UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 40-F

(Check One)
☐ **Registration statement pursuant to Section 12 of the Securities Exchange Act of 1934**

☒ **Annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934**

For the fiscal year ended: December 31, 2021 **Commission file number: 001-33414**

DENISON MINES CORP.

(Exact name of registrant as specified in its charter)

Ontario, Canada
(Province or other jurisdiction of incorporation or organization)

1090
(Primary standard industrial classification code number)

98-0622284
(I.R.S. employer identification number)

1100 – 40 University Avenue, Toronto, Ontario M5J 1T1 Canada; Phone number: 416-979-1991
(Address and telephone number of registrant's principal executive offices)

C T Corporation System
28 Liberty Street
New York, NY 10005
Phone number: 212-894-8940
(Name, address and telephone number of agent for service in the United States)

Securities registered pursuant to Section 12(b) of the Act: Not applicable.

Securities registered pursuant to Section 12(g) of the Act: Common shares without par value.

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: Not applicable.

For annual reports, indicate by check mark the information filed with this form:

☒ **Annual Information Form** ☒ **Audited Annual Financial Statements**

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: 812,429,995 Common Shares as of December 31, 2021.

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13(d) or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the registrant has been required to file such reports); and (2) has been subject to such filing requirements in the past 90 days.

Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☒ No ☐

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 12b-2 of the Exchange Act.

Emerging growth company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

EXPLANATORY NOTE

Denison Mines Corp. (the "**Company**" or the "**Registrant**") is an Ontario corporation eligible to file its Annual Report pursuant to Section 13(a) of the United States Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), on Form 40-F. The Registrant is a "foreign private issuer" as defined in Rule 3b-4 under the Exchange Act. Equity securities of the Registrant are accordingly exempt from Sections 14(a), 14(b), 14(c), 14(f) and 16 of the Exchange Act pursuant to Rule 3a12-3 thereunder.

DOCUMENTS FILED PURSUANT TO GENERAL INSTRUCTIONS

In accordance with General Instruction B.(3) of Form 40-F, the Registrant hereby incorporates by reference Exhibits 99.1 through 99.3 as set forth in the Exhibit Index attached hereto, which are deemed filed herewith.

In accordance with General Instruction D.(9) of Form 40-F, the Company has filed written consents of certain experts named in the foregoing Exhibits as Exhibits 99.4 and 99.7 through 99.15, as set forth in the Exhibit Index attached hereto.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Certain of the information contained in this Annual Report on Form 40-F, including the documents incorporated herein by reference, may contain "forward-looking information". Forward-looking information and statements may include, among others, statements regarding the future plans, costs, objectives or performance of the Company, or the assumptions underlying any of the foregoing. In this Annual Report on Form 40-F, words such as "may", "would", "could", "will", "likely", "believe", "expect", "anticipate", "intend", "plan", "estimate" and similar words and the negative form thereof are used to identify forward-looking statements. Forward-looking statements should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether, or the times at or by which, such future performance will be achieved. Forward-looking statements and information are based on information available at the time and/or management's good-faith belief with respect to future events and are subject to known or unknown risks, uncertainties and other unpredictable factors, many of which are beyond the Company's control. These risks, uncertainties and assumptions include, but are not limited to, those described under the section "Risk Factors" in the Company's Annual Information Form for the fiscal year ended December 31, 2021 (the "**AIF**"), which is filed as Exhibit 99.1 to this Annual Report on Form 40-F, and could cause actual events or results to differ materially from those projected in any forward-looking statements.

The Company's forward-looking statements contained in the exhibits incorporated by reference into this Annual Report on Form 40-F are made as of the respective dates set forth in such exhibits. In preparing this Annual Report on Form 40-F, the Company has not updated such forward-looking statements to reflect any subsequent information, events or circumstances or otherwise, or any change in management's beliefs, expectations or opinions that may have occurred prior to the date hereof, nor does the Company assume any obligation to update such forward-looking statements in the future, except as required by applicable laws.

NOTE TO UNITED STATES READERS – DIFFERENCES IN UNITED STATES AND CANADIAN REPORTING PRACTICES

The Registrant is permitted, under a multijurisdictional disclosure system adopted by the United States, to prepare this Annual Report on Form 40-F in accordance with Canadian disclosure requirements, which are different from those of the United States.

The Registrant prepares its consolidated financial statements, which are filed with this Annual Report on Form 40-F, in accordance with International Financial Reporting Standards, as issued by the International Accounting Standards Board ("**IFRS**"). IFRS differs in some significant respects from United States generally accepted accounting principles ("**U.S. GAAP**"), and thus the Registrant's financial statements may not be comparable to the financial statements of United States companies. These differences between IFRS and U.S. GAAP might be material to the financial information presented in this Annual Report on Form 40-F. In addition, differences may arise in subsequent periods related to changes in IFRS or U.S. GAAP or due to new transactions that the Registrant enters into. The Registrant is not required to prepare a reconciliation of its consolidated financial statements and related footnote disclosures between IFRS and U.S. GAAP and has not quantified such differences.

RESOURCE AND RESERVE ESTIMATES

The terms “mineral reserve”, “proven mineral reserve” and “probable mineral reserve” are Canadian mining terms as defined in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects (“**NI 43-101**”), which references the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the “**CIM**”) – CIM Definition Standards on Mineral Resources and Mineral Reserves (“ **CIM Standards**”), adopted by the CIM Council, as amended.

Until recently, the CIM Standards differed significantly from standards in the United States. The U.S. Securities and Exchange Commission (the “**SEC**” or the “**Commission**”) 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. These amendments became effective February 25, 2019 (the “**SEC Modernization Rules**”) with compliance required for the first fiscal year beginning on or after January 1, 2021. The SEC Modernization Rules replace the historical disclosure requirements for mining registrants that were included in SEC Industry Guide 7. As a result of the adoption of the SEC Modernization Rules, 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.

United States investors are cautioned that while the above terms are “substantially similar” to the corresponding CIM Definition Standards, there are differences in the definitions under the SEC Modernization Rules and the CIM Standards. Accordingly, there is no assurance any mineral reserves or mineral resources that the Company may report as “proven mineral reserves”, “probable mineral reserves”, “measured mineral resources”, “indicated mineral resources” and “inferred mineral resources” under NI 43-101 would be the same had the Company prepared the reserve or resource estimates under the standards adopted under the SEC Modernization Rules.

United States investors are also cautioned that while the SEC now recognizes “indicated mineral resources” and “inferred mineral resources”, investors should not assume that any part or all of the mineralization in these categories will ever be converted into a higher category of mineral resources or into mineral reserves. Mineralization described using these terms has a greater amount of uncertainty as to their existence and feasibility than mineralization that has been characterized as reserves. Accordingly, investors are cautioned not to assume that any “indicated mineral resources” or “inferred mineral resources” that the Company reports are or will be economically or legally mineable. Further, “inferred mineral resources” have a greater amount of uncertainty as to their existence and as to whether they can be mined legally or economically. Therefore, United States investors are also cautioned not to assume that all or any part of the “inferred mineral resources” exist. In accordance with Canadian securities laws, estimates of “inferred mineral resources” cannot form the basis of feasibility or other economic studies, except in limited circumstances where permitted under NI 43-101.

Accordingly, information contained in this Annual Report on Form 40-F and the documents incorporated by reference herein containing descriptions of the Company’s mineral deposits 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.

CURRENCY

Unless otherwise indicated, all dollar amounts in this Annual Report on Form 40-F are in Canadian dollars. The daily exchange rate published by the Bank of Canada for the exchange of Canadian dollars into United States dollars on December 31, 2021, the last business day of calendar 2021, was CDN$1.00 = U.S.$0.7888.

TAX MATTERS

Purchasing, holding, or disposing of securities of the Registrant may have tax consequences under the laws of the United States and Canada that are not described in this Annual Report on Form 40-F.

CONTROLS AND PROCEDURES

A. Certifications

The required certifications are included in Exhibits 99.5 and 99.6 of this Annual Report on Form 40-F.

B. Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures to ensure that information required to be disclosed in the Company's filings under the Exchange Act, is recorded, processed, summarized and reported in accordance with the requirements specified in the rules and forms of the SEC. The Company carried out an evaluation, under the supervision and with the participation of its management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's "disclosure controls and procedures" (as defined in Rule 13a-15(e) or Rule 15d-15(e) under the Exchange Act) as of the end of the period covered by this Annual Report on Form 40-F. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures as of December 31, 2021 are effective to ensure that information required to be disclosed by the Registrant in reports it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and is accumulated and communicated to the Registrant's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

The Company's disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives and, as indicated in the preceding paragraph, the Chief Executive Officer and Chief Financial Officer believe that the Company's disclosure controls and procedures are effective at that reasonable assurance level, although the Chief Executive Officer and Chief Financial Officer do not expect that the disclosure controls and procedures will prevent or detect all errors and all fraud.

It should be noted that a control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. The Company will continue to periodically review its disclosure controls and procedures and may make such modifications from time to time as it considers necessary.

C. Management's Annual Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over the Company's financial reporting (as defined in Rules 13a-15(f) or 15d-15(f) under the Exchange Act). Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of the Company's financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Management conducted an assessment of the Company's internal control over financial reporting based on the framework established by the Committee of Sponsoring Organizations of the Treadway Commission on Internal Control — Integrated Framework (2013). Based on this assessment, management concluded that, as of December 31, 2021, the Company's internal control over financial reporting is effective.

It should be noted that a control system, no matter how well conceived or operated, can only provide reasonable, not absolute, assurance that the objectives of the control system are met. The Company will continue to periodically review its internal control over financial reporting and may make such modifications from time to time as it considers necessary.

D. Attestation Report of the Independent Registered Public Accounting Firm

The effectiveness of the Registrant's internal control over financial reporting as of December 31, 2021 has been audited by KPMG LLP, an Independent Registered Public Accounting Firm, as stated in their report included with the Registrant's Audited Financial Statements, which are an exhibit to this Annual Report on Form 40-F.

E. Changes in Internal Control Over Financial Reporting

There was no change in the Company's internal control over financial reporting that occurred during the twelve month period covered by this Annual Report on Form 40-F that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

NOTICES PURSUANT TO REGULATION BTR

There were no notices required by Rule 104 of Regulation BTR during the fiscal year ended December 31, 2021, concerning any equity security subject to a blackout period under Rule 101 of Regulation BTR.

CORPORATE GOVERNANCE

The Company is listed on the Toronto Stock Exchange (the "**TSX**") and is required to describe its practices and policies with regard to corporate governance with specific reference to the corporate governance guidelines of the Canadian Securities Administrators on an annual basis by way of a corporate governance statement contained in the Company's Annual Information Form or Information Circular. The Company is also listed on the NYSE American LLC (the "**NYSE American**") and additionally complies as necessary with the rules and guidelines of the NYSE American as well as the SEC. The Company reviews its governance practices on an ongoing basis to ensure it is in compliance with the applicable laws, rules and guidelines both in Canada and in the United States.

The Company's Board of Directors (the "**Board**") is responsible for the Company's corporate governance policies and has separately designated a standing Corporate Governance and Nominating Committee. The Board has determined that the members of the Corporate Governance and Nominating Committee are independent, based on the criteria for independence and unrelatedness prescribed by the Sarbanes-Oxley Act of 2002, Section 10A(m)(3), and the NYSE American. Corporate governance relates to the activities of the Board, the members of which are elected by and are accountable to the shareholders, and takes into account the role of the senior officers who are appointed by the Board and who are charged with the day to day administration of the Company. The Board is committed to sound corporate governance practices that are both in the interest of its shareholders and contribute to effective and efficient decision making.

BENEFIT PLAN BLACKOUT PERIODS

Not applicable.

AUDIT COMMITTEE FINANCIAL EXPERT

The Company's Board of Directors has determined that Ms. Patricia Volker, Chair of the Audit Committee, is an audit committee financial expert within the meaning of paragraph 8(b) of General Instruction B of Form 40-F, and that all three members of the Audit Committee (Ms. Patricia Volker, Mr. Brian Edgar and Mr. David Neuburger) are independent within the meaning of United States and Canadian securities regulations and applicable stock exchange requirements. A description of the education and experience of these persons is set forth in the table below:

Member Name	Education & experience relevant to performance of audit committee duties
Patricia Volker, Chair of the Audit Committee	• Chartered Professional Accountant, Chartered Accountant, Certified Management Accountant • Over 17 years of service at the Chartered Professional Accountants of Ontario, the self-regulating body for Ontario's CPAs • Has served and chaired audit committees of a number of companies
Brian Edgar	• Law degree, with extensive corporate finance experience • Held positions in a public company of Chairman since 2011 and President and Chief Executive Officer from 2005 to 2011. • Has served on audit committees of a number of public companies
David Neuburger	• Completed Financial Accounting and Managerial Accounting courses as part of a Masters of Business Administration (MBA) Program • Disclosure Committee experience with Cameco Corporation, including review of quarterly and annual financial statements and management's discussion & analysis • Has served on another public company audit committee

Through such education and experience, each of these three members has experience overseeing and assessing the performance of companies and public accountants with respect to the preparation, auditing and evaluation of financial statements, and has: (1) an understanding of generally accepted accounting principles and financial statements; (2) the ability to assess the general application of such principles in connection with the accounting for estimates, accruals and reserves; (3) experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the Company's financial statements; (4) an understanding of internal control over financial reporting; and (5) an understanding of audit committee functions.

The SEC has provided that the designation of an audit committee financial expert does not make him or her an "expert" for any purpose, impose on him or her any duties, obligations or liability that are greater than the duties, obligations or liability imposed on him or her as a member of the Audit Committee and the Board in the absence of such designation, or affect the duties, obligations or liability of any other member of the Audit Committee or Board.

CODE OF ETHICS

The Company has adopted a code of ethics that applies to the Company's directors, officers and employees, including the Chief Executive Officer, the Chief Financial Officer, the principal accounting officer or controller, persons performing similar functions and other officers, directors and employees of the Company. A current copy of the code of ethics is on the Company's website at www.denisonmines.com. In the fiscal year ended December 31, 2021, the Company has not made any amendment to a provision of its code of ethics that applies to any of its Chief Executive Officer, Chief Financial Officer, principal accounting officer or controller or persons performing similar functions that relates to one or more of the items set forth in paragraph (9)(b) of General Instruction B to Form 40-F. In the fiscal year ended December 31, 2021, the Company has not granted a waiver (including an implicit waiver) from a provision of its code of ethics to any of its Chief Executive Officer, Chief Financial Officer, principal accounting officer or controller or persons performing similar functions that relates to one or more of the items set forth in paragraph (9)(b) of General Instruction B to Form 40-F.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

Our independent registered public accounting firm is KPMG LLP, Toronto, ON, Canada, Auditor Firm ID: 85.

The following table discloses the fees billed to the Company by its external auditor during the last two financial years ended December 31, 2021 and 2020. Services were billed and paid in Canadian dollars and the table below reflects amounts in Canadian dollars.

Periods Ending [1]	Audit Fees[2]	Audit Related Fees[3]	Tax Fees[4]	All Other Fees[5]
December 31, 2021	$ 475,700	$ 27,820	$ 28,747	$ 0
December 31, 2020[6]	$ 416,654	$ 27,300	$ 24,015	$ 0

Notes:

(1) These amounts include accruals for fees billed outside the period to which the services related.

(2) The aggregate fees billed for audit services of the Company's consolidated financial statements, including services normally provided by an auditor for statutory or regulatory filings or engagements and other services only the auditor can reasonably provide. The Audit Fees in 2020 and 2021 include fees related to reviews of interim consolidated financial statements (2021: $80,250; 2020: $83,817) and the extensive work required of the auditors to support, and conduct consent procedures in connection with, the Company's various equity issuances (2021: $181,900; 2020: $160,000).

(3) The aggregate fees billed for specified audit procedures, assurance and related services that are reasonably related to the performance of the audit or review of the Company's financial statements and are not disclosed in the Audit Fees column. Audit-related fees in 2020 and 2021 were billed for certain specified procedures engagements and the audit of certain subsidiary financial statements.

(4) The aggregate fees billed for tax compliance, tax advice, and tax planning services, such as transfer pricing and tax return preparation.

(5) The aggregate fees billed for professional services other than those listed in the other three columns.

(6) Fees in 2020 have been re-classified from prior years, to present consistently as described in Notes 1, 2 and 3, above. Fees in 2020 include $167,904 of audit fees and $27,300 of audit-related fees for professional services billed by the Company's former auditor, PricewaterhouseCoopers LLP.

The Company's Audit Committee mandate and charter provides that the Audit Committee shall (i) approve, prior to the auditor's audit, the auditor's audit plan (including, without limitation, staffing), the scope of the auditor's review and all related fees, and (ii) pre-approve any non-audit services (including, without limitation, fees therefor) provided to the Company or its subsidiaries by the auditor or any auditor of any such subsidiary and shall consider whether these services are compatible with the auditor's independence, including, without limitation, the nature and scope of the specific non-audit services to be performed and whether the audit process would require the auditor to review any advice rendered by the auditor in connection with the provision of non-audit services.

The following sets forth the percentage of services described above that were approved by the audit committee pursuant to paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X:

	2021	2020
Audit Related Fees:	100%	100%
Tax Fees:	100%	100%
All Other Fees:	100%	100%

TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

At December 31, 2021, the Company had an estimated aggregate reclamation liability of $37,532,000, which is the present value amount that is expected to be sufficient to cover the projected future costs for reclamation of the Company's mill and mine operations. This estimated aggregate reclamation liability consists of $20,877,000 for Elliot Lake obligations, $15,405,000 for the McClean Lake and Midwest joint venture obligations and $1,245,000 for other obligations. The Company maintains a trust fund equal to the estimated reclamation spending for the succeeding six calendar years, less interest expected to accrue on the funds, in respect of its liability for Elliot Lake. At December 31, 2021, the balance in the trust fund was $2,886,000. In addition, as at December 31, 2021, the Company has pledged as collateral $9,135,000 of cash to support its standby letters of credit from the Bank of Nova Scotia for the McClean and Midwest reclamation obligations.

See other information in the section entitled “Contractual Obligations and Contingencies” in the Company’s Management’s Discussion and Analysis of Results of Operations and Financial Condition for the Year ended December 31, 2021, incorporated by reference as Exhibit 99.2 hereof.

