Denison Mines

Denison Announces Further Extension of High-Grade "Huskie" Zone at Waterbury Lake With Final Summer Drill Holes

TORONTO, ONTARIO--(Marketwired - Sept. 19, 2017) - Denison Mines Corp. ("Denison" or the "Company") (TSX:DML)(NYSE MKT:DNN)(NYSE American:DNN) is pleased to report the completion of the summer exploration drilling program at Waterbury Lake, with the final five drill holes returning multiple additional high-grade intersections. The high-grade and basement-hosted uranium mineralized zone has now been expanded to the extent of the current drilling - measuring approximately 100 metres in strike length. The results from the final drill holes of the summer program were highlighted by 1.0% eU3O8 over 7.6 metres (including 4.6% eU3O8 over 1.4 metres) in drill hole WAT17-449, and 0.8% eU3O8 over 7.9 metres (including 3.3% eU3O8 over 1.0 metre and 1.3% eU3O8 over 1.0 metre) in drill hole WAT17-450A.

Please see attached maps: http://media3.marketwire.com/docs/2412m.pdf

The summer 2017 drill program at Waterbury Lake commenced in late July and has been highly successful returning several high-grade uranium intersections from a target area located approximately 1.5 kilometres to the northeast of the property's J Zone uranium deposit. Following the discovery of uranium mineralization in the first four drill holes of the program, the scope of the program was increased in late August to allow for a total of 9 drill holes, all of which have now been completed. Taken together, the summer program included a total of 3,722 metres drilled and resulted in the wide-spaced definition (approximately 50 x 50 metre drill hole spacing) of a significant zone of entirely basement-hosted mineralization with geological features consistent with basement-hosted deposits in the Athabasca Basin. The new zone of mineralization has been named the "Huskie" zone.

Today's news is highlighted by the following:

- Drill hole WAT17-449 (1.0% eU3O8 over 7.6 metres) and drill hole WAT17-450A (0.8% eU3O8 over 7.9 metres) were located approximately 50 metres to the west of drill hole WAT17-446A (3.7% eU3O8 over 3.9 metres, see news release dated August 22, 2017), and have resulted in the extension of the high-grade, basement-hosted mineralized zone to a total strike length of approximately 100 metres;
- Drill results to date have defined a significant zone of basement-hosted mineralization, which remains open in all directions, and has been named the "Huskie" zone;
- The notable increase in the size and intensity of the alteration envelope together with the thickening of the faulted, graphitic gneiss along the westernmost fence of holes suggest exploration potential is increasing to the west of discovery drill hole WAT17-443 (1.1% eU3O8 over 0.8 metres, see news release dated August 1, 2017).

Results are reported herein as preliminary radiometric equivalent grades ("eU3O8") derived from a calibrated downhole total gamma probe. The Company subsequently reports definitive assay grades following sampling and chemical analysis of the mineralized drill core.

David Cates, Denison's President and CEO, commented, ***"The Huskie zone is an exciting addition to Denison's eastern Athabasca Basin focused exploration and project development portfolio. Huskie is located in close proximity to regional infrastructure and other strategic Denison assets , including the McClean Lake mill and deposits (22.5% Denison), J Zone deposit (64.22% Denison) and the Midwest deposits (25.17% Denison). This discovery, together with continued exploration success on the Company's flagship Wheeler River project, speaks to the skill and commitment of our Saskatoon based exploration team, and delivers on our strategy of focussing our exploration spending on a select group of high-priority projects with potential for high-impact results."***

Dale Verran, Denison's Vice President of Exploration, commented, ***"Our team is extremely encouraged by the results of the summer program at Waterbury and how we have built upon the initial high-grade intercept in discovery hole WAT17-443. The basement plumbing system appears to be improving as we move west - as indicated by the increased number of mineralized lenses, a broader and stronger alteration halo and a widening of the structured, graphitic package. Anunconformity offset and associated sandstone alteration has also caught our attention and provides a further target for unconformity mineralization. The trend is wide-open to the west and land-based for over one kilometre. We look forward to reporting assay results over the coming weeks and planning the 2018 drill program."***

