Main Corridors of Mineralization and Alteration Extended Across 600 Metres; Lynx Zone Discovery Extended 260 Metres

MONTREAL, QUEBEC--(Marketwired - Jan 11, 2017) - Osisko Mining Inc. (TSX:OSK) ("Osisko" or the "Corporation") is pleased to announce new results from the ongoing drill program at its 100% owned Windfall Lake gold project located in the Urban Township, Québec. The drill program has recently been increased by 250,000 metres (for a total of 400,000 metres) and combines definition drilling above the Red Dog intrusion ("Red Dog"), expansion drilling above and below Red Dog, expansion drilling to the NE of the main deposit, and exploration drilling on the greater deposit and Urban-Barry Project area. Nine drills are currently active in and around the Windfall deposit and three on the Urban-Barry and Black Dog properties, with additional drills planned to be added in the coming month. New analytical results from six drill holes focussed on expansion drilling to the NE are reported in this release, with significant assay results presented in the table below.

Significant new results include: 42.7 g/t Au over 9.0 metres (95.3 g/t Au over 9.0 metres uncut), 14.1 g/t Au over 3.0 metres and 7.79 g/t Au over 4.5 metres in OSK-W-16-760; 41.8 /t Au over 2.0 metres and 17.0 g/t Au over 2.3 metres in OSK-W-16-750; 11.8 g/t Au over 6.0 metres and 8.12 g/t Au over 2.0 metres in DDH OSK-W-16-755; 9.66 g/t Au over 2.3 metres and 7.21 g/t Au over 2.6 metres in OSK-W-16-740; and 6.57 g/t Au over 2.3 metres in OSK-W-16-751.

The new results continue to show the potential for gold mineralization in the NE step-out extension of the main deposit, on the 200 metre, 400 metre and 600 metre sections from the limit of the 2014 mineral resource estimate completed by the previous operator. The 800 metre step out holes will commence shortly, and planning is under way for additional new 500 metre step out fences NE of the 800 metre line. New mineralized zones have been discovered in the emerging Lynx corridor. Results from OSK-W-16-740 and OSK-W-16-755 are interpreted to extend the Lynx Zone to a current strike length of 260 metres, and the zone remains open to the NE.

President and CEO John Burzynski commented: "These new results from our drilling campaign on 200 metre step-out lines northeast from the main Windfall deposit are very encouraging and are confirming our working interpretation of the deposit, greatly expanding the mineralized footprint. Our step-outs have intersected the known corridors of mineralization and alteration moving to the northeast, and we have a developing discovery with our new high-grade Lynx Corridor. We are soon commencing the 800 metre step-out fence and in the coming month plan to start systematic 500 metre step-outs from there, as we pursue the Windfall deposit along the NE-striking, 2.6 kilometre-long magnetic low feature. These very encouraging intersections have provided us with a wide program of new infill drilling which will be the target of much of our newly planned 250,000 metres of drilling in 2017."

Maps and sections showing drill hole locations and full analytical results are available at www.osiskomining.com.

Hole No.	From (m)	To (m)	Interval (m)	Au (g/t) uncut	Au (g/t) cut to 100 g/t	Step-Out[4]	Zone	Corridor
OSK-W-16-751	466.9	469.0	2.1	5.21		200 m	Shear Zone	Caribou
including	*466.9*	*467.8*	*0.9*	*11.45*		200 m		
	519.2	521.5	2.3	6.57		200 m	CN2	Caribou
OSK-W-16-759	189.1	193.5	4.4	4.20		200 m	Caribou HW	Caribou
OSK-W-16-740	137.4	140.0	2.6	7.21		400 m	Vn	n/a
including	*138.7*	*139.2*	*0.5*	*23.6*		400 m		
	159.0	161.0	2.0	4.49		400 m	Lynx	Lynx
	248.5	256.7	8.2	4.72		400 m	Lynx FW	Lynx
including	*249.5*	*250.1*	*0.6*	*13.0*		400 m		
including	*255.7*	*256.7*	*1.0*	*19.3*		400 m		
	305.4	310.0	4.6	5.69		400 m	Crustiform Vn	n/a
including	*305.4*	*306.1*	*0.7*	*11.8*		400 m		
including	*309.0*	*310.0*	*1.0*	*16.3*		400 m		
	720.5	722.8	2.3	9.66		400 m	CN2	Caribou
including	*720.5*	*721.5*	*1.0*	*19.5*		400 m		
	1389.0	1391.4	2.4	8.71		400 m	New	Underdog
including	*1390.2*	*1390.5*	*0.3*	*67.9*		400 m	Breccia	Underdog
OSK-W-16-755	63.0	69.0	6.0	11.8		400 m	Lynx	Lynx
including	*64.0*	*64.9*	*0.9*	*67.1*		400 m		
	147.0	149.0	2.0	8.12		400 m	Lynx FW	Lynx
including	*147.4*	*147.9*	*0.5*	*30.4*		400 m		
	668.0	670.0	2.0	5.60		400 m	Vn	n/a

