



NEWS RELEASE

Orano Canada and Denison Announce JV Approval to Restart McClean Lake Mining Operations

January 24, 2024. Orano Canada Inc. ("Orano Canada"), and Denison Mines Corp. ("Denison") (TSX: DML, NYSE American: DNN), as joint-venture partners in the McClean Lake Joint Venture ("MLJV"), are pleased to announce that the MLJV has approved a restart of uranium mining operations using the joint venture's patented Surface Access Borehole Resource Extraction ("SABRE") mining method. Orano Canada owns a 77.5% interest and is the operator of the MLJV and Denison owns a 22.5% interest.

Mining is planned to commence at the McClean North deposit in 2025, with 2024 activities expected to focus on preparations necessary to ready the existing SABRE mining site and equipment for continuous commercial operations, as well as the installation of eight pilot holes for the first mining cavities planned for excavation. The approved budget for this work in 2024 is \$7 million (100% basis).

Approximately 800,000 lbs U₃O₈ (100% basis) are targeted for production from McClean North in 2025, with approximately 3,000,000 lbs U₃O₈ (100% basis) identified for potential additional production from a combination of the McClean North and Caribou deposits during the years 2026 to 2030.

Jim Corman, Orano Canada's President and Chief Executive Officer, said, ***"Our current ability to capitalize on the strengthening uranium and nuclear markets is the result of a long-term investment in R&D within Orano and the MLJV to secure continued activities at the McClean Lake operation well into the future. The groundwork we do over the course of 2024, is expected to put the MLJV in position to see SABRE in action and to commence production in 2025. It is anticipated that the McClean Lake mill will have sufficient capacity to process this ore, while continuing with committed planned production from Cigar Lake. It's an exciting time for employees, partners, and the industry as we return to a focus on growth."***

David Cates, Denison's President and Chief Executive Officer, commented, ***"The restart of uranium mining at McClean Lake is a notable milestone for the MLJV and Denison. Mining at McClean Lake was suspended in 2008 in response to declining uranium prices. During the interim 15 years, the MLJV invested in the development of a proprietary mining method designed to selectively extract high-grade Athabasca Basin uranium ores from surface. The successful mining test of the SABRE method in 2021 provided the MLJV with important information about the productivity and cost of SABRE operations. This information suggests an incentive price meaningfully lower than current uranium prices, which has provided the JV with a strong basis to make a restart decision for mining at McClean Lake."***

We would like to thank our colleagues at Orano Canada for their efforts to develop the SABRE method to a commercial-ready state, which has allowed for the joint venture to make the decision to resume production at McClean Lake."

About SABRE

SABRE is the culmination of a mining equipment invention and development initiative that began in 2004 and concluded in 2021 with the completion of multi-year mining test program that successfully excavated approximately 1,500 tonnes of high-value ore. It is a non-entry, surface-based mining method that uses a high-pressure water jet placed at the bottom of a drill hole to excavate a mining cavity. The cuttings from the excavation process are then air lifted to surface, separated, and stockpiled. SABRE is viewed as an innovative mining method that has the potential to allow for economic access to relatively small high-grade orebodies in the Athabasca Basin that are either too small or too deep to be mined economically by conventional open-pit and/or underground mining methods.

SABRE is unique in that the mining method can be selective and scalable, which has the potential to provide superior flexibility when compared to conventional mining methods and is thus ideally suited to ever changing uranium market conditions – with an expected production ramp up of months instead of years. The SABRE method has environmental advantages when compared to conventional open pit or underground mining methods as a result of its less intrusive nature and smaller surface footprint. Reduced water usage and power consumption also contribute to important reductions in greenhouse gas emissions and improved sustainability. Additionally, as a non-entry mining method, radiological exposure for mine workers is minimized.

For additional information about the SABRE mining test completed in 2021, please refer to the Orano Canada and the Denison joint news release dated November 3, 2021.

About McClean Lake

The McClean Lake property is located within the eastern part of the Athabasca Basin region in northern Saskatchewan, approximately 750 kilometres north of Saskatoon. The mineral property consists of 4 mineral leases covering an area of 1,147 hectares and 13 mineral claims covering an area of 3,111 hectares. The right to mine the McClean Lake deposits was acquired under the mineral leases, as renewed from time to time.

Additional information about the McClean North and Caribou deposits can be found in the technical reports entitled “Technical Report on the Mineral Resource Estimate for the McClean North Uranium Deposits, Saskatchewan” dated January 31, 2007, and the “Technical Report on the Denison Mines Inc. Uranium Properties, Saskatchewan, Canada” dated November 21, 2005, as revised February 16, 2006, respectively, copies of which are available under Denison’s profile on SEDAR+ and Denison’s website.