The Huskie Zone

Nine drill holes, completed on an approximate 50 x 50 metre spacing, have allowed for the wide-spaced

definition of a zone of entirely basement-hosted mineralization with geological features consistent with basement-hosted deposits in the Athabasca Basin. The mineralized zone is hosted primarily within a faulted, graphite-bearing pelitic gneiss ("graphitic gneiss") which forms part of an east-west striking, northerly dipping package of metasedimentary rocks flanked to the north and south by granitic gneisses. The Athabasca Group sandstones that unconformably overly the basement rocks are approximately 210 metres thick. A major reverse fault, occurring along the upper contact of the graphitic gneiss, has resulted in approximately 15 metres of offset of the sub-Athabasca unconformity. Preliminary interpretation indicates the mineralization occurs as parallel, stacked lenses which are conformable to the foliation and fault planes within the graphitic gneiss. The high-grade mineralization is comprised of massive to semi-massive uraninite (pitchblende) and subordinate bright yellow secondary uranium minerals occurring along fault or fracture planes, or as replacement along foliation planes. Disseminations of lower grade mineralization occur within highly altered rocks proximal to fault planes. The mineralization is intimately associated with hematite, which both occur central to a broad and pervasive alteration envelope of white clays, chlorite and silicification.

Of the eight drill holes designed to test for basement-hosted mineralization, seven holes intersected significant mineralization - including high-grade intersections in four of the holes. A single hole was designed to test for unconformity mineralization and encountered bleaching, silicification, clay alteration and weak radioactivity in the lower sandstone, proximal to a 15 metre unconformity offset which suggests additional potential at the unconformity.

The mineralized zone defined to date occurs between 50 and 175 metres vertically below the sub-Athabasca unconformity (265 and 390 metres vertically below surface) and measures approximately 100 metres along strike (current extent of drilling), up to 120 metres along dip, with individual lenses varying in interpreted true thickness between approximately 2 and 7 metres. The zone is wide-open in all directions in terms of the mineralization and associated alteration intersected.

A location map of the Huskie zone is provided in Figure 1. A simplified basement geology map, representative cross-section, and inclined longitudinal section of the Huskie zone are provided in Figures 2, 3 and 4 respectively. Preliminary radiometric equivalent grades for the summer 2017 drill program are provided in Table 1. The radiometric equivalent grades are provided as composites using a minimum thickness of 1 metre and a minimum cut-off of 0.05% eU3O8.

Table 1. Preliminary radiometric equivalent grades for the Waterbury Lake summer 2017 drill program.

Drill Hole	**From (m)**	**To (m)**	**Length (m)5**	**eU3O8 (%)1,2,4**
WAT17-443	280.5	293.1	12.6	0.13
and6	**296.8**	**298.0**	**1.2**	**0.77**
WAT17-444	339.8	340.8	1.0	0.08
and	345.8	346.8	1.0	0.44
and	360.6	361.6	1.0	0.14
WAT17-445	277.0	278.0	1.0	0.13
WAT17-446A	**305.7**	**309.6**	**3.9**	**3.7**
including3	**307.0**	**308.8**	**1.8**	**7.8**
and	334.9	335.9	1.0	0.24
and	341.2	342.8	1.6	0.07
WAT17-447	No significant mineralization			
WAT17-448	No significant mineralization			
WAT17-449	321.9	323.2	1.3	0.10
and	344.9	345.9	1.0	0.25
and	349.2	350.2	1.0	0.06
and	**369.2**	**376.8**	**7.6**	**1.0**
including3	**375.0**	**376.4**	**1.4**	**4.6**
and	379.4	384.5	5.1	0.21
WAT17-450A	279.7	282.6	2.9	0.08
and	315.1	323.0	7.9	0.77
including3	**319.2**	**320.2**	**1.0**	**3.3**
including3	**321.4**	**322.4**	**1.0**	**1.3**
and	335.2	336.4	1.2	0.11
WAT17-451	390.4	391.9	1.5	0.15

