

PRESS RELEASE

Denison Announces Discovery of High-Grade Uranium Mineralization at Moon Lake South

Toronto, ON – April 19, 2023. Denison Mines Corp. (“Denison” or the “Company”) (DML: TSX, DNN: NYSE American) is pleased to report that drill hole MS-23-10A intersected **1.38% eU₃O₈ over 8.7 metres** (0.05% eU₃O₈ cut-off), including a sub-interval grading **2.88% eU₃O₈ over 3.1 m**, intersected approximately 30 m above the unconformity in the Athabasca sandstone, as part of the recently completed winter exploration program at the Moon Lake South property (“Moon South”).

Uranium mineralization was encountered in four of the six drill holes completed during the 2023 winter exploration program, which was designed to evaluate the strike length of low-grade mineralized occurrences identified in the 2021 and 2016 drill programs. Figure 1 and Figure 2 depict the location of the Moon Lake South project, and the significant drill results on the project to date, respectively.

Andy Yackulic, P. Geo., Denison’s Director, Exploration, commented, *“The discovery of high-grade uranium mineralization at Moon Lake South gives further proof that the CR-3 trend has the potential to host a large, high-grade unconformity-associated uranium deposit. The fact that this high-grade material lies approximately 30 metres above the unconformity contact is very encouraging – as perched mineralization like this is typically only found proximal to high-grade unconformity-hosted deposits.”*

David Cates, Denison’s President & CEO added, *“The discovery of high-grade sandstone-hosted uranium mineralization at Moon Lake South is a very exciting development for Denison, as our Company’s recent field testing at the nearby 95%-owned Wheeler River project has illustrated the potential viability of mining high-grade Athabasca Basin sandstone-hosted uranium deposits via In-Situ Recovery (ISR) mining.”*

2023 Moon South Winter Exploration Program Highlights

The 2023 winter exploration program consisted of six completed diamond drill holes totalling 3,301 metres, designed to evaluate the potential to expand the footprint of known mineralization discovered in 2016 and 2021 by testing conductivity anomalies identified from the 2022 stepwise moving loop electromagnetic (SWML EM) survey.

Uranium mineralization was encountered in four of the six drill holes completed during the winter exploration program. The mineralized intersections are summarized in Table 1.

Table 1 – Mineralized Intersections – 2023 Moon Lake South Winter Exploration Drilling

Drill Hole	Orientation (azi./dip)	From (m)	To (m)	Length (m) ⁽¹⁾	eU ₃ O ₈ (%) ^(2,3)
MS-23-09	311°/-80.0°	408.45	408.65	0.2	0.06
MS-23-09	311°/-80.0°	451.45	451.95	0.5	0.12
MS-23-10A	311°/-81.5°	417.75	426.45	8.7	1.38
Including⁽⁴⁾		421.45	424.55	3.1	2.88
MS-23-10A	311°/-81.5°	430.85	432.05	1.2	0.07
MS-23-10AD1	311°/-81.5°	441.05	441.35	0.3	0.07
MS-23-11	309°/-81.5°	450.75	450.95	0.2	0.07

- Notes:
- (1) Lengths indicated represent the down-hole length of mineralized intersections.
 - (2) Radiometric equivalent U_3O_8 ("e U_3O_8 ") derived from a calibrated gamma downhole probe
 - (3) Mineralized interval is composited above a cut-off grade of 0.05% e U_3O_8
 - (4) Mineralized interval is composited above a cut-off grade of 2.00% e U_3O_8

The most significant mineralization was returned from hole MS-23-10A, which intersected a broad zone of high-grade mineralization grading 1.38% e U_3O_8 over 8.7 metres, associated with strong grey alteration, located approximately 30 metres above the sub-Athabasca unconformity. Given the limited number of drill holes completed during the winter program, the mineralization discovered in MS-23-10A remains open in multiple directions for future follow-up.

Radiometric Equivalent Grades, Sampling, Analysis and Data Verification

Following the completion of a drill hole, the hole is radiometrically logged using a downhole gamma probe, which collects continuous readings of radioactivity along the length of the drill hole. Probe results are then calibrated using an algorithm calculated from the comparison of probe results against geochemical analyses in the area. The gamma-log results provide an immediate radiometric equivalent uranium value (e U_3O_8 %) for the hole, which, except in very high-grade zones, is reasonably accurate. The Company typically reports e U_3O_8 , as a preliminary result and subsequently reports definitive assay grades following sampling and chemical analysis of the mineralized drill core.

Assay sample intervals are generally 50 centimetres long, except where higher or lower-grade mineralization boundaries fall within the interval. In that case, two 25 centimetre samples are collected. Flank samples of 1.0 metre are always collected where mineralization is located. Systematic geochemistry samples are collected every 10 metres down the hole.

All assayed core is split in half, with one half retained and the other sent to the Saskatchewan Research Council Geoanalytical Laboratory in Saskatoon for analysis. Control samples are routinely assayed with each batch of core samples analyzed.

About Moon Lake South

The Moon Lake South project is a joint venture between Denison Mines Corp., which holds a 75% interest in the property, and CanAlaska Uranium Ltd., which holds the remaining 25% interest. Denison acts as the project operator.

The project lands are located in the southeastern part of the Athabasca basin, approximately 12 kilometres southwest of Denison's Phoenix deposit, and 30 kilometres northwest of Cameco's Key Lake Operation. The property is accessible year-round via the Fox Lake tote road, allowing Denison's exploration team to use the nearby Wheeler River camp as a base of operations.

