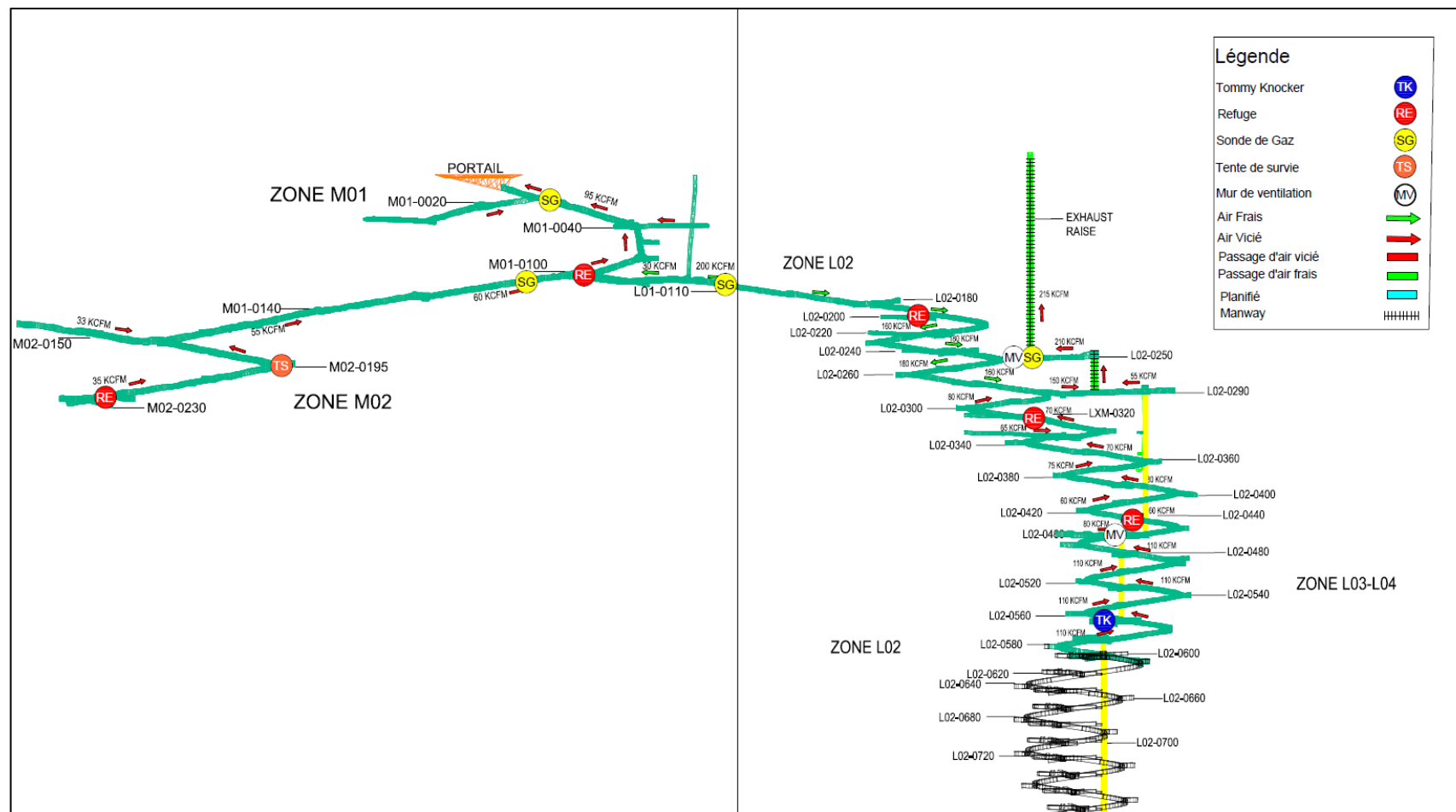
- >5 years of sustainability reporting
- 35.2 Sustainalytics rating (43 out of 122 in Precious Metals) – Similar to Barrick, Northern Star & Wesdome
- MSCI ESG Rating of “A”\*



