

Caribou and Underdog Infill Drilling

MONTREAL, QUEBEC--(Marketwired - Apr 6, 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 Urban Township, Québec. The current 400,000 metre drill program 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. New analytical results from five drill holes focused on infill and expansion drilling in the Caribou Corridor and Underdog Corridor are reported in this release, with significant assay results presented in the table below.

New results include: 34.1 g/t Au over 4.0 metres, 7.41 g/t Au over 10.4 metres (6.21 g/t Au over 10.4 metres cut), 10.6 g/t Au over 6.8 metres and 9.38 g/t Au over 4.0 metres in hole OSK-W-17-780; and 55.4 g/t Au over 2.6 metres (19.4 g/t Au over 2.6 metres cut) in hole OSK-W-17-743-W4. Maps showing 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	Zone	Corridor
OSK-W-17-743-W4	1100.0	1103.0	3.0	6.86		FW1 HW	Under Dog
<i>including</i>	1101.8	1102.2	0.4	42.6			
	1139.0	1142.0	3.0	3.21		FW1	Under Dog
	1194.6	1197.0	2.4	16.6		FW2 HW	Under Dog
<i>including</i>	1195.6	1196.0	0.4	95.1			
	1282.4	1284.4	2.0	5.42		FW2 FW	Under Dog
<i>including</i>	1282.4	1283.3	0.9	11.4			
OSK-W-17-743-W5	964.5	967.0	2.5	5.36		FW0 HW	Under Dog
	1272.7	1275.3	2.6	55.4	19.4		
<i>including</i>	1273.7	1274.2	0.5	287		FW2	Under Dog
	1289.3	1291.9	2.6	3.94		FW2 FW	Under Dog
<i>including</i>	1290.3	1290.8	0.5	12.4			
OSK-W-17-780	435.9	439.3	3.4	4.46		New	Caribou
<i>including</i>	435.9	436.3	0.4	10.7			
<i>including</i>	438.8	439.3	0.5	18.8			
	1036.5	1046.9	10.4	7.41	6.21	FW0 HW	Under Dog
<i>including</i>	1036.5	1037.0	0.5	125			
	1070.3	1074.3	4.0	3.3		FW0	Under Dog
<i>including</i>	1072.1	1073.0	0.9	8.61			
	1271.6	1278.4	6.8	10.6		FW1	Under Dog
<i>including</i>	1276.0	1278.4	2.4	28.9			
<i>including</i>	1276.0	1277.0	1.0	65.8			
	1366.0	1370.0	4.0	34.1		FW3	Under Dog
<i>including</i>	1368.5	1370.0	1.5	90.5			
	1400.0	1404.0	4.0	9.38		FW3 FW	Under Dog
<i>including</i>	1401.0	1402.5	1.5	24.4			
OSK-W-17-784	767.0	770.0	3.0	4.89		Wolf HW	Caribou
<i>including</i>	769.5	770.0	0.5	15.1			
	780.4	786.1	5.7	3.21		Wolf HW	Caribou
<i>including</i>	785.1	786.1	1.0	13.6			
OSK-W-17-789	538.9	544.1	5.2	7.31	6.39	CS1 FW	Caribou
<i>including</i>	543.8	544.1	0.3	116			

Notes:

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

(2) Definitions: HW = hanging wall; FW = footwall.

Hole Number	Azimuth (°)	Dip (°)	Length (m)	UTM E	UTM N	Section
OSK-W-17-743-W4	334	-64	4847.4	452651	5434237	2525
OSK-W-17-743-W5	334	-64	5103.4	452651	5434237	2525
OSK-W-17-780	332	-59	5093.5	452929	5434378	2850
OSK-W-17-784	330	-54	2938.0	452860	5434491	2825
OSK-W-17-789	316	-38	3526.9	452545	5434390	2500

OSK-W-17-743-W4 intersected four zones in the Underdog corridor. The first zone returned 6.88 g/t Au over 3 metres in FW1 hanging wall. The mineralization is composed of 5-7% pyrite stringers and a tourmaline-quartz vein with visible gold hosted in an altered fragmental intrusion. This intersect is part of the 50 metres spacing infill program. The second zone returned 3.21 g/t Au over 3.0 metres in the FW1 corridor, 70 metres vertically under the OBM-15-560 5.7 g/t Au over 13.0 metres (see January 28, 2016 press release). The mineralization consists of 5% pyrite stringers associated with silica altered contact area between two felsic porphyry dikes. The third zone, located in FW2 hanging wall, returned 16.6 g/t Au over 2.4 metres. The mineralization consists of up to 30% pyrite and chalcopyrite traces in the similar geological context. The last zone assayed 5.42 g/t Au over 2.0 metres in the Underdog corridor between FW2 and FW3 zones. The mineralization is composed of 2-5% pyrite and trace of chalcopyrite associated to a porphyry dikes contact.

