Drilling to focus on aggressive R600W expansion and key exploration targets identified during the 2015 summer program

KELOWNA, BRITISH COLUMBIA--(Marketwired - Jan. 21, 2016) - Fission Uranium Corp. (TSX:FCU)(OTCQX:FCUUF)(FRANKFURT:2FU) ("Fission" or "the Company") is pleased to announce the commencement of a $7.2M winter exploration program consisting of 11,800m in 35 holes of drilling and a 214 line-km airborne HeliSAM MMC (Magnetometric Conductivity) survey at its PLS property in Canada's Athabasca Basin. The drill program will include 10,000m in 29 holes of core (DDH) drilling and 1,800m in 6 holes of Reverse Circulation (RC) drilling. Drill program highlights are as follows:

- Eighteen holes will focus on further growth of the high-grade, shallow mineralized zones including the R600W, R780E and R1620E. It should be noted that neither the R600W nor R1620E are yet included in the Triple R deposit resource estimate.
- Eleven holes will test high-priority exploration targets, including closer follow up associated with the PLG-1B conductor, located 470m north of the R600W zone, where holes PL15-419 and PLS15-425 intersected anomalous radioactivity in the down-hole gamma survey (PLS15-419 with a maximum of 7,965 cps at 153.5m and PLS15-425 with a maximum of 4,168 cps at 100.8m).
- Six RC exploration holes will test for basement bedrock uranium mineralization along the PLG-3B EM Conductor approximately 200m to 500m west along strike of the R600W zone.

Pre-collaring of the DDH core holes by the RC drill rigs has already begun and core drilling is expected to commence in the last week of January.

An advanced, tight-spaced airborne HeliSAM MMC survey is designed to obtain high-resolution geophysical detail of the bedrock within a particularly prospective area of the Patterson Lake Conductive Corridor including the Triple R's deposit and the 2.33km mineralized trend, with particular emphasis on hydrothermal clay alteration and structural controls to mineralization. The survey has the potential to identify specific areas with the greatest prospectivity of finding additional mineralization.

Ross McElroy, President, COO, and Chief Geologist for Fission, commented,

"*We have entered a new and exciting phase at PLS, with three clear areas of focus. We will of course continue building on the resource size and associated economics of the Triple R deposit, which were established by the recently-completed Preliminary Economic Assessment (PEA). We will also be targeting further growth of the high-grade R600W zone with a view to adding it to an updated Triple R resource estimate later this year as well as further evaluating the eastern R1620E zone. In addition, we will drill test a number of highly prospective and promising exploration targets, including five on the PLG-1B conductor as a follow up to the strong, anomalous alteration and radioactivity we encountered in two holes during the summer 2015 program*. Altogether an exciting time for the company, particularly with the CGN Mining deal expected to close on or before January 28, 2016."

Key Technical Information

- 11,800m of drilling utilizing up to 3 diamond drill core rigs and 2 RC drill rigs.
- Resource Growth Drilling: approximately 55% of the drill meter budget will be allocated towards resource growth and will be targeted as follows:
  - R600W - seven holes
  - R780E - six holes
  - R1620E - five holes
- Exploration Drilling: approximately 45% of the drill meter budget will be allocated towards exploration targeting, testing favorable high priority areas associated with bedrock alteration, structural features and radon anomalies along electromagnetic (EM) conductors as interpreted from geophysics surveys.

Prospective targets include:

- PLG-1B EM Conductor - five holes
  - Follow up of results from anomalous holes PLS15-419, 422 and 425
  - Holes will test down-dip and along strike of the anomalous radioactivity identified in hole PLS15-419 (peak of 7965 cps) and PLS15-425 (peak of 4168 cps)

- PLG-3B West EM Conductor - two DDH core holes and six RC holes
  - 1 DDH hole located 80m east of R600W between R600W and R00E zones where many strong radon anomalies have been identified
  - 1 DDH hole located 135m west of R600W zone
  - 3 RC holes drilled along a fence pattern across the conductor located 200m to the west of the R600W zone
  - 3 RC holes drilled along a fence pattern across the conductor located 500m to the west of the R600W zone

- PLG-3A EM Conductor - one hole
  - 1 hole targeting the PLG-3A conductor approximately 1 km east of the high-grade uranium boulder field, where promising geophysical signatures including a resistivity low associated with flexures in the conductor are present.

- Area B - one hole
  - Area B represents an area of anomalous radon anomalies to the North-East of main Patterson Lake Corridor. The drill hole will follow up on the large brittle graphitic fault encountered in PLS15-323 over an 87m (down-hole) wide interval. Previous holes in this area failed to intersect this fault structure

- Area C - one hole
  - Area C represents an area of anomalous lake bottom spectrometer uranium readings. One hole will target the most prospective portion of this anomalous area.

- Forrest Lake Conductive Corridor - one hole
  - This target represents a gravity low coincident with a break in the PLV-41D EM conductor and thus may be a suitable location for focusing uranium mineralized fluids. One hole will evaluate this target.