# □ Exploration Ramp in Place

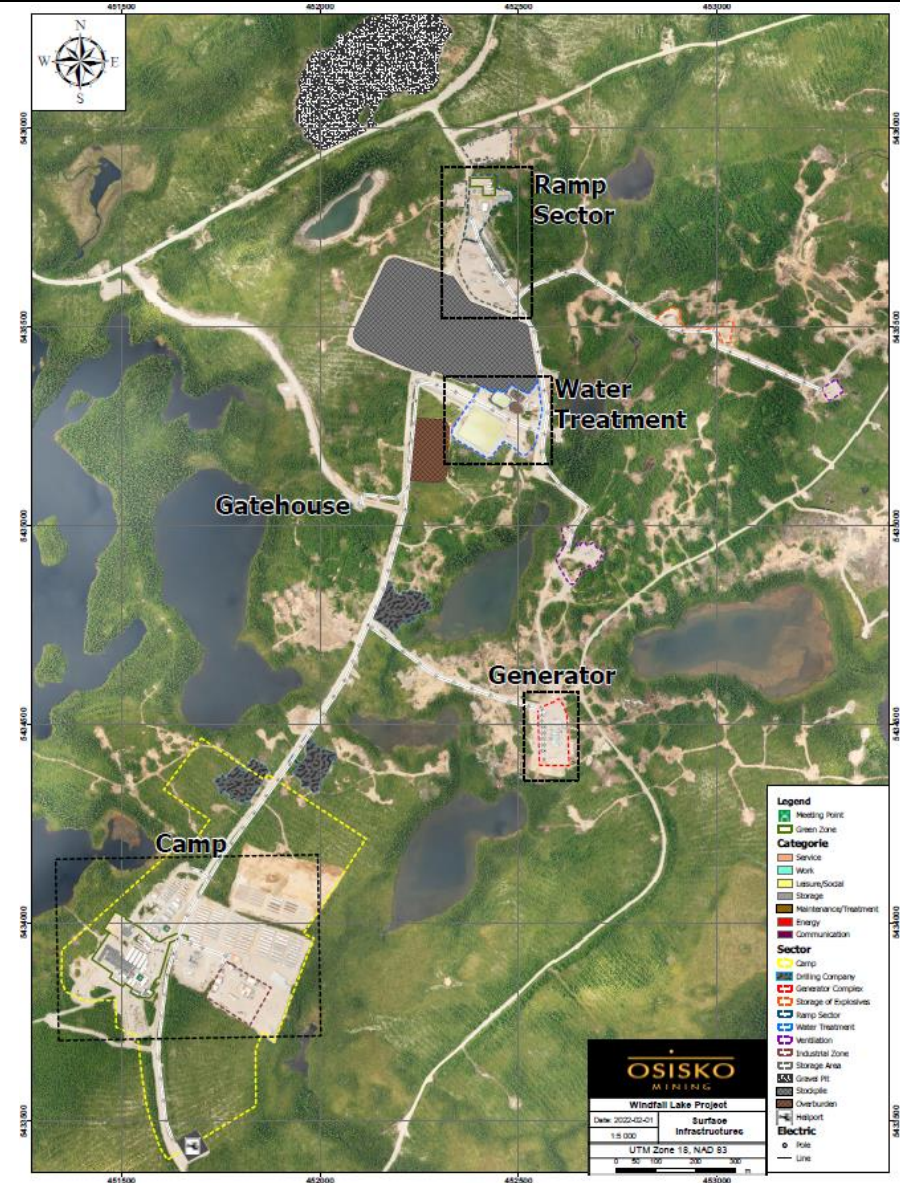
## Underground work completed to date:

- 12.5 km of exploration ramp access
- 615 metre vertical depth
- 6 refuge stations
- 12 electrical substations
- 3 pumping stations
- 15 sumps
- 1 powder & cap magazine
- Fiber optic communication to level 0580
- Ramp services
  - 11.2 km of ventilation (including exhaust fan and heating system at surface)
  - 10.0 km of water
  - 7.9 km compressed air
- 2 wash bays
- 2 Storage bays
- 5 ventilation raises
- 40 drill bays
- 1 test stope



