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PRESS RELEASE

DENISON REPORTS RESULTS FROM Q3 2019

Toronto, ON – November 7, 2019. Denison Mines Corp. ("Denison" or the "Company") (DML: TSX, DNN: NYSE MKT) today filed its Unaudited Consolidated Financial Statements and Management's Discussion & Analysis ("MD&A") for the quarter ended September 30, 2019. Both documents can be found on the Company's website at <u>www.denisonmines.com</u> or on SEDAR (at <u>www.sedar.com</u>) and EDGAR (at <u>www.sec.gov/edgar.shtml</u>). The highlights provided below are derived from these documents and should be read in conjunction with them. All amounts in this release are in Canadian dollars unless otherwise stated.

David Cates, President and CEO of Denison commented, "The second half of 2019 has been very exciting for Denison – as we advance our plans to validate the applicability of In-Situ Recovery ('ISR'), the world's lowest-cost and mostutilized method for uranium mining, at our high-grade Phoenix deposit in the Athabasca Basin region. Over the last several months we have reported multiple successful results from our ongoing ISR field test program. Taken together, these results have greatly increased our level of confidence regarding the ability to move fluids through the Phoenix ore body, which is an important element of the ISR mining process.

The field test work also underscores the fact that our plan for ISR mining of the Phoenix deposit is based on using existing mining methods and technologies. As a result, we have been able to quickly ramp up our test work, including the installation of commercial scale wells, owing in large part to the fact that ISR mining equipment and expertise has been readily available to support our efforts. With the final stages of the 2019 ISR field test program planned for completion in the fourth quarter, we are beginning to look forward to 2020 and beyond, as we accelerate towards bringing Phoenix to life as an ISR mining operation with potentially industry leading costs."

PERFORMANCE HIGHLIGHTS

During the third quarter of 2019, the Company made several positive announcements related to the ongoing In-Situ Recovery ('ISR') field testing taking place at the Phoenix deposit ('Phoenix') on the Company's 90% owned Wheeler River Uranium Project ('Wheeler River') in northern Saskatchewan, Canada.

Positive initial results from ISR field testing confirm hydraulic connectivity within the Phoenix Deposit.

During the third quarter of 2019, the Company announced positive initial results from ISR field testing at Phoenix. The initial test results confirmed hydraulic connectivity between all of the ore zone test wells in Test Area 1 (see Denison's press release dated August 27, 2019) and a significant portion of the ore zone in Test Area 2 (see Denison's press release dated September 19, 2019) – providing significant preliminary indications of the suitability for the application of ISR mining at Phoenix.

Successful installation of commercial scale test wells in Test Area 1 and Test Area 2

Following confirmation of hydraulic connectivity within Phoenix described above, Denison initiated the second stage of ISR field testing – the installation of a large-diameter Commercial Scale Wells ('CSWs') in each of Test Area 1 and Test Area 2 (see Denison's press release dated October 31, 2019). CSW1 (drill hole GWR-031, in Test Area 1) and CSW2 (drill hole GWR-032, in Test Area 2) represent the first large-diameter CSWs successfully installed, for the purposes of ISR mining, in the Athabasca Basin region. The completion of each CSW included the drilling of a large-diameter bore hole (approximately12 inches in diameter) approximately 400 metres from surface, to intersect the Phoenix ore body, and the installation of well materials that have been designed to meet expected environmental and regulatory standards for eventual ISR mining.

Successful deployment and operational testing of MaxPERF drilling tool

Penetrators Canada Inc., developers and operators of the MaxPERF drilling tool, successfully deployed the tool within CSW1 and completed 28 lateral drill holes (penetration tunnels) within a variety of ore types associated with Phoenix. Following the completion of the MaxPERF drilling array in CSW1, initial, short-duration / operational hydrogeological tests confirmed increased flow rates in Test Area 1 – demonstrating the effectiveness of the MaxPERF drilling tool in providing increased access to hydraulic connectivity associated with the existing geological formations within the ore

zone. Deployment of the MaxPERF tool is planned to follow at CSW2 during the remainder of the 2019 ISR Field Test program.

ISR field program nearing completion with long-duration tests planned as final stage

Based on the successful completion of CSW1 and CSW2, as well as the successful deployment of the MaxPERF tool, long-duration (commercial scale) hydrogeological tests are planned to be completed during the remainder of the 2019 ISR Field Test. These tests are expected to be carried out in both CSW1 and CSW2 to allow for the simulation of fluid flow, within Test Area 1 and Test Area 2 of Phoenix, under conditions similar to a commercial production environment.

