

PRESS RELEASE**DENISON REPORTS RESULTS FROM Q3 2020**

Toronto, ON – November 5, 2020. Denison Mines Corp. (“Denison” or the “Company”) (DML: TSX, DNN: NYSE MKT) today filed its Condensed Consolidated Financial Statements and Management’s Discussion & Analysis (“MD&A”) for the quarter ended September 30, 2020. Both documents can be found on the Company’s website at www.denisonmines.com or on SEDAR (at www.sedar.com) and EDGAR (at www.sec.gov/edgar.shtml). 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, *“Our third quarter highlights illustrate the recent effort made by Denison to ensure the Company remains on track for the future development of the Phoenix In-Situ Recovery (‘ISR’) operation, which has the potential to become one of the lowest cost uranium mining operation in the world. Our team developed responsible return to work protocols and resumed field activity at the Wheeler River site – including the completion of an ISR field program designed to build confidence in the ‘Proof of Concept’ hydrogeologic model, which was announced in June and represents a significant project de-risking milestone. The 2020 ISR field program also included the completion of environmental field work necessary to support the design and permitting of further ISR test work. On the financial front, the Company successfully completed a well-supported and significantly up-sized public offering in early October – raising gross proceeds of approximately US\$19 million. At the end of October, the Company is estimated to have over CAD\$29 million in cash and remains debt free. Taken together, our operations and balance sheet are poised to support the future advancement of the Environmental Assessment and Feasibility Study for Wheeler River through 2021 and beyond, as we move towards a definitive development decision.*

The uranium market has steadied through the balance of the third quarter, following the announcement of the restart of the Cigar Lake mine and Denison’s 22.5% owned McClean Lake uranium mill. The spot price has support around US\$30/lb U₃O₈ – roughly 60% above the lows the commodity reached in late 2016 – and is set to benefit from a resumption of nuclear utility purchasing activity as COVID-19 related protocols have been developed and deployed throughout the sector over the last several months. Nuclear energy has answered the call to provide reliable and cost competitive energy during this time and is well positioned to participate in green energy initiatives being considered around the world to create economic stimulus and accelerate global plans to decarbonize the energy mix.

With this positive outlook for the nuclear energy sector, Denison is pleased to be nearing completion of its Preliminary Economic Assessment for the J Zone uranium deposit on the Company’s Waterbury Lake property, assessing the applicability of the ISR mining method to potentially mine the deposit. If results are positive and applicable approvals obtained, J Zone could become the Company’s second ISR development-stage project.”

HIGHLIGHTS**▪ Resumed evaluation and exploration field activities at Wheeler River**

In July 2020, Denison announced the resumption of evaluation field activities at the Company’s 90% owned Wheeler River Uranium Project (‘Wheeler River’ or the ‘Project’) with the initiation of an In-Situ Recovery (‘ISR’) field program (‘2020 Field Program’) focused on the high-grade Phoenix uranium deposit (‘Phoenix’). Field activities were gradually expanded late in the third quarter to allow for the initiation the Company’s planned exploration activities. In order to ensure the Company’s operations comply with all applicable health and safety guidelines associated with the COVID-19 pandemic, all operating procedures at the Company’s Wheeler River site have been reviewed and adapted to incorporate physical distancing and enhanced hygiene protocols, as well as special travel protocols designed by Denison for northern Saskatchewan.

▪ Completed the 2020 ISR Field Program

In October 2020, Denison announced the safe and successful completion of the 2020 Field Program, which was designed to build additional confidence in the results of an independent hydrogeologic model developed by Petrotek Corporation (‘Petrotek’) for Phoenix, and to support the design and permitting of further field work expected to be incorporated into a future Feasibility Study (‘FS’). The hydrogeologic model developed for Phoenix is based on actual field data collected during an extensive field test program completed at Phoenix in 2019 (the ‘2019 Field Test’), with the model and associated simulations having already demonstrated “proof-of-concept” for the application of the ISR

mining method at Phoenix, with respect to potential operational extraction and injection rates (see press release dated June 4, 2020)

▪ **Capitalized the Company to fund future evaluation and environmental assessment activities for Wheeler River**

In October 2020, Denison successfully completed a public offering of 51,347,321 common shares at a price of US\$0.37 per common share for gross proceeds of CAD\$24,962,000 (US\$18,999,000), which includes 4,347,321 common shares granted to the underwriters through the exercise, in part, of an over-allotment option. The proceeds of the offering are anticipated to be used to fund evaluation and environmental assessment ('EA') activities on the Wheeler River project, as well as for general working capital purposes.

