

PRESS RELEASE**Denison Reports Strong Operational and Financial Results for 2021
Backed by Improving Uranium Market and \$41.4 million gain
on Physical Uranium Holdings**

Toronto, ON – March 3, 2022. Denison Mines Corp. ('Denison' or the 'Company') (TSX: DML, NYSE American: DNN) today filed its Audited Consolidated Financial Statements and Management's Discussion & Analysis ('MD&A') for the year ended December 31, 2021. Both documents will be available 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. The Company's results are highlighted by earnings attributable to Denison shareholders of \$0.02 per share for the year ended December 31, 2021. All amounts in this release are in Canadian dollars unless otherwise stated.

David Cates, President and CEO of Denison commented, "Our results from 2021 reflect a significant improvement in the uranium market, as well as continued operational progress advancing Wheeler River's Phoenix uranium deposit ('Phoenix') towards a development decision.

Less than twelve months ago, Denison completed a novel project financing initiative in support of the future development of the Wheeler River project, involving the purchase of 2.5 million pounds U₃O₈ in physical uranium holdings at an average cost of US\$29.66/lb U₃O₈. The financing was designed to position our shareholders to benefit from the additional financial stability of our uranium holdings, while remaining fully leveraged to any future appreciation of uranium prices that might occur prior to the completion of a project financing for Wheeler River. Since then, the uranium spot market has improved considerably, with continued support from financial investors, leading to a significant increase in the spot price in 2021 and a \$41.4 million gain on Denison's physical uranium holdings.

The improvement in the spot price was not only positive for Denison's balance sheet, but it also appears to have catalyzed further fundamental developments in the long-term supply market. We have seen nuclear utilities seek to address significant future uncovered requirements in an environment with reduced visibility to available sources of supply – leading to increased long-term contracting activity and prices. Combined with positive demand signals coming from a growing chorus of support for the critical role nuclear must play in the clean energy transition, the narrative for the development of new top tier new uranium mining projects has become quite positive.

Now several years into Denison's long-term plan for the advancement of Wheeler River, our Company is uniquely aligned with the improving uranium market, as we continue to successfully demonstrate the potential for the Phoenix deposit to emerge as the first In-Situ Recovery ('ISR') uranium mine in the Athabasca Basin region. Our de-risking efforts at Phoenix have involved extensive field and laboratory testing since completion of the Pre-Feasibility Study in 2018, which to date culminated in the completion of the installation and field testing of a 5-spot commercial-scale ISR test pattern in 2021. The field test was highly successful and confirmed key technical assumptions made in the PFS. Taken together with our positive metallurgical results, our work in 2021 has demonstrated tangible support for our selection of the ISR mining method for Phoenix and our decision to initiate a formal Feasibility Study.

Our plans for 2022 are ambitious – with a primary focus on driving towards the completion of key technical and regulatory milestones for Wheeler River, while also supporting a secondary focus of unlocking value from Denison's vast project portfolio, including continued exploration amongst our many highly-prospective property interests, and the initial evaluation of potential development plans for both the Midwest and McClean Lake projects."

Highlights

- **Completed highly successful ISR Field Tests at Phoenix, resulting in significant de-risking and supporting the decision to advance to a formal Feasibility Study ('FS')**

The Company continued its systematic approach to de-risking the technical risks identified for the ISR mining operation for Phoenix at the Wheeler River Uranium Project ('Wheeler River'), following completion of the 2018 Pre-Feasibility Study ('PFS'). Notably, in 2021 the Company completed a highly successful ISR field test program

including the installation and testing of a pattern of five commercial scale wells ('CSWs'). The results from the field test were highlighted by the following:

- Achieved commercial-scale production flow rates consistent with those assumed in the PFS;
- Demonstrated hydraulic control of injected solution during an ion tracer test;
- Established breakthrough times between injection and recovery wells consistent with previously prepared estimates; and
- Demonstrated the ability to remediate the five-spot CSW test pattern ('Test Pattern').

Additionally, positive results from ongoing metallurgical test work supported the decision to increase the anticipated ISR mining head-grade for Phoenix by 50%.

Given consistently positive results from field testing and laboratory testing, Denison and the Wheeler River Joint Venture approved the initiation of the formal FS report process for the Phoenix ISR project, and appointed Wood PLC as independent lead author of the FS.