Qualified Persons

For Orano Canada, the technical information in this release has been reviewed and approved by Mr. Louis-Pierre Gagnon, P. Eng., Head of Mining Engineering, Orano Mining who is a Qualified Person in accordance with the requirements of Canadian National Instrument 43-101 Mineral Disclosure Standards (“NI 43-101”).

For Denison, the technical information contained in this release has been reviewed and approved by Mr. Chad Sorba, P. Geo., Denison’s Vice President Technical Services & Project Evaluation, and Mr. Andrew Yackulic, P. Geo., Denison’s Vice President Exploration, each of whom is a Qualified Person in accordance with the requirements of NI 43-101.

About Orano Canada

Headquartered in Saskatoon, Saskatchewan, Orano Canada Inc. is a leading producer of uranium, accounting for the processing of 18 million pounds of uranium concentrate in Canada in 2022. Orano will celebrate 60 years of exploring for, mining and milling uranium in Canada in 2024. Orano Canada is the operator of the McClean Lake uranium mill and a major partner in the Cigar Lake, McArthur River and Key Lake operations. The company employs over 450 people in Saskatchewan, including about 320 at the McClean Lake operation where over 46% of employees are self-declared Indigenous. As a sustainable uranium producer, Orano Canada is committed to safety, environmental protection and contributing to the prosperity and well-being of neighbouring communities.

Orano Canada Inc. is a subsidiary of the multinational Orano group. As a recognized international operator in the field of nuclear materials, Orano delivers solutions to address present and future global energy and health challenges. Its expertise and mastery of cutting-edge technologies enable Orano to offer its customers high value-added products and services throughout the entire fuel cycle. Every day, the Orano group’s 17,000 employees draw on their skills, unwavering dedication to safety and constant quest for innovation, with the commitment to develop know-how in the transformation and control of nuclear materials, for the climate and for a healthy and resource-efficient world, now and tomorrow.

Visit Orano at www.oranocanada.com or follow us on LinkedIn, Facebook and Twitter: @oranocanada

About Denison

Denison is a uranium exploration and development company with interests focused in the Athabasca Basin region of northern Saskatchewan, Canada. Denison 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. In mid-2023, a Feasibility Study was completed for Wheeler River's Phoenix deposit as an ISR mining operation, and an update to the previously prepared PFS was completed for Wheeler River's Gryphon deposit as a conventional underground mining operation. Based on the respective studies, both deposits have the potential to be competitive with the lowest cost uranium mining operations in the world. Permitting efforts for the planned Phoenix ISR operation commenced in 2019 and have advanced significantly, with licensing in progress and a draft Environmental Impact Statement submitted for regulatory and public review in October 2022.

Denison's interests in Saskatchewan also include a 22.5% ownership interest in the MLJV, which owns several uranium deposits and the McClean Lake uranium mill, contracted to process the ore from the Cigar Lake mine under a toll milling agreement, plus a 25.17% interest in the Midwest Main and Midwest A deposits and a 67.41% interest in the THT 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 (Canada) Exploration Company, Ltd ('JCU'), Denison holds additional interests in various uranium project joint ventures in Canada, including the Millennium project (JCU, 30.099%), the Kiggavik project (JCU, 33.8118%) and Christie Lake (JCU, 34.4508%).

Denison's exploration portfolio includes further interests in properties covering approximately 285,000 hectares in the Athabasca Basin region.

Learn more at www.denisonmines.com or follow Denison on X (formerly Twitter): @DenisonMinesCo.

For more information, please contact

Orano Canada Inc.:

Carey Hyndman
Manager, Communications and Stakeholder Engagement (306) 343-4503

Denison Mines Corp.:

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

Geoff Smith (416) 979-1991 ext. 358
Vice President Corporate Development & Commercial

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 anticipated site preparations and mining activities and estimates for the timing and budget thereof; the ability to successfully deploy the SABRE mining method and achieve the objectives of the MLJV; the environmental and safety benefits of the SABRE mining method; the targeted production at McClean North from 2025 to 2030 and other potential targets for production; and Denison's percentage interest in its properties and its plans and agreements with its joint venture partners.

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, performance or achievements of Denison to be materially different from those expressed or implied by forward-looking statements. Denison and Orano Canada believe 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 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 for Denison, please refer to the factors discussed in Denison's Annual Information Form dated March 27, 2023 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. Neither Denison nor Orano Canada undertakes 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 their respective expectations except as otherwise required by applicable legislation.

Cautionary Note to United States Investors Concerning Estimates of Mineral Resources and Mineral Reserves:

This news release may use the terms 'measured', 'indicated' and 'inferred' mineral resources. United States investors are advised that 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 NI 43-101 and are recognized and required by Canadian regulations. 'Inferred mineral resources' have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. 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 an inferred mineral resource exists and/or will ever be upgraded to a higher category, nor assume that all or any part of measured or indicated mineral resources will ever be converted into mineral reserves.

Effective February 2019, the United States Securities and Exchange Commission ("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.