- Airborne geophysics - HeliSAM MMC (Magnetometric Conductivity) Survey
  - 214 line-km helicopter supported airborne survey at 50m line-spacing with readings every 10m
  - Survey will cover an area of 4.4 km x 2.4 km over a highly prospective section of the Patterson Lake Conductive Corridor, which includes the 2.33km trend of mineralization (including the Triple R deposit and R600W and R1620E zones) associated with the PLG-3B EM conductor and also the highly prospective PLG-1B EM conductor where 3 holes PLS15-419, PLS15-422 and PLS15-425 encountered anomalous radioacitivity and highly prospective clay alteration.
  - The survey will be evaluated as an alternative to more expensive ground DC Resistivity surveys for the detailed resolution of low-resistivity. This survey has the potential to detect structures and alteration features that may be associated with uranium mineralized systems. The potential exists to detect new mineralization with this system, because of the tight lines-spacing, and because the ground is energized in a much different manner than a conventional 200 m line-spaced pole-dipole resistivity method

- Environmental Baseline and Community Engagement
  - Working with Canada North Environmental Services (CanNorth) Fission will continue with its baseline environmental monitoring and advance its Community Engagement efforts with local stakeholders

The diamond drill coring contract has been awarded to Bryson Drilling, of Archeville, SK. RC Drilling, has been awarded to Northspan Explorations Ltd. of Kelowna, BC. The winter drill program follows six prior programs that have seen unprecedented success in the uranium sector and delivered a world class, large, shallow depth, high-grade uranium resource now known as the Triple R deposit.

PLS Mineralized Trend & Triple R Deposit Summary

Uranium mineralization at PLS has been traced by core drilling approximately 2.33km of east-west strike length in four separate mineralized "zones". From west to east, these zones are: R600W, R00E, R780E and R1620E.

The discovery hole of what is now referred to as the Triple R uranium deposit was announced on November 05, 2012 with drill hole PLS12-022, from what is considered part of the R00E zone. Through successful exploration programs completed to date, it has evolved into a large, near surface, basement hosted, structurally controlled high-grade uranium deposit.

The Triple R deposit consists of the R00E zone on the western side and the much larger R780E zone further on strike to the east. Within the deposit, the R00E and R780E zones have an overall strike length of approximately 1.2km with the R00E measuring approximately 125m in strike length and the R780E zones measuring approximately 900m in strike length. A 225m gap separates the R00E zone to the west and the R780E zones to the east, though sporadic narrow, weakly mineralized intervals from drill holes within this gap suggest the potential for further significant mineralization in this area. The R780E zones are located beneath Patterson Lake which is approximately six metres deep in the area of the deposit. The entire Triple R deposit is covered by approximately 50 m of overburden.

Mineralization remains open along strike both to the western and eastern extents. Mineralization is both located within and associated with a metasedimentary lithologic corridor, associated with the PL-3B basement Electro-Magnetic (EM) Conductor. Recent very positive drill results returning wide and strongly mineralized intersections approximately 555m west of the Triple R deposit, have significantly upgraded the R600W zone to a very prospective area for further growth of the PLS resource.

An updated map can be found on the Company's website at http://fissionuranium.com/project/pls/.

Samples from the drill core will be split in half sections on site. Where possible, samples will be standardized at 0.5m down-hole intervals. One-half of the split sample will be sent to SRC Geoanalytical Laboratories (an SCC ISO/IEC 17025: 2005 Accredited Facility) in Saskatoon, SK for analysis which includes U3O8 (wt %) and fire assay for gold, while the other half will remain on site for reference. Analysis will include a 63 element ICP-OES, and boron.

Patterson Lake South Property

The 31,039 hectare PLS project is 100% owned and operated by Fission Uranium Corp. PLS is accessible by road with primary

access from all-weather Highway 955, which runs north to the former Cluff Lake mine and passes through the nearby UEX-Areva Shea Creek discoveries located 50km to the north, currently under active exploration and development.

The technical information in this news release has been prepared in accordance with the Canadian regulatory requirements set out in National Instrument 43-101 and reviewed on behalf of the company by Ross McElroy, P.Geol., President and COO for Fission Uranium Corp., a qualified person.

About Fission Uranium Corp.

Fission Uranium Corp. is a Canadian-based resource company specializing in the strategic exploration and development of the Patterson Lake South uranium property - host to the world-class Triple R uranium deposit - and is headquartered in Kelowna, British Columbia. Common Shares are listed on the TSX Exchange under the symbol "FCU" and trade on the OTCQX marketplace in the U.S. under the symbol "FCUUF." Fission announced on July 6, 2015 that it had entered into an agreement whereby shareholders of Fission will receive, subject to the terms and conditions of the agreement, 1.26 common shares of Denison Mines Corp. and $0.0001 per common shares of Fission Uranium Corp. (the 'Transaction'). The Transaction is subject to conditions including approval by the Fission and Denison shareholders.

ON BEHALF OF THE BOARD

Ross McElroy, President and COO

Cautionary Statement:

Certain information contained in this press release constitutes "forward-looking information", within the meaning of Canadian legislation. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur", "be achieved" or "has the potential to". Forward-looking statements contained in this press release may include statements regarding the future operating or financial performance of Fission and Fission Uranium which involve known and unknown risks and uncertainties which may not prove to be accurate. Actual results and outcomes may differ materially from what is expressed or forecasted in these forward-looking statements. Such statements are qualified in their entirety by the inherent risks and uncertainties surrounding future expectations. Among those factors which could cause actual results to differ materially are the following: market conditions and other risk factors listed from time to time in our reports filed with Canadian securities regulators on SEDAR at www.sedar.com. The forward-looking statements included in this press release are made as of the date of this press release and the Company and Fission Uranium disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as expressly required by applicable securities legislation.

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