IDENTIFICATION OF THE AUDIT COMMITTEE

The Company has a separately-designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. The committee members are Ms. Patricia Volker (Chair), Mr. Brian Edgar and Mr. David Neuburger. For further information on these members, see “Audit Committee Financial Expert” above.

INTERACTIVE DATA FILE

An interactive data file has been filed herewith, with the Consolidated Audited Financial Statements for the Years Ended December 31, 2021 and 2020.

NYSE AMERICAN CORPORATE GOVERNANCE

The Company’s common shares are listed on the NYSE American. Section 110 of the NYSE American Company Guide permits the NYSE American to consider the laws, customs and practices of foreign issuers in relaxing certain NYSE American listing criteria, and to grant exemptions from the NYSE American listing criteria based on these considerations. An issuer seeking relief under these provisions is required to provide written certification from independent local counsel that the non-complying practice is not prohibited by home country law. A description of the significant ways in which the Company’s governance practices differ from those followed by domestic companies pursuant to the NYSE American standards is as follows:

Board Composition: The NYSE American requires that a listed company have a Board of Directors consisting of at least a majority of members who satisfy applicable independence standards under Section 803 of the NYSE American Company Guide (the “**NYSE American Independence Standard**”). The Company’s Board is currently composed of nine members, seven of whom qualify as independent under the NYSE American Company Guide and who meet the NYSE American Independence Standard, namely Messrs. Dengler, Edgar, Hochstein and Neuburger and Mses. Sterritt, Traub and Volker. The Company’s remaining two directors do not satisfy the NYSE American Independence Standard, being Messrs. Cates and Jeong.

Shareholder Meeting Quorum Requirement: The NYSE American minimum quorum requirement for a shareholder meeting is one-third of the shares issued and outstanding and entitled to vote for a meeting of a listed company’s shareholders. The TSX does not specify a quorum requirement for a meeting of a listed company’s shareholders. The Company’s current required quorum at any meeting of shareholders as set forth in the Company’s by-laws is two persons present, each being a shareholder entitled to vote at the meeting or a duly appointed proxyholder for an absent shareholder so entitled, holding or representing in aggregate not less than 10% of the shares of the Company entitled to be voted at the meeting. The Company’s current quorum requirement is not prohibited by, and does not constitute a breach of, the *Business Corporations Act* (Ontario) (the “**OBCA**”), applicable Canadian securities laws or the rules and policies of the TSX.

Proxy Solicitation Requirement: The NYSE American requires the solicitation of proxies and delivery of proxy statements for all shareholder meetings of a listed company, and requires that these proxies be solicited pursuant to a proxy statement that conforms to the proxy rules of the U.S. Securities and Exchange Commission. The Company is a foreign private issuer as defined in Rule 3b-4 under the Exchange Act, and the equity securities of the Company are accordingly exempt from the proxy rules set forth in Sections 14(a), 14(b), 14(c) and 14(f) of the Exchange Act. The Company solicits proxies in accordance with the OBCA, applicable Canadian securities laws and the rules and policies of the TSX.

Shareholder Approval Requirements: The NYSE American requires a listed company to obtain the approval of its shareholders for certain types of securities issuances. One is the sale of common shares (or securities convertible into common shares) at a discount to officers or directors. The TSX rules require shareholder approval for the issuance of shares to insiders in private placements where insiders are being issued more than 10% of the presently issued and outstanding shares. The NYSE American also requires shareholder approval of private placements that may result in the issuance of common shares (or securities convertible into common shares) equal to 20% or more of presently outstanding shares for less than the greater of book or market value of the shares. There is no such requirement under Ontario law. The TSX rules require shareholder approval for private placements that materially affect control, or where more than 25% of presently issued and outstanding shares will be issued at a discount to market. The Company will seek a waiver from the NYSE American shareholder approval requirement should a dilutive securities issuance trigger such NYSE American shareholder approval requirement in circumstances where such securities issuance does not trigger a shareholder approval requirement under the rules of the TSX.

Compensation Committee Requirements: The NYSE American Company Guide requires that additional independence criteria be applied to each member of the Compensation Committee. The NYSE American Company Guide also mandates that the Compensation Committee must have the authority to hire compensation consultants, independent legal counsel and other compensation advisors and exercise the sole responsibility to oversee the work of any compensation advisors retained to advise the Compensation Committee. In addition, before engaging a compensation advisor, the Compensation Committee must consider at least six factors that could potentially impact compensation advisor independence. The Company follows Canadian Securities Administrators and TSX requirements for Compensation Committee charters, independence and authority. The Compensation Committee's Charter includes a requirement that each member of the Compensation Committee be independent and that the Compensation Committee have the authority to retain outside advisors and determine the extent of funding necessary for payment of consultants.

The foregoing are consistent with the laws, customs and practices in Canada.

In addition, the Company may from time-to-time seek relief from the NYSE American corporate governance requirements on specific transactions under Section 110 of the NYSE American Company Guide by providing written certification from independent local counsel that the non-complying practice is not prohibited by its home country law, in which case, the Company shall make the disclosure of such transactions available on its website at www.denisonmines.com. Information contained on, or accessible through, our website is not part of this Annual Report on Form 40-F.

MINE SAFETY DISCLOSURE

Not applicable.

DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

UNDERTAKING AND CONSENT TO SERVICE OF PROCESS

A. Undertaking

The Company undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the Commission staff, and to furnish promptly, when requested to do so by the Commission staff, information relating to: the securities registered pursuant to Form 40-F; the securities in relation to which the obligation to file an Annual Report on Form 40-F arises; or transactions in said securities.

B. Consent to Service of Process

The Company has previously filed with the SEC a Form F-X in connection with its common shares. Any change to the name or address of the Company's agent for service shall be communicated promptly to the SEC by amendment to the Form F-X referencing the file number of the Company.

SIGNATURES

Pursuant to the requirements of the Exchange Act, the Company certifies that it meets all of the requirements for filing on Form 40-F and has duly caused this Annual Report on Form 40-F to be signed on its behalf by the undersigned, thereto duly authorized.

Registrant: **DENISON MINES CORP.**

By: */s/ David D. Cates*

Title: President and Chief Executive Officer

Date: March 25, 2022

EXHIBIT INDEX

99.1	Annual Information Form for the Year Ended December 31, 2021
99.2	Management's Discussion and Analysis of Results of Operations and Financial Condition for the Year ended December 31, 2021 (incorporated by reference to Exhibit 99.2 of the Registration's Form 6-K furnished to the Commission on March 4, 2022)
99.3	Consolidated Audited Financial Statements for the Years Ended December 31, 2021 and 2020 together with Management's Report on Internal Control over Financial Reporting and the report of our Independent Registered Public Accounting Firm thereon (incorporated by reference to Exhibit 99.1 of the Registration's Form 6-K furnished to the Commission on March 4, 2022)
99.4	Consent of KPMG LLP
99.5	Officers' Certifications Required by Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934
99.6	Officers' Certifications Required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code
99.7	Consent of SRK Consulting (Canada) Inc.
99.8	Consent of Mark Liskowich, P.Geo.
99.9	Consent of Oy Leaungthong, P.Eng.
99.10	Engcomp Engineering and Computing Professionals Inc.
99.11	Consent of Gordon Graham, P.Eng.
99.12	Consent of SLR Consulting (Canada) Ltd.
99.13	Consent of Richard E. Routledge, M.Sc., P.Geo.
99.14	Consent of Dale Verran, MSc., P.Geo., Pr.Sci.Nat.
99.15	Consent of Chad Sorba, P.Geo
101	Interactive Data File (formatted as Inline XBRL)
104	Cover Page Interactive Data File (formatted as Inline XBRL)

EXHIBIT 99.1



Denison Mines Corp.

2021 Annual Information Form

March 25, 2022

About this Annual Information Form

This annual information form ("**AIF**") is dated March 25, 2022. Unless stated otherwise, all of the information in this AIF is stated as at December 31, 2021.

This AIF has been prepared in accordance with Canadian securities laws and contains information regarding Denison's history, business, mineral reserves and resources, the regulatory environment in which Denison does business, the risks that Denison faces and other important information for Shareholders.

Financial Information

Unless otherwise specified, all dollar amounts referred to in this AIF are stated in Canadian dollars ("**CAD**"). References to "US$" or "USD" mean United States dollars.

Financial information is generally derived from consolidated financial statements that have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

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Caution about Forward-Looking Information

Certain information contained in this AIF and the documents incorporated by reference concerning the business, operations and financial performance and condition of Denison constitutes forward-looking information within the meaning of the United States *Private Securities Litigation*

Reform Act of 1995 and similar Canadian legislation.

Generally, the use of words and phrases like “plans”, “expects”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or “believes”, or the negatives and/or variations of such words and phrases, or statements that certain actions, events or results “may”, “could”, “would”, “might” or “will” “be taken”, “occur”, “be achieved” or “has the potential to” and similar expressions are intended to identify forward-looking information.

Forward-looking information involves known and unknown risks, uncertainties, material assumptions and other factors that may cause actual results or events to differ materially from those expressed or implied by such forward-looking statements. Denison believes that the expectations and assumptions reflected in this forward-looking information are reasonable, but no assurance can be given that these expectations will prove to be correct. Forward-looking information should not be unduly relied upon. This information speaks only as of the date of this AIF, and Denison will not necessarily update this information, unless required to do so by securities laws.

Examples of Forward-Looking Information

This AIF contains forward-looking information in a number of places, including statements pertaining to Denison's:

- expectations regarding capital and uses of capital
- operational and business outlook, including exploration, evaluation and development plans and objectives
- plans for capital expenditure programs, exploration and development expenditures and reclamation costs and timing
- results of its Wheeler River PFS and plans with respect to the EA and FS process (each as defined below)
- results of its Waterbury PEA (as defined below) and related plans and objectives
- estimates of its mineral reserves and mineral resources
- expectations regarding future uranium prices and/or applicable foreign exchange rates
- expectations regarding the process for and receipt of regulatory approvals, permits and licences under governmental and other applicable regulatory regimes
- expectations about 2022 and future market prices, production costs and global uranium supply and demand
- expectations regarding ongoing joint arrangements and Denison's share of same
- expectations regarding additions to its mineral reserves and resources through acquisitions and exploration
- expectations regarding the toll milling of Cigar Lake ores, and the relationships with its contractual partners with respect thereto
- future royalty and tax payments and rates
- expectations regarding possible impacts of litigation and regulatory actions

Statements relating to "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral resources described can be profitably produced in the future.

Material Risks

Denison's actual results could differ materially from those anticipated. Management has identified the following risk factors which could have a material impact on the Company or the trading price of its common shares ("**Shares**"):

- the capital intensive nature of mining industry and the uncertainty of funding
- COVD-19 related disruptions
- global financial conditions, including market volatility and global inflation, and related operational risks
- the speculative nature of exploration and development projects
- the imprecision of mineral reserve and resource estimates
- the risks of, and market impacts on, developing mineral properties
- Denison's history of negative cash flow
- risks associated with the selection of novel mining methods
- dependence on obtaining licenses, and other regulatory and policy risks
- uncertainty regarding engagement with Canada's First Nations and Métis
- environment, health and safety risks

- impacts of fluctuations in global demand and changes in international trade restrictions
- the impact of uranium price volatility on the valuation of Denison's assets, including mineral
- reserves and resources, and the market price of its Shares
- uncertainty regarding public acceptance of nuclear energy and competition from other energy sources
- volatility in the market price of the Company's Shares
- the risk of dilution from future equity financings
- dependence on other operators of the Company's projects
- reliance on contractors, experts and other third parties
- devaluation of any physical uranium held by the Company, and risk of losses, due to
- fluctuations in the price of uranium and/or foreign exchange rates
- reliance on uranium storage facilities
- the risk of failure to realize benefits from transactions
- the risk of Denison's inability to expand and replace its mineral reserves and resources
- competition for properties
- risk of challenges to property title and/or contractual interests in Denison's properties
- the risk of failure by Denison to meet its obligations to its creditors
- change of control restrictions
- uncertainty as to reclamation and decommissioning liabilities and timing
- potential for technical innovation rendering Denison's products and services obsolete
- liabilities inherent in mining operations and the adequacy of insurance coverage
- the ability of Denison to ensure compliance with anti-bribery and anti-corruption laws
- the uncertainty regarding risks posed by climate change
- the reliance of the Company on its information systems and the risk of cyber-attacks on those systems
- dependence on key personnel
- potential conflicts of interest for the Company's directors who are engaged in similar businesses
- limitations of disclosure and internal controls
- the potential influence of Denison's largest Shareholder, Korea Electric Power Corporation ("**KEPCO**") and its subsidiary, Korea Hydro & Nuclear Power ("**KHNP**")
- Risks for United States investors

The risk factors listed above are discussed in more detail later in this AIF (see "Risk Factors"). The risk factors discussed in this AIF are not, and should not be construed as being, exhaustive.

Material assumptions

The forward-looking statements in this AIF and the documents incorporated by reference are based on material assumptions, including the following, which may prove to be incorrect:

- our budget, including plans for exploration and evaluation activities and estimated costs, as well as the assumptions regarding market conditions and other factors upon which we have based our expenditure expectations
- our ability to execute our business plans for 2022 and beyond

- our ability to, and the means by which the Company can, raise additional capital to advance other exploration, evaluation, and project development objectives
- our ability to obtain all necessary regulatory approvals, permits and licences for our planned activities under governmental and other applicable regulatory regimes
- our expectations regarding the demand for, and supply of, uranium, the outlook for long-term contracting, changes in regulations, public perception of nuclear power, and the construction of new and relicensing of existing nuclear power plants
- our expectations regarding spot and long-term prices and realized prices for uranium
- our expectations regarding our holdings of physical uranium, including that the physical uranium holdings will be advantageous in supporting future project financing efforts and/or in securing future long-term uranium supply agreements
- our expectations regarding tax rates, currency exchange rates and interest rates
- our decommissioning and reclamation obligations and the status and ongoing maintenance of agreements with third parties with respect thereto
- our mineral reserve and resource estimates, and the assumptions upon which they are based
- our, and our contractors', ability to comply with current and future environmental, safety and other regulatory requirements and to obtain and maintain required regulatory approvals
- our operations are not significantly disrupted as a result of political instability, nationalization, terrorism, sabotage, social or political activism, breakdown, natural disasters, public health emergencies, governmental or political actions, litigation or arbitration proceedings, equipment or infrastructure failure, labour shortages, transportation disruptions or accidents, or other development or exploration risks

A Note for US Investors Regarding Estimates of Measured, Indicated and Inferred Mineral Resources and Proven and Probable Mineral Reserves

This AIF uses the terms “mineral resource”, “measured mineral resource”, “indicated mineral resource” and “inferred mineral resource”, which are Canadian mining terms as defined in and required to be disclosed in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects (“**NI 43-101**”), which references the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the “ **CIM**”) – CIM Definition Standards on Mineral Resources and Mineral Reserves (“**CIM Standards**”), adopted by the CIM Council, as amended. Previously, the CIM Standards differed significantly from standards in the United States. The U.S. Securities and Exchange Commission (the “**SEC**” or the “**Commission**”) adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the Securities Exchange Act of 1934, as amended (the “**U.S. Exchange Act**”). These amendments became effective February 25, 2019 (the “**SEC Modernization Rules**”) with compliance required for the first fiscal year beginning on or after January 1, 2021. The SEC Modernization Rules replace the historical disclosure requirements for mining registrants that were included in Industry Guide 7 under the United States Security Act of 1933, as amended. As a result of the adoption of the SEC Modernization Rules, 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 by NI 43-101.

United States investors are cautioned that while the above terms are “substantially similar” to the corresponding CIM Definition Standards, there are differences in the definitions under the SEC Modernization Rules and the CIM Standards. Accordingly, there is no assurance any mineral reserves or mineral resources that the Company may report as “proven mineral reserves”, “probable mineral reserves”, “measured mineral resources”, “indicated mineral resources” and “inferred mineral resources” under NI 43-101 would be the same had the Company prepared the

reserve or resource estimates under the standards adopted under the SEC Modernization Rules.

United States investors are also cautioned that while the SEC now recognizes “indicated mineral resources” and “inferred mineral resources”, investors should not assume that any part or all of the mineralization in these categories will ever be converted into a higher category of mineral resources or into mineral reserves. Mineralization described using these terms has a greater amount of uncertainty as to their existence and feasibility than mineralization that has been characterized as reserves. Accordingly, investors are cautioned not to assume that any “indicated mineral resources” or “inferred mineral resources” that the Company reports are or will be economically or legally mineable. Further, “inferred mineral resources” have a greater amount of uncertainty as to their existence and as to whether they can be mined legally or economically. Therefore, United States investors are also cautioned not to assume that all or any part of the “inferred mineral resources” exist. In accordance with Canadian securities laws, estimates of “inferred mineral resources” cannot form the basis of feasibility or other economic studies, except in limited circumstances where permitted under NI 43-101.

Accordingly, information contained in this AIF and the documents incorporated by reference herein containing descriptions of the Company’s mineral deposits 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.

About Denison

Denison Mines Corp. is primarily engaged in uranium exploration and development. The registered and head office of Denison is located at 1100 – 40 University Avenue, Toronto, Ontario, M5J 1T1, Canada. Denison's website address is www.denisonmines.com.

The Shares are listed on the Toronto Stock Exchange (" **TSX**") under the symbol "DML" and on the NYSE American under the symbol "DNN." Computershare Investor Services Inc. acts as the registrar and transfer agent for the Shares. The address for Computershare Investor Services Inc. is 100 University Avenue, 8th Floor, Toronto, ON, M5J 2Y1, Canada, and the telephone number is 1-800-564-6253.

Denison is a reporting issuer in all of the Canadian provinces and territories. The Shares are also registered under the U.S. Exchange Act, and Denison files periodic reports with the United States Securities and Exchange Commission.

In this AIF, *Denison* or *the Company* means Denison Mines Corp., *Shareholders* means holders of Denison's common shares and *Shares* means Denison's common shares.

Acknowledgement

Denison respectfully acknowledges that our business operates in Canada on lands that are in the traditional territory of Indigenous peoples. Our activities encompass the entire mining life cycle, from early-stage exploration to advanced project evaluation, construction, operation, closure and restoration – with the potential for activities to span many decades. As such, Denison is committed to collaborating with Indigenous peoples and communities to build long-term, respectful, trusting, and mutually beneficial relationships and aspires to avoid any adverse impacts of Denison's activities and operations.