About Wheeler River

Wheeler River is the largest undeveloped uranium project in the infrastructure rich eastern portion of the Athabasca Basin region, in northern Saskatchewan – including combined Indicated Mineral Resources of 132.1 million pounds U_3O_8 (1,809,000 tonnes at an average grade of $3.3\% U_3O_8$), plus combined Inferred Mineral Resources of 3.0 million pounds U_3O_8 (82,000 tonnes at an average grade of $1.7\% U_3O_8$). The project is host to the high-grade Phoenix and Gryphon uranium deposits, discovered by Denison in 2008 and 2014, respectively, and is a joint venture between Denison (90% and operator) and JCU (Canada) Exploration Company Limited (10%).

A pre-feasibility study ('PFS') was completed in late 2018, considering the potential economic merit of developing the Phoenix deposit as an ISR operation and the Gryphon deposit as a conventional underground mining operation. Taken together, the project is estimated to have mine production of 109.4 million pounds U3O8 over a 14-year mine life, with a base case pre-tax net present value ('NPV') of \$1.31 billion (8% discount rate), Internal Rate of Return ("IRR") of 38.7%, and initial pre-production capital expenditures of \$322.5 million. The Phoenix ISR operation is estimated to have a stand-alone base case pre-tax NPV of \$930.4 million (8% discount rate), internal rate of return ('IRR') of 43.3%, initial pre-production capital expenditures of \$322.5 million, and industry leading average operating costs of US\$3.33/lb U3O8. The PFS was prepared on a project (100% ownership) and pre-tax basis, as each of the partners to the Wheeler River Joint Venture are subject to different tax and other obligations.

Further details regarding the PFS, including additional scientific and technical information, as well as after-tax results attributable to Denison's ownership interest, are described in greater detail in the NI 43-101 Technical Report titled "Pre-feasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada" dated October 30, 2018 with an effective date of September 24, 2018. A copy of this report is available on Denison's website and under its profile on SEDAR at www.sedar.com and on EDGAR at www.sec.gov/edgar.shtml.

About Denison

Denison is a uranium exploration and development company with interests focused in the Athabasca Basin region of northern Saskatchewan, Canada. The Company's flagship project is the 90% owned Wheeler River Uranium Project, which is the largest undeveloped uranium project in the infrastructure rich eastern portion of the Athabasca Basin region of northern Saskatchewan. 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 deposits and a 66.51% interest in the J Zone and Huskie deposits on the Waterbury Lake property. The Midwest, J Zone and Huskie deposits are located within 20 kilometres of the McClean Lake mill. In addition, Denison has an extensive portfolio of exploration projects in the Athabasca Basin region.

Denison is engaged in mine decommissioning and environmental services through its DES division, which manages Denison's Elliot Lake reclamation projects and provides post-closure mine and maintenance services to industry and government clients.

Denison is also the manager of Uranium Participation Corporation ('UPC'), a publicly traded company listed on the TSX under the symbol 'U', which invests in uranium oxide in concentrates (' U_3O_8 ') and uranium hexafluoride ('UF₆').

Technical Disclosure and Qualified Person

The disclosure of scientific and technical information regarding Denison's properties in this news release was prepared or reviewed by Dale Verran, MSc, P.Geo., Pr.Sci.Nat., the Company's Vice President, Exploration, a Qualified Person in accordance with the requirements of NI 43-101.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Certain information contained in this news release constitutes 'forward-looking information', within the meaning of the applicable United States and 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 news release contains forward-looking information pertaining to the following: the estimates of Denison's mineral reserves and mineral resources; exploration, development and expansion plans and objectives, including the results of, and estimates and assumptions within, the PFS, the plans and objectives for ISR and related field and hydrogeological testing plans and objectives;; expectations regarding environmental and regulatory standards and permitting processes; expectations regarding Denison's joint venture ownership interests; and expectations regarding the continuity of its agreements with third parties. 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 such 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 results 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 12, 2019 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 news 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 news release. Denison does not undertake any obligation to publicly update or revise any forward-looking information after the date of this news 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 and Probable Mineral Reserves: This news release may use the terms 'measured', 'indicated' and 'inferred' mineral resources. United States investors are advised that while such terms have been prepared in accordance with the definition standards on mineral reserves of the Canadian Institute of Mining, Metallurgy and Petroleum referred to in Canadian National Instrument 43-101 Mineral Disclosure Standards ('NI 43-101') and are recognized and required by Canadian regulations, the United States Securities and Exchange Commission ('SEC') 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. The estimates of mineral reserves in this news release have been prepared in accordance with NI 43-101. The definition of probable mineral reserves used in NI 43-101 differs from the definition used by the SEC in the SEC's Industry Guide 7. Under the requirements of the SEC, mineralization may not be classified as a 'reserve' unless the determination has been made, pursuant to a 'final' feasibility study that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. Denison has not prepared a feasibility study for the purposes of NI 43-101 or the requirements of the SEC. Accordingly, Denison's probable mineral reserves disclosure may not be comparable to information from U.S. companies subject to the reporting and disclosure requirements of the SEC.