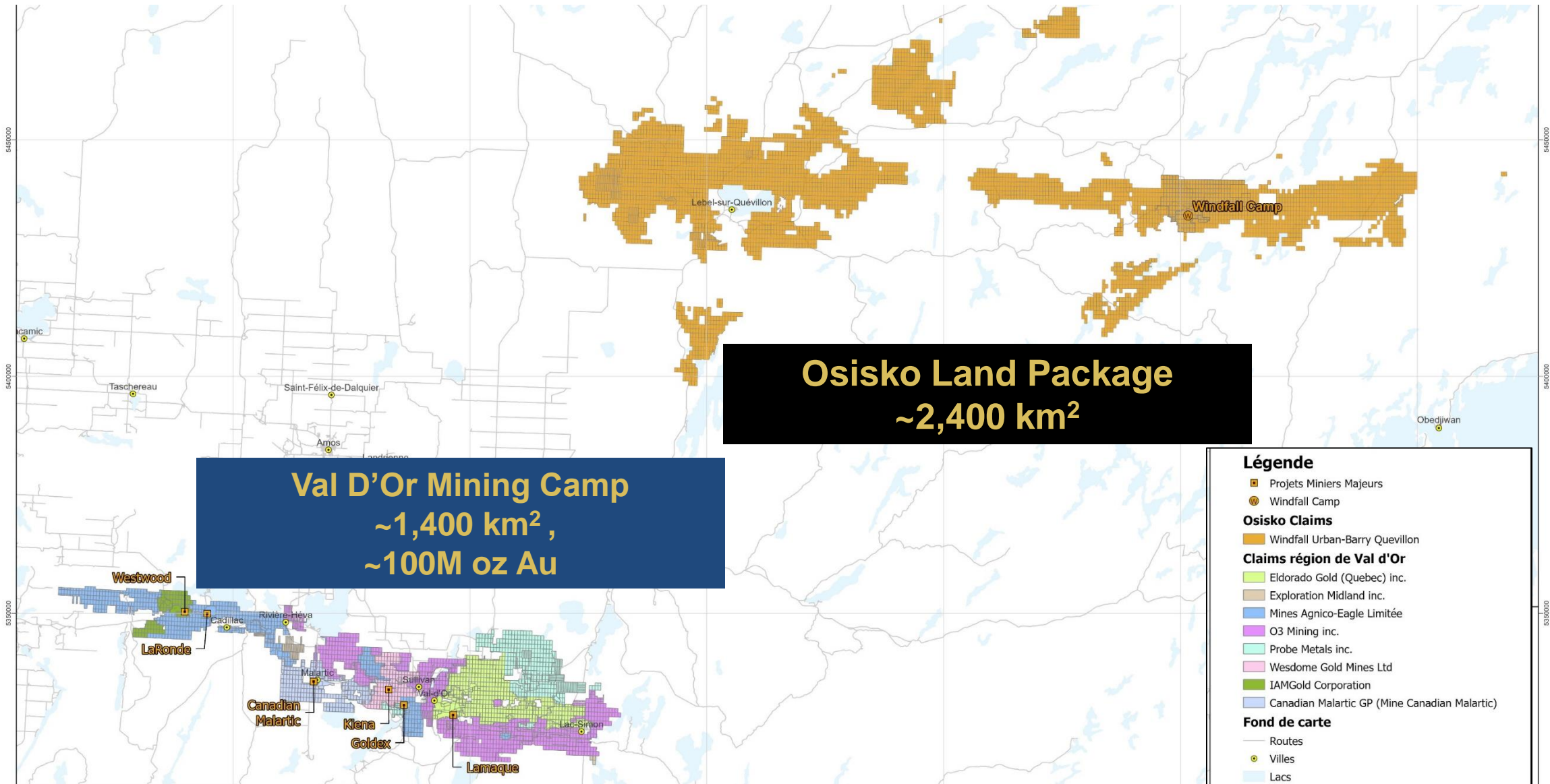
## Existing Civil Works

- Accommodation complex
- Nursing station
- COVID 19 laboratory
- Helicopter pad
- Gate house & security
- 3 drinking water wells
- 6 septic fields
- 4 administrative offices, 100 workstations
- Communication tower
- Fiber optic communication
- Weather station
- 5 Core shacks
- 111 racks of core
- Kitchen, composter, compactor
- Recreation areas (gym, hockey, volleyball)
- 3 heated storage domes & 2 storage pads
- 4 parking areas
- 84,068 m<sup>2</sup> lined waste pad
- 100 m<sup>3</sup>/h lined water treatment
- Progressive rehabilitation of drill pads



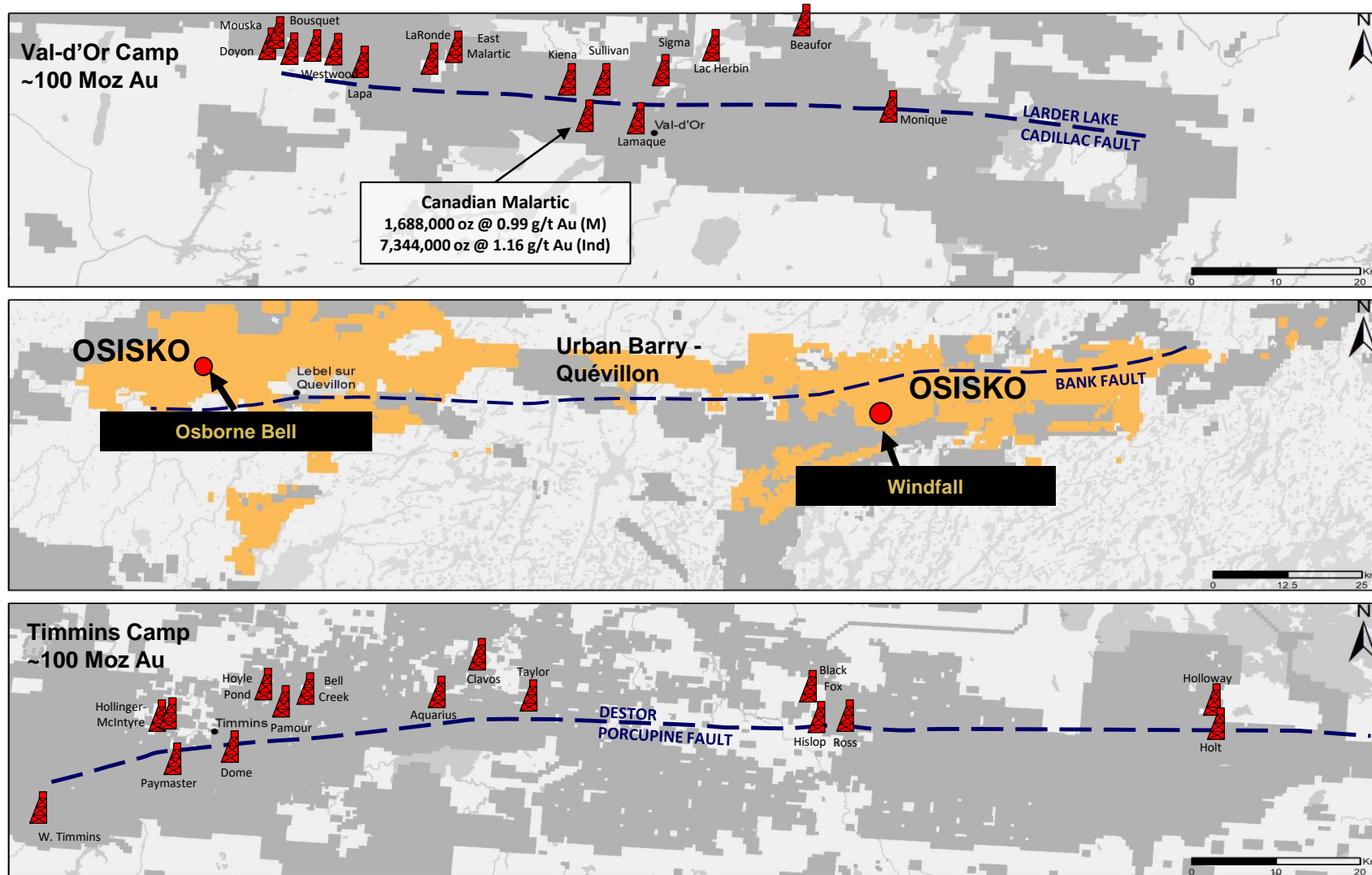


# Osisko Claim Package – Mining Camp Scale



# Emerging Mining District

Urban Barry –  
Quévillon is a  
greenstone  
belt in the  
Abitibi bisected  
by major  
structure –  
same setting  
as Val D’Or and  
Timmins  
camps