Denison has adopted an Indigenous Peoples Policy, 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. A copy of the Indigenous Peoples Policy is available on Denison's website, in Déne, Cree, English and French languages.

Denison's Head Office is located in the traditional territory of many nations, including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples, and is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit.

Denison's exploration and evaluation operations in Saskatchewan, including its office in Saskatoon and various project interests in northern Saskatchewan, are located in regions covered by Treaty 6, Treaty 8 and Treaty 10, which encompass the traditional lands of the Cree, Dakota, Déne, Lakota, Nakota, Saulteaux, within the homeland of the Métis and within Nuhenéné.

Denison's flagship Wheeler River Uranium Project, in particular, is located in northern Saskatchewan within the boundaries of Treaty 10, in the traditional territory of English River First Nation, in the homeland of the Métis and within Nuhenéné.

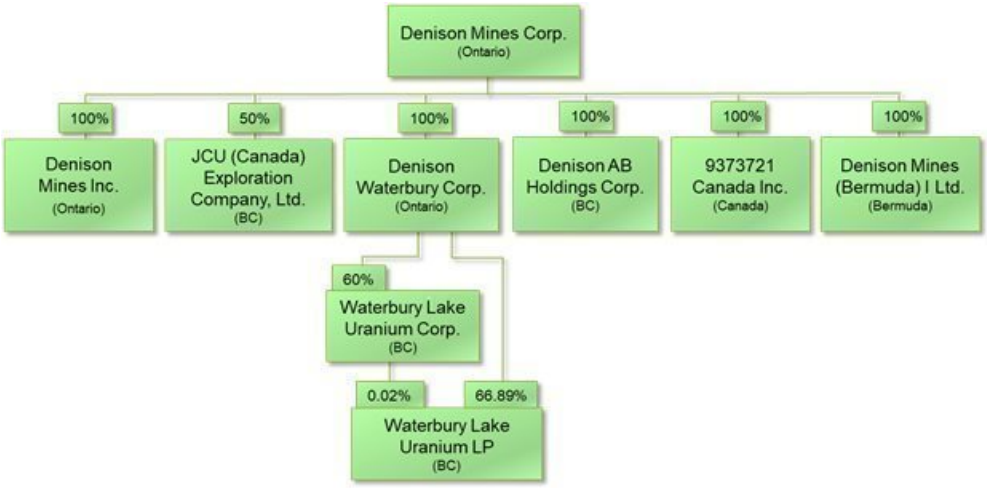
Denison's Closed Mines operations in the Elliot Lake region of northern Ontario are located within the boundaries of the Robinson Huron Treaty of 1850, signatories to which include the Serpent River First Nation.

Denison's Team

At the end of 2021, Denison had a total of 59 active employees, all of whom were employed in Canada. None of the Company's employees are unionized.

Denison's Structure

Denison conducts its business through a number of subsidiaries and joint arrangements. The following is a diagram depicting the corporate structure of Denison, its active subsidiaries and corporate and partnership joint arrangements as at December 31, 2021, including the name, jurisdiction of incorporation and proportion of ownership interest in each.



JCU (Canada) Exploration Company, Ltd. ("**JCU**") is owned by Denison (50%) and UEX Corporation (" **UEX**", 50%). Denison and UEX are parties to a shareholders agreement governing the management of JCU and UEX was appointed manager for JCU pursuant to the terms of such shareholders agreement.

The Waterbury Lake Uranium Limited Partnership ("**WLULP**") is held by Denison (66.89%) and Korea Waterbury Uranium Limited Partnership ("**KWULP**") (33.09%) as limited partners and Waterbury Lake Uranium Corporation (" **WLUC**") (0.02%), as general partner, with Denison and KWULP holding limited partnership interests of 66.90% and 33.10%, respectively.

Denison Overview

Uranium Exploration and Development

Denison's uranium property interests are held directly by the Company or indirectly through Denison Mines Inc. ("**DMI**"), Denison Waterbury Corp. and Denison AB Holdings Corp.

Denison's Key Assets - In the Athabasca Basin Region of Northern Saskatchewan:

- An effective 95% interest in, and operator of, the Wheeler River Uranium project, which is host to the high-grade Phoenix and Gryphon uranium deposits – together representing the largest undeveloped uranium project in the infrastructure rich eastern Athabasca Basin.
- A 66.90% interest in, and operator of, the Waterbury Lake project, which includes the Tthe Heldeth Túé ("**THT**", formerly J Zone) and Huskie deposits.
- A 22.50% interest in the McClean Lake uranium processing facility and uranium deposits, through its interest in the McClean Lake Joint Venture ("**MLJV**") operated by Orano Canada Inc. ("**Orano Canada**").
- A 25.17% interest in the Midwest uranium project, which is host to the Midwest Main and Midwest A deposits, through its interest in the Midwest Joint Venture ("**MWJV**") operated by Orano Canada.
- Through its 50% ownership of JCU, 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%).

- An extensive portfolio of exploration properties located in the Athabasca Basin.

Services

Denison's Closed Mines group (formerly Denison Environmental Services) manages the Company's closed mine sites in the Elliot Lake region and provides third-party post-closure mine care and maintenance and related services.

Toll Milling

Denison is a party to a toll-milling arrangement through its 22.50% interest in the MLJV, whereby ore is processed for the Cigar Lake Joint Venture ("**CLJV**") at the McClean Lake processing facility (the "**Cigar Toll Milling**"). In February 2017, Denison completed a transaction (the "**APG Transaction**") with Anglo Pacific Group PLC ("**APG**") and its wholly owned subsidiary Centaurus Royalties Ltd. to raise gross proceeds to Denison of $43,500,000. The APG Transaction monetized Denison's future share of the Cigar Toll Milling, providing Denison with the financial flexibility to advance its interests in the Athabasca Basin, including the Wheeler River project.

While the APG Transaction monetized certain future toll milling receipts from the Cigar Toll Milling, Denison retains a 22.5% strategic ownership stake in the MLJV and McClean Lake processing facility. See "Denison's Operations – Cigar Lake Toll Milling – APG Transaction".

The Formation of Denison Mines Corp.

Denison was formed by articles of amalgamation as International Uranium Corporation (" **IUC**") effective May 9, 1997 pursuant to the *Business Corporations Act* (Ontario) (the "**OBCA**"). On December 1, 2006, IUC combined its business and operations with DMI, by plan of arrangement under the OBCA (the "**IUC Arrangement**"). Pursuant to the IUC Arrangement, all of the issued and outstanding shares of DMI were acquired in exchange for IUC's shares. Effective December 1, 2006, IUC's articles were amended to change its name to "Denison Mines Corp."

Denison subsequently completed a plan of arrangement with Energy Fuels Inc. in 2012 and filed articles of amalgamation on January 1, 2014, July 1, 2014 and July 3, 2014 in connection with Denison's acquisitions of JNR Resources Inc. ("**JNR**") and Fission Energy Corp. (" **Fission**").

Developments Over the Last Three Years

2019…

Project Developments

In June, the Canadian Nuclear Safety Commission (" **CNSC**") and the Saskatchewan Ministry of Environment accepted the Provincial Technical Proposal and Federal Project Description (the "**Project Description**") submitted by Denison for the in-situ recovery (" **ISR**") uranium mine and

processing plant proposed for the Wheeler River project. This submission built upon the work completed in connection with the Pre-Feasibility Study ("**PFS**") for the Wheeler River project completed in 2018. See "Mineral Properties – Wheeler River".

This acceptance initiated the Environmental Assessment (" **EA**") process for Wheeler River in accordance with the requirements of both the *Canadian Environmental Assessment Act, 2012* and the *Saskatchewan Environmental Assessment Act*.

In June, the Company announced its plans to undertake an ISR field program within the Phoenix orebody at Wheeler River. The 2019 ISR field program was designed to validate the assumed permeability of Phoenix, and to collect an extensive database of hydrogeological data to further evaluate the ISR mining conditions present at Phoenix and facilitate detailed mine planning as part of the completion of a future Feasibility Study ("**FS**"). Initial test results from Phoenix were announced in August, which confirmed hydraulic connectivity between multiple test wells, providing significant preliminary indications of the suitability of the area tested for the application of ISR mining. In September, the Company reported the initial results from the next test area of Phoenix, which also confirmed hydraulic connectivity within a significant portion of the ore zone tested.

In October, the Company successfully installed two large-diameter commercial scale wells (" **CSW**"s) at Phoenix – marking the completion of the first CSWs designed for ISR mining in the Athabasca Basin. This was undertaken following the positive initial results of its field program at Phoenix. The completion of each CSW included the drilling of a large-diameter vertical borehole (~12 inches in diameter), to intersect the Phoenix ore body at a depth of approximately 400 metres below surface, and the installation of well materials designed to meet expected environmental and regulatory standards for eventual ISR mining. The Company also tested down-hole permeability enhancement techniques within the large diameter CSWs.

In December, Denison reported the overall results of its 2019 ISR field program at Phoenix. The ISR field program, as described above, successfully achieved each of its planned objectives.

Denison also announced the initiation of further metallurgical laboratory testing for uranium recovery, utilizing the mineralized drill core recovered through the installation of various test wells during the 2019 ISR field 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 the ISR mining method. 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.

And in December, Denison received a positive scoping decision, with a Record of Decision issued by the CNSC on the scope of the factors to be taken into account for the EA for the Wheeler River project, which indicate that the EA will follow the CNSC's generic guidelines.

Financing Developments

In December, Denison completed a private placement offering (the " **2019 Offering**") of Shares issued on a "flow-through" basis pursuant to the *Income Tax Act* (Canada). Denison issued 6,934,500 flow-through shares, at a price of $0.68 per share, for aggregate gross proceeds to Denison of approximately $4.7 million, which includes the exercise, in full, of the over-allotment option of 904,500 shares. The gross proceeds from the financing were used to fund the Company's Canadian exploration activities in 2020.

Corporate Developments

In January, the Company amended and extended its credit facility with the Bank of Nova Scotia (the " **Credit Facility**") to January 31, 2020.

In March, Mr. Moo Hwan Seo resigned from the Board. Mr. Geun Park joined the Board, filling the vacancy created by Mr. Seo's resignation.

In April, the Company announced the execution of a new five-year management services agreement (the " **MSA**") to provide management

services to Uranium Participation Corporation ("**UPC**"). The MSA took effect on April 1, 2019, at the conclusion of the three-year term of the then current management services agreement between UPC and DMI. This agreement was subsequently terminated in July 2021. See "Developments Over the Last Three Years – 2021…" for further details.

In October, David Bronkhorst was appointed Vice President Operations with responsibility for overseeing and advancing the Company's project evaluation programs for Wheeler River.

2020…

Project Developments

In February, Denison reported that initial data from the Phoenix Deposit 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, and an average of 29.8 g/L over a 20-day period of testing. This compares favourably to the previous metallurgical test work completed to assess the use of the ISR mining method at Phoenix, which supported the use of an assumed uranium concentration of 10 g/L in the PFS design for the ISR processing plant.

Also in February, Denison reported that the results from the hydrogeological test work completed to-date confirmed the ability to achieve bulk hydraulic conductivity values (a measure of permeability) consistent with the PFS. Extensive hydrogeological data sets were collected during the 2019 ISR field program for incorporation into a hydrogeological model being developed for Phoenix to be used for detailed planning for further ISR field testing intended to support the completion of a future FS.

In March, Denison announced the temporary suspension of Wheeler River EA activities, and adjustments to its prior 2020 Outlook, amidst the significant social and economic disruption resulting from the COVID-19 pandemic and the Company's commitment to ensure employee safety, support public health efforts to limit transmission of COVID-19, and exercise prudent financial discipline.

In June, the Company announced a significant milestone in de-risking the technical risks identified in the 2018 PFS with the completion of independent hydrogeologic modeling for the Phoenix deposit at Wheeler River. The modelling was based on site-specific data collected from the 2019 ISR field program, which produced “proof of concept” for the application of the ISR mining method at Phoenix with respect to potential operational extraction and injection rates.

In July, Denison announced the resumption of ISR field testing activities at Phoenix, with the commencement of the 2020 ISR field program. The work was intended to further test the results of the hydrogeologic model developed for the deposit, and to support further field work expected to be required for the completion of a future FS.

Denison also announced that, in order to ensure the Company's operations comply with all applicable health and safety guidelines associated with the COVID-19 pandemic, all operating procedures at the Company's Wheeler River site were reviewed and adapted to incorporate physical distancing and enhanced hygiene protocols, as well as special travel protocols designed by Denison for northern Saskatchewan. Where applicable, the Company's protocols incorporated feedback received from potentially impacted communities in northern Saskatchewan to minimize any health and safety risks associated with travel to and from site.

In July, the Company announced the completion of a conceptual mining study, evaluating the use of the ISR mining method, for the Tthe Heldeth Tue ("THT", formerly J Zone) deposit at the Waterbury Lake project and the initiation of a preliminary economic assessment (the "**Waterbury PEA**").

In October, Denison provided an update on field activities at Wheeler River, with the completion of its 2020 ISR field program at Phoenix and the commencement of an ~12,000 metre exploration drilling program designed to test initially for extensions to known mineralization at Phoenix and then advance to regional targets for the discovery of satellite uranium deposits potentially amenable to ISR mining. The ISR field program included the installation of five additional monitoring wells ("**MWs**") in two clusters, which will allow for long-term monitoring and the modelling of groundwater impacts through construction, operations and decommissioning of the Phoenix project - important elements of the assessment of effects in an Environmental Impact Statement ("**EIS**").

In November, Denison announced its decision to restart the formal EA process for Wheeler River effective January 2021. The decision to resume the EA process marked the end of the temporary suspension announced in March 2020 amidst the significant social and economic disruption that emerged as a result of the onset of the COVID-19 pandemic.

And in November, Denison announced the successful completion of the Waterbury PEA. The report for the Waterbury PEA, completed in accordance with NI 43-101, evaluates a THT ISR operation estimated to produce total mine production of 9.7 million pounds of uranium concentrates ("**U_3O_8**") (177,664 tonnes at 2.49% U_3O_8) over an approximate six year mine-life with final processing occurring at Denison's 22.5% owned McClean Lake mill with a base case pre-tax NPV of $177 million (8% discount rate), IRR of 39.1%, and initial capital expenditures of $111.6 million, excluding pre-construction evaluation and development costs. The base-case economic analysis assumes uranium sales are made at UxC LLC ("**UxC**")'s forecasted annual "Composite Midpoint" spot price from the Q3 2020 Uranium Market Outlook, stated in constant dollars (from ~US$49/lb U_3O_8 to US$57/lb U_3O_8). The Waterbury PEA was prepared on a project (100% ownership) and pre-tax basis, as each partner to of the Waterbury Lake Uranium Limited Partnership is subject to different tax and other obligations. The technical report in support of the Waterbury PEA was filed on December 30, 2020. See "Mineral Properties – Waterbury".

In December, Denison announced the completion of a trade-off study assessing the merit of adopting a freeze wall design as part of the ISR mining approach planned for Phoenix. Based on the results of the trade-off study, it was determined that a freeze wall design has the potential to offer significant environmental, operational, and financial advantages compared to the freeze cap (or freeze "dome") design previously planned for the project and included in the Wheeler PFS. Amongst the identified advantages was the ability to reduce the scope and cost of initial capital costs for the project and to allow for a phased approach to future mine development, including initial plans for five phases of development over the life of the operation. Based on the positive results of the trade-off study, the Company decided to adapt its plans for the project to use a freeze wall in future project design and environmental assessment efforts. See "Mineral Properties – Wheeler River".

Financing Developments

In April, Denison completed a US$5.75 million bought deal public offering, issuing 28,750,000 Shares, including the exercise in full of the underwriters' over-allotment option of 3,750,000 Shares. The shares were qualified for issuance pursuant to a final short form prospectus in all

provinces of Canada (other than Quebec), and in the United States pursuant to a related registration statement on Form F-10, as amended (SEC File No. 333-237381), filed with the United States Securities and Exchange Commission (the "**SEC**") under the Canada/U.S. multi-jurisdictional disclosure system.

In June, the Company filed a short form base shelf prospectus (" **2020 Prospectus**") with the securities regulatory authorities in each of the provinces and territories of Canada and a registration statement on Form F-10, as amended (SEC File No. 333-238108) was filed with the SEC. The 2020 Prospectus related to the public offering for sale of certain securities and combinations of securities, for an aggregate offering amount of up to $175,000,000.

In October, the Company completed a bought deal equity offering (the " **October 2020 Offering**") of 51,347,321 Shares, which included the partial exercise of the over-allotment option granted to the underwriters, for aggregate gross proceeds of approximately US$19 million. The October 2020 Offering was completed pursuant to a prospectus supplement to the 2020 Prospectus. Proceeds of the October 2020 Offering were used to fund evaluation and EA activities on the Wheeler River project in 2021, as well as for general working capital purposes.

In November, the Company announced it had entered into an equity distribution agreement (" **EDA**") providing for an at-the-market ("**ATM**") equity offering program, with Cantor Fitzgerald Canada Corporation, Scotia Capital Inc., Cantor Fitzgerald & Co. and Scotia Capital (USA) Inc. The intention of the ATM was to allow Denison to, through the agents and from time to time, offer and sell, in Canada and the United States by means of ordinary brokers' transactions through the facilities of the TSX and/or NYSE American, such number of Shares as would have an aggregate offering price of up to US$20 million (the "**2020 ATM**"). The sale of the Company's Shares through the 2020 ATM were made pursuant to and qualified by a prospectus supplement to the 2020 Prospectus. Denison, through its agents, issued 4,230,186 Shares under the 2020 ATM, at an average price of $0.93, for aggregate gross proceeds of approximately $3.9 million.

In connection with the March 2021 Offering (described below), Denison terminated the EDA, and ATM issuances pursuant thereto, as the aggregate issuances pursuant to prospectus supplements under the 2020 Prospectus, including the ATM and March 2021 Offering, neared the 2020 Prospectus limit for aggregate issuance price of securities qualified for issuance by the 2020 Prospectus. See "Denison's Securities – ATM Program Activity".

In December, Denison completed a non-brokered private placement of 1,081,959 Shares that qualify as "flow-through shares" for purposes of the

Income Tax Act (Canada), at $0.86 per share, for gross proceeds of approximately $930,000 (the " **2020 FT Offering**"). The proceeds from the financing were used to fund a portion of the Company's Canadian exploration activities in 2021.

