

Denison Reports Results from 2019

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TORONTO, March 5, 2020 - [Denison Mines Corp.](#) ("Denison" or the "Company") (DML: TSX, DNN: NYSE MKT) today filed its Audited Consolidated Financial Statements and Management's Discussion & Analysis ("MD&A") for the quarter ended December 31, 2019. 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. View PDF version.

David Cates, President and CEO of Denison commented, 2019 represented a year of transition for Denison, as we aggressively moved forward to de-risk the application of the ISR mining method at Phoenix – following the completion of the highly successful Wheeler River PFS, and the Board's decision to advance the project into permitting, in late 2018. In early 2019 we launched the Environmental Assessment process, with our Project Description being accepted by the Federal and Provincial regulators. By the end of the year, we received a positive project scoping decision from the Federal regulators.

In the field, we completed a 23-week first-of-its-kind ISR field test program designed to validate the permeability of the Phoenix orebody, which was identified as the most significant technical risk for the Phoenix ISR operation in the Wheeler River PFS. The field program was implemented in a staged manner, progressing from the completion of preliminary hydrogeological tests in a series of small diameter test wells, to the completion of the two large diameter, commercial scale wells – the first wells in the history of the Athabasca Basin intended for ISR mining. The results from this test work show significant hydraulic connectivity within the test areas of the Phoenix orebody and have confirmed our ability to achieve bulk hydraulic conductivity values, in a commercial scale well, that are consistent with those used in the PFS.

Additionally, in early 2020 we have reported results from a specialized core leach test that indicate the uranium concentrations from solution to be recovered from the wellfield have the potential to significantly exceed the concentrations assumed in the PFS. Taken together, these results have meaningfully increased our confidence in the application of ISR mining at Phoenix. Today, the prospect of successfully bringing ISR mining to the Athabasca Basin is higher than it has ever been."

PERFORMANCE HIGHLIGHTS

- Initiation of the Environmental Assessment ('EA') at Wheeler River

During the first quarter of 2019, Denison submitted a Project Description ('PD') to the Canadian Nuclear Safety Commission ('CNSC') and a Technical Proposal to the Saskatchewan Ministry of Environment ('SK MOE') to support the advancement of an In-Situ Recovery ('ISR') uranium mine at the Company's 90% owned Wheeler River Uranium Project ('Wheeler River'). The documents were accepted in the second quarter of 2019, initiating the EA process for the project in accordance with the requirements of both the Canadian Environmental Assessment Act, 2012 ('CEAA 2012') and the Saskatchewan Environmental Assessment Act. The submission of the PD followed a decision by Denison's Board of Directors to approve the advancement of the Phoenix deposit ('Phoenix') ISR operation outlined in the Pre-Feasibility Study ('PFS') completed for Wheeler River in 2018. In late December 2019, Denison received a Record of Decision from the CNSC on the scope of the factors to be taken into account for the Wheeler EA, which indicate that the EA will follow the CNSC's generic guidelines.

- Completion of Highly Successful 2019 ISR Field Test at Phoenix

In December 2019, Denison reported the completion of a highly successful ISR field test program, which was carried out at the high-grade Phoenix on the Wheeler River property. The ISR field test program was designed to validate the permeability of Phoenix, and to collect an extensive database of hydrogeological data to further evaluate the ISR mining conditions present at Phoenix. This detailed data is expected to

facilitate detailed mine planning as part of the completion of a future Feasibility Study ('FS'). The ISR field test program included preliminary hydrogeological tests completed by using a series of small diameter and large diameter test wells to move water through two test areas defined within the Phoenix ore zone. The ISR field test successfully achieved each of the program's planned objectives, and is highlighted by several key de-risking accomplishments, including the following:

- Confirmation of significant hydraulic connectivity within the Phoenix ore zone;
- Installation of the Athabasca Basin's first Commercial Scale Wells ('CSWs') for ISR;
- Confirmation of limited hydraulic connectivity within the underlying basement units; and
- Demonstration of the effectiveness of MaxPerf to increase access to existing permeability from a CSW.

Extensive hydrogeological data sets were collected during the 2019 ISR field program, and are being incorporated into a hydrogeological model being developed for Phoenix. In February 2020, Denison reported that the results from the hydrogeological test work, completed to-date, have confirmed the ability to achieve bulk hydraulic conductivity values (a measure of permeability) consistent with the PFS (see Denison press release dated February 24, 2020).

- Denison Initiates ISR Metallurgical Testing for the Phoenix Deposit and Reports Uranium Concentrations from Initial Core Leach Tests up to Four Times the Amount Assumed in PFS for Phoenix ISR

In December 2019, Denison announced the initiation of the next phase of ISR metallurgical laboratory testing for uranium recovery, which will utilize the mineralized drill core recovered through the installation of various test wells during the 2019 ISR field test program. The metallurgical laboratory test program builds upon the laboratory tests completed for the recovery of uranium as part of the project's PFS and is expected to further increase confidence and reduce risk associated with the application of ISR. The results are expected to facilitate detailed mine and process plant planning as part of a future FS, and will provide key inputs for the EA process. Significant components of the metallurgical laboratory test program include core leach tests, column leach tests, bench-scale tests and metallurgical modelling.