OSK-W-17-743-W5 tested Underdog Corridor and intersected 5.36 g/t Au over 2.5 metres in the hanging wall of FW0 in a bleached andesite containing 2% pyrite stringers. It correlates with 2.81 g/t Au over 2.0 metres in OSK-W-17-743-W3, located 70 metres to the south-west. This drill hole also intersected the FW2 zone 19.4 g/t Au over 2.6 metres (55.4 g/t Au over 2.6 metres uncut) including gold rich quartz veins 287 g/t Au over 0.5 metres. The FW2 foot wall zone was intersected 1060 metres below surface and returned 3.94 g/t Au over 2.6 metres.

OSK-W-17-780 intersected six parallel zones, one in the Caribou corridor and five in the Underdog corridor. The first returned 4.46 g/t Au over 3.4 metres 200 metres south-east of the main Caribou zone in strongly silicified andesite with disseminated pyrite. The second returned 6.21 g/t Au over 10.4 metres (7.41 g/t Au over 10.4 metres uncut). The mineralization includes up to 10% pyrite stringers, chalcopyrite, sphalerite and trace of electrum related to sericitized and silicified magmatic breccia. This new zone is located 35 metres in the hangingwall of the known FW0 Zone. The third zone, the FW0, returned 3.3 g/t Au over 4.0 metres in a sericitized and silicified fragmental porphyry dike containing 2 % pyrite stringers. This intersection extend the FW0 zone 60 metres to the east from the OBM-W-16-614 (see April 14, 2016 press release). The fourth zone, 100 metres spacing infill program on FW1, returned 10.6 g/t Au over 6.8 metres with the same lithological features. The FW3 Zone assayed 34.1 g/t Au over 4.0 metres hosted in a felsic intrusive with 1% pyrite stringers and disseminated pyrite. The last intersection is 35 metres deeper than the previous one and in strike with the FW3 zone. The analytical, results returned 9.38 g/t Au over 4.0 metres. The mineralization includes up to 10% pyrite stringers and extended the FW3 corridor 100 metres to the east from OSK-W-16-754 (see February 14, 2017 press release).

OSK-W-17-784 intersected two mineralized intervals in the hanging wall of the Wolf Zone. The first one returned 4.89 g/t Au over 3.0 metres hosted in a sericitized felsic large quartz eyes intrusive with 1 to 5 % disseminated pyrite, pyrite stringers and visible gold. The second intersection assayed 3.21 g/t Au over 5.7 metres associated with 5 to 10% pyrite stringers, local chalcopyrite and tourmaline veinlets. The mineralization is hosted in a sericitized, ankeritized and weakly silicified small quartz eyes felsic intrusive. This interval is located 20 meters to the south-west and below previously reported 17.1 g/t over 2.0 meters in OSK-W-16-708 (see August 31, 2016 press release).

OSK-W-17-789 is an infill hole testing the CS1 Zone. A 5.12 g/t Au over 7.4 metres zone was previously reported (see March 22, 2017 press release) and receipt of additional analytical results add on a new zone, 3.2 metres deeper in the hole, returning 6.39 g/t Au over 5.2 metres (7.31 g/t Au over 5.2 metres uncut). The mineralization include up to 8% pyrite stringers and trace of sphalerite associated to strongly sericite and silica altered felsic porphyry dike.

Qualified Person

The scientific and technical content of this news release has been reviewed, prepared and approved by Mr. Louis Grenier., P.Geo. 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 determinations in the Caribou and Underdog zones are estimated at 65-80% of the reported core length interval. 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 with approximately \$190 million in cash and investments.

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 Windfall Lake gold deposit being one of the highest grade resource-stage gold projects in Canada; the current 400,000 metre drill program at Red Dog; the significance of new results from the ongoing drill program at the Windfall Lake gold project, including in respect of the Caribou Corridor and Underdog Corridor; new analytics from the five drill holes focused on the Caribou Corridor and Underdog Corridor; the significance of assay results presented in this press release; 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); potential mineralization; the potential to extend mineralization up and down-plunge and at depth at the Windfall Lake gold deposit; 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 in the Windfall Lake gold project; 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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