# Windfall Area Discovery Potential

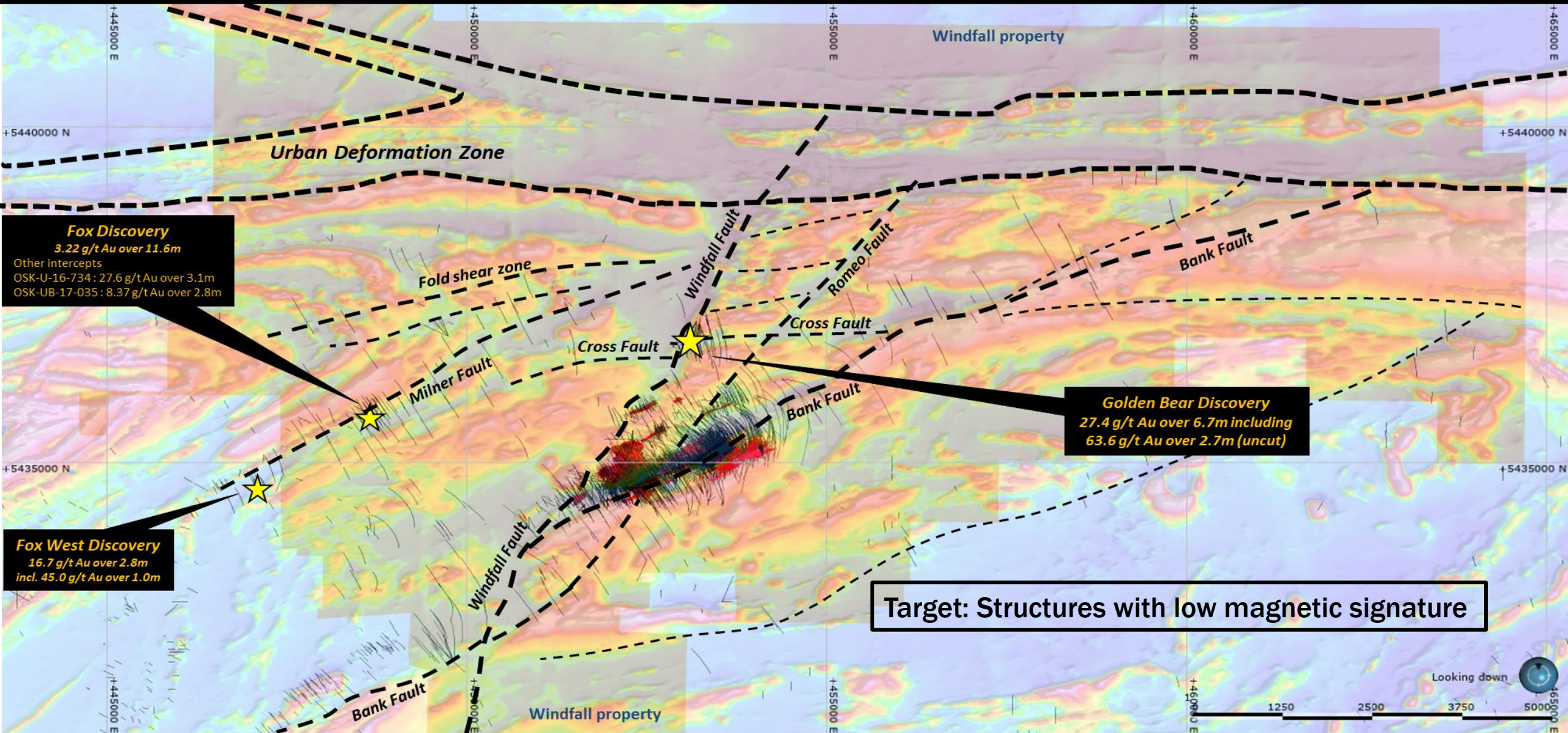


Figure for illustrative purposes only showing highest grade results from each discovery area. For further information please see news releases: Fox Discovery August 29, 2016, and November 23, 2016; Fox West June 9, 2019; and Golden Bear June 15, 2021.