Corporate Developments

In January, the Company amended and extended its Credit Facility to January 31, 2021.

And in January, Mr. Geun Park resigned from the Board. Mr. Jun Gon Kim joined the Board effective February 17, 2020, filling the vacancy created by Mr. Park's resignation.

In July, Denison announced the London Court of International Arbitration had rendered a final award in favour of Denison in the arbitration between Denison and Uranium Industry a.s. ("**UI**") with respect to the contingent proceeds of Denison's sale to UI of its interest in the Gurvan Saihan Joint Venture in Mongolia in 2015 (the "**Mongolia Transaction**"). The arbitration panel declared that UI violated its obligations to the Company under the related agreements, and ordered UI to pay the Company US$10,000,000 plus interest at a rate of 5% per annum from November 16, 2016, plus certain legal and arbitration costs. The arbitration panel further dismissed all other claims and counterclaims. For further updates, see "Legal and Regulatory Proceedings".

2021…

Project Developments – Proposed Phoenix ISR Operation

In February, Denison announced that the company finalized its 2021 plans for the further advancement, to increase confidence in, and continue de-risking of, the ISR mining method planned for Wheeler River's Phoenix deposit. To facilitate these plans, the Wheeler River Joint Venture ("**WRJV**") approved a $24.0 million budget for 2021 (100% basis, Denison's share $19.4 million), to fund activities including the resumption of the EA process, as well as the advancement of engineering studies, metallurgical testing, and a 2021 ISR field program. The detailed results of the 2021 ISR field program were expected to provide the necessary datasets for the permitting and preparation of a planned Feasibility Field Test in 2022, and support the future initiation of a formal FS and the submission of a draft EIS.

In July, Denison announced, as part of its 2021 ISR field program, it had completed the installation of a five-spot CSW test pattern in the Phase 1 area of Phoenix Zone A ("Phase 1"), to facilitate further hydrogeologic testing and assessment of down-hole permeability enhancement tools. In addition, nine of eleven planned MWs were installed within the Phase 1 area, to facilitate ongoing observation of the current and future hydrogeological test work – allowing for detailed hydrogeological assessment and water quality sampling.

In August, Denison reported positive interim results from the ongoing ISR metallurgical test program. Test work consistently supported an ISR mining uranium head-grade for Phoenix in excess of the 10 g/L assumed in the Wheeler River PFS. Accordingly, the Company adapted its plans for the remaining metallurgical test work to reflect a 50% increase in the head-grade of uranium bearing solution ("**UBS**") to be recovered from the ISR mining well-field.

In October, the Company announced the initial results from the completion of the highly successful ISR field test program. The results from the field test were highlighted by the following:

- Achieving commercial-scale production flow rates consistent with those assumed in the PFS;
- Demonstrating hydraulic control of injected solution during the ion tracer test;
- Establishing breakthrough times between injection and recovery wells consistent with previously prepared estimates; and
- Demonstrating the ability to remediate the five-spot CSW test pattern.

Given consistently positive results from field and laboratory testing, Denison and the WRJV approved the initiation of the formal FS report process for the Phoenix ISR project, and appointed Wood PLC ("**Wood**") as independent lead author of the FS.

For further information, see "*Mineral Properties - Wheeler River - Evaluation Activities*" below.

Project Developments – Wheeler River Regional Exploration

In January, the Company reported the results from its 2020 regional exploration program at Wheeler River, which included the discovery of new

high-grade unconformity-hosted uranium mineralization along the K West conductive trend on the western side of the Wheeler River property, approximately four kilometers north northwest of Phoenix. The uranium mineralization discovered is interpreted to straddle the unconformity contact of the underlying basement rocks and the overlying Athabasca sandstone. In addition to high-grade uranium, the assay results were highlighted by the presence of high-grade nickel.

In February, the Company reported the results from the 2020 exploration and expansion drilling program focused on the area proximal to the Phoenix deposit at Wheeler River. As part of this program, 19 drill holes were completed for a total of approximately 7,400 metres – all of which were located outside of the extents of the mineral resources currently defined at Phoenix. The results from the program were highlighted by the intersection of high-grade uranium mineralization in Zone C, where no mineral resource is currently estimated: 5.69% U_3O_8 over 5.0 metres in WR-328D1, located approximately 22 metres northeast of historic mineralized hole WR-368 (1.59% U_3O_8 over 2.0 metres); and 8.84% U_3O_8 over 2.5 metres in WR-767D1, located approximately 35 metres to the northeast of WR-328D1.

In July, drill hole GWR-045 was completed as part of the ISR field test program as a MW to the northwest of the CSW test pattern. Based on the mineral resources currently estimated for Phoenix, GWR-045 was expected to intersect low-grade uranium mineralization on the northwest margin of the deposit, approximately 5 metres outside of the boundary of the Phoenix Zone A high-grade resource domain. However, the drill hole intersected a thick interval of high-grade unconformity-associated uranium mineralization grading of 22.0% eU_3O_8 over 8.6 metres.

Follow-up drilling completed during the fall of 2021 identified multiple intersections of high-grade uranium mineralization extending beyond the previously defined extents of the high-grade domain in the Phase 1 area of the Zone A portion of the Phoenix deposit, highlighted by hole GWR-049. GWR-049 was expected to intersect a narrow high-grade interval, according to then-current modeling, but instead returned 24.9% eU_3O_8 over 4.2 metres. 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.

Other Project Developments

In April, Denison announced that new high-grade unconformity-hosted uranium mineralization was discovered during the winter 2021 exploration program completed at McClean Lake. The exploration program was operated by Orano Canada, 77.5% owner and operator of the MLJV. Three of the final four drill holes completed during the winter 2021 program returned uranium mineralization at the McClean South target area. Based on subsequently received assay results, the results were highlighted by drill hole MCS-34, which returned 8.67% U_3O_8 over 13.5 metres (including 78.43% U_3O_8 over 1.1 metres).

In November, Denison and Orano Canada announced the successful completion of a five-year test mining program deploying the patented Surface Access Borehole Resource Extraction ("**SABRE**") mining method on the McClean Lake property. The program was highlighted by the completion of the final stage of the program from May to September 2021 with four mining cavities successfully excavated to produce approximately 1,500 tonnes of high-value ore ranging in grade from 4% U_3O_8 to 11% U_3O_8. The program was concluded with no safety, environmental or radiological incidents and confirmed the ability to achieve key operating objectives associated with the test program – including targets for cavity diameter, rates of recovery, and mine production rates. The majority of the ore recovered from the test mining program was transferred to the McClean Lake mill, resulting in the production of approximately 176,000 pounds of U_3O_8 (Denison's share: approximately 40,000 pounds of U_3O_8) in the fourth quarter of 2021. Based on the success of the 2021 program, the partners plan to evaluate the potential use of this innovative method for future mining operations at their jointly owned McClean Lake and Midwest properties.

Financing Developments

In February, the Company completed a public offering by way of a prospectus supplement to the 2020 Shelf Prospectus of 31,593,950 units of the Company at US$0.91 per unit for gross proceeds of approximately US$28.8 million, including the full exercise of the underwriters' over-allotment option, accounting for 4,120,950 units (the "**February 2021 Offering**"). Each unit consists of one Share and one-half of one transferable common share purchase warrant of the Company. Each full warrant is exercisable to acquire one Share of the Company at an exercise price of US$2.00 for 24 months after issuance. Proceeds of the February 2021 Offering are anticipated to be used to fund evaluation and environmental assessment activities in support of the advancement of the proposed Phoenix ISR uranium mining operation at Wheeler River, as well as for general working capital purposes.

In March, the Company completed a private placement of 5,926,000 Shares that qualify as "flow-through shares" for purposes of the *Income Tax Act* (Canada) at a price of $1.35 per share for gross proceeds of approximately $8 million (the " **2021 FT Offering**"), the proceeds of which are to be used on the Company's exploration activities in 2021 and 2022. The income tax benefits of this issue have been renounced to subscribers with an effective date of December 31, 2021.

And in March, the Company announced the completion of a public offering by way of a prospectus supplement to the 2020 Shelf Prospectus of 78,430,000 units of the Company at US$1.10 per unit for gross proceeds of approximately US$86.3 million, including the full exercise of the underwriters' over-allotment option, accounting for 10,230,000 units (the "**March 2021 Offering**"). Each unit consists of one common share and one-half of one transferable common share purchase warrant of the Company. Each full warrant is exercisable to acquire one Share of the Company at an exercise price of US$2.25 for 24 months after issuance.

Net proceeds of the March 2021 Offering were primarily used to fund the strategic purchase of U_3O_8 to be held by Denison as a long-term investment, intended to support the potential future financing of the advancement and/or construction of Wheeler River. Denison ultimately acquired 2.5 million pounds U_3O_8, at a weighted average price of US$29.66 per pound U_3O_8 (including purchase commissions of US$0.04 per pound U_3O_8) and a total cost of approximately US$74.15 million. The uranium spot price appreciated to US$42.00 per pound U_3O_8 by December 31, 2021, resulting in a fair value gain on the Company's physical uranium holdings of approximately $41.4 million for the year ended December 31, 2021.

In connection with the March 2021 Offering, the Company agreed to terminate the EDA for the 2020 ATM and cease distributions thereunder.

In September, the Company filed a short form base shelf prospectus (" **2021 Prospectus**") with the securities regulatory authorities in each of the provinces and territories of Canada and a registration statement on Form F-10, as amended (SEC File No. 333-258939) was filed with the SEC. The 2021 Prospectus relates to the public offering for sale of certain securities and combinations of securities, for an aggregate offering amount of up to $250 million during the 25-month period beginning September 16, 2021.

And in September, the Company announced it had entered into a new EDA for an ATM equity offering program, with Cantor Fitzgerald Canada Corporation, Scotia Capital Inc., Cantor Fitzgerald & Co. and Scotia Capital (USA) Inc. (the "**2021 ATM**"). The intention of the 2021 ATM is to

allow Denison to, through the agents and from time to time, offer and sell, in Canada and the United States by means of ordinary brokers' transactions through the facilities of the TSX and/or NYSE American, such number of Shares as would have an aggregate offering price of up to US$50 million. The sale of the Company's Shares through the 2021 ATM are made pursuant to and qualified by a prospectus supplement to the 2021 Prospectus. During 2021, the Company issued 3,840,000 Shares under the 2021 ATM. The Shares were issued at an average price of $2.08 per Share for aggregate gross proceeds of $7,975,000. See "Denison's Securities – ATM Program Activity".

In October, the Company sold, by private agreement, 32,500,000 common shares of GoviEx Uranium Limited (" **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. Denison received gross proceeds of $15.6 million 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 million and will transfer a further 32,500,000 GoviEx common shares to the warrant holders.

Corporate Developments

In January, the Company amended and extended its Credit Facility to January 31, 2022.

In March, 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 mining 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.

And in March, the Company announced its inclusion in the S&P/TSX Composite Index – the headline index for the Canadian equity market – effective prior to the open of trading on Monday March 22, 2021.

In May, in connection with the Annual General Meeting of Shareholders, changes were made to the composition of the Company's Board of Directors, with Mr. Jack Lundin and Ms. Catherine Stefan not standing for re-election at the meeting, and shareholders approving the appointment to the Board of Mr. David Neuburger and Ms. Jennifer Traub. In addition, Mr. Ron Hochstein was appointed Chair of the Board.

In July, UPC completed an arrangement with Sprott Asset Management LP (" **Sprott**") and certain affiliates, pursuant to which UPC was acquired by the Sprott Physical Uranium Trust. On completion of that transaction, Sprott became the manager of the Sprott Physical Uranium Trust, and the 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.

In August, Denison completed the acquisition of 50% of JCU from UEX for cash consideration of $20.5 million (the " **JCU Acquisition**") following UEX's acquisition of 100% of JCU from Overseas Uranium Resources Development Co., Ltd. ("**OURD**") 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 ("**Cameco**") 69.901%), a 33.8123% interest in the Kiggavik project (Orano Canada 66.1877%), and a 34.4508% interest in the Christie Lake project (UEX 65.5492%).

In December, Denison formally adopted an Indigenous Peoples Policy (" **IPP**"), 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.

2022 Recent Developments…

In January, the Company amended and extended its Credit Facility to January 31, 2023.

And in January, Denison announced that the Canadian Nuclear Safety Commission (" **CNSC**") approved an amendment to the operating license for the MLJV and MWJV operations, which allows for the expansion of the McClean Lake Tailings Management Facility ("**TMF**") and accepts the associated revised Preliminary Decommissioning Plan and cost estimate. See "Denison's Operations – McClean Lake Mill – Mill License" for more information.

Also in January, the Company executed a Repayment Schedule Agreement (the " **Repayment Agreement**") pursuant to which the parties have negotiated the repayment of the debt owing from UI to Denison. In accordance with the Repayment Agreement, the Company received an initial US$2 million debt repayment instalment in January 2022. See "Legal and Regulatory Proceedings" for more information.

Then in January, Denison announced the appointment of Ms. Laurie Sterritt to the Board and the appointment of Mr. Kevin Himbeault as the Company's Vice President Plant Operations & Regulatory Affairs.

In February, Mr. Jun Gon Kim resigned from the Board. Mr. Yun Chang Jeong joined the Board in early March 2022, filling the vacancy created by Mr. Kim's resignation.

The Uranium Industry 2021

The year ended December 31, 2021, saw significant upward momentum in both the uranium spot price and term price. In the spot market, the price of uranium started the year at US$30.00 per pound U_3O_8 and increased to a high of US$50.25 per pound U_3O_8 in September 2021, before declining modestly to end the year at US$42.00 per pound U_3O_8 – a 40% increase year over year. A similar price increase was observed in the long-term market, with the long-term price increasing from US$33.00 per pound U_3O_8 at December 31, 2020 to a high of US$41.00 per pound U_3O_8, and ending the year at US$40.50 per pound U_3O_8. This US$7.50 per pound U_3O_8 increase in the long-term price is the largest annual gain since 2007.

During 2021, there was a widespread increase in investor interest in the uranium and nuclear energy sectors, which is believed to have largely been driven by a renewed focus on global goals to achieve net-zero carbon emissions, and the necessary role for nuclear energy in a post-COVID-19 pandemic "clean energy transition". In assessing the potential paths to reduce carbon emissions many nations, policymakers, and interest groups have recognized the critical role that their existing or planned future nuclear power plants, must play to achieve decarbonization objectives.

The focus on the importance of nuclear power in enabling the achievement of carbon emissions goals is global. In its 14 th Five Year Plan, China included the goal to increase nuclear capacity to 70 GWe by 2025, an expansion of 40% from its current installed capacity at the end of 2021 of approximately 50 Gwe. In Europe, the European Commission announced the inclusion of nuclear power in its clean energy financing taxonomy, which establishes the criteria for 'green' economic activities that can access favourable financing. In the US, the *Infrastructure, Investment, and Jobs Act* established a US$1.2 billion per year civil nuclear credit program designed to preserve the US's existing nuclear fleet by supporting economically troubled nuclear plants and preventing premature plant shutdowns. In addition, many other countries are also developing plans to expand nuclear capacity, including the UK, France, Japan, the Netherlands, Poland, and Brazil. Taken together, forecasted estimates from UxC, in its Uranium Market Outlook for Q4 2021 (the "**Q4 2021 Outlook**"), for global reactor units and nuclear capacity in 2035 have increased substantially in the current year from 460 units and 448.5 MWe installed capacity (estimated as of Q4 2020), to 512 units and 488.6 Mwe installed capacity (estimated as of Q4 2021). As a result, UxC's base case estimate of global uranium demand in 2035 has increased 10% - from 209 million pounds U_3O_8 (estimated as of Q4 2020) to the current estimate of 229 million pounds U_3O_8 (estimated as of Q4 2021).

The positive investor sentiment that defined 2021 led to a large increase in uranium spot market activity from secondary sources, including uranium exploration and development companies (including Denison), uranium producers, and investment entities. Estimates suggest that approximately 53 million pounds U_3O_8 was acquired by secondary sources in 2021. This strong purchasing from secondary sources resulted in overall spot market activity reaching a record high of 102 million pounds U_3O_8 in 2021, an increase of 8% from the previous record of 94 million pounds U_3O_8 set in 2020.

On the supply side, uranium production for 2021 is estimated at 124 million pounds U $_3O_8$, which represents a 13% reduction from 2019 production levels in part due to production disruptions connected to the COVID-19 pandemic. Total demand for 2021 is estimated at 213 million pounds U_3O_8, resulting in a significant primary supply shortfall of 89 million pounds U $_3O_8$. UxC estimates that this shortfall was fully met by secondary supplies.

While primary production is estimated to increase in 2022 (including the announced restart of the McArthur River mine), a significant primary supply deficit is still expected to exist in contrast to base case demand estimated at 200 million pounds U_3O_8. Similar to 2021, it is expected that the excess of demand over primary production in 2022 will be supplied by secondary sources (including commercial inventories, reprocessing of spent fuel, sales by uranium enrichers, and inventories held by governments). These secondary sources of supply, however, are expected to fall significantly over the next five to seven years, and the pandemic-related production curtailments in 2020 and 2021 accelerated this process, resulting in the drawdown of approximately 55 million more pounds U_3O_8 of secondary supplies during 2020 and 2021 than previously estimated by UxC.

While the restart of idled or curtailed production from existing uranium mining operations are expected to provide the support necessary to balance supply deficits through 2025, the accelerated decline in secondary sources of supply in recent years, the depletion of existing mines, and the growing future demand point to larger supply deficits during the second half of the decade that will be difficult to balance without considerable investment in new large-scale uranium mining projects. Given that uncovered utility uranium requirements for the period from 2022 to 2035 (as projected in the Q4 2021 Outlook and not including typical inventory building) are estimated at 1.4 billion pounds U_3O_8, it is evident that the new future sources of supply required by the market have not yet been secured by utilities and that once incumbent suppliers have responded to future demand, to the extent they are able to, there is likely to be a further phase of utility procurement directed at incentivizing new projects to meet long-term demand needs.

Uranium Demand

According to UxC's Q4 2021 Outlook, global nuclear power capacities are projected to increase to 446 reactors in 33 countries in 2022, generating approximately 399 gigawatts of electricity ("**GWe**"). By 2035, nuclear power capacities are expected to be 512 reactors, generating approximately 489 GWe in 37 countries.

