

PRESS RELEASE

Denison Announces Discovery of High-Grade Uranium Mineralization At 24.68% Owned Waterfound JV

Toronto, ON – March 29, 2022. Denison Mines Corp. ("Denison" or the "Company") (DML: TSX, DNN: NYSE American) is pleased to report the discovery of multiple new high-grade intercepts of unconformity-hosted uranium mineralization in the final three drill holes completed during the winter 2022 exploration program on the Waterfound River property ("Waterfound"). The results were highlighted by drill hole WF-68, which returned a broad zone of uranium mineralization, including a peak interval of **5.91% eU₃O₈ over 3.9 metres** (0.05% eU₃O₈ cut-off) with a sub-interval grading **25.30% eU₃O₈ over 0.7 m**, located approximately 800 metres west, along the La Rocque Conductive Corridor, of the previously discovered high-grade mineralization (including 4.49% U₃O₈ over 10.53 metres) at the Alligator Zone.

Denison has an effective 24.68% ownership interest in the Waterfound River Joint Venture ("Waterfound JV") to which each of Orano Canada Inc. ("Orano Canada"), Denison, and JCU (Canada) Exploration Company, Limited ("JCU") are participants. Orano Canada has a 62.42% interest in the Waterfound JV and is the project operator.

Andy Yackulic, P. Geo., Denison's Director, Exploration, commented, "We are excited to see additional high-grade mineralization discovered within the La Rocque corridor, which also hosts Cameco's La Rocque Lake Zone and IsoEnergy's Hurricane Zone. Not only has the drilling at Waterfound intersected high-grade uranium, but the mineralization remains open along strike in both directions."

David Cates, Denison's President & CEO, added, "Denison is appreciative of the efforts of Orano Canada to breathe new life into Waterfound. Denison has a unique partnership with Orano – as joint owners of the McClean Lake mill and the nearby Midwest project. This discovery at Waterfound is well situated relative to the McClean Lake mill and has the potential to translate into a further important source of future mill feed for the McClean Lake joint venture. Waterfound is also a good example of the significant, but often underappreciated, discovery potential associated with Denison's well situated and prospective exploration property portfolio."

2022 Waterfound River Winter Exploration Program Highlights

Drill holes WF-67, WF-68, and WF-68-1 were all drilled on line 4000E, approximately 800 m along strike to the west of the Alligator Zone, to test the potential for uranium mineralization along the up-dip projection of a graphitic structure intersected at depth in historical drill hole WF-50. All three drill holes successfully identified high-grade uranium mineralization, highlighted by hole WF-68, which returned 5.91% eU₃O₈ over 3.9 metres. The mineralized intersections are illustrated in Figure 1 and summarized in Table 1 below.

Table 1 – 2022 Waterfound River Winter Exploration Drilling Highlights

Drill Hole	From (m)	To (m)	Length (m) ⁽¹⁾	eU ₃ O ₈ (%) ⁽²⁾
WF-67 ^(3,4)	474.1	488.3	14.2	0.73
WF-68 ^(3,4)	459.7	462.0	2.3	0.66
WF-68 ^(3,4)	467.1	470.3	3.2	0.97
WF-68 ^(3,4)	473.7	477.6	3.9	5.91
including ⁽⁵⁾	476.2	476.9	0.7	25.3
WF-68-1 ^(3,4)	464.2	472.2	8.0	0.87
WF-68-1 ^(3,4)	474.0	476.4	2.4	0.31
WF-68-1 ^(3,4)	480.3	482.7	2.4	2.20

Notes: (1) Lengths indicated represent the down-hole length of mineralized intersections.

- (2) Radiometric equivalent U₃O₈ ("eU₃O₈") derived from a calibrated gamma downhole probe
- (3) WF-67 was drilled at an azimuth of 154° and a dip of -70.0°, WF-68, was drilled at an azimuth of

 154° and a dip of -71.5°, and WF-68-1 was drilled at an azimuth of 154° and a dip of -73.5°.