In February 2020, Denison reported that initial data from core leach tests includes elemental uranium concentrations, after test startup, in the range of 13.5 grams per litre ('g/L') to 39.8 g/L, with an average of 29.8 g/L over 20 days of testing (see Denison's press release dated February 19, 2020). This compares favourably to the previous metallurgical test work completed to assess the use of the ISR mining method at Phoenix – which supported a uranium concentration of 10 g/L for the ISR processing plant design used in the PFS.

- Denison Reports Favorable Results from Exploration at Wheeler River and Waterbury Lake

Denison conducted winter and summer diamond drilling programs at Wheeler River during 2019 – totaling 10,573 metres in 20 holes. The programs were focused on initial testing of regional target areas (K West, Q South East, K South, O Zone) with the potential to result in the discovery of additional high-grade deposits that could form satellite ISR operations. During the 2019 winter program, unconformity-hosted uranium mineralization was discovered along the southern portion of the K West trend (approximately 2 kilometres southwest of the Gryphon deposit) accompanied by strong sulphide mineralization and other geological features commonly associated with unconformity-related uranium deposits. Drill hole WR-756 was highlighted by 0.03% U₃O₈ over 1.5 metres, 1.3% Cu over 4.0 metres, 0.13% Ni over 4.0 metres, and 0.18% Co over 6.0 metres, located immediately above the sub-Athabasca unconformity. Additional follow-up drilling during the 2019 summer program at K West intersected strong hydrothermal alteration associated with highly anomalous geochemistry within the basal Athabasca sandstone, indicative of a fertile uranium mineralizing system along the K West trend and providing evidence for additional exploration targets.

At Waterbury Lake a winter diamond drilling program was completed during 2019 – totaling 5,735 metres in 15 holes. The program was focused on drill testing priority target areas (GB Zone, Oban South, GB Northeast and the Midwest Extension) associated with the regional Midwest Structure, which is interpreted to be located along the eastern portion of the Waterbury Lake property. The program was highlighted by intersections of basement-hosted uranium mineralization at the GB Zone including 0.15% U₃O₈ over 6.0 metres in drill hole WAT19-480, and 0.25% U₃O₈ over 2.0 metres and 0.22% U₃O₈ over 1.5 metres in drill hole WAT19-486.

- Execution of Memoranda of Understanding ('MOUs') with Local Communities for Wheeler River

As reported in the PD, Denison executed a series of MOUs, in support of the advancement of Wheeler River, with certain Indigenous communities who assert that Wheeler River falls partially or entirely within their traditional territories and where traditional land use activities are currently practiced within the local and regional area surrounding the project. These non-binding MOUs formalize the signing parties' intent to work together in the spirit of mutual respect and cooperation, in order to collectively identify practical means by which to avoid, mitigate, or otherwise address potential impacts of the project upon the exercise of Indigenous rights, Treaty rights, and other interests, as well as to facilitate sharing in the benefits that are expected to flow from the project.

- Renewal of Management Services Agreement with [Uranium Participation Corp.](#)

The Company, through its wholly owned subsidiary Denison Mines Inc., entered into a new five year agreement to provide management services to [Uranium Participation Corp.](#) ('UPC'). The new agreement has the potential to generate \$10,000,000 in management fees to Denison over the five year term.

- Denison's Closed Mines Group Renews Cornerstone Environmental Services Contract with BHP Group Limited ('BHP')

Effective July 1, 2019, Denison's Closed Mines group entered into a new two year services agreement with Rio Algom Limited, a subsidiary of BHP. Under the terms of the agreement, the Closed Mines group is responsible for carrying out the management and operation of nine of BHP's decommissioned mine sites in Ontario and Quebec.

- Obtained Financing for the Company's 2020 Canadian Exploration Activities

In December 2019, the Company completed a \$4,715,000 bought deal private placement equity offering for the issuance of 6,934,500 common shares on a flow-through basis at a price of \$0.68 per share. The proceeds from the financing will be used to fund Canadian exploration activities through to the end of 2020.

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 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). 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 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. The Company's flagship project is the 90% owned Wheeler River Uranium Project. 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 66.57% 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 Corp.](#) ('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 disclosure of scientific and technical information regarding Denison's material properties in this MD&A was prepared by, or reviewed and approved by, Dale Verran, MSc, Pr.Sci.Nat., the Company's Vice President Exploration, or David Bronkhorst, PEng., the Company's Vice President Operations, each a Qualified Person in accordance with the requirements of NI 43-101. For a description of the quality assurance program and quality control measures applied by Denison, please see Denison's Annual Information Form dated March 12, 2019 available under Denison's profile on SEDAR at www.sedar.com, and its Form 40-F available on EDGAR at www.sec.gov/edgar.shtml.

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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: 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, plans and objectives; expectations regarding environmental and regulatory standards and permitting processes; the estimates of Denison's mineral reserves and mineral resources; plans for any FS, and any work to be undertaken in respect thereto; 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. 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 Phoenix deposit. In addition, Denison may decide or otherwise be required to discontinue testing, evaluation and development work at Wheeler River, and may not complete a FS, 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 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.

Contact

David Cates, President and Chief Executive Officer (416) 979-1901 ext 362, Sophia Shane, Investor Relations (604) 689-7842

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.

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