

PRESS RELEASE**DENISON EXECUTES AGREEMENT TO INCREASE OWNERSHIP OF WHEELER RIVER PROJECT UP TO 66%**

Toronto, ON – January 10, 2017 Denison Mines Corp. (“Denison” or the “Company”) (DML: TSX, DNN: NYSE MKT) is pleased to report that it has executed an agreement with the partners of the Wheeler River Joint Venture (“WRJV”) that will result in an increase in Denison’s ownership of the Wheeler River project to up to approximately 66% (currently 60%) by the end of 2018 (the “Agreement”). The Wheeler River property is located in the infrastructure rich eastern portion of the Athabasca Basin, and is a joint venture between Denison (60% ownership and operator), Cameco Corp. (“Cameco”) (30% ownership), and JCU (Canada) Exploration Limited (“JCU”) (10% ownership), (collectively, the “JV Parties”).

Under the terms of the Agreement, the JV Parties have agreed to allow for a one-time election by Cameco to fund 50% of its ordinary share of joint venture expenses in 2017 and 2018. The shortfall in Cameco’s contribution will be funded by Denison, in exchange for a transfer of a portion of Cameco’s interest in the WRJV. Accordingly, Denison’s share of joint venture expenses will be 75% in 2017 and 2018, and Cameco and JCU’s share of joint venture expenses will be 15% and 10%, respectively.

Denison’s President & CEO, David Cates, commented, “*This Agreement is of considerable significance to Denison. Following the discovery of the Gryphon deposit in 2014, the Wheeler River project has emerged as the largest high-grade undeveloped uranium project in the eastern portion of the Athabasca Basin. It is incredibly unique to have an opportunity to increase our controlling interest, to up to 66%, through the funding of further exploration and development activities at a project as advanced as Wheeler River. We value the support and encouragement we have received from our JV partners in recent years and this Agreement speaks to the willingness of all of the partners to cooperate towards a common goal of moving Wheeler River forward.*”

In connection with the Agreement, the JV Parties have also approved a CAD\$12.5 million work program and budget for the WRJV in 2017, of which Denison’s share will be CAD\$9.4 million (representing 75%). Denison, as operator of the WRJV, has also agreed to propose a work program and budget for 2018 that will not exceed approximately CAD\$15.6 million (being 125% of the approved 2017 budget), and to allocate an aggregate of at least CAD\$4 million in joint venture expenditures during 2017 and 2018 to explore regional exploration target areas on the Wheeler River property. Regional exploration target areas include targets located outside of the area immediately surrounding the Gryphon and Phoenix deposits.

Based on the approved work program and budget for the WRJV in 2017 (CAD\$12.5 million), and the maximum work program and budget for 2018 (CAD\$15.6 million), Denison expects that its ownership interest in the Wheeler River project will increase to approximately 66% by December 31, 2018.

About Wheeler River

The Wheeler River property is a joint venture between Denison (60% and operator), Cameco Corp. (30%), and JCU (Canada) Exploration Company Limited (10%), and is host to the high-grade Gryphon and Phoenix uranium deposits discovered by Denison in 2014 and 2008, respectively. The Gryphon deposit is hosted in basement rock and is currently estimated to contain inferred resources of 43.0 million pounds U₃O₈ (above a cut-off grade of 0.2% U₃O₈) based on 834,000 tonnes of mineralization at an average grade of 2.3% U₃O₈. The Phoenix unconformity deposit is located approximately 3 kilometres to the southeast of Gryphon and is estimated to include indicated resources of 70.2 million pounds U₃O₈

(above a cut-off grade of 0.8% U₃O₈) based on 166,000 tonnes of mineralization at an average grade of 19.1% U₃O₈, and is the highest grade undeveloped uranium deposit in the world.

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 winter and summer 2016 drilling program 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 to bring the inferred resources to an indicated level of confidence.

The disclosure of a scientific or technical nature contained in this news release was prepared by Dale Verran, MSc, Pr.Sci.Nat., Denison's Vice President, Exploration, who is a Qualified Person in accordance with the requirements of NI 43-101.

About Denison

Denison is a uranium exploration and development company with interests focused in the Athabasca Basin region of northern Saskatchewan. Including 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 over 350,000 hectares in the infrastructure rich eastern Athabasca Basin. Denison's interests in Saskatchewan also include a 22.5% ownership interest in the McClean Lake joint venture, 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 63.01% 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.

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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: the Agreement with the JV Parties, and the ability to derive the anticipated benefits thereof; exploration (including drilling) and evaluation activities, plans and objectives; potential mineralization of drill targets; the estimates of Denison's mineral resources, the results of its PEA and plans with respect to the PFS.

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 such forward-looking statements. Denison believes that the expectations reflected in this forward-looking information are reasonable but there can be no assurance that such statements 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 "Risk Factors" in Denison's Annual Information Form dated March 24, 2016 available under its profile at www.sedar.com and in its Form 40-F available at www.sec.gov/edgar.shtml. 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. 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 its 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.*