# Summary



- ◆ Largest high-grade gold deposit (>1 Moz Au) ever discovered in Québec
- ◆ World-class in scale & grade, Windfall continues to grow
  - ◆ 3.2M ounces Au M&I @ 10.5 g/t
  - ◆ 3.6M ounces Au Inferred @ 8.6 g/t
  - ◆ Resource depth: from surface to 1200m
  - ◆ Bulk samples 126% - 189% positive reconciliation
- ◆ Rapid project advancement
- ◆ Regional potential to be the next major Abitibi mining camp
- ◆ Top ranked ESG



# Appendix

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**Au**

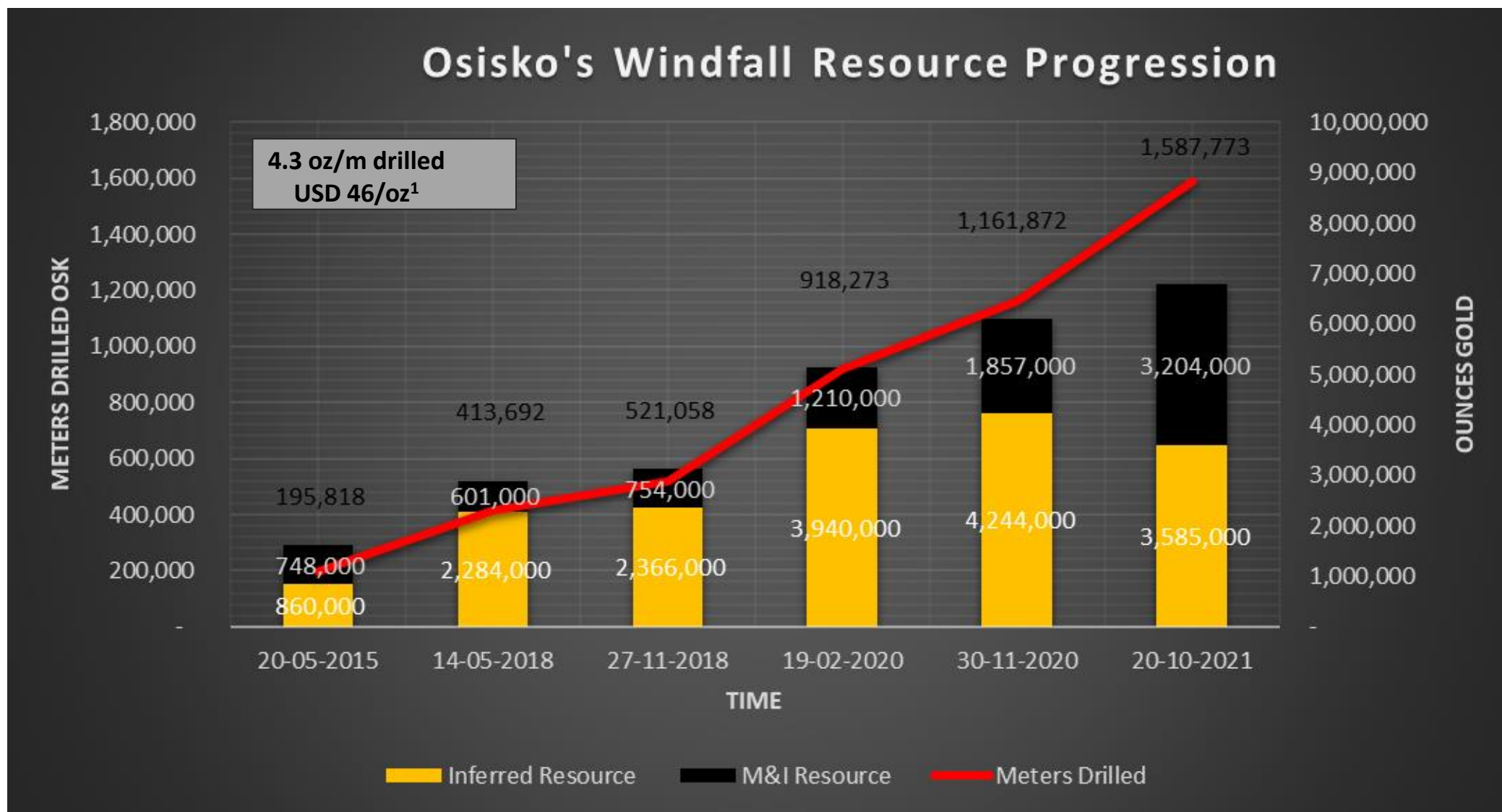
**Gold**

196.967





## Resource Growth: Adding Significant Ounces

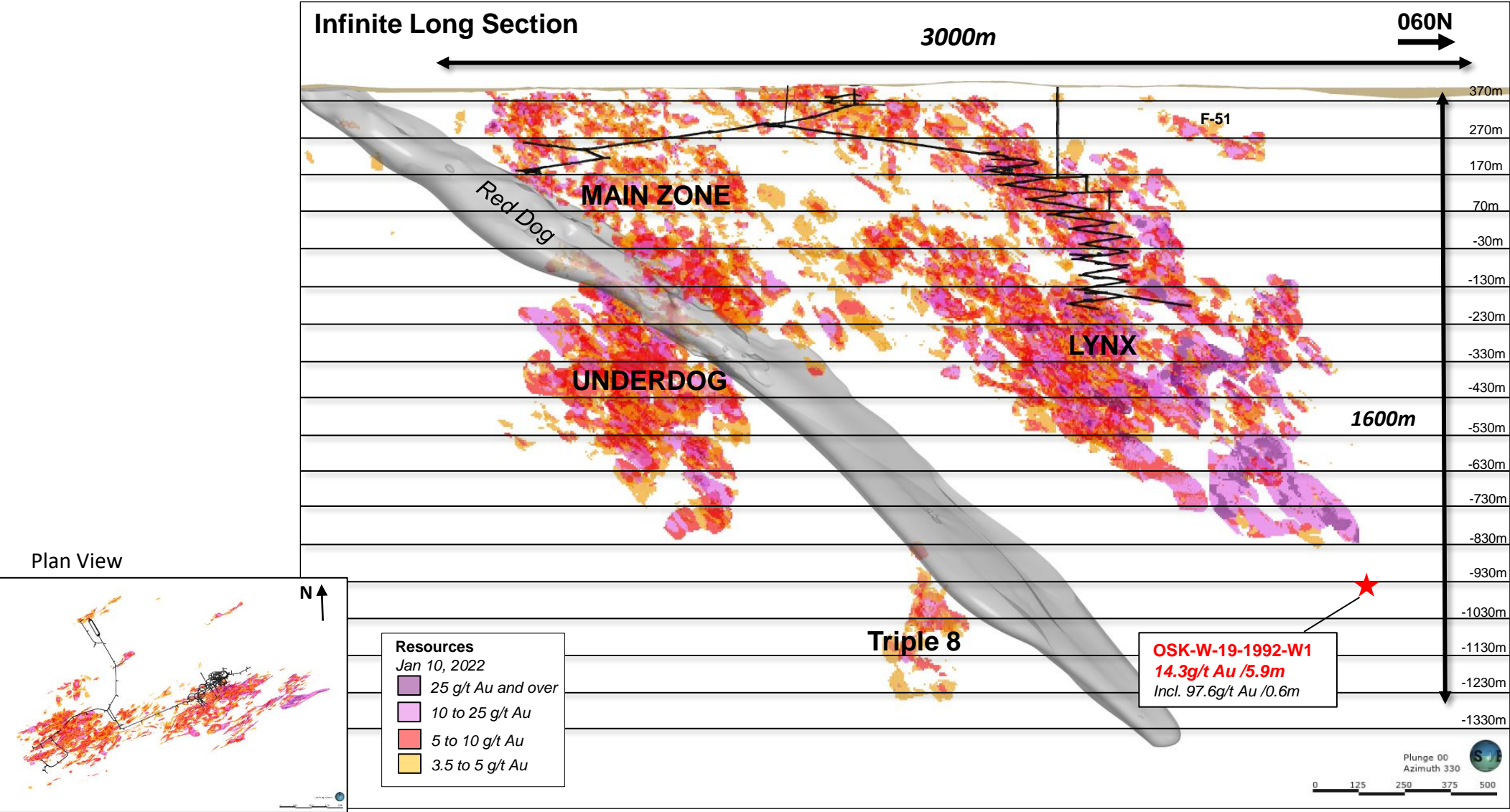


This graphic demonstrates the progression of the mineral resource at Windfall as at the effective dates of such mineral resource estimates shown on the x-axis of the graphic. Any mineral resource estimate other than the current 2022 MRE is (i) historic in nature, and (ii) being presented for illustrative purposes only and should not be relied upon.

<sup>1</sup>Non-audited estimation using actual exploration expenditures as of December 31st, 2021 (excluding exploration ramp expenditures), the amount of meters drilled by Osisko since 2015 and considering Quebec Tax Exploration Credit returns divided by global ounces. This is considered a non-GAAP number.