According to the WNA, as of March 2022, current nuclear generation equates to approximately 10% of the world's electrical requirements, with thirteen countries producing 25% or more of their country's electricity from nuclear.

Additionally, the WNA reports that there are currently 57 nuclear reactors under construction in 18 countries with the principal drivers of this expansion being China (19 reactors under construction), India (8), South Korea (4), Russia (3), and Turkey (3). In addition, there are another 96 reactors currently planned around the world.

In the Q4 2021 Outlook, UxC estimates base case demand will be 200 million pounds U_3O_8 in 2022. UxC also estimates that annual uranium demand could grow to 229 million pounds U_3O_8 under their base case by 2035 and to 306 million pounds U_3O_8 in their high case in the same period.

Primary Uranium Supply

UxC's Q4 2021 Outlook estimates that world uranium production for 2022 is expected to be approximately 135 million pounds U_3O_8, a slight increase over 2021's estimated production of 124 million pounds U_3O_8.

The Q4 2021 Outlook estimates that Cameco's Cigar Lake project will produce 18 million pounds U_3O_8 from 2022 to 2026, then decline from 2027 to 2031. The Q4 2021 Outlook also estimates that Cameco's McArthur River mine will remain closed indefinitely. Subsequent to the release of the Q4 2021 Outlook, Cameco announced the restart of the McArthur River mine, with estimated production during 2022 of 5 million pounds U_3O_8. This is expected to increase up to 15 million pounds U_3O_8 per year by 2024. At the same time, Cameco announced the decision to reduce production at Cigar Lake from its previous level of production, approximately 18 million pounds U_3O_8 per full operating year, to 13.5 million pounds U_3O_8.

Based on the Q4 2021 Outlook, Canada is expected to be second largest producing nation, accounting for more than 13% of the world's expected 2022 production. Kazakhstan is expected to continue to be the world's largest producer of uranium in 2022 by a large margin, representing more than 44% of expected production. Australia and Namibia are each expected to contribute approximately 10% of expected 2022 production.

UxC estimates in its Q4 2021 Outlook that existing mine production, plus new planned and potential mine production under its base case, will reach a peak of 166 million pounds U_3O_8 by 2029, before declining back down to 119 million pounds U_3O_8 by 2035. At its projected height in 2029, production levels are anticipated to include 18 million pounds U_3O_8 from McArthur River. While Kazakhstan is seen to maintain relatively consistent supply in future years, it does start to drop off significantly closer to 2035. In order for other projects to move forward and increase production forecasts, UxC believes uranium prices will need to increase appreciably to support higher cost production profiles and the significant capital expenditures that will be required.

Secondary Uranium Supply

In the Q4 2021 Outlook, primary mine production in 2022 is estimated to supply approximately 62% of the year's estimated base case demand, with the balance of demand expected to be supplied from secondary sources. These sources include commercial inventories, reprocessing of spent fuel, sales by uranium enrichers and inventories held by governments, such as the U.S. Department of Energy, and the Russian government. Primary mine production's share of annual demand remains lower than pre-2017 levels, in which primary production made up 85% or more of annual demand.

Secondary supplies remain a complexity of the uranium market. The Q4 2021 Outlook forecasts that 64 million pounds U_3O_8 will enter the market from secondary supplies in 2022. What remains unclear, and adds to the complexity of secondary supplies, is at what price level these additional sources of supply are incentivized to the market to fill the gap left by the primary supply deficit.

Though excess commercial inventories, which were one of the major sources of secondary supplies during the period from the early 1970s to the early 2000s, were largely consumed in that same period, the planned shutdown of nuclear programs in countries like Germany, and the continued challenges of the Japanese nuclear program to restart following Fukushima have contributed to commercial inventories again becoming a more significant factor. Government inventories also continue to contribute to the secondary supply picture, particularly in the U.S. and Russia. The disposition of these commercial and government inventories may have a market impact in the near to medium term, although, UxC expects their role will diminish over time as these inventories continue to be depleted and the uranium and enrichment markets rebalance themselves.

In general, UxC expects that secondary sources of supply will fall significantly from estimated 2022 levels of 64 million pounds U_3O_8 to less than 17 million pounds U_3O_8 per year by 2035.

Uranium Prices

Uranium spot prices reflect current or near-term deliveries. As much of the industry's volumes occur in the long-term market, the spot market tends to reflect the availability of discretionary supplies relative to discretionary demand. Accordingly, when the availability of uranium in the near-term is comparatively sparse relative to buying interest, the uranium spot price can increase rapidly and significantly. Similarly, where discretionary demand at any given time is comparatively soft relative to sellers holding discretionary supplies, the spot price can decrease rapidly. Given the discretionary nature of the spot market, predicting uranium spot prices normally proves to be a difficult task.

With respect to long-term prices, utility uncovered requirements and long-term demand have significant influence on market dynamics. Historically, nuclear utilities have purchased uranium primarily through long-term contracts. These contracts often provide for deliveries beginning two to four years after they are signed with delivery typically extending anywhere from three or four years to ten years or more. In awarding medium and long-term contracts, electric utilities consider the producer's uranium reserves, record of performance and production cost profile, in addition to the commercial terms offered. Prices are established by a number of methods, including base prices adjusted by inflation indices, reference prices (generally spot price indicators, but also long-term reference prices) and annual price negotiations. Contracts may also contain annual volume flexibility, floor prices, ceiling prices and other negotiated provisions. Under these contracts, the actual price mechanisms are usually confidential, which means that information available to the market is often incomplete.

The long-term uranium demand that actually enters the market is affected in a large part by utilities' uncovered requirements. This is the amount of uranium required by utilities to operate their fleet that is not yet covered by purchase contracts with suppliers. UxC estimates, in the Q4 2021 Outlook, that uncovered demand for 2022 will be 4 million pounds U_3O_8. Of course, this uncovered demand increases over time and is projected by UxC to increase significantly over the next decade. For example, while more than 43 million pounds U_3O_8 are projected to remain uncovered for 2025, this number grows to almost 113 million pounds U_3O_8 for 2030. For 2035, this number grows to 175 million pounds U_3O_8 of uncovered demand, or roughly 76% of annual expected base case demand projected for that year. In total almost 1.36 billion pounds U_3O_8 are estimated to be uncovered between 2022 and 2035.

At 174 million pounds U_3O_8, uncovered demand for 2035 is approximately 55 million pounds U_3O_8 more than total production expected from existing uranium mines for the same year, which UxC estimates at 119 million pounds U_3O_8. Uncovered demand for 2035 also exceeds the combined supply available from primary production and secondary sources by approximately 40 million pounds U_3O_8. In order to address the rising portion of demand that is uncovered, utilities are expected to return to the market and enter into long-term contracts. From 2006 to 2010, on average, 39 million pounds U_3O_8 equivalent were purchased on the spot market per year and roughly 200 million pounds U_3O_8 equivalent were contracted in the long-term market each year. In contrast, 96.1 million pounds U_3O_8 equivalent were purchased on the spot marketin 2021, and only 70.5 million pounds U_3O_8 equivalent were contracted in the long-term market. Considering contract volumes over the past year remain well below annual requirements, and uncovered requirements are increasing out in time, long-term contracting activity is expected to continue to increase in the future as utilities look to secure future supply in order to fuel the world's growing fleet of nuclear reactors.

The long-term price is published on a monthly basis and increased by 22% in 2021, starting the year at US$33.00 per pound U $_3O_8$ and ending the year at US$40.50 per pound U_3O_8. Nuclear utilities procure their remaining uranium requirements through spot and near-term purchases from uranium producers, traders, and other suppliers. Historically, spot prices are more volatile than long-term prices. The spot price began 2021 at US$30.00 per pound U_3O_8, and increased during the year, in part as a result of the widespread increase in investor interest in the uranium and nuclear energy sectors (leading to a new source of substantial discretionary demand), to reach a high of $50.25 before retreating to US$42.50 per pound U_3O_8 at year end.

Competition

The uranium industry is small compared to other commodity or energy industries. Uranium demand is international in scope, but supply is characterized by a relatively small number of companies operating in only a few countries. Primary uranium production is concentrated amongst a limited number of producers and is also geographically concentrated with more than 77% of the world's production in 2022 projected to be coming from only four countries: Kazakhstan, Canada, Australia and Namibia. Producers compete for market share and commercial terms necessary to support project economics. This is complicated by the influence of state-owned-enterprises that operate within the uranium mining industry, often producing uranium supply as part of a vertical integration strategy that may be less sensitive to uranium pricing than those operating uranium mines as a primary business.

Competition is somewhat different amongst exploration & development companies focused on the discovery or development of a uranium deposit. Exploration for uranium is being carried out on various continents, but in recent years development activities by public companies have been generally concentrated in Canada, Africa and Australia. In Canada, exploration has focused on the Athabasca Basin region in northern Saskatchewan. Explorers have been drawn to this area by the high-grade uranium deposits that have produced some of the most successful uranium mining operations in recent history. Within the Athabasca Basin region, exploration is generally divided between activity that is occurring in the eastern portion of the Basin and the western portion of the Basin. The eastern portion of the Basin is a district that is defined by rich infrastructure associated with existing uranium mines and uranium processing facilities. Infrastructure includes access to the provincial power grid and a network of provincial all-weather highways. By comparison, in the western portion of the Basin, there are no uranium mines or processing facilities and access to the provincial power grid is not currently available. Several uranium discoveries have been made in the Athabasca Basin region in recent years, and competition for capital, high-quality properties and professional staff can be intense.

Mineral Reserves and Mineral Resources

NI 43-101 requires mining companies to disclose mineral reserve and resource estimates using the subcategories of proven mineral reserves, probable mineral reserves, measured mineral resources, indicated mineral resources and inferred mineral resources.

Each of David Bronkhorst, P.Eng, Denison's Vice-President Operations, and Andy Yackulic, P.Geo., Denison's Director, Exploration, is a "Qualified Person" in accordance with the requirements of NI 43-101, and has reviewed and approved all disclosure of scientific or technical information in this AIF.

Denison Mineral Reserves and Mineral Resources

The following tables show the Company's estimates of mineral reserves and mineral resources as at December 31, 2021. For more information about the Company's material properties, see "Mineral Properties".

Proven Mineral Reserve Estimates (1,14)

	100% Basis			Company Share(9)
Project/Deposit	**Tonnes**	**Grade % U_3O_8**	**Pounds of U_3O_8 (,000)**	**Pounds of U_3O_8 (,000)**
McClean - Ore Stockpile(14)	90,000	0.37	726	163
Total Proven Mineral Reserves	**90,000**		**726**	**163**

Probable Mineral Reserve Estimates (1,2,3,4,15)

	100% Basis			Company Share(9)

Project/Deposit	Tonnes	Grade % U_3O_8	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
Wheeler River - Phoenix	141,000	19.1	59,700	56,700
Wheeler River - Gryphon	1,257,000	1.8	49,700	47,200
Total Probable Mineral Reserves	**1,398,000**		**109,400**	**103,900**

Indicated Mineral Resource Estimates (1,5,15)

	100% Basis			Company Share(9)
Project/Deposit	Tonnes	Grade % U_3O_8	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
Wheeler River - Phoenix(7)	166,000	19.1	70,200	66,700
Wheeler River - Gryphon(7)	1,643,000	1.7	61,900	58,800
Wheeler River Subtotal	*1,809,000*		*132,100*	*125,500*
McClean - Caribou	47,800	2.6	2,800	600
McClean - Sue D	122,800	1.1	2,800	600
McClean - McClean North	204,300	2.8	12,200	2,700
McClean Subtotal	*374,900*		*17,800*	*3,900*
Midwest - Midwest Main	453,000	4.0	39,900	10,100
Midwest - Midwest A	566,000	0.87	10,800	2,700
Midwest Subtotal	*1,019,000*		*50,700*	*12,800*
Waterbury - THT (formerly J Zone)	291,000	2.0	12,800	8,600
Total Indicated Mineral Resources	**3,493,900**		**213,400**	**150,800**

Inferred Mineral Resource Estimates (1,6,15)

Project/Deposit		100% Basis Tonnes	100% Basis Grade % U_3O_8	100% Basis Pounds of U_3O_8 (,000)	Company Share(9) Pounds of U_3O_8 (,000)
Wheeler River - Phoenix		9,000	5.8	1,100	1,000
Wheeler River - Gryphon		73,000	1.2	1,900	1,800
	Wheeler River Subtotal	*82,000*		*3,000*	*2,800*
McClean - Sue D		24,200	0.39	200	0
McClean - Sue E(8)		483,400	0.69	7,300	1,600
McClean - McClean North		3,300	0.79	100	0
	McClean Subtotal	*510,900*		*7,600*	*1,600*
Midwest - Midwest Main		793,000	0.66	11,500	2,900
Midwest - Midwest A		53,000	5.8	6,700	1,700
	Midwest Subtotal	*846,000*		*18,200*	*4,600*
Waterbury - Huskie		268,000	0.96	5,700	3,800
Total Inferred Mineral Resources		**1,706,900**		**34,500**	**12,800**

Historical Estimates

A qualified person has not done sufficient work to verify and classify these historical estimates as current mineral resources for the Company or confirm their reporting of resources is in accordance with NI 43-101 categories, though the Company has no reason to believe the information is not relevant or reliable. The Company is not treating this information as current mineral resources. As these do not represent material properties for the Company at this time, the Company does not currently have any plans to conduct work to verify the historical estimates.

JCU Additional Properties

JCU is a private Canadian company owned jointly by Denison (50%) and UEX (50%), which has interests in 11 uranium exploration and

development projects in the Athabasca Basin region including ownership interests in the Millennium Project (JCU 30.099%, Cameco 66.901%) and the Christie Lake Project (JCU 34.4508%, UEX 65.5492%). Additionally, JCU has an interest in the Kiggavik Project (JCU 33.8123%, Orano 66.1877%) in Nunavut.

Historical Indicated Mineral Resource Estimates (15)

	100% Basis			Company Share(10)
Project/Deposit	**Tonnes**	**Grade % U_3O_8**	**Pounds of U_3O_8 (,000)**	**Pounds of U_3O_8 (,000)**
Millennium(11)	1,442,600	2.39	75,900	11,400
Kiggavik(12)	10,418,000	0.47	127,300	21,500
Total Indicated Mineral Resources	**11,860,600**		**203,200**	**32,900**

Historical Inferred Mineral Resource Estimates [15]

Project/Deposit	100% Basis Tonnes	100% Basis Grade % U_3O_8	100% Basis Pounds of U_3O_8 (,000)	Company Share[10] Pounds of U_3O_8 (,000)
Millennium[11]	412,400	3.19	29,000	4,400
Kiggavik[12]	731,000	0.28	5,400	900
Christie Lake[13]	588,000	1.57	20,400	3,500
Total Inferred Mineral Resources	**1,706,900**		**54,800**	**8,800**

McClean South

McClean South Historical Estimates [16]

Deposit	100% Basis			Company's Share
	Tons (,000)	Grade (% U_3O_8)	Pounds of U_3O_8 (,000)	Pounds of U_3O_8 (,000)
Southwest Pod	47.6	2.10	2,000	500
Southeast Pod	126.7	0.73	1,900	400

Notes to Mineral Resource and Mineral Reserve & Historic Estimates Tables:

(1) CIM definitions were followed for classification of mineral reserves and mineral resources. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

(2) Mineral reserves for the Phoenix deposit are reported at the mineral resource cut-off grade of 0.8% U_3O_8. The mineral reserves are based on the block model generated for the May 28, 2014 mineral resource estimate. A mining recovery factor of 85% has been applied to the mineral resource above the cut-off grade.

(3) Mineral reserves for the Gryphon deposit are estimated at a cut-off grade of 0.58% U_3O_8 using a long-term uranium price of US$40/lb, and a US$/CAD$ exchange rate of 0.80. The mineral reserves are based on the block model generated for the January 30, 2018 mineral resource estimate. The cut-off grade is based on an operating cost of $574/tonne, milling recovery of 97%, and a 7.25% fee for Saskatchewan royalties (basic royalty plus resource surcharge).

(4) Mineral reserves are stated at a processing plant feed reference point and include diluting material and mining losses.

(5) The indicated mineral resources were estimated at various cut-off grades. They are:

- Phoenix: 0.80% U_3O_8
- Gryphon: 0.20% U_3O_8
- Caribou: 0.10% U_3O_8
- Sue D: 0.10% U_3O_8
- McClean North: 0.10% U_3O_8
- Midwest Main: 0.10% U_3O_8 (0.085% U)
- Midwest A: 0.10% U_3O_8 (0.085% U)
- THT (J Zone): 0.10% U_3O_8

(6) The inferred mineral resources were estimated at various cut-off grades. They are:

- Phoenix: 0.80% U_3O_8
- Gryphon: 0.20% U_3O_8
- Sue D: 0.10% U_3O_8
- Sue E: 0.10% U_3O_8
- McClean North: 0.10% U_3O_8
- Midwest Main: 0.10% U_3O_8 (0.085% U)
- Midwest A: 0.10% U_3O_8 (0.085% U)
- Huskie: 0.10% U_3O_8

(7) Indicated mineral resources for Phoenix and Gryphon deposits are inclusive of probable mineral reserves.

(8) The operator conducted confirmatory drilling on a portion of the Sue E mineral resources outside the designated pit and late in 2006 submitted a preliminary analysis detailing an inferred mineral resource of approximately 2 million pounds on a 100% basis in this area, as compared to the 7.3 million pounds that Scott Wilson Roscoe Postle Associates Inc. ("**Scott Wilson RPA**", succeeded by Roscoe Postle Associates Inc. ("**RPA**") and then acquired by SLR Consulting Limited, "**SLR**"), estimated in its February 2006 technical report. The mineral resource has not been re-estimated using the new drill information.

(9) As at December 31, 2021, pursuant to the terms of the agreements with its applicable joint venture partners and subsequent to its acquisition of JCU in August 2021, the Company had an effective 95.00% interest in the Wheeler River project, a 22.50% interest in the McClean Lake property; a 25.17% interest in the Midwest project; and a 66.90% interest in the Waterbury Lake property.

