

Denison Announces Stantec & ENGCOMP to Lead Pre-Feasibility Study for Wheeler River Project and Provides Update on Status of Gryphon Resource Estimate

TORONTO, ONTARIO--(Marketwired - Jan. 4, 2018) -Denison Mines Corp. ("Denison" or the "Company") (TSX:DML)(NYSE MKT:DNN)(NYSE American:DNN) is pleased to announce that it has retained Stantec Consulting Inc. ("Stantec") and ENGCOMP Engineering and Computing Professionals Inc. ("ENGCOMP") to lead and author the Pre-Feasibility Study ("PFS") for the Wheeler River project, which is the largest undeveloped high-grade uranium project in the infrastructure rich eastern portion of the Athabasca Basin region in northern Saskatchewan.

In addition to the Company's in-house project development team, Denison has assembled a group of leading engineering and consulting firms, with mine development, metallurgical, and environmental experience applicable to the development of a large-scale uranium mining operation in northern Saskatchewan, to support the completion of the PFS for the Wheeler River project.

The Wheeler River PFS team includes:

- **Stantec & ENGCOMP**

These firms have been assigned responsibility for authoring the PFS in accordance with NI 43-101, including completion of the level of engineering design required to assemble a Class 4 capital cost estimate, project schedule, and an evaluation of infrastructure services and systems required for the development of a mining project in northern Saskatchewan. The work is planned to be managed primarily from Saskatoon and Sudbury, and is expected to leverage Stantec's experience and track-record of executing all phases of mining studies and development, as well as ENGCOMP's experience in Saskatchewan with heavy industrial projects in uranium and potash mining.

- **Hatch Ltd. ("Hatch")**

Hatch has been assigned responsibility for the mineral processing scope of the PFS, which is expected to include the development of an appropriate process design criteria for the recovery of uranium from the Gryphon and Phoenix deposits, as well as carrying out a capacity review of Denison's 22.5% owned McClean Lake mill and developing various mineral processing inputs into the overall PFS. In completing this work, Hatch is expected to leverage its previous experience with the McClean Lake mill facility.

- **Denison Environmental Services ("DES")**

Throughout the course of the PFS, DES has been assigned responsibility for managing the on-going environmental baseline data collection and regulatory aspects of the project to ultimately support the federal and provincial environmental assessment processes. DES is expected to leverage its experience working with the Canadian Nuclear Safety Commission, as a uranium facility operator for the Company's reclaimed uranium mine sites in Elliot Lake, Ontario.

The purpose of the PFS is to establish the best economic options for the development of Wheeler River's Gryphon and Phoenix deposits into a large scale, low cost uranium mining operation. In addition to focusing on project economics, the Company's development team is committed to addressing the challenge of sustainability - ensuring the Wheeler River project is able to deliver value to the Company's shareholders, while simultaneously providing economic and social benefits to impacted communities and minimizing its environmental footprint and impact.

Update on Status of Gryphon Resource Estimate

On September 12th, 2017, the Company announced a significant increase to the summer 2017 exploration drilling program at Wheeler River, which necessitated the continuation of exploration activities, in the vicinity of the Gryphon deposit, through to late October. On November 27th, 2017, the Company announced assay results from the 64 drill holes completed during the summer drilling program. The results were highlighted by 91% of drill holes intersecting significant uranium mineralization, leading to considerable geological interpretation and review ahead of the completion of an updated estimate of mineral resources for the Gryphon deposit. The updated estimate is expected to incorporate the results from an additional 141 drill holes completed at Gryphon since the maiden mineral resource estimate for the deposit was completed in late 2015. Work towards the completion of an updated estimate of mineral resources for the Wheeler River project is expected to continue during the first quarter of 2018.

The updated estimate of indicated mineral resources for the Wheeler River project is an important part of the PFS process. While the Company is currently targeting completion of the PFS by mid-2018, the timing of the PFS will ultimately be contingent

on various factors, which includes the timing of the completion of the updated estimate of the mineral resources.

About Wheeler River

Wheeler River is the largest undeveloped high-grade uranium project in the infrastructure rich eastern portion of the Athabasca Basin region, in northern Saskatchewan. The project is a joint venture between Denison (60% and operator), Cameco Corp. ("Cameco") (30%), and JCU (Canada) Exploration Company Limited ("JCU") (10%), and is host to the high-grade Gryphon and Phoenix uranium deposits discovered by Denison in 2014 and 2008, respectively.

On April 4th, 2016, Denison announced the results of a Preliminary Economic Assessment ("PEA") for the Wheeler River Project, which considers the potential economic merit of co-developing the high-grade Gryphon and Phoenix deposits as a single underground mining operation. The PEA returned a base case pre-tax Internal Rate of Return ("IRR") of 20.4% based on the current long term contract price of uranium (US\$44.00 per pound U3O8), and Denison's share of estimated initial capital expenditures ("CAPEX") of CAD\$336M (CAD\$560M on 100% ownership basis). Exploration results from the subsequent drilling programs have not been incorporated into the resource estimate or the PEA. The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability. On July 19th, 2016 Denison announced the initiation of a Pre-Feasibility Study ("PFS") for the Wheeler River property and the complimentary commencement of an infill drilling program at the Gryphon deposit.

As previously announced on January 10, 2017, Denison has entered into an agreement with its Wheeler River Joint Venture partners, Cameco and JCU, to fund 75% of Joint Venture expenses in 2017 and 2018 (ordinarily 60%) in exchange for an increase in Denison's interest in the project to up to approximately 66%. Under the terms of the agreement, Cameco will fund 50% of its ordinary 30% share in 2017 and 2018, and JCU is expected to continue to fund its 10% interest in the project.

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 347,000 hectares in the Athabasca Basin region, including 327,000 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 and Midwest A deposits, and a 64.22% interest in the J Zone deposit and Huskie discovery on the Waterbury Lake property. Each of Midwest, Midwest A, J Zone and Huskie 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; the results of Denison's PEA; plans and objectives with respect to updating its resource estimates and preparing a PFS; 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. Factors, such as environmental impacts, stakeholder approvals, and capital needs can significantly alter plans and achievements. 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.

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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