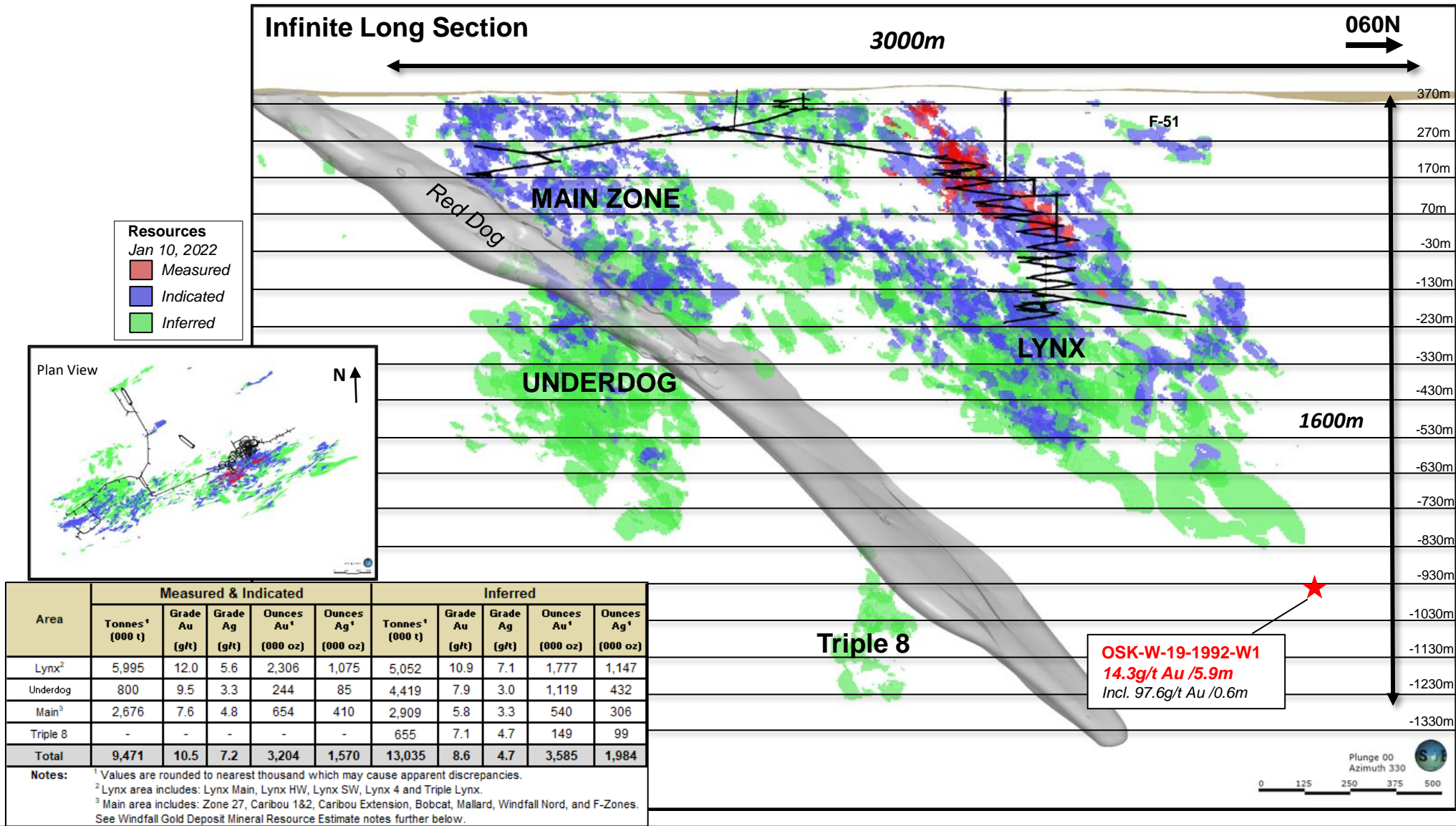


# Windfall Grade Isopachs: Higher Grade Down Plunge





# Measured and Indicated Drilling Completed As Of October 2021

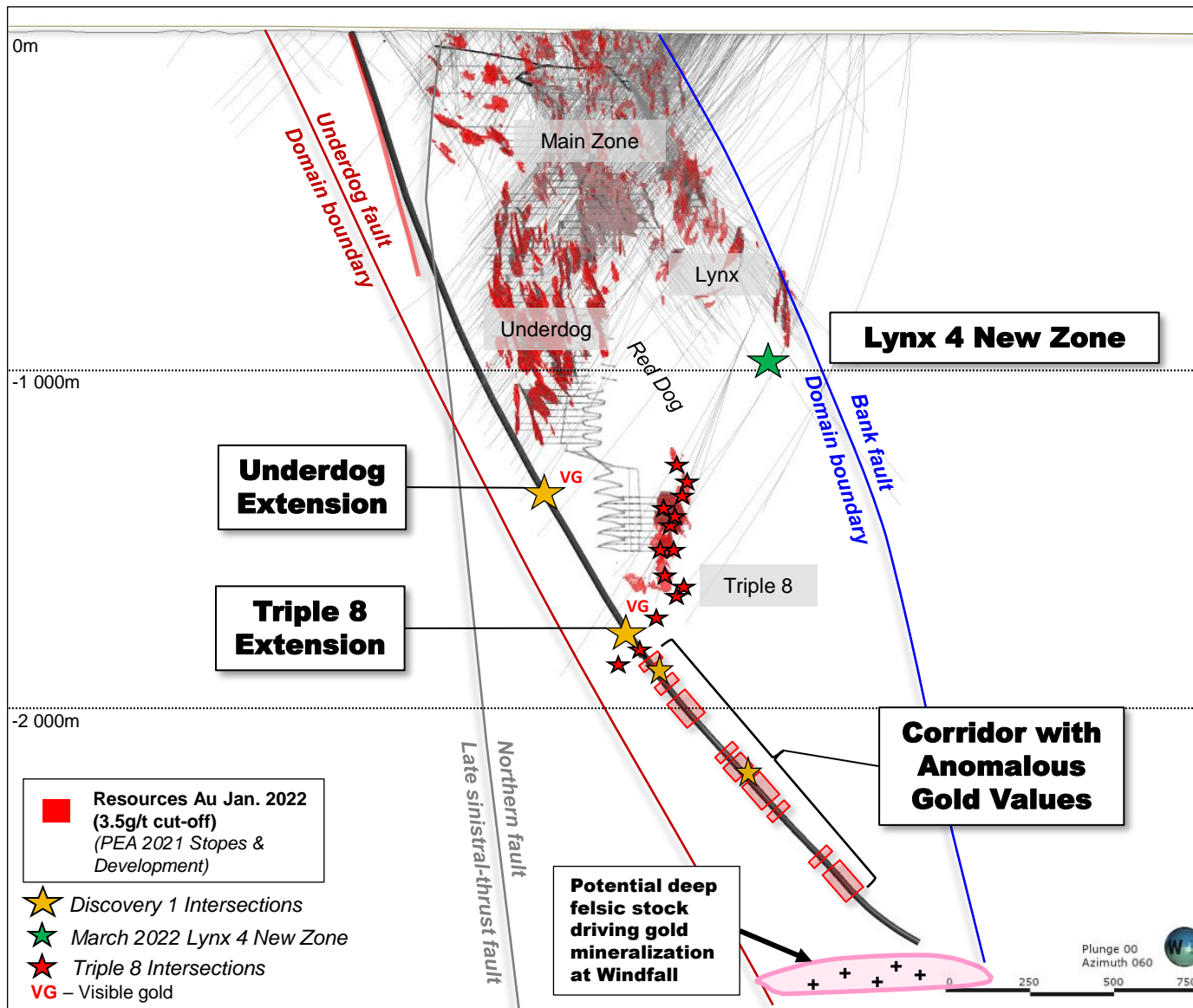






# DISCOVERY 1: STRONG INDICATIONS OF MORE

Section 3100 E 700m thickness



# Notes on the Windfall Gold Deposit Mineral Resource Estimation

1. The independent qualified person for the 2022 MRE, as defined by NI 43-101 guidelines, is Pierre-Luc Richard, P.Geo.(OGQ#1119), of BBA Inc. The effective date of the estimate is October 20, 2021.
2. The Windfall mineral resource estimate follows the November 29, 2019 CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines.
3. These mineral resources are not mineral reserves as they have not demonstrated economic viability. The quantity and grade of reported Inferred mineral resources in this news release are uncertain in nature and there has been insufficient exploration to define these resources as indicated or measured; however, it is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources with continued exploration.
4. Resources are presented undiluted and in situ and are considered to have reasonable prospects for economic extraction. Isolated and discontinuous blocks above the stated cut-off grade are excluded from the mineral resource estimate. Must-take material, i.e. isolated blocks below cut-off grade located within a potentially mineable volume, was included in the mineral resource estimate.
5. As of October 20, 2021, the database comprises a total of 4,536 drill holes for 1,722,097 metres of drilling in the areal extent of the mineral resource estimate, of which 3,882 drill holes (1,539,984 metres) were completed and assayed by Osisko. The drill hole grid spacing is approximately 12.5 metre x 12.5 metre for definition drilling, 25 metre x 25 metre for infill drilling and larger for extension drilling.
6. All core assays reported by Osisko were obtained by analytical methods described below under "Quality Control and Reporting Protocols".
7. Geological interpretation of the deposit is based on lithologies, mineralization style, alteration and structural features. Most mineralization envelopes are subvertical, striking NE-SW and plunging approximately 40 degrees towards the North-East. The 3D wireframing was generated in Leapfrog Geo, a modelling software, from hand selections of mineralization intervals. The mineral resource estimate includes a total of 556 tabular, mostly sub-vertical domains defined by individual wireframes with a minimum true thickness of 2.0 metres.
8. Assays were composited within the mineralization domains into 2.0 metres length composites. A value of 0.00125 g/t Au and 0.0025 g/t Ag (¼ of the detection limit) was applied to unassayed core intervals.
9. High-grade composites were capped. Cappings were determined in each area from statistical studies on groups of lenses sharing similar mineralization characteristics. Cappings vary from 6 g/t Au to 200 g/t Au and from 5 g/t Ag to 150 g/t Ag. A multiple capping strategy defined by capping values decreasing as interpolation search distances increase was used in the grade estimations.
