



OSISKO MINING PROVIDES QUEBEC EXPLORATION UPDATE

(Toronto, February 8, 2018) Osisko Mining Inc. (OSK:TSX) ("Osisko" or the "Corporation") is pleased to provide an update on the progress of exploration at its 100% owned Windfall Lake, Urban Barry and Quévillon gold projects located in the Abitibi greenstone belt, Eeyou Istchee James Bay, Québec.

Osisko has been conducting new exploration and definition drilling at Windfall for 26 months, since late October 2015. As of the end of January 2018, Osisko has completed 518,000 metres of the planned 800,000 metres to complement the pre-existing 180,000 metres drilled at Windfall by previous operators.

The company is rapidly advancing the Windfall and Lynx deposits through a balance of resource delineation drilling and exploration drilling for extensions and new mineralized zones. Osisko has been successful in the past two years at significantly expanding the known areas of mineralization in the Windfall system and reinterpreting the geological model of the Windfall deposit. Drilling over the past 18 months has been directed by the evolving intrusion-related geological model, leading to the discovery of significant extensions of the previously known mineralized zones, and to the discovery of the new Lynx deposit, Wolf and Bobcat zones.

Exploration Budget for 2018: \$100M

Osisko's 2018 exploration budget for the Windfall/Lynx deposits, Urban Barry and Quévillon project areas totals approximately \$100 million. This budget includes resource estimation work, resource-oriented drilling, exploration ramp and underground bulk sampling of known mineralized zones, metallurgical work, permitting, PEA and feasibility studies, exploration drilling proximal to Windfall and Lynx, and exploration drilling on the greater Urban Barry and Quévillon properties.

Windfall/Lynx: Initial Resource Estimation Planned for May 2018, PEA Planned for June 2018

Osisko's initial resource for Windfall is scheduled to be released in early May, a delay of six weeks from the previous Q1 2018 estimated completion, due to the slower than anticipated turnaround of assay data. Osisko plans to have a Preliminary Economic Assessment completed in June 2018 for the Windfall deposit subsequent to the release of the initial resource estimate.

The main Windfall deposit and the Lynx deposit (discovered by Osisko in early 2017) remain open to the NE and at depth, and surface exploration drilling is continuing. Newly discovered extensions of the main Windfall deposit (Caribou Extension, Zone 27 Extension, Underdog Expansion), and part of the Lynx deposit and its sub zones below 350 metres depth and further northeast of section 3750E, will not be included in the May 2018 resource estimate, due to lack of adequate drill density. Infill drilling planned for the balance of 2018 will be focused on these areas, with the aim of including them in a planned Q1 2019 feasibility study.

The Corporation will continue significant exploration drilling at Windfall and Lynx through the balance of 2018 as it moves towards the feasibility study, and will continue drilling at the main Windfall and Lynx deposit to infill and extend the mineralized zones defined to date.

Windfall Exploration Ramp Progress

Dewatering of the historic exploration ramp was completed at the end of August 2017, and rehabilitation of the portal began in September. To date, 1,021 metres of rehabilitation have been completed. The remaining areas of the pre-existing exploration ramp are non-essential and will be rehabilitated as necessary.

The first underground blast was completed in late October (see October 27, 2017 press release). Underground infrastructure completed to date includes 45 metres of development for powder and cap magazines and 48 metres of slashes and safety bays. Three electrical substations have been installed as well as a water basin for future water treatment.

New advance towards the Main Zone commenced in late December, with 136 metres completed to date. The rate of advance is approximately 150 metres per month. Bulk sampling in Zone 27, Caribou and Underdog is anticipated to occur in Q2 2018, Q3 2018 and Q4 2019 respectively.

Permits for the exploration ramp towards Lynx are anticipated in Q2 2018. Approximately 1,200 metres of exploration ramp extension are planned to reach Lynx. Bulk sampling in Lynx is anticipated to occur in Q1 2019.

Property Acquisition in Lebel-sur-Quévillon

An alternatives assessment, considering environmental, technical, social and economic factors, has been completed on the location of the potential processing plant for the Windfall Project. The preferred option for the location of the potential processing plant is in the municipality of Lebel-sur-Quévillon (partially on the former Domtar site) and in the territory of Eeyou Istchee James Bay, Québec. The acquisition of approximately 560 hectares of property is expected to be finalized in Q1 2018. The proximity to a stable workforce and existing infrastructure, including power and water supply with available capacity were important components in the evaluation.

Osborne-Bell: Initial Resource Estimation Planned for April 2018

Osisko commenced new drilling at the Osborne-Bell deposit with two rigs in early December 2017. Re-evaluation of the approximately 200,000 metres of historical drilling results from previous operators and the addition of new information from Osisko's drilling will be used to produce an initial resource, anticipated to be released in early April 2018. Osborne-Bell is located approximately 20 kilometres northwest of the town of Lebel-sur-Quévillon.

Exploration Planned for Fox and Black Dog

A review of the exploration work conducted by Osisko in 2016 and 2017 at the Fox and Black Dog discoveries, within the context of the evolving geological model for the main Windfall deposit is currently under way. New exploration drilling is planned for the two areas in H2 2018.

Exploration on the Urban Barry Block

Osisko has completed base line exploration programs on the Urban Barry block including airborne geophysics, ground geophysics, geological mapping and sampling and basal till sampling, developing a significant number of targets (over 100). Osisko intends to include exploration drilling on priority targets developed by these base line programs in the course of 2018 work.