and	399.4	403.1	3.7	0.27
and	405.6	406.6	1.0	0.09
and	418.1	419.1	1.0	0.07

Notes:
1. eU3O8 is radiometric equivalent U3O8 derived from a calibrated total gamma downhole probe. eU3O8 results are preliminary in nature and all mineralized intervals will be sampled and submitted for chemical U3O8 assay.
2. Intersection interval is composited above a cut-off grade of 0.05% eU3O8 unless otherwise indicated.
3. Intersection interval is composited above a cut-off grade of 1.0% eU3O8.
4. Composites are compiled using 1.0 metre minimum ore thickness and 2.0 metres maximum waste.
5. As the drill holes are oriented steeply toward the south-southeast and the mineralized lenses are interpreted to dip moderately to the north, the true thickness of mineralization is expected to be approximately 75% of the intersection lengths.
6. This interval includes 1.1% eU3O8 over 0.8 metres as reported previously.

Exploration Potential

The increase in the number of mineralized lenses together with the notable increase in the size and intensity of the alteration envelope and the thickening of the faulted graphitic gneiss, along the westernmost fence of holes, suggest exploration potential is increasing to the west of discovery drill hole WAT17-443. Accordingly, several priority target areas have been identified which warrant follow-up in future drilling programs, summarized as follows:

- *Along strike to the west:* The final three drill holes of the summer 2017 program (WAT17-449, WAT17-450A and WAT17-451), along the westernmost drill fence, all intersected significant mineralization, which is wide-open along strike to the west.
- *Up-dip and down-dip:* Along the westernmost drill fence, mineralization remains open up-dip of WAT17-450A (0.8% eU3O8 over 7.9 metres) and down-dip of WAT17-451 (0.3% eU3O8 over 3.7 metres). Furthermore, the 25 metre interval of strong clay alteration and bleaching intersected in WAT17-448, approximately 57 metres down-dip of WAT17-446A (3.7% eU3O8 over 3.9 metres, including 7.8% eU3O8 over 1.8 metres), indicates the mineralizing system remains open at depth in this area.
- *At the unconformity:* Drill hole WAT17-447 which was designed to test the unconformity above the faulted graphitic gneiss encountered bleaching, silicification, clay alteration and weak radioactivity in the lower sandstone proximal to the interpreted 15 metre unconformity offset. These features suggest potential for unconformity-hosted deposits along strike.

Waterbury Lake Property

The Waterbury Lake property consists of multiple claims covering 40,256 hectares, and is located in the infrastructure rich eastern portion of the Athabasca Basin region in northern Saskatchewan. The property is jointly owned by Denison (64.22%) and Korea Waterbury Uranium Limited Partnership ("KWULP") (35.78%) through the Waterbury Lake Uranium Limited Partnership ("WLULP"). KWULP consists of a consortium of investors in which Korea Hydro & Nuclear Power ("KHNP") holds a majority position. KWULP has elected not to fund the 2017 exploration program and, as a result, will incur dilution of its ownership interest in the WLULP. KHNP is also a significant shareholder in Denison, holding 58,284,000 common shares of Denison, which represents approximately 10.42% of the Company's issued and outstanding common shares.

The J Zone deposit, located on the Waterbury Lake property, occurs at the sub-Athabasca unconformity and is estimated to contain indicated resources of 12.8 million pounds U3O8 based on 291,000 tonnes of mineralization an average grade of 2.0% U3O8. The Roughrider deposit on Rio Tinto's Roughrider property is located immediately along strike to the east of J Zone deposit and occurs at the sub-Athabasca unconformity and below within the basement rocks. Prior to acquisition by Rio Tinto in 2012, the Roughrider deposit was estimated to contain indicated resources of 17.2 million pounds U3O8 based on 394,200 tonnes of mineralization at an average grade of 1.98% U3O8 and inferred resources of 40.7 million pounds U3O8 based on 161,600 tonnes of mineralization at an average grade of 11.43% U3O8.

For more information on the J Zone deposit, please refer to the Technical Report on the Mineral Resource Estimate on the J Zone Uranium Deposit, Waterbury Lake Property dated September 6, 2013 by Allan Armitage, Ph. D., P. Geo, and Alan Sexton, M.Sc., P.Geo, of GeoVector Management Inc. available on Denison's website

and under the Company's profile on SEDAR (www.sedar.com). For further details on the Roughrider deposit, prior to acquisition by Rio Tinto in 2012, please refer to the Preliminary Economic Assessment Technical Report for the East and West Zones Roughrider Uranium Project, Saskatchewan dated September 13, 2011 by SRK Consulting (Canada) Inc. available under Hathor Exploration Limited's profile on SEDAR.