About Denison

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. 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 that is 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 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 each 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 33.8118%) and Christie Lake (JCU 34.4508%). Denison's exploration portfolio includes further interests in properties covering ~300,000 hectares in the Athabasca Basin region.

Denison is also engaged in post-closure mine care and maintenance services through its Closed Mines group, which manages Denison's reclaimed mine sites in the Elliot Lake region and provides related services to certain third-party projects.

For more information, please contact

David Cates
President and Chief Executive Officer

(416) 979-1991 ext 362

Mac McDonald
Exec. Vice President & Chief Financial Officer

(416) 979-1991 ext 242

Follow Denison on Twitter

@DenisonMinesCo

Qualified Persons

The technical information contained in this release has been reviewed and approved by Mr. Andrew Yackulic, P. Geo., Denison's Director, Exploration, who is a Qualified Person in accordance with the requirements of NI 43-101.

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 interpretation of exploration results and expectations with respect thereto, including the interpretation of the results from the Moon Lake South exploration program; and expectations regarding its joint venture ownership interests and the continuity of its agreements with its 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, 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 modelling and assumptions upon which the interpretation of results are based may not be maintained after further testing or be representative of actual conditions. 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 27, 2023 or subsequent quarterly financial reports 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.

Figure 1 – Moon Lake South Project - Location

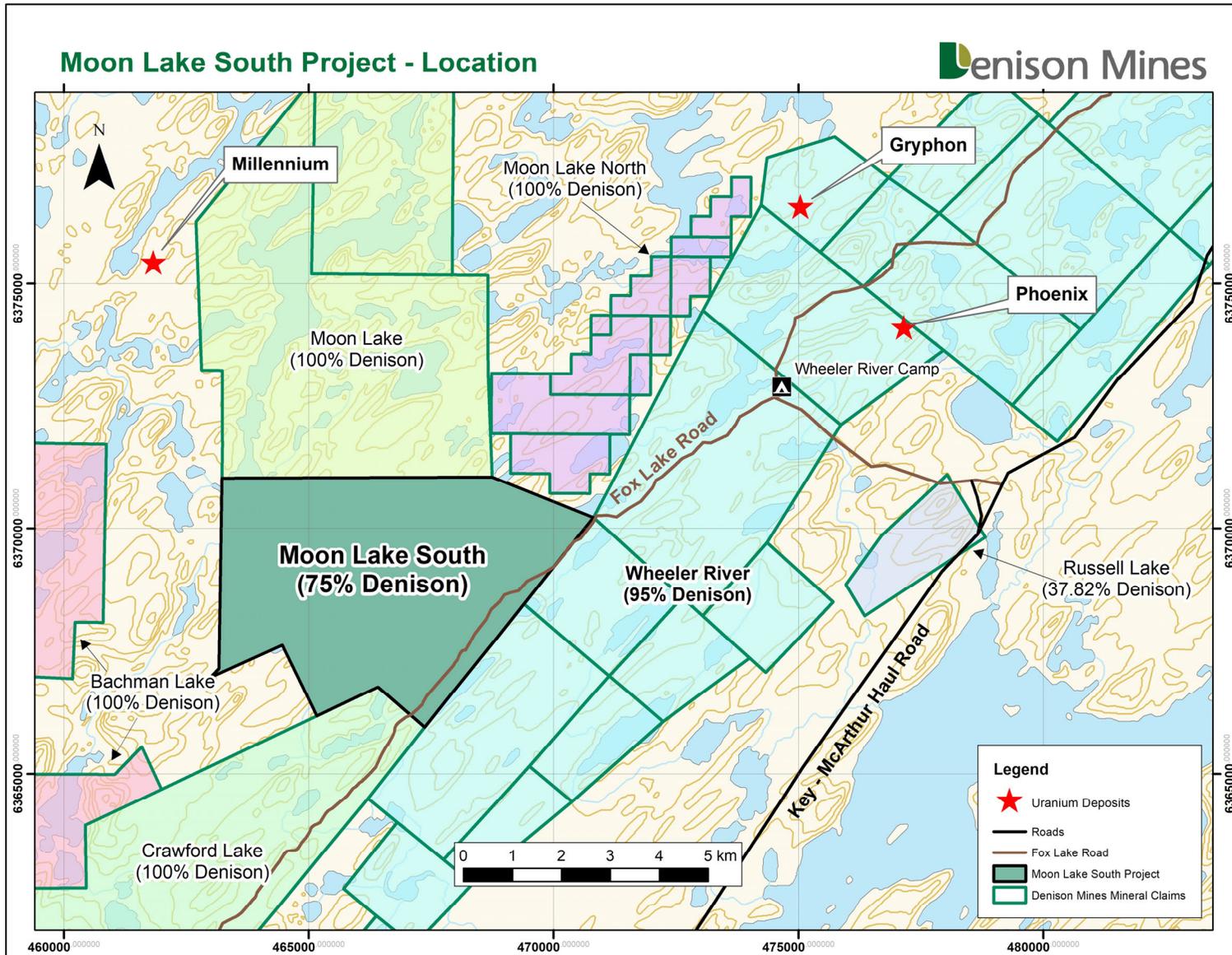


Figure 2 – Moon Lake South Project – 2023 Winter Drilling Results