Exploration on the Quévillon Block

Osisko acquired the Quévillon Block in early 2017, and commenced the collection of base line exploration data including airborne geophysics, geological mapping and sampling, and basal till sampling. The continuing work is approximately one-third complete, with several significant exploration targets already developed from both historical drilling and the new information collected. Osisko intends to include exploration drilling on priority targets developed by these programs in the course of 2018 work.

President and CEO of Osisko John Burzynski commented: "We have been moving the

Windfall project forward at a very quick pace since our first work started in late 2015. We have added significant shareholder value through our substantial drilling and exploration programs at Windfall, with the discovery of the Lynx deposit and new previously unknown extensions of the main Windfall zones. We plan to continue the fast pace of work on all of our projects in 2018 with over 20 active drills, and are eagerly anticipating the release of our first resource estimate for Windfall-Lynx in early May. We will prepare a Preliminary Economic Assessment for Windfall-Lynx for June 2018 following the anticipated resource estimate, and will continue our exploration of the deposits through surface drilling and the progression of the exploration ramp, with the goal of moving to a feasibility study for Windfall in early 2019. Property-wide exploration on our bank of existing targets will also resume in 2018, with the goal of adding new discoveries to our growing inventory of “drill bit success” at Windfall. We will have another very busy year, with an exploration budget of approximately \$100 million, and will continue to be the most active explorer in Québec in what we believe is a new developing mining camp.”

About the Windfall Lake Gold Deposit

The Windfall Lake gold deposit is located between Val-d'Or and Chibougamau in the Abitibi region of Québec, Canada. The mineral resource defined by the previous operator comprises 2,762,000 tonnes at 8.42 g/t Au (748,000 ounces) in the indicated category and 3,512,000 tonnes at 7.62 g/t Au (860,000 ounces) in the inferred category (sourced from a technical report dated June 10, 2015 entitled "Preliminary Economic Assessment of the Windfall Lake Gold Property, Québec, Canada" with an effective date of April 28, 2015, prepared in accordance with NI 43-101). The Windfall Lake gold deposit is currently one of the highest-grade resource-stage gold projects in Canada. The bulk of the mineralization occurs in the Main Zone, a southwest/northeast trending zone of stacked mineralized lenses, measuring approximately 600 metres wide and at least 1,400 metres long. The deposit is well defined from surface to a depth of 500 metres and remains open along strike and at depth. Mineralization has been identified only 30 metres from surface in some areas and as deep as 870 metres in others, with significant potential to extend mineralization up and down-plunge and at depth.

About Osisko Mining Inc.

Osisko is a mineral exploration company focused on the acquisition, exploration, and development of precious metal resource properties in Canada. Osisko holds a 100% in the high-grade Windfall Lake gold deposit located between Val-d'Or and Chibougamau in Québec and holds a 100% undivided interest in a large area of claims in the surrounding Urban Barry area and nearby Quévillon area (over 3,300 square kilometres), a 100% interest in the Marban project located in the heart of Québec's prolific Abitibi gold mining district, and properties in the Larder Lake Mining Division in northeast Ontario, including the Jonpol and Garrcon deposits on the Garrison property, the Buffonta past producing mine and the Gold Pike mine property. The Corporation also holds interests and options in a number of additional properties in northern Québec and Ontario. Osisko continues to be well financed with approximately \$190 million in cash and investments as of the end of Q4 2017.

Cautionary Note Regarding Forward-Looking Information

This news release 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 news release. The information in this news release about the timing and ability (if at all) of Osisko to prepare a Preliminary Economic Assessment and initial resource estimate for the Windfall deposit; the timing and ability (if at all) of Osisko to prepare a feasibility study for the Windfall deposit; Osisko's exploration budget for 2018; the advancement of the Windfall and Lynx deposits through drilling and exploration initiatives; the expansion of the previously known mineralized zones and the discovery of the new Lynx deposit, and Wolf and Bobcat zones; continued exploration and drilling at the Windfall and Lynx deposits and any extension of the mineralized zones; the continued advancement, and rate of advancement, of the exploration ramp; the timing and ability (if at all) of Osisko to obtain permits for the exploration ramp towards Lynx; the ability of the Windfall Lake gold project to be one of the highest-grade resource stage gold projects in Canada; the significance of drill results from the ongoing drill program at the Windfall Lake gold project; the timing and ability (if at all) of Osisko to complete additional property acquisitions in Lebel-sur-Quévillon; the benefits of a potential processing plant in Lebel-sur-Quévillon; the timing and ability (if at all) of Osisko to prepare an initial resource estimate in respect of the Osborne-Bell deposit; exploration planned at the Fox and Black Dog discoveries; proposed exploration work at the Urban Barry block; proposed exploration work on the Quévillon block; the continued fast pace of our work in 2018; our ability to sustain and add shareholder value; Osisko's ability (if at all) to develop into a mining camp; the type of drilling included in the drill program; potential mineralization; the ability to realize upon any mineralization in a manner that is economic; the ability to complete any proposed exploration activities and the results of such activities; and any other information herein that is not a

historical fact may be "forward-looking information". Any statement that involves discussions with respect to 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", "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. This forward-looking information is based on reasonable assumptions and estimates of management of the Corporation at the time it was made. This forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from any results, performance or achievements expressed or implied by such forward-looking information. Such factors include, among others, risks relating to the ability of exploration activities to accurately predict mineralization; errors in management's geological modelling; delays in the turnaround of assay data; lack of adequate drill density; Osisko's timing and ability (if at all) to complete further exploration activities, including drilling; property interests in the Windfall Lake gold project and Osborne-Bell gold deposit; the results of exploration activities; risks relating to mining activities; the global economic climate; metal prices; dilution; environmental risks; and community and non-governmental actions. Although the forward-looking information contained in this news release 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 information, 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 information. Osisko does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law.

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