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 and is a joint venture between Denison (90% and operator) and JCU (Canada) Exploration Company Limited (10%). The project is host to the high-grade Phoenix and Gryphon uranium deposits, discovered by Denison in 2008 and 2014, respectively, estimated to have combined Indicated Mineral Resources of 132.1 million pounds U₃O₈ (1,809,000 tonnes at an average grade of 3.3% U₃O₈), plus combined Inferred Mineral Resources of 3.0 million pounds U₃O₈ (82,000 tonnes at an average grade of 1.7% U₃O₈).

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), 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.

Given recent social, financial and market disruptions, Denison has suspended certain activities at Wheeler River, including the EA program, which is on the critical path to achieving the project development schedule outlined in the PFS. Given the uncertainty associated with the duration of suspension, the Company is not currently able to estimate the impact to the project development schedule outlined in the PFS, and users are cautioned against relying on the estimates provided therein regarding the start of pre-production activities in 2021 and first production in 2024.

About Denison

Denison Mines Corp. was formed under the laws of Ontario and is a reporting issuer in all Canadian provinces. Denison's common shares are listed on the Toronto Stock Exchange (the 'TSX') under the symbol 'DML' and on the NYSE American exchange under the symbol 'DNN'.

Denison is a uranium exploration and development company with interests focused in the Athabasca Basin region of northern Saskatchewan, Canada. In addition to the Company's flagship project, Wheeler River, Denison's interests in Saskatchewan 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 66.71% 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 Closed Mines group (formerly Denison Environmental Services), which manages Denison's Elliot Lake reclamation projects and provides post-closure mine and maintenance services to a variety of 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 ('U₃O₈') and uranium hexafluoride ('UF₆').

Technical Disclosure and Qualified Person

The technical information contained in this press release related to the 2019 Field Test, 2020 ISR Field Program and the Wheeler River PFS has been reviewed and approved by David Bronkhorst, P.Eng, Denison's Vice President, Operations, who is a Qualified Person in accordance with the requirements of NI 43-101.

Mineral resource information contained in this press release has been reviewed and approved by Andrew Yackulic, P. Geo, Denison's Director, Exploration, who is 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 press 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 press release contains forward-looking information pertaining to the following: 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 the related field and hydrogeological testing results, models, "proof of concept", plans and objectives; expectations, plans and objectives of a future FS for Wheeler and any work to be undertaken in respect thereto; the suspension of EA activities and anticipated results of such suspension; the impact of COVID-19 on Denison's operations; evaluation activities and plans for a PEA for the J Zone deposit and projections with respect thereto; projections with respect to use of proceeds of recent financings; the estimates of Denison's mineral reserves and mineral resources; expectations regarding Denison's joint venture ownership interests; expectations regarding the continuity of its agreements with third parties; and its interpretations of, and expectations for, nuclear power and uranium supply, demand and related market factors. 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. For example, the results and underlying assumptions and interpretations of the PFS as well as the ISR field test and hydrogeological test programs discussed herein may not be maintained after further testing or be representative of actual conditions within the applicable deposits. In addition, Denison may decide or otherwise be required to extend the EA and/or otherwise discontinue testing, evaluation and development work, including a FS at Wheeler River or PEA for J Zone at Waterbury Lake, if it is unable to maintain or otherwise secure the necessary approvals or resources (such as testing facilities, capital funding, etc.). 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 13, 2020 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 and Probable Mineral Reserves: This press 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, these terms are not defined under Industry Guide 7 under the United States Securities Act and, until recently, have not been permitted to be used in reports and registration statements filed with the United States Securities and Exchange Commission ('SEC'). '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.** In addition, the terms “mineral reserve”, “proven mineral reserve” and “probable mineral reserve” for the purposes of NI 43-101 differ from the definitions and allowable usage in Industry Guide 7. Effective February 2019, the SEC adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the Exchange Act and as a result, the SEC now recognizes estimates of “measured mineral resources”, “indicated mineral resources” and “inferred mineral resources”. In addition, the SEC has amended its definitions of “proven mineral reserves” and “probable mineral reserves” to be “substantially similar” to the corresponding definitions under the CIM Standards, as required under NI 43-101. However, information regarding mineral resources or mineral reserves in Denison’s disclosure may not be comparable to similar information made public by United States companies.