- (4) Mineralized interval is composited above a cut-off grade of 0.05% eU₃O₈
- (5) Mineralized interval is composited above a cut-off grade of 10.0% eU₃O₈

The 2022 exploration program was designed to test for the potential expansion of previously discovered mineralization in the Alligator Zone, as well as to test for new mineralization in the surrounding area along the La Rocque conductive corridor (see Figure 2). The program was planned to occur during both the winter and summer drilling seasons with approximately 7,400 metres of diamond drilling in an estimated 12 drill holes. Six diamond drill holes, totalling 3,175.4 metres, were completed as part of the winter drill program.

The first two drill holes of the winter program (WF-64 and WF-65) were completed on the eastern end of the property to test the D-1 conductor, located within the La Rocque conductive corridor. While each of these holes encountered elevated radioactivity at the unconformity, no mineralization above a 0.05% eU₃O₈ cut-off was identified. WF-66, the third drill hole of the winter program, was drilled to test the D-1 conductor approximately 500 metres west of the Alligator Zone. WF-66 failed to intersect significantly elevated radioactivity. The final three drill holes (WF-67, WF-68, and WF-68-1), as described above, were successful in intersecting significant uranium mineralization associated with the D-1 conductor, which lies within the La Rocque conductive corridor. This newly identified mineralization remains open along strike in both directions. Additional drilling to test the extent of mineralization is expected to be completed during the planned summer exploration drilling program.

Radiometric Equivalent Grades, Sampling, Analysis and Data Verification

Following the completion of a drill hole, the hole is radiometrically logged using a downhole slimline 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 (eU%, then converted to eU $_3$ O $_8$ %) for the hole, which, except in very high-grade zones, is reasonably accurate. The Company typically reports eU $_3$ O $_8$, 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 SRC Geoanalytical Laboratory in Saskatoon for analysis. Control samples are routinely assayed with each batch of core samples analyzed.

About Waterfound River

The Waterfound River property is located within the eastern portion of the Athabasca Basin region of northern Saskatchewan, approximately 40 kilometres northwest of Denison's 22.5% owned McClean Lake mill. The Waterfound JV is an unincorporated contractual arrangement between Orano Canada (62.4223%), Denison Mines Inc. (11.7767%), and JCU (25.8010%). Denison holds an effective 24.6772% ownership interest in the Waterfound JV through its direct interest in the joint venture and its 50% ownership of JCU.

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 the Athabasca Basin 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 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 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 33.8123%) 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 (formerly Denison Environmental Services), which manages Denison's reclaimed mine sites in the Elliot Lake region and provides related services to certain third-party projects.

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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 Waterfound River exploration program undertaken by Orano Canada, underlying assumptions and the Waterfound JV's intentions with respect thereto; exploration plans and objectives; 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 26, 2021 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 – Location – Waterfound River JV

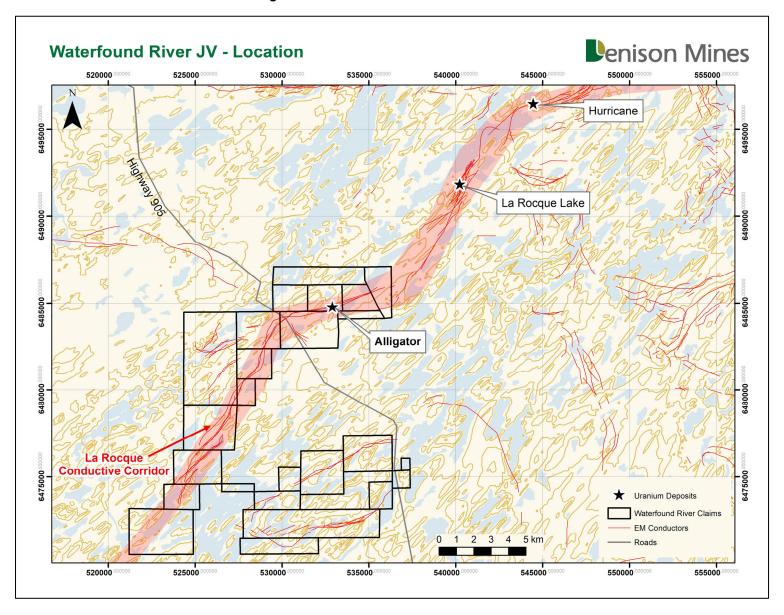


Figure 2 – 2022 Winter Exploration Drilling – Alligator Extension