OSK-W-16-750	418.2	420.5	2.3	17.0		600 m	Crustiform Vn	n/a
	709.0	711.0	2.0	41.8		600 m	Caribou	Caribou
	983.5	985.8	2.3	14.8		600 m	New	Underdog
including	*984.6*	*985.2*	*0.6*	*56.0*		600 m	Vn	Underdog
	1430.0	1432.0	2.0	4.65		600 m	Underdog	Underdog
OSK-W-16-760	208.0	211.0	3.0	14.1		600 m	Lynx HW	Lynx
including	*210.0*	*211.0*	*1.0*	*28.5*		600 m		
	223.0	232.0	9.0	95.3	42.7	600 m	Lynx	Lynx
including	*226.3*	*232*	*5.7*	*148*	*65.0 (3)*	600 m		
	250.5	255.0	4.5	7.79		600 m	Crustiform Vn	n/a
including	*250.5*	*252.0*	*1.5*	*19.6*		600 m		
	354.3	357.0	2.7	5.50		600 m	Crustiform Vn	n/a

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

(3) Interval previously reported. Newly received assay results expand the width of this intersection in the Lynx Zone.

(4) The step-out distances are measured from the limit of the 2014 mineral resource.

Definitions: Vn = vein; HW = hanging wall; FW = foot wall

Hole Number	Azimuth (°)	Dip (°)	Length (m)	UTM E	UTM N	Section
OSK-W-16-740	340.0	-65.6	1465.5	453237	5434929	3375
OSK-W-16-750	332.0	-65.0	1580.0	453439	5434933	3550
OSK-W-16-751	335.0	-63.7	943.5	453032	5434930	3200
OSK-W-16-755	335.0	-64.0	1078.5	453214	5434971	3375
OSK-W-16-759	331.8	-64.7	891.5	452990	5434981	3175
OSK-W-16-760	332.0	-65.0	1561.5	453403	5434972	3550

OSK-W-16-751 tested the Caribou and Zone 27 corridors on the 200 metre step-out section. The targeted CN2 Zone returned 6.57 g/t Au over 2.3 metres in a silicified porphyry dyke containing 3% pyrite stringers. No significant mineralization was intersected at the interpreted projection of Zone 27. The hole was stopped in the Red Dog dike that cross-cuts Underdog at this location.

OSK-W-16-759 targeted the extension of the Caribou Zone on the 200 m step-out section and intersected 4.2 g/t Au over 4.4 metres in an altered felsic dyke containing up to 25% pyrite stringers and disseminations. The CN2 Zone returned 1.53 g/t Au over 4.1 metres in a sericitized and silicified rhyolite containing 5-7% pyrite stringers and disseminations. No significant mineralization was intersected at the projected location of Zone 27 and the hole was stopped in the Red Dog dike that cross-cuts Underdog at this location.

OSK-W-16-740 was designed to test the 400 metre step-out section extension of the Caribou Corridor. A new intersection interpreted to be the WSW extension of the newly discovered Lynx Zone returned 4.49 g/t Au over 2.0 metres, 170 metres from discovery hole OSK-W-16-760 and 90 metres below OSK-W-16-755, in a sericitized and silicified rhyolite with 1-2% pyrite stringers and disseminations. A second new parallel zone located 50 metres into the footwall of the Lynx Zone was also discovered, returning 4.72 g/t Au over 8.2 metres, confirming the potential for additional mineralized zones in the emerging Lynx Corridor. One of the intended targets, the CN2 Zone of the Caribou Corridor returned 9.66 g/t Au over 2.3 metres in a strongly silicified and sericitized porphyry dyke containing 5% disseminated pyrite. This interval starts at 418.2m and correlates with the intercept of 6.57 g/t Au over 2.3 metres in OSK-16-W-751, located 210 metres to the SW. Zone 27 and the Underdog Corridor were not intersected as they are cross-cut by Red Dog at this location.

