High grade intersection 600 metres NE of main deposit

MONTREAL, QUEBEC--(Marketwired - Dec 5, 2016) - Osisko Mining Inc. (TSX:OSK) ("Osisko" or the "Corporation") is pleased to announce new results from the ongoing 150,000 metre drill program at its 100% owned Windfall Lake gold project located in the Urban Township, Québec. The recently commenced expansion program included step-out drilling along fences located 200, 400, 600 and 800 metres northeast of the main deposit. The program is testing a linear magnetic depression that is interpreted to be related to a magnetite destructive silica-sericite alteration corridor associated with the Windfall intrusive system. The linear structure currently being investigated with the step out drilling is parallel to the Windfall deposit and extends for an additional 2600 metres northeast of the deposit. The magnetic feature was identified in the high-resolution airborne magnetic survey conducted earlier in the year by Osisko.

Initial drill holes have been completed on the first three step out lines extending 600 metres from the last known mineralized intercept in the main deposit. The initial holes on all three lines have encountered mineralized zones characteristic of the main Windfall deposit, providing strong support for management's view that the deposit continues along the extension program area. Assays are pending from the drill holes on the 200 and 400 metre step out lines and for the lower half of the drill hole reported today. The 800 metre step out fence will commence shortly. Initial analytical results presented below are from DDH OSK-W-16-760, one of the first drill holes located on the 600 metre fence, which intersected 65.0 g/t Au over 5.7 metres (148 g/t Au over 5.7 metres uncut) at a vertical depth of 200 metres. The mineralization and alteration is very similar to known zones in the Windfall deposit, consisting of a strong dark silica breccia and flooding with pyrite stringers and abundant visible gold.

This new discovery provides support for the significant potential of the northeast area of the Windfall deposit which Osisko believes may, with data from more systematic drilling, lead to a measurable increase in the scale of the previously defined mineralized system. The strong potential for further extensions of the deposit in the northeast trending magnetic depression is further corroborated by these new results, and will be a new focus of ongoing exploration drilling at Windfall. Details of the new drill intercept are presented below. Maps and sections showing the location of DDH OSK-W-16-760 are available at www.osiskomining.com.

re	From (m)	To (m)	Interval (m)	Au (g/t) uncut	Au (g/t) cut to 100 g/t	Zone	Corridor
OSK-W-16-760	226.3	232.0	5.7	148	65.0	New	New
including	226.3	229.8	3.5	211	76.0	New	New
including	229.0	229.8	0.8	591	100	New	New

Notes:

(1) For complete drilling results please see www.osiskomining.com

(2) True Widths are estimated at 65 - 80% of the reported core length interval. See "Quality Control" below

Full analytical results from the new drill holes are available at www.osiskomining.com.

Hole Number	Azimuth (°)	Dip (°)	Length (m)	UTM E	UTM N	Section
OSK-W-16-760	332.0	-65.0	In progress	453403	5434971	3544

Qualified Person

The scientific and technical content of this news release has been reviewed, prepared and approved by Mr. Jean-Philippe Desrochers, Ph.D., P.Geo. Senior Project Manager of the Windfall Lake gold project, who is a "Qualified Person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

Quality Control

Additional drilling is planned for the immediate area which will enable the true width determination. Assays are uncut except where indicated. All NQ core assays reported were obtained by either 1 kilogram whole rock metallic screen/fire assay or standard 50 gram fire-assaying with AA or gravimetric finish at ALS Laboratories in Val d'Or, Québec or Sudbury, Ontario. The 1 kilogram metallic screen assay method is selected by the geologist when samples contain coarse gold or present a higher percentage of pyrite than surrounding intervals. All samples are also analyzed for multi-elements, including silver, using an Aqua Regia-ICP-AES method at ALS laboratories. Drill program design, Quality Assurance/Quality Control and interpretation of results is performed by qualified persons employing a Quality Assurance/Quality Control program consistent with NI 43-101 and industry best practices. Standards and blanks are included with every 20 samples for Quality Assurance/Quality Control purposes by the Corporation as well as the lab. Approximately 5% of sample pulps are sent to secondary laboratories for check assays.

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 *current mineral resource 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 (82,400 hectares), 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 Ontario. Osisko continues to be well financed and has approximately $80 million in cash and cash equivalents as well as marketable securities of approximately $60 million.

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 significant potential of the northeast area of the Windfall deposit; the significance of new results from the ongoing 150,000 metre drill program at the Windfall Lake gold deposit; a potential increase in the scale of the previously defined mineralized system; the Corporation's commitment to doing more systematic drilling of the northeast area of the Windfall deposit; the importance of the recently expanded step-out drilling along fences northeast of the main deposit; the possible relation of a linear magnetic depression to a magnetite destructive silica-sericite alteration corridor associated with the intrusive system of the Windfall deposit; the ability of the high-resolution airborne magnetic survey to accurately identify the magnetic feature; the significance of the drill holes of the first three step-out lines and their ability to support management's view that the deposit is characteristic of the main Windfall deposit and continues along the extension program area; the mineralization and alteration of the three step-out lines being similar to known zones in the Windfall deposit; 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; the continuity or extension of any mineralization; 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, involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Osisko to be materially different from any future 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 (including drill results) to accurately predict mineralization; errors in management's geological modelling; the ability of Osisko to complete further exploration activities, including drilling; property interests; the ability of the Corporation to obtain required approvals and complete transactions on terms announced; 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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