▪ **Secured funding to complete the Environmental Assessment ('EA') and FS process for Wheeler River**

Denison completed a series of equity financings during 2021 intending to fund the EA and FS processes for Wheeler River. These financings raised gross proceeds of \$48.2 million (including \$11.9 million from At-the-Market offerings) from the issuance of 39.7 million common shares and 15.8 million common share purchase warrants. Based on current estimates, the net proceeds from these financings are expected to be sufficient to fund the completion of the FS and EA processes for Wheeler River.

▪ **Executed a Wheeler River project financing initiative involving the strategic acquisition of physical uranium and recorded significant uranium investment gains**

In March 2021, Denison successfully completed a public offering of units for gross proceeds of \$107.9 million. The majority of the net proceeds of the offering were used to fund the strategic purchase of 2.5 million pounds of uranium concentrates ('U₃O₈') at a weighted average price of US\$29.66 per pound U₃O₈. The uranium is being held by Denison as a long-term investment, which is intended to support the potential future financing of the advancement and/or construction of Wheeler River.

The uranium spot price appreciated to US\$42.00 per pound U₃O₈ by December 31, 2021, resulting in a fair value gain on the Company's physical uranium holdings of \$41,440,000 for the year ended December 31, 2021.

▪ **Obtained funding for high-potential exploration programs in 2021 and 2022**

The Company raised gross proceeds of \$8.0 million in March 2021, from the issuance of common shares on a flow-through basis, to fund eligible Canadian exploration activities in 2021 and 2022.

▪ **Acquired 50% of JCU (Canada) Exploration Company, Limited ('JCU') for \$20.5 million**

In August 2021, Denison completed the acquisition of 50% of JCU from UEX Corporation ('UEX') for cash consideration of \$20.5 million following UEX's acquisition of 100% of JCU from Overseas Uranium Resources Development Co., Ltd. for \$41 million. JCU holds a portfolio of 12 uranium project joint venture interests in Canada, including a 10% interest in Wheeler River, a 30.099% interest in the Millennium project (Cameco Corporation, 69.901%), a 33.8123% interest in the Kiggavik project (Orano Canada Inc., 66.1877%), and a 34.4508% interest in the Christie Lake project (UEX, 65.5492%).

▪ **Advanced actions to support reconciliation with Indigenous peoples**

Denison formally adopted an Indigenous People's Policy ('IPP') in 2021, which reflects the Company's recognition of the important role of Canadian business in the process of reconciliation with Indigenous peoples in Canada and outlines the Company's commitment to take action towards advancing reconciliation.

Also in 2021, the Company entered into a Participation and Funding Agreement and Letter of Intent with the English River First Nation ('ERFN') in connection with the advancement of the proposed ISR operation at Wheeler River, as well as an Exploration Agreement in respect of Denison's exploration and evaluation activities within the ERFN traditional territories. These agreements reflect Denison's desire to operate its business in a progressive and sustainable manner that respects ERFN rights and advances reconciliation with Indigenous peoples. The

agreements provide ERFN with economic opportunities and other benefits, and establish a foundation for future collaboration in an authentic, cooperative, and respectful way.

- **Discovery of high-grade uranium outside of the Phoenix Zone A high-grade domain**

Drill hole GWR-045, completed as part of the ISR field test program as a monitoring well to the northwest of the CSW Test Pattern, was based on the mineral resources currently estimated for Phoenix, expected to intersect low grade uranium mineralization on the northwest margin of the deposit. The drill hole, however, intersected a thick interval of high-grade unconformity-associated uranium mineralization grading 22.0% eU₃O₈ over 8.6 metres. Follow up drilling returned multiple additional intersections of high-grade uranium mineralization, including 24.9% eU₃O₈ over 4.2 metres in drill hole GWR-049. Taken together, these results are expected to expand the volume of the high-grade domain to the northwest in the Phase 1 area of Phoenix Zone A.

- **Sold shares and warrants in GoviEx Uranium Limited ('GoviEx') for proceeds of up to \$41.6 million**

In October 2021, the Company sold 32,500,000 common shares of GoviEx, previously held by Denison for investment purposes, and 32,500,000 common share purchase warrants, entitling the holder to acquire one additional common share of GoviEx owned by Denison at an exercise price of \$0.80 for a term of up to 18 months (the 'GoviEx Warrants'). Denison received gross proceeds of \$15,600,000 on the sale of the shares and warrants and continues to hold 32,644,000 common shares of GoviEx. If the GoviEx Warrants are exercised in full, Denison will receive further gross proceeds of \$26,000,000 and will transfer a further 32,500,000 GoviEx common shares to the warrant holders.