OSK-W-16-755 was drilled on the 400 metre step-out section and is interpreted to have extended the up-dip projection of the Lynx Zone by 260 metres to the WSW, returning 11.8 g/t Au over 6.0 metres in sericitized rhyolite containing 1% pyrite stringers and disseminations. The interpreted Lynx footwall zone returned 8.12 g/t Au over 2.0 metres in a silicified andesite at the contact with a porphyry dyke and correlates with the intercept of 4.72 g/t Au over 8.2m at 248.5 metres in OSK-W-16-740, located 100 metres below. The CN2 Zone in the Caribou Corridor was intersected from 618.0 to 621.8 metres in a semi-massive to massive pyrite interval containing 2-5% sphalerite in a sericitized porphyry dyke. The zone returned 2.08 g/t Au over 4.8 metres. There was no significant mineralization or alteration at the interpreted projection of Zone 27. The hole was stopped in Red Dog and did not test the Underdog Corridor.

OSK-W-16-750, located on the 600 metre step out fence intersected the Lynx Zone projection, 90 metres below OSK-W-16-760 in a sericitized rhyolite containing 1% pyrite and contained anomalous gold values. The hole also intersected a crustiform vein which returned 17.0 g/t Au over 2.3 metres, and further downhole intersected the ENE extension of the Caribou Zone returning 41.8 g/t Au over 2.0 metres in a sericitized rhyolite with 1% pyrite-chalcopyrite stringers. This hole also successfully intersected the FW4 Zone below Red Dog, returning 4.65 g/t Au over 2.0 metres in a sericitized and silicified andesite with 1-5% pyrite stringers and disseminations.

OSK-W-16-760 targeted the NE extensions of the Caribou Zone, Zone 27 and Underdog. Additional new assay results were received for the Lynx Zone discovery intersection (previously reported as 5.7 metres of 65.0 g/t Au, see December 5, 2016 press release), increasing the width of the interval to 9.0 metres averaging 42.7 g/t Au (9.0 metres averaging 95.3 g/t Au uncut). A new zone located in the hanging wall of the Lynx Zone (10 metres uphole from the discovery intersection) returned 14.1 g/t Au over 3.0 metres, hosted in a sericitized rhyolite containing 2-5% pyrite stringers and visible gold. The drill hole also intersected crustiform veins below the Lynx Zone assaying 7.79 g/t Au over 4.5 metres and 5.50 g/t Au over 2.7 metres respectively (the latter vein assaying 5.50 g/t Au over 2.7 metres is along the same structural corridor and inside the same gabbro unit as the crustiform vein of DDH OSK-W-16-750 reported above). Analytical results from the intended targets (Caribou, Zone 27 and Underdog corridors) are pending.

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 and Reporting Protocols

True widths of the new exploration intercepts below Red Dog reported in this press release have yet to be determined. Additional drilling is planned for the immediate area which will enable the true width determination. True widths of intercepts in the zones above the Red Dog are estimated at 65-80% of the reported core length intervals. Assays are uncut except where indicated, and calculated intervals are reported over a minimum length of 2 metres using a lower cutoff of 3 g/t Au. 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 $90 million in cash and cash equivalents as well as equity investments of approximately $50 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 increase in the size of the drill program by 250,000 metres; the type of drilling included in the drill program (definition drilling above Red Dog, expansion drilling above and below Red Dog, expansion drilling to the NE of the main deposit, and exploration drilling on the greater deposit and Urban-Barry project area); additional drills being added in the coming months; the successful results from the 200 metres of step-out lines over 600 metres of strike length northeast from the main Windfall mineralization; the ability of encouraging intersections to provide the Corporation with a wide expanse of new infill drilling targets, to be the objective of the additional 250,000 metres of drilling; 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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