Qualified Persons and Data Quality

Dale Verran, MSc, P.Geo, Pr.Sci.Nat., Denison's Vice President, Exploration, who is a Qualified Person in accordance with the requirements of NI 43-101 has reviewed and approved the technical information contained in this release. The Company currently reports preliminary radiometric equivalent grades ("eU3O8"), derived from a calibrated downhole total gamma probe, during its exploration programs and subsequently reports definitive assay grades following sampling and chemical analysis of the mineralized drill core. Radiometric equivalent probe results are subject to verification procedures by qualified persons employed by Denison prior to disclosure. For further details on the total gamma downhole probe methods employed by Denison, QAQC procedures and data verification procedures please see Denison's Annual Information Form dated March 23, 2017 filed under the Company's profile on SEDAR.

About Denison

Denison is a uranium exploration and development company with interests focused in the Athabasca Basin region of northern Saskatchewan, Canada. In addition to its 60% owned Wheeler River project, which hosts the high-grade Phoenix and Gryphon uranium deposits, Denison's exploration portfolio consists of numerous projects covering approximately 359,000 hectares in the Athabasca Basin region, including 340,000 hectares in the infrastructure rich eastern portion of the Athabasca Basin. Denison's interests in Saskatchewan also include a 22.5% ownership interest in the McClean Lake joint venture ("MLJV"), which includes several uranium deposits and the McClean Lake uranium mill, which is currently processing ore from the Cigar Lake mine under a toll milling agreement, plus a 25.17% interest in the Midwest deposit and a 64.22% interest in the J Zone deposit on the Waterbury Lake property. Both the Midwest and J Zone deposits are located within 20 kilometres of the McClean Lake mill.

Denison is also engaged in mine decommissioning and environmental services through its Denison Environmental Services division and is the manager of Uranium Participation Corp., a publicly traded company which invests in uranium oxide and uranium hexafluoride.

Cautionary Statement Regarding Forward-Looking Statements

Certain information contained in this press release constitutes "forward-looking information", within the meaning of the United States Private Securities Litigation Reform Act of 1995 and similar Canadian legislation concerning the business, operations and financial performance and condition of Denison.

Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expects", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or the negatives and/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". In particular, this press release contains forward-looking information pertaining to the following: exploration (including drilling) and evaluation activities, plans and objectives, and Denison's percentage in its properties and its plans and agreements with its joint venture partners, as applicable. Statements relating to "mineral reserves" or "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral reserves and mineral resources described can be profitably produced in the future.

Forward looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Denison to be materially different from those expressed or implied by forward-looking statements. Denison believes that the expectations reflected in this forward-looking information are reasonable but no assurance can be given that these expectations will prove to be accurate and may differ materially from those anticipated in this forward looking information. For a discussion in respect of risks and other factors that could influence forward-looking events, please refer to the factors discussed in Denison's Annual Information Form dated March 23, 2017 under the heading "Risk Factors". These factors are not, and should not be construed as being exhaustive. Accordingly, readers should not place undue reliance on forward-looking statements.

The forward-looking information contained in this press release is expressly qualified by this cautionary statement. Any forward-looking information and the assumptions made with respect thereto speaks only as of the date of this press release. Denison does not undertake any obligation to publicly update or revise any forward-looking information after the date of this press release to conform such information to actual results or

to changes in Denison's expectations except as otherwise required by applicable legislation.

This document contains certain information derived from third-party publications and reports, including estimates of resources and mineralization of the Roughrider deposit, which Denison believes are reliable but have not been independently verified by Denison.

Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Mineral Resources: *This press release may use the terms "measured", "indicated" and "inferred" mineral resources. United States investors are advised that while such terms are recognized and required by Canadian regulations, the United States Securities and Exchange Commission does not recognize them. "Inferred mineral resources" have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. United States investors are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be converted into mineral reserves. United States investors are also cautioned not to assume that all or any part of an inferred mineral resource exists, or is economically or legally mineable.*

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