(10) Denison's share has been calculated as 50% of the product of JCU's percentage interest in the applicable project multiplied by the estimated mineral resources on a 100% basis.
(11) Millennium mineral resources as reported by Cameco as of December 31, 2021 on their website at https://www.cameco.com/businesses/uranium-projects/millennium/reserves-resources. Cut-off grades and other assumptions, parameters and methods used to estimate resources are unknown.
(12) Kiggavik mineral resources as reported by Orano in their 2020 Activities Report available on their website at https://www.orano.group/docs/default-source/orano-doc/groupe/publications-reference/publication-groupe/orano_annual-activity-report_2020_online.pdf?sfvrsn=b8263a0d_27 and converted from tonnes U to pounds U_3O_8 and from %U to %U_3O_8. Cut-off grades and other assumptions, parameters and methods used to estimate resources are unknown.
(13) Christie Lake mineral resources, and relevant assumptions, parameters and methods used for estimating, are documented in the "Technical Report on the Christie Lake Uranium Project, Saskatchewan, Canada" with an effective date of December 13, 2018, which is available under UEX's profile on SEDAR at www.sedar.com, filed on February 1, 2019. Inferred resources attributable to JCU have been modified from the values stated in such Technical Report to reflect a decrease in JCU's ownership of the Christie Lake Project from 40% to 34.4508% effective January 1, 2021. The Christie Lake mineral resources were estimated at a cut-off grade of 0.2% U3O8.
(14) The summary information on Denison's proven mineral reserve estimates was prepared from the year-end stockpile survey reported by Orano Canada, the MLJV operator.
(15) Numbers may not add due to rounding.
(16) The historical estimates do not comply with the requirement of NI 43-101. CIM definitions are not used.

Change to Denison's Share of Mineral Resources
(in thousands of pounds U_3O_8)

The table below details the changes to the Company's mineral resource estimates during the fiscal year ended December 31, 2021 from those at December 31, 2020.

Project/Deposit	Resources/ Reserves	December 31, 2020	Additions (Deletions)	December 31, 2021
Wheeler River[1]				
Wheeler River - Phoenix	Probable Mineral Reserves	53,700	3,000	56,700
Wheeler River - Gryphon	Probable Mineral Reserves	44,700	2,500	47,200
Wheeler River - Phoenix	Indicated Mineral Resources	63,200	3,500	66,700
Wheeler River - Gryphon	Indicated Mineral Resources	55,700	3,100	58,800
Wheeler River - Phoenix	Inferred Mineral Resources	1,000	45	1,000
Wheeler River - Gryphon	Inferred Mineral Resources	1,700	100	1,800
McClean[2]				
McClean - Ore Stockpile	Proven Mineral Reserves	161	2	163
McClean - McClean North	Indicated Mineral Resources	2,800	(40)	2,700

Notes:
(1) The Company increased its effective interest in the Wheeler River project by 5% in 2021, with its acquisition of a 50% interest in JCU.
(2) This is a calculated depletion of resources due to mining, as the MLJV conducted a SABRE test mining program in 2021 at the McClean Lake North deposit, with production of U_3O_8 resulting in changes to the ore stockpile as well as to the indicated mineral resources estimated for the deposit. See "Denison's Operations - Surface Access Borehole Resource Extraction (SABRE) Mining Program" for more details.
(3) Numbers rounded to the nearest hundred, except for the ore stockpile.

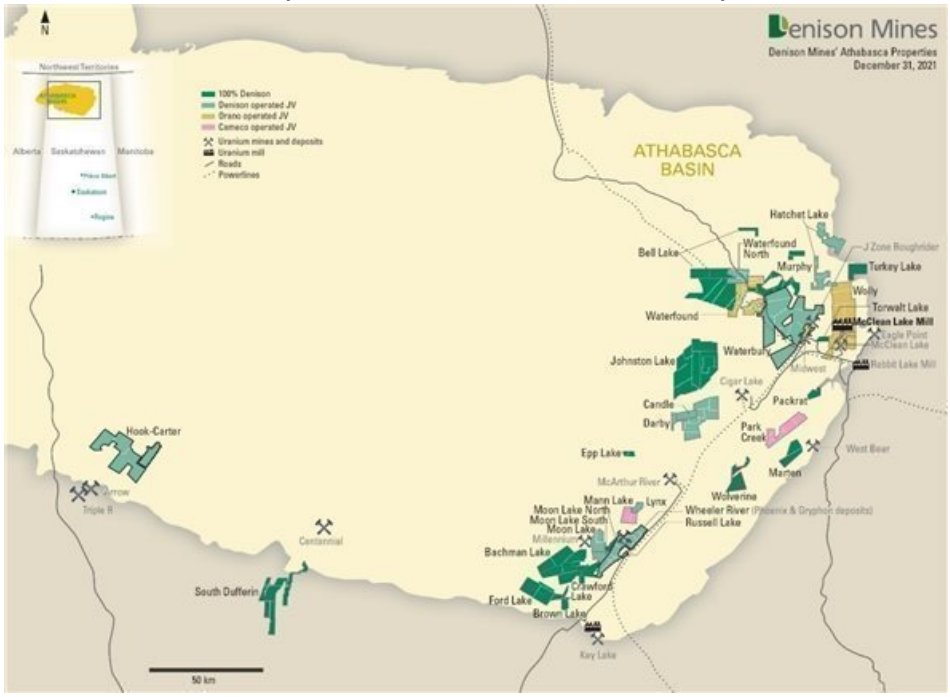
Denison's mineral property interests (excluding those indirectly held through JCU) are located in the Athabasca Basin region of northern Saskatchewan, the majority of which are located in the eastern portion of the Athabasca Basin, which is host to considerable existing infrastructure including uranium mines and mills, and provincial powerlines and highways (see location map, below). As at December 31, 2021, Denison has interests in 32 mineral properties in the Athabasca Basin, comprised of 211 claims covering 296,661 hectares.

Denison's exploration and evaluation operations in Saskatchewan, including its office in Saskatoon and various project interests in northern Saskatchewan, are located in regions covered by Treaty 6, Treaty 8 and Treaty 10, which encompass the traditional lands of the Cree, Dakota, Déne, Lakota, Nakota, Saulteaux, within the homeland of the Métis and within Nuhenéné.

Denison's Priority Properties:

- Wheeler River Page 29
- Waterbury Lake Page 66
- McClean Lake Page 86
- Midwest Page 93
- Other Exploration Properties Page 101

Location Map of Denison's Athabasca Basin Mineral Properties



Athabasca Basin Overview

The Athabasca Basin covers an area of approximately 100,000 square kilometres in northern Saskatchewan and northeastern Alberta. The Athabasca Basin is one of the principal uranium producing districts in the world and is host to the world's highest-grade and some of the world's largest uranium mines and deposits, including the McArthur River mine and Cigar Lake mine located in the eastern Athabasca Basin.

The uranium deposits are classified as unconformity-associated (also unconformity-related and –type) deposits owing to their spatial association with a major unconformable contact between a relatively undeformed Proterozoic sedimentary basin (the Athabasca Basin) and underlying metamorphosed and deformed Archean to Palaeoproerozoic basement rocks.

A broad variety of unconformity-associated deposit shapes, sizes, and compositions have been discovered. Two distinct varieties have been classified; 1) 'egress-style' polymetallic lenses at and above the unconformity, with variable and often highly elevated base metal and rare earth elements ("**REE**") contents, and 2) 'ingress-style' vein sets within basement rocks, with typically lower base metal and REE contents.

Egress-style deposits can occur in the sandstone, directly above the unconformity (e.g., Cigar Lake, Sue A and B), straddling the unconformity (e.g., Phoenix, Collins Bay B Zone, Midwest Main, Midwest A, McClean North, Key Lake) or perched high above the unconformity (certain zones at McClean Lake, Midwest, Cigar Lake). Ingress-style deposits are located in the basement rocks (e.g., Gryphon, Huskie, Eagle Point, Sue C, Sue E, Millennium, Arrow, Triple R), however the Millennium deposit and, to an extent, the Gryphon deposit also contain subordinate mineralization at and above the unconformity. The Shea Creek deposits contain mineralization in the basement, deep in the basement, at the unconformity, and perched in the sandstone. In some deposits, there is a plunge to the mineralized pods from sandstone-hosted to basement-hosted within deposit–scale strike lengths (e.g., the Rabbit Lake-Collins Bay-Eagle Point trend, Sue trend deposits, McClean North).

The Athabasca unconformity-associated deposits are typically related to graphite-bearing structural zones within the metamorphosed and deformed Archean to Palaeoproerozoic basement rocks, which are often termed 'corridors' or 'trends'. Alteration 'halos' or 'envelopes' tend to surround the mineralization, most notably in the overlying sandstone, and provide an enlarged exploration target through the detection of diagnostic alteration clays and geochemical pathfinder elements. Empirical exploration for the deposits typically involves mapping of structural corridors/trends by geophysical methods (dominantly electromagnetics, resistivity, or magnetics), followed by drill testing, given the buried or blind nature of the deposits below glacial cover or Athabasca sandstone, respectively. Drill core is subject to a variety of sampling and analytical methods to determine possible vectors toward mineralization, and downhole surveying is commonplace to test for elevated radioactivity or reconcile geophysical responses. The significant number of Athabasca uranium discoveries to date has also led to the development of numerous exploration models which are commonly used to facilitate interpretations and prioritize target areas.

Historical uranium production in the Athabasca Basin region used conventional open pit mining methods, such as the operations at Rabbit Lake, Cluff Lake Key Lake and McClean Lake. Later in the mine life of Cluff Lake and Rabbit Lake, there was a transition to underground mining of other deposits on those properties.

The discovery of high-grade deposits such as Midwest, McArthur River and Cigar Lake in the 1980s did not immediately lead to production. The combination of challenging ground conditions (most notably the friable and water-saturated Athabasca sandstone conditions above the mineralization), depth, and the high-grade nature of the deposits, required extensive research and development to design safe extraction methods before production was possible. Production from McArthur was achieved in the early 2000s, while Cigar Lake only initiated production in 2014. Production from these mines was only made possible by their unique combination of high grades (average grades > 10% U_3O_8) and large scale (>300 million lbs U_3O_8), as well as the development of innovative mining techniques, including ground freezing combined with either raise-bore mining or the use of the jet-boring mining system ("**JBS**"). The Midwest deposits are smaller in size than McArthur River and Cigar Lake, and remain undeveloped.

In terms of mineral processing, each historic mining operation included a dedicated processing plant: Cluff Lake, Key Lake, Rabbit Lake and McClean Lake operations included on-site processing plants. Due to the rising cost of construction for such facilities and the availability of highways and other infrastructure in Saskatchewan's North, processing of ores has transitioned to toll milling at existing facilities. McArthur River ore production is toll milled at the Key Lake mill, while Cigar Lake production is toll milled at the McClean Lake mill. With the suspension of operations at Rabbit Lake in 2016 and McArthur River in 2018, in part due to a prolonged slump in the global uranium market, only the Cigar Lake mine and the McClean Lake mill continued to operate and produce yellowcake in Saskatchewan during 2021.

In response to the COVID-19 pandemic, the Cigar Lake Joint Venture, operated by Cameco, temporarily suspended production at the Cigar Lake mine from the end of March 2020 until September 2020, and then again from the end of December 2020 until April 2021. Coordinated therewith, the MLJV suspended operations at the McClean Mill for the duration of the suspended production.

In February 2022, Cameco announced its intention to restart uranium production at its McArthur River uranium mine and Key Lake uranium mill in 2022 — while at the same time outlining its intention to, together with Orano, continue to limit overall production at McArthur River and Cigar Lake well below full production rates.

Wheeler River

The Wheeler River project is the largest undeveloped uranium project in the infrastructure-rich eastern portion of the Athabasca Basin region, in northern Saskatchewan. 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 JCU (10%). Denison is the operator/manager of the project.

The PFS for the Wheeler River project was completed in 2018, considering the potential economic merit of developing the Phoenix deposit as an ISR operation, with an estimated average operating cost of $4.33 (US$3.33) per pound U_3O_8, and the Gryphon deposit as a conventional underground mining operation. The ISR mining operation planned for Phoenix, would see associated processing to a finished product occurring at a processing plant to be built on site at Wheeler River. The Gryphon deposit is designed as an underground mining operation, utilizing a conventional long hole mining approach with processing of mine production assumed at Denison's 22.5% owned McClean Lake mill.

Taken together, the project is estimated to have mine production of 109.4 million pounds U_3O_8 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), IRR of 43.3%, initial pre-production capital expenditures of $322.5 million, and industry-leading average operating costs of US$3.33/lb U_3O_8.

The base-case economic analysis assumes uranium sales are made at UxC Consulting Company, LLC's (" **UxC**") then annual estimated spot price (composite mid-point scenario) for mine production from Phoenix (from ~US$29/lb U_3O_8 to US$45/lb U_3O_8), and a fixed price for mine production from the Gryphon deposit (US$50/lb U_3O_8). The PFS is prepared on a project (100% ownership) and pre-tax basis, as each partner to the WRJV is subject to different tax and other obligations. The results of the PFS are described in greater detail below.

A technical report entitled "Prefeasibility Study Report for the Wheeler River Uranium Project Saskatchewan, Canada" dated October 30, 2018 (the "**Wheeler PFS Report**") has been prepared for the project, a copy of which is available on the Company's website.

The Wheeler PFS Report describes the results of the PFS for the Wheeler River project with an effective date of September 24, 2018, based in part upon the mineral resource estimates for the Gryphon deposit effective January 30, 2018 and the Phoenix deposit effective May 28, 2014.

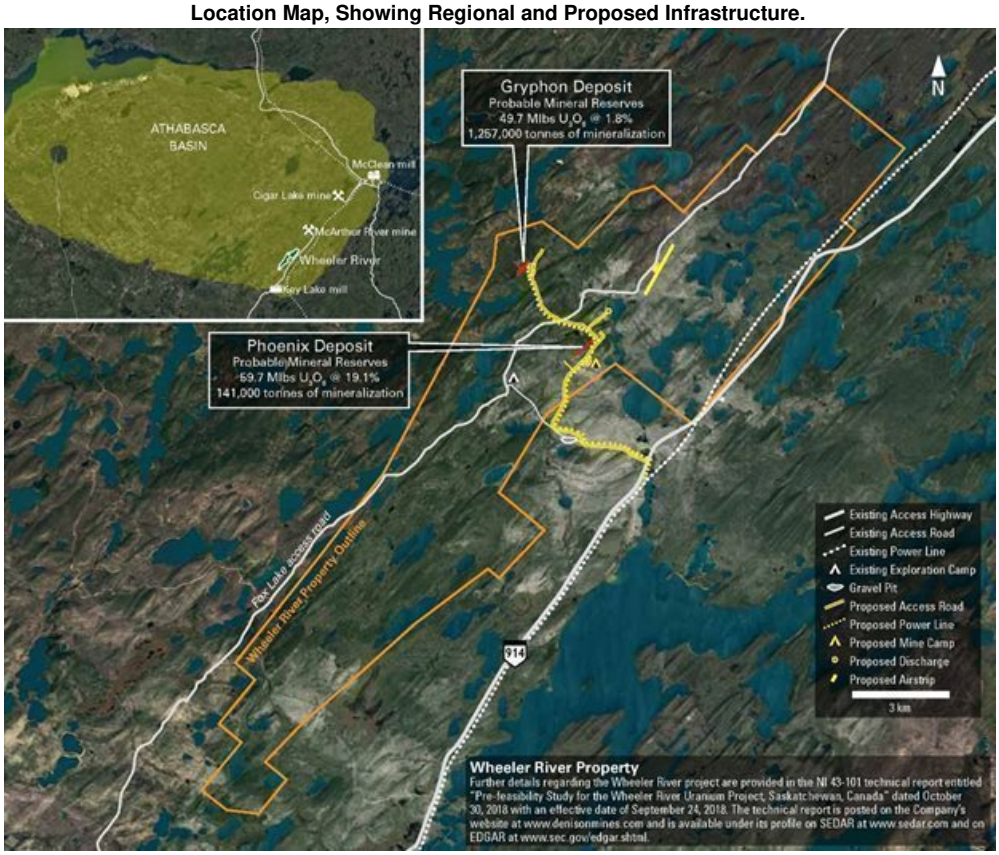
Except as otherwise indicated, the following project description is a summary, supported by the Wheeler PFS Report. We recommend you read the Wheeler PFS Report in its entirety to fully understand the technical aspects of the project. The conclusions, projections and estimates included in this description are subject to the qualifications, assumptions and exclusions set out in the Wheeler PFS Report and in the "Risk Factors" set forth below; in particular, any advancement or development of the Wheeler River project is subject to attainment of any required approvals, agreements or resources, including capital funding.

As a result of the social, financial and market disruptions experienced from the onset of the COVID-19 pandemic in early 2020, Denison temporarily suspended certain activities at Wheeler River, including the Environmental Assessment program; the EA program is on the critical path to achieving the project development schedule outlined in the PFS. While the EA process formally resumed in 2021, the Company is not currently able to estimate the impact of the delay on the project development schedule outlined in the PFS, and users are specifically cautioned that the estimates provided therein regarding the start of pre-production activities in 2021 and first production in 2024 should not be relied upon.

Property Description, Location and Access

The property is located along the eastern edge of the Athabasca Basin in northern Saskatchewan, Canada and is located approximately 35 km north-northeast of the Key Lake mill and 35 km southwest of the McArthur River uranium mine.

Location Map, Showing Regional and Proposed Infrastructure.



Access to the property is by road or air from Saskatoon. The property is well located with respect to all-weather roads and the provincial power grid. Vehicle access to the property is by the provincial highway system to the Key Lake mill, then by the ore haul road between the Key Lake and McArthur River operations to the eastern part of the property. An older access road, the Fox Lake Road, between Key Lake and McArthur River, provides access to most of the northwestern side of the property. Gravel and sand roads and drill trails provide access by either four-wheel-drive or all-terrain vehicle to the rest of the property.

The property consists of 19 mineral claims totaling 11,720 hectares, with an aggregate annual requirement of $293,000 in either work or cash to maintain title to the mineral claims. Based on previous work submitted and approved by the province of Saskatchewan, title is secure until 2041.

The Wheeler River project is located within the boundaries of Treaty 10 (entered into between the Government of Canada and the First Nations People of Saskatchewan and Alberta). It is also located within Nuhenéné and within the traditional territory of the English River First Nation and in the homeland of the Métis, each of whom has identified a strong and significant relationship to the land.