- **Received \$5.8 million in connection with the conversion of Uranium Participation Corporation ('UPC') into the Sprott Physical Uranium Trust**

In April 2021, UPC announced that it had reached an agreement with Sprott Asset Management LP ('Sprott') for the Sprott Physical Uranium Trust to acquire UPC (the 'UPC Transaction'). Upon completion of the UPC Transaction on July 19, 2021, Sprott became the manager of the Sprott Physical Uranium Trust, and the management services agreement ('MSA') between Denison and UPC was terminated. In accordance with the terms of the MSA, Denison received a cash payment of approximately \$5.8 million in connection with the termination.

About Denison

Denison Mines Corp. was formed under the laws of Ontario and is a reporting issuer in all Canadian provinces and territories. 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 has an effective 95% interest in its flagship 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. A PFS was completed for Wheeler River in late 2018, considering the potential economic merit of developing Phoenix as an ISR operation and the Gryphon deposit as a conventional underground mining operation. 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 contracted to process the ore from the Cigar Lake mine under a toll milling agreement (see RESULTS OF OPERATIONS below for more details), plus a 25.17% interest in the Midwest Main and Midwest A deposits and a 66.90% interest in the Tthe Heldeth Túé ('THT,' formerly J Zone) and Huskie deposits on the Waterbury Lake property. The Midwest Main, Midwest A, THT and Huskie deposits are located within 20 kilometres of the McClean Lake mill.

Through its 50% ownership of JCU, Denison holds additional interests in various uranium project joint ventures in Canada, including the Millennium project (JCU, 30.099%), the Kiggavik project (JCU, 33.8123%) and Christie Lake (JCU, 34.4508%).

Denison's exploration portfolio includes further interests in properties covering approximately 297,000 hectares in the Athabasca Basin region.

Denison is also engaged in mine decommissioning and environmental services through its Closed Mines group, which manages Denison's Elliot Lake reclamation projects and provides third-party post-closure mine care and maintenance services.

Prior to July 19, 2021, Denison also served as the manager of UPC, a publicly traded company listed on the TSX that invested in U₃O₈ and uranium hexafluoride ('UF₆'). In April 2021, UPC announced that it had entered into an agreement with Sprott to convert UPC into the Sprott Physical Uranium Trust. This transaction closed on July 19, 2021, and the MSA between Denison and UPC was terminated.

Technical Disclosure and Qualified Person

The technical information contained in this press release has been reviewed and approved by David Bronkhorst, P.Eng, Denison's Vice President, Operations and/or Andrew Yackulic, P. Geo, Denison's Director, Exploration, each of whom is a Qualified Person in accordance with the requirements of NI 43-101.

For more information, please contact

David Cates (416) 979-1991 ext. 362
President and Chief Executive Officer

Mac McDonald (416) 979-1991 ext. 242
Exec. Vice President & Chief Financial Officer

Follow Denison on Twitter @DenisonMinesCo

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: projections with respect to exploration, development and expansion plans and objectives, including the plans and objectives for Wheeler River and the related evaluation field program activities and exploration objectives; the interpretation of the results of the ISR field test, metallurgical and other assessment and de-risking activities at Wheeler River; the interpretation of the results of its exploration drilling programs; plans and objectives for the feasibility study and agreements with third parties related thereto; its use of proceeds of recent financings; its investments in uranium; the estimates of Denison's mineral reserves and mineral resources or results of exploration; 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 energy and uranium demand. 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 de-risking efforts such as the ISR field 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 the FS and/or otherwise discontinue testing, evaluation and development work 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 Management's Discussion & Analysis for the year ended December 31, 2021 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 Mineral Resources and Mineral Reserves: This press release may use terms such as "measured", "indicated" and/or "inferred" mineral resources and "proven" or "probable" mineral reserves, which are terms defined with reference to the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") CIM Definition Standards on Mineral Resources and Mineral Reserves ("CIM Standards"). The Company's descriptions of its projects using CIM Standards may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder. **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.**