10. Block models were produced using Datamine™ Studio RM Software. The models are defined by parent cell sizes of 5 metres NE, 2 metres NW and 5 metres height, and subblocked to minimum subcell sizes of 1.25 metres NE, 0.5 metres NW and 1.25 metres height.
11. Ordinary Kriging (OK) based interpolations were produced for gold estimations in each area of the Windfall deposit, while silver grade estimations for most projects were produced using Inverse Distance Squared (ID2) interpolations. Gold estimation parameters are based on composite variography analyses. The gold estimation parameters were used for the silver estimation.
12. Density values vary between 2.73 and 2.93 and are mainly based on the densities of lithologies within the mineralized lenses.
13. The Windfall mineral resource estimate is categorized as measured, indicated and inferred mineral resource as follows:
  - a. The measured mineral resource category is manually defined and encloses areas where:
    - i. drill spacing is less than 12.5 metres,
    - ii. blocks are informed by a minimum of four drill holes,
    - iii. geological evidence is sufficient to confirm geological and grade continuity.
    - iv. lenses in the area have been accessed by underground workings.
  - b. The indicated mineral resource category is manually defined and encloses areas where:
    - i. drill spacing is generally less than 25 metres,
    - ii. blocks are informed by a minimum of two drill holes,
    - iii. geological evidence is sufficient to assume geological and grade continuity.
  - c. The inferred mineral resource category is manually defined and encloses areas where:
    - i. drill spacing is less than 100 metres,
    - ii. blocks are informed by a minimum of two drill holes,
    - iii. geological evidence is sufficient to imply, but not verify geological and grade continuity.
14. The mineral resource is reported at 3.5 g/t Au cut-off. The cut-off grade is based on the following economic parameters: gold price at 1,600 USD/oz, exchange rate at 1.26 USD/CAD, 94.9% mill recovery; payability of 99.95%; selling cost at 5 USD/oz, 2% NSR royalties, mining cost at 107 CAD/t milled, G&A cost at 32 CAD/t milled, processing cost at 31 CAD/t milled, transportation cost at 2 CAD/t considering mill at site, and environment cost at 12 CAD/t. A cut-off grade of 3.5 g/t Au was selected over the calculated cut-off grade of 3.1 g/t Au to better reflect a realistic mining cut-off.
15. Estimates use metric units (metres, tonnes and g/t). Metal contents are presented in troy ounces (metric tonne x grade / 31.103475).
16. The independent qualified person is not aware of any known environmental, permitting, legal, title-related, taxation, socio-political or marketing issues, or any other relevant issue, that could materially affect the mineral resource estimate.
17. Values in tonnes and ounces are rounded to nearest thousand which may cause apparent discrepancies.