The Wheeler River project is located within the boundaries of Treaty 10 (entered into between the Government of Canada and the First Nations People of Saskatchewan and Alberta). It is also located within the traditional territory of the English River First Nation and in the homeland of the Métis, each of whom has identified a relationship to the land.

Any uranium produced from the Wheeler River property is subject to uranium mining royalties in Saskatchewan in accordance with Part III of The Crown Mineral Royalty Regulations. See “Government Regulation - Canadian Royalties.” There is also a 10% Net Profits Interest (“NPI”) associated with the property held by the WRJV in proportion to the ownership interests of each WRJV participant. There are no other back-in rights or third-party royalties applicable to this property.

At the time of the PFS, there were no known environmental liabilities associated with the property with respect to current operations. In its financial statements, the Company has made estimates of the current value of certain reclamation obligations for work performed. Before work can be performed on the property, the appropriate exploration or other permits must be applied for and obtained. If Denison was unable to satisfy its obligations with respect to the regulatory and consultation process to obtain the necessary permits, the Company’s plans for exploration or other work on the property could be delayed or halted. See “Risk Factors” for more information on this and other potential risks that may affect access, title or the right or ability to perform work on the property. For surface exploration and evaluation activities that may occur in 2022, the Company has obtained or intends to apply for all necessary permits. Additional permits and licenses may be required in connection with the Company’s project evaluation activities beyond 2022 and will be required prior to commencement of development and production activities (refer to section 20 of the Wheeler PFS Report).

History

The Wheeler River property was staked on July 6, 1977, due to its proximity to the Key Lake uranium discoveries, and on December 28, 1978, it was vended into an agreement between AGIP Canada Ltd., E&B Explorations Ltd. and Saskatchewan Mining Development Corporation, with each holding a one-third interest. On July 31, 1984, each party divested a 13.3% interest and allowed Denison Mines Limited, a predecessor company to Denison, to earn in to a 40% interest.

In late 2004, Denison entered into an agreement to earn a further 20% interest by expending $7,000,000 within six years. In connection with that, Denison became the project operator (2005 being the first full year of operatorship). In 2007, when the earn-in obligations were completed, the participating and ownership interests were Denison 60%; Cameco 30%, and JCU 10% and they remained that way up to the end of 2016. In January 2017, Denison, Cameco and JCU executed an agreement, pursuant to which the WRJV Parties agreed to allow for a one-time election by Cameco to fund 50% of its ordinary share (30%) of joint venture expenses in 2017 and 2018. The shortfall in Cameco's contribution was funded by Denison, in exchange for a transfer to Denison of a portion of Cameco's interest in the WRJV.

Accordingly, Denison's share of joint venture expenses was 75% in 2017 and 2018, and Cameco and JCU's participating share of joint venture expenses was 15% and 10%, respectively. As a result of that agreement, Denison's interest increased to approximately 66%, with Cameco holding approximately 24% and JCU holding 10%.

In September 2018, Denison and Cameco entered into an agreement, pursuant to which Denison would increase its ownership interest to 90% through the acquisition of 100% of Cameco's minority interest in the WRJV (subject to certain rights of first refusal in favour of JCU under the WRJV joint venture agreement) in exchange for the issuance to Cameco of 24,615,000 Shares of Denison. JCU waived its rights under the WRJV joint venture agreement to acquire any of Cameco's interest, and Denison's acquisition of Cameco's interest was completed effective October 26, 2018 (the "**Cameco Transaction**"). As a result, the WRJV was held by Denison (90%) and JCU (10%).

In August 2021, Denison completed the JCU Acquisition, acquiring a 50% ownership interest in JCU and therefore an additional 5% indirect interest in the WRJV.

Exploration and Development History to PFS

Period (Year)	Activity
1978-Present	The area was previously explored by AGIP and SMDC (Cameco). Since 1978, several airborne and ground geophysical surveys have defined 152 km of conductor strike length in 14 conductive zones.
1986-1988	AGIP, SMDC, and Cameco drilled a total of 192 drill holes encountering sub-economic uranium mineralization in the M Zone (1986), O Zone (1986), and K Zone (1988). Rare earth element mineralization was also discovered in the MAW Zone (1982).
2004	Denison assumed operatorship in late 2004 and initially focused on exploration drilling on the western side of the quartzite ridge (west side of the property) intersecting sub-economic uranium mineralization.
2008	During a regional exploration campaign, three resistivity targets were drilled leading to the discovery of the Phoenix deposit.
2008-2014	During this period, drilling predominantly focused on delineation of the Phoenix deposit.
2014-2017	Exploration drilling at K North in early 2014 resulted in the discovery of the Gryphon deposit. Delineation drilling of the Gryphon deposit was undertaken throughout this period. A Preliminary Economic Assessment was completed for the Project in early 2016.
2018-PFS	A Pre-Feasibility Study was completed for the Project in late 2018 and exploration drilling was undertaken on regional targets.

Post-PFS: 2019-2021	The Company has continued to make significant progress on systematically de-risking the technical risks identified for the ISR mining method. See below for further details.

Geological Setting, Mineralization and Deposit Types

The Wheeler River property is located near the southeastern margin of the Athabasca Basin in the southwest part of the Churchill Structural Province of the Canadian Shield. The Athabasca Basin is a broad, closed, and elliptically shaped cratonic basin with an area of 425 km (east-

west) by 225 km (north-south). The bedrock geology of the Athabasca basin area consists of Archean and Paleoproterozoic gneisses unconformably overlain by up to 1,500 m of flat-lying unmetamorphosed sandstones and conglomerates of the mid-Proterozoic Athabasca Group.

The Wheeler River property is located near the transition zone between two prominent litho-structural domains within the Precambrian basement, namely the Mudjatik Domain to the west and the Wollaston Domain to the east. The Mudjatik Domain is characterized by elliptical domes of Archean granitoid orthogenesis separated by keels of metavolcanic and metasedimentary rocks, whereas the Wollaston Domain is characterized by tight to isoclinal, northeasterly trending, doubly plunging folds developed in Paleoproterozoic metasedimentary rocks of the Wollaston Supergroup, which overlie Archean granitoid orthogenesis identical to those of the Mudjatik Domain. The area is cut by a major northeast-striking fault system of Hudsonian Age. The faults occur predominantly in the basement rocks but often extend up into the Athabasca Group due to several periods of post-depositional movement.

Local geology consists of relatively undeformed late Paleoproterozoic to Mesoproterozoic Athabasca Group strata, comprised of Manitou Falls Formation sandstones and conglomerates, which unconformably overlie the crystalline basement and have a considerable thickness from 170 m over the quartzite ridge to at least 560 m on the western side of the property. Basement rocks beneath the Phoenix and Gryphon deposits are part of the Wollaston Domain and are comprised of metasedimentary and granitoid gneisses. The metasedimentary rocks include graphitic and non-graphitic pelitic and semipelitic gneisses, meta-quartzite, and rare calc-silicate rocks. Pegmatitic segregations and intrusions are common in all units, with garnet, cordierite, and sillimanite occurring in the pelitic strata, indicating an upper amphibolite grade of metamorphism. Graphitic pelite and quartzite units appear to play important roles in the genesis of Athabasca Basin unconformity-associated deposits. Thus, the presence of extensive subcrop of both units (18 km of quartzite and 152 line-km of conductors, assumed to be graphitic pelite) greatly enhances the geological potential of the Wheeler River property. The Wheeler River property is partially covered by lakes and muskeg, which overlie a complex succession of glacial deposits up to 130 m in thickness. These include eskers and outwash sand plains, well-developed drumlins, till plains, and glaciofluvial plain deposits. The orientation of the drumlins reflects southwesterly ice flow.

The Phoenix uranium deposit was discovered in 2008 and can be classified as an unconformity-associated deposit of the sandstone-hosted or egress-style variety. The deposit occurs dominantly within sandstone immediately above the sub-Athabasca unconformity approximately 400 metres below surface and comprises three elongate pods of mineralization (Zone A, B, and C) which cover a strike length of 1.1 kilometres. Zone A, the largest of the three pods, is approximately 380 metres in length, up to 80 metres wide, up to 15 metres thick, and consists of an exceptionally high-grade core (62,900 tonnes at 43.2 % U_3O_8 for 59.9 million pounds U_3O_8 in estimated Indicated resources) surrounded by a lower grade shell. The deposit occurs along a prominent post-Athabasca basement thrust fault (WS Shear) which occurs footwall to a graphite-rich pelitic gneiss unit and hangingwall to a garnetiferous pelitic gneiss and quartzite unit. Mineralization within the Phoenix deposit is dominated by massive to semi-massive uraninite associated with an alteration assemblage comprising hematite, dravitic tourmaline, illite, and chlorite. Secondary uranium minerals (including uranophane) and sulphides are found in trace concentrations.

The Gryphon uranium deposit was discovered in 2014 and can be classified as an unconformity-associated deposit of the basement-hosted or ingress-style variety. The deposit occurs within southeasterly dipping crystalline basement rocks below the regional sub-Athabasca Basin unconformity. The deposit is located from 520 to 850 metres below surface, has an overall strike length of 610 metres and dip length of 390 metres, and varies in thickness between two and 70 metres, depending on the number of mineralized lenses present. The mineralized lenses are controlled by reverse fault structures, which are largely conformable to the basement stratigraphy and dominant foliation. The A, B, and C series of lenses are comprised of stacked, parallel lenses which plunge to the northeast along a fault zone (G-Fault) which occurs between hangingwall graphite-rich pelitic gneisses and a more competent pegmatite-dominated footwall. A ubiquitous zone of silicification (Quartz-Pegmatite Assemblage) straddles the G-Fault and the A, B, and C series of lenses occur in the hangingwall of, within, and in the footwall of the Quartz-Pegmatite Assemblage respectively. The D series lenses occur within the pegmatite-dominated footwall along a secondary fault zone (Basal Fault) or within extensional relay faults which link to the G-Fault. The E series lenses occur along the G-Fault, up-dip and along strike to the northeast of the A and B series lenses, within the upper basement or at the sub-Athabasca unconformity. Mineralization within the Gryphon deposit lenses is dominated by massive, semi-massive, or fracture-hosted uraninite associated with an alteration assemblage comprising hematite, dravitic tourmaline, illite, chlorite, and kaolinite. Secondary uranium minerals (including uranophane and carnotite) and sulphides are trace in quantity.

Exploration and Drilling

As operator, Denison has conducted numerous geophysical surveys across the property, generating many drill targets over several years. Airborne surveys have included two electromagnetic surveys (totaling 2,005 line kilometres) and one gravity survey (totaling 1,711 line kilometres). Ground surveys have included four electromagenetic surveys (488 line kilometres), 10 resistivity surveys (979 line kilometres), two gravity surveys (2,920 stations) and 45 downhole geophysical surveys. Results to date indicate the property comprises multiple prospective trends that warrant drill testing. These trends are interpreted primarily from magnetic and electromagnetic and/or resistivity data to infer the location of faulted graphitic basement horizons that may have the potential to host uranium mineralization.

Denison has completed 409,031 metres of exploration diamond drilling in 794 holes on the Wheeler River property during the period from 2005 to the end of 2021. The majority of this drilling has been focused on the discovery and delineation of, and installation of MWs and CSWs at, the Phoenix deposit (303 holes totaling 130,073 metres) and the discovery and delineation of the Gryphon deposit (221 holes totaling 129,873 metres).

Discovery and Delineation of the Phoenix Deposit

In the summer of 2008, as a direct result of the 2007 DC resistivity survey along the hanging wall of the quartzite ridge, two drill holes were located 600 metres apart along the same low resistivity trend. This drilling intersected a zone of characteristic sandstone alteration and uranium mineralization linked to unconformity-associated uranium deposits. All drill holes during the summer of 2008 intersected either uranium

mineralization or very strong alteration close to mineralization.

Subsequent drilling programs conducted during 2009 and 2010 extended the mineralized zone for a strike length of greater than 900 metres. An initial mineral resource estimate was completed at the end of 2010. Aggressive drilling programs in 2011 and 2012 successfully added additional mineral resources. In 2013, drilling was completed at the Phoenix deposit, but a large portion of the 2013 Wheeler River drilling program was also allocated to exploration of several other target areas on the property. Some additional infill drilling was completed at the Phoenix deposit in early 2014. This work successfully extended high grade mineralization into some areas previously modeled as low grade. These results, combined with results from 2013, were the catalyst for the updated mineral resource estimate for the Phoenix deposit effective May 2014.

Discovery and Delineation of the Gryphon Deposit

In March 2014, drill hole WR-556 resulted in the discovery of the Gryphon deposit, intersecting uranium mineralization averaging 15.33% U_3O_8 over 4.0 metres, hosted in graphitic gneiss 200 metres below the sub-Athabasca unconformity. The Gryphon deposit occurs on the K-North trend, which exhibits numerous favourable exploration criteria including basement quartzite and graphitic gneisses, basement structures, reverse offsets of the unconformity, weak basement hosted mineralization near the unconformity, and anomalous sandstone geochemistry and alteration.

Historical holes ZK-04 and ZK-06 drilled in the late 1980s, along the K-North trend, targeted unconformity-related mineralization and intersected favourable sandstone structure and alteration as well as alteration and weak mineralization in the basement approximately 35 metres below the unconformity. Follow-up drilling campaigns attempted to locate unconformity mineralization up-dip of the weak basement mineralization. Gryphon deposit discovery drill hole WR-556 was the first to evaluate the down-dip projection of these intersections into the basement.

Since the discovery hole at Gryphon, subsequent drilling campaigns in 2014 and 2015 were completed and an initial resource estimate was released in November 2015. Additional mineralization was discovered immediately northeast of Gryphon in 2016, which was subsequently named the “D Series Lenses”. Continued drilling during 2016 and 2017 was focused on expanding the mineral resources at Gryphon and increasing the level of confidence from an inferred to indicated category and an updated mineral resource estimate for the Gryphon deposit was released in January 2018. Drilling was completed during 2018 (15,621 metres in 23 drill holes), successfully extending the Gryphon deposit to the northeast by approximately 200 metres; however these results have yet to be included in a mineral resource estimate. The Gryphon deposit remains open in numerous areas and the 2018 results confirm potential to continue to expand the Gryphon mineral resource outside of the current extents of the deposit.

2019 Exploration Drilling Activities

Denison conducted winter and summer diamond drilling programs at Wheeler River during 2019, totalling 10,573 metres in 20 holes. The programs focused on testing regional exploration target areas (K West, Q South East, K South, O Zone) where the potential exists to identify additional high-grade uranium deposits that could potentially become satellite operations for the processing plant planned for the Phoenix ISR operation. The 2019 winter drilling program was highlighted by WR-756, which encountered weak, unconformity-hosted uranium mineralization along the southern portion of the K West trend, approximately 2 kilometres southwest of the Gryphon deposit. WR-756 intersected 0.03% U_3O_8 over 1.5 metres, and 1.3% Cu and 0.13% Ni over 4.0 metres, and 0.18% Co over 6.0 metres, located immediately above the sub-Athabasca unconformity.

While no uranium mineralization was encountered at Q South East, K South, or O Zone, drilling in each area identified indicative structure and alteration coincident with weakly anomalous uranium geochemistry. Drilling at Q South East, intersected structured and hydrothermally altered sandstone, unconformity offset of 16 metres and basement stratigraphy identical to the Phoenix deposit. Additional targets exist along strike, particularly to the northeast along the Quartzite Ridge's eastern edge, which is largely untested for 8.8 kilometres.

Drill tests of DCIP resistivity targets at the O Zone confirmed the presence of a major post-Athabasca thrust fault with an unconformity offset of over 60 vertical metres and associated significant sandstone structure and hydrothermal alteration. Additional targets exist over the 3 kilometres of interpreted strike length along the O Zone thrust fault.

At K South, drill hole WR-749 intersected anomalous uranium in both the upper sandstone (average 1.29 parts per million (“ **ppm**”) uranium from 15 to 130 metres) and the lower sandstone (average 1.03 ppm uranium from 360 to 435 metres). The lower sandstone was also marked by significant hydrothermal alteration including anomalous clay signatures up to 80 metres above the unconformity. The granite intersected at the unconformity, at 465 metres, indicates the drill hole overshot the optimal target. The highly anomalous sandstone signatures indicate compelling future targets remain to the southeast, and along strike, where graphitic basement rocks and associated structure are interpreted to occur (subcrop) at the unconformity.

2020 Exploration Drilling Activities

During 2020, exploration drilling focused on the Phoenix deposit with the objective of upgrading the confidence of certain portions of the mineral resource that lie within the then planned ISR freeze “dome” containment from Inferred Mineral Resources so that they may be incorporated into a

future FS. Priority target areas included the “A/B Gap” (between Zones A and B), Zone B, and Zone C.

Exploration at the A/B Gap was highlighted by drill hole WR-765D1 in Zone B – which intersected 0.36% U_3O_8 over 3.5 metres (from 401.3 to 404.8 metres; drilled at an azimuth of 332.3° and an inclination of -79.6°), approximately 15 metres east of WR-333 (which previously intersected 14.6% U_3O_8 over 6.0 metres).

The 2020 drilling program at Zone C was designed to test the continuity and extents of known mineralization: 11 drill holes were completed in 2020 for a total of 3,633 metres. Three of these drill holes at Zone C interesected uranium mineralization, successfully extending the mineralized zone's strike length by approximately 20 metres to the southwest and delineating a potential high-grade mineralized “core.”

Once drilling at Phoenix was completed, the focus of the 2020 drill program shifted towards evaluating regional target areas. Drilling was completed at both K West and M Zone.

A total of 6 drill holes were completed at K-West, highlighted by WR-741AD2, which discovered high-grade uranium mineralization straddling the unconformity contact, grading 2.14% U_3O_8 over 4.0 metres, including 7.66% U_3O_8 over 1.0 metre. In addition, assay samples from WR-741AD2 returned high-grade nickel, grading 4.29% over 6.5 metres. Additional low-grade unconformity-associated mineralization was intersected along the K West fault approximately 400 metres south of WR-741AD2, making this trend a priority exploration target area for 2021.

Regional exploration drilling was also completed at the M Zone target area, located approximately 5.5 kilometres east of Phoenix and lying roughly 700 metres from the McArthur River – Key Lake haul road. A total of 4 drill holes were completed as part of the 2020 exploration program, including hole WR-778, which intersected a wide reverse fault zone in the lower sandstone, highlighted by multiple basement wedges, intense hydrothermal alteration, and a broad interval of weak uranium mineralization grading 0.08% eU_3O_8 over 10.2 metres. Denison has interpreted the presence of basement wedges and an unconformity elevation offset of 25 metres to indicate that a large reverse fault controls the broad zone of weak mineralization. These results present a model that may be similar to Zone 4 at McArthur River, and warrants further exploration drilling to test the area.

2021 Exploration Drilling Activities

Exploration activities for 2021 had the primary objective to evaluate the potential for unconformity-associated uranium mineralization along several prospective corridors on the Wheeler River project, with a specific focus on the K West and M Zone target areas. Additional exploration drilling was also completed at Phoenix Zone A to test the extents of high-grade mineralization that was discovered outside of the previously defined extent of the high-grade domain of Phoenix Zone A by drill holes that were completed to support the installation of MWs for the 2021 ISR Field Test.

Exploration drilling in 2021 commenced late in the third quarter and was completed in mid-December 2021. The program consisted of 12 diamond drill holes for a total of 5,906 metres drilled between the K West, M Zone, and Phoenix Zone A target areas.

- Phoenix Zone A

Drilling to support the installation of MWs for the 2021 ISR Field Test discovered additional high-grade uranium mineralization outside of the previously defined extents of the high-grade ore domain at Phoenix Zone A, in holes GWR-045 and GWR-049. Denison's exploration team initiated follow-up drilling in the vicinity of GWR-045 and GWR-049 once the 2021 ISR Field Test program was completed.

Two drill holes were completed, WR-784 and WR-787, for a total of 874.3 m. The results were highlighted by WR-787, a vertical hole drilled to test the extents of the high-grade mineralization discovered in GWR-049 by targeting the unconformity approximately 6 metres north of the mineralized intersection of GWR-049. WR-787 encountered high-grade unconformity-associated mineralization grading 3.6% eU_3O_8 over 4.5 metres from 411.40 metres.

Overall, these findings are expected to result in an expansion of the volume of the high-grade mineralized domain in this area of Phoenix Zone A.

The mineralized intervals from each of these drill holes are summarized in the table below:

Phoenix Zone A – Select 2021 Mineralized Intersections				
Hole Number	**From (m)**	**To (m)**	**Length[(1)] (m)**	**Grade (% eU_3O_8)[(2,)3]**
GWR-045	406.95	415.55	8.6	22.0[(4)]
GWR-049	408.95	413.15	4.2	24.9[(4)]
WR-784	406.25	408.35	2.1	1.2
WR-787	411.40	415.90	4.5	3.6
Including[4]	413.0	413.70	0.7	15.2

Notes:

1. As the drill holes are oriented vertically and the mineralization is interpreted to lie nearly horizontal, the drill intersection is interpreted to represent the true thickness.
2. eU_3O_8 is a radiometric equivalent grade U_3O_8 derived from a calibrated total gamma down-hole probe.
3. Composited above a cut-off grade of 0.1% eU_3O_8 unless otherwise indicated.
4. Composited above a cut-off grade of 1.0% eU_3O_8.

- K West

K West is located in the northwest portion of the Wheeler River property. The K West fault is the primary exploration target in this area, which lies within the K West conductive trend, at or near the contact between a graphitic pelite and underlying Archean granite. The K West fault has been drill-defined over a strike length of approximately 15 kilometres, on both the Wheeler River property and on adjacent properties located to the north of Wheeler River, where several zones of high-grade unconformity-hosted mineralization have been identified (including on Denison's 30% owned Mann Lake property). Historical drilling at K-West, which has been interpreted to have intersected the unconformity anywhere from 30 to 100 metres hangingwall of the K West fault, has defined a broad zone of anomalous uranium pathfinder geochemistry, specifically copper, nickel, and cobalt.

A total of eight drill holes were completed at K West as part of the 2021 exploration program, with a focus on evaluating the extents of mineralization encountered in 2020 by drill hole WR-741AD2, which intersected high-grade uranium mineralization straddling the unconformity contact (2.14% U_3O_8 over 4.0 metres). While all eight holes drilled at K West encountered prospective structure and alteration, only three holes WR-741AD3, WR-782, and WR-785 encountered uranium mineralization above a 0.05% eU_3O_8 cut-off grade.

WR-741AD3, drilled an azimuth of 293.5° and inclination of -62.8°, tested the unconformity approximately 11 metres to the northwest of mineralization encountered in WE-741AD2 and interested low-grade, perched mineralization located approximately 10 metres above the unconformity contact, grading 0.12% eU_3O_8 over 5.2 metres from 633.1 metres.

WR-782 was drilled to test the K West fault approximately 300 metres along strike to the southwest of the mineralized intercept in WR-741AD2. The hole, oriented at an azimuth of 280.0° and inclination of -74.0°, encountered a grey alteration and dravitic gouge associated with a fault in the basal sandstone, interpreted to represent the up-dip expression of post-Athabasca brittle reactivation along the K West fault. Low-grade mineralization was identified immediately above the unconformity contact, grading 0.08% eU_3O_8 over 1.0 metres from 592.85 metres. WR-782 is interpreted to have intersected the unconformity at or very close to the unconformity subcrop of the K West fault.

WR-785, drilled at an azimuth of 302.0° and inclination of -74.2°, was drilled approximately 850 metres along strike to the south of WR-782, targeting the subcrop of the K West fault at the unconformity. The hole intersected low-grade unconformity-associated mineralization grading 0.07% eU_3O_8 over 1.6 metres from 592.8 metres, associated with moderate clay alteration and quartz dissolution approximately 1.2 metres above the unconformity contact. WR-785 is interpreted to have overshot the optimal target on this fence, intersecting the unconformity approximately 15 metres hanging-wall to the K West fault.

Mineralized intersections from 2021 exploration drilling at K West are tabulated below.

MINERALIZED DRILL RESULTS FOR 2021 K WEST DRILL HOLES				
Hole Number	**From (m)**	**To (m)**	**Length[(1)] (m)**	**Grade (% eU_3O_8)[(2,3)]**
WR-741AD3	633.1	638.3	5.2	0.12
WR-782	592.8	593.8	1.0	0.08
WR-785	592.8	594.4	1.6	0.07

Notes:
1. Lengths indicated are the down-hole length and do not represent the true thickness of mineralization.
2. eU_3O_8 is a radiometric equivalent grade U_3O_8 derived from a calibrated total gamma down-hole probe.
3. Composited above a cut-off grade of 0.05% eU_3O_8 unless otherwise indicated.

- M Zone

M Zone is located approximately 5.5 kilometres east of Phoenix and lies roughly 700 metres from the McArthur River – Key Lake haul road. Denison's exploration team conducted a core re-logging program in 2018 and identified several historical drill holes at M Zone that encountered indicative structure, alteration, elevated radioactivity, or anomalous pathfinder geochemistry worthy of follow-up.

Two drill holes were completed at M Zone as part of the 2021 exploration program, focused on testing the M Zone fault in the vicinity of drill hole WR-778, which intersected a wide reverse fault zone in the lower sandstone in 2020 – highlighted by multiple basement wedges, intense hydrothermal alteration, and a broad interval of weak uranium mineralization.

Drill hole WR-788A was drilled to test the down-dip projection of mineralization hosted within the reverse fault structure intersected in 2020 drill hole WR-778. WR-788A intersected the unconformity approximately 20 metres southeast of WR-778. While the hole successfully intersected the M Zone structure at depth, no significant elevated radioactivity was observed.

WR-789 was drilled to test for unconformity-associated mineralization by targeting the unconformity subcrop of the M Zone fault between historical holes WR-212 and ZM-07. The hole intersected multiple localized brittle faults within the lowermost 14 m of the sandstone column, interpreted to represent the sandstone expression of brittle reactivation of the M Zone structure. Elevated radioactivity was observed at the unconformity contact, but no mineralization exceeding a 0.05% eU_3O_8 cut-off was identified.

Proposed 2022 Wheeler River Exploration Program

Work in 2022 is expected to continue to focus on drilling regional exploration targets, with the objective of identifying an ISR-amenable, high-grade unconformity-associated uranium deposit. Drilling will focus on three prospective trends that are either underexplored or un-explored: M Zone, Gryphon South, and N Zone. Thirteen drill holes totaling approximately 6,500 metres are planned for the 2022 exploration drilling program.

Evaluation Activities

Subsequent to the completion of the PFS in 2018, Denison's Board of Directors and the WRJV approved the advancement of the proposed Phoenix ISR operation towards a development decision. Accordingly, project development and evaluation activities in 2019 and subsequent years have been focused on various work scopes necessary for the advancement of the EA and FS processes for Phoenix, including ISR field testing, metallurgical testing and other EA and FS preparations.

2019 Field Program

The 2019 field program was designed to assess the permeability of Phoenix, and to collect an extensive database of hydrogeological data to further evaluate the ISR mining conditions present at Phoenix. This data is of critical importance to the advancement of Phoenix as an ISR mining operation, as it is expected to support a detailed assessment of the ISR requirements related to permeability and be further incorporated into a detailed ISR mine plan as part of the completion of a future FS.

The Company successfully completed the planned ISR field work and safely concluded operations on site at Wheeler River during the fourth quarter of 2019. The field activities associated with the 2019 field program were completed over a period of approximately 23 weeks (starting in June and completed in late November) and required the support of approximately 40 Denison employees and contractor staff.

The objectives of the program were extensive, and the scope of the work completed on site during the program was considerable. The following represent the key components of field work completed as part of the 2019 field program:

- Installation of 4 small-diameter pump/injection ('P/I') wells.
- Installation of 11 small-diameter observation wells within and outside the Phoenix orebody.
- Installation of 2 test wells containing Vibrating Wire Piezometers ('VWPs'), equipped with multiple pressure transducers, at different depth locations.
- Installation of 12 small-diameter regional observation wells, for environmental monitoring and baseline data collection.
- Installation of 1 re-charge well, for returning formation test waters recovered during pump and injection tests.
- Completion of a series of short-duration hydrogeological tests within the small-diameter wells to identify hydraulic connectivity between test wells.
- Installation of 2 large-diameter CSWs (CSW1 and CSW2) within the ore zone.
- Deployment of a permeability enhancement tool in each CSW to complete an array of lateral drill holes (penetration tunnels) designed to enhance access from each CSW to the existing permeability within the ore zone.
- Completion of a further series of short-duration preliminary and long-duration hydrogeological tests, using each of CSW1 and CSW2 to pump water from or inject water into the ore zone.
- Completion of extensive permeameter testing in the field, utilizing a portable nitrogen gas probe permeameter adapted for testing whole drill core pieces.

The 2019 field program achieved each of the program's planned objectives, and was 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 CSWs for ISR;
- Confirmation of limited hydraulic connectivity within the underlying basement units, supportive of a lower aquitard;
- Demonstration of the effectiveness of permeability enhancements to increase CSW access to existing permeability; and
- Confirmation of ability to achieve hydraulic conductivity values consistent with PFS.

2020 Field Program

A hydrogeologic model was developed for Phoenix based on actual field data collected from the 2019 field program. The modelling, produced by an independent consulting firm, demonstrated a hydrogeologic "Proof of Concept" for the application of ISR mining method at Phoenix, with respect to potential operational extraction and injection rates.

The ISR field work completed in 2020 was designed with the primary objective of building additional confidence in the results of the independent hydrogeologic "Proof of Concept" model.

The hydrogeological data collected as part of the 2020 field program is expected to build additional confidence in the Company's understanding of the fluid pathways within Test Area 1 and Test Area 2 of the 2019 field program and to further validate the Company's hydrogeologic model for Phoenix, which is ultimately expected to support the design and permitting of field tests in future years and support a future FS.

Key elements of the completed 2020 field program included:

- Hydrogeological Test Work

Based on the positive results from the hydrogeologic model, the Company developed and commenced 17 additional pump and injection tests between Test Area 1 and Tests Area 2 at Phoenix Zone A. The data collected is expected to provide additional insight into individual well capacities and the overall hydrogeological network of the deposit areas.

- Permeameter Analysis

Over 1,000 additional drill core samples were collected from historic holes, dried, and analyzed for permeability and porosity. Samples were selected to refine the Company's understanding of the mineralized hydrogeologic horizons, including the low permeability basement rocks and the overlying sandstone.

- Rock Mechanics

Mineralized core samples were collected and shipped to a third party qualified laboratory for rock mechanics tests, including tensile strength and uniaxial compressive strength. The samples targeted various previously identified hydrogeologic units, including the Upper Clay Zone, Lower Clay Zone and High-Grade Friable Zone. Results from these tests will be utilized to better define the design of certain permeability enhancement techniques for subsequent field programs.

- Groundwater Sampling

Groundwater samples were collected from eight different environmental monitoring wells in the Phoenix deposit area. Sampling occurred at several horizons within each well, including the horizons above, below, and within the Phoenix ore body. Samples were submitted to the Saskatchewan Research Council Geoanalytical laboratory ("**SRC**") for analysis, and results are expected to be utilized to support the design and permitting of additional field tests expected to be incorporated into a future FS.

- Installation of Additional Environmental Monitoring Wells

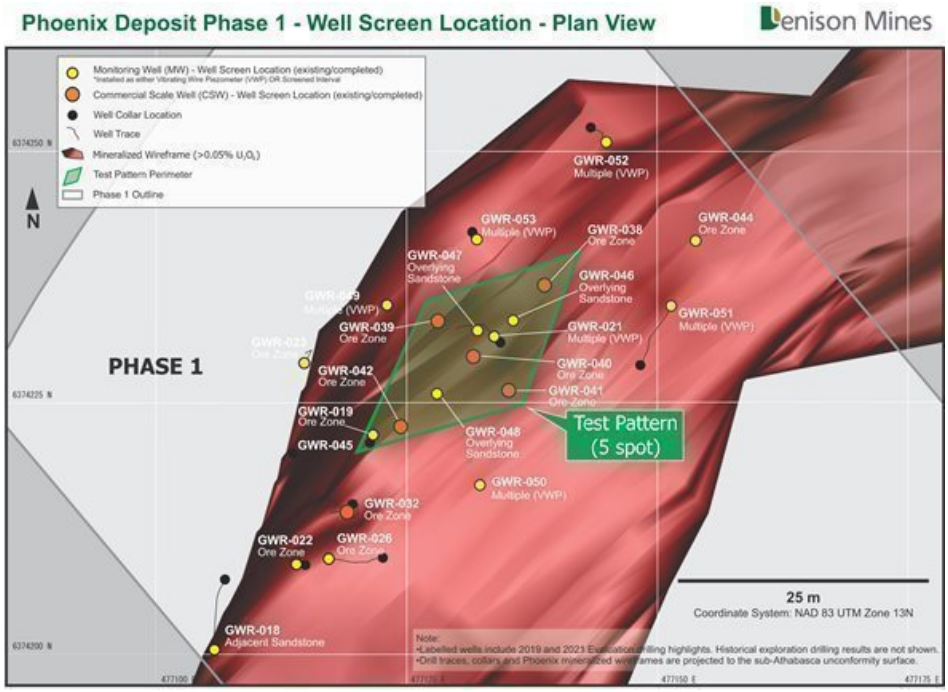
Five additional monitoring wells were installed in two clusters, located approximately 500 metres northeast of Phoenix and 750 metres southeast of Phoenix. The additional monitoring wells will allow for the collection of groundwater flow information at locations further away from the Phoenix deposit than had been previously studied, providing additional data for the site groundwater model. This is intended to allow for long-term monitoring and the modelling of ground water impacts, which will be an important element of the effects assessments in an EIS.

2021 Field Program

The 2021 ISR Field Test represents the most significant engineering related activity for the project in 2021 and since field testing activities commenced in 2019. The program was designed to further increase confidence and reduce risk in the application of the ISR mining method at Phoenix – with the detailed results providing the necessary datasets for the permitting and preparation of a further planned Feasibility Field Test for 2022, which is intended to support the FS for the project and validate certain key assumptions in the EA.

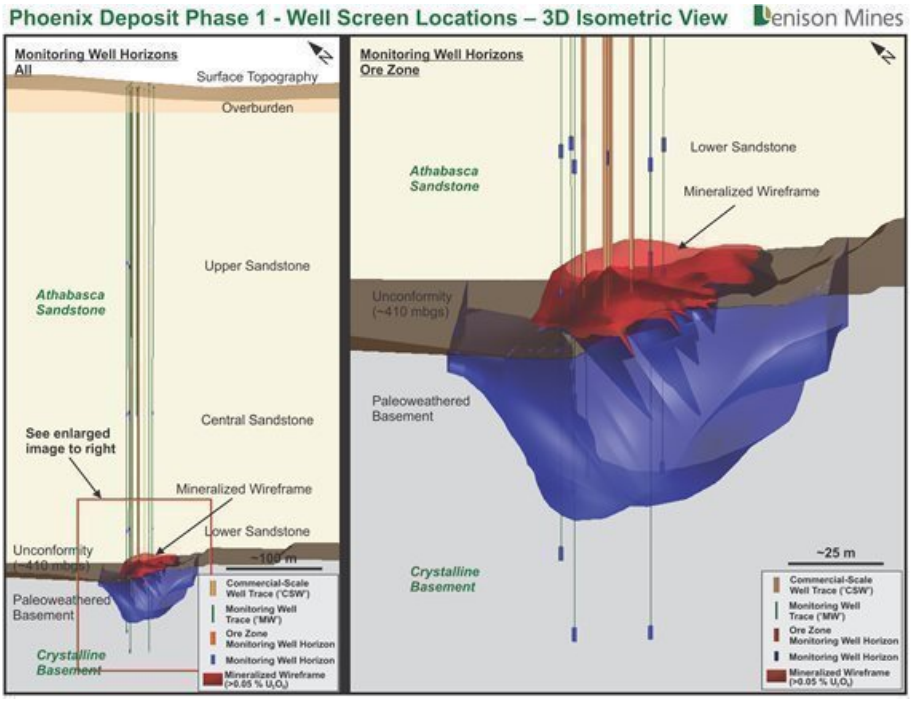
- Test Pattern Installation

A test pattern consisting of five CSWs and 10 MWs (together described as the 'Test Pattern') was successfully installed within the Phase 1 area of the Phoenix deposit (see the map below for the placement of the CSWs and MWs).


Phoenix Deposit Phase 1 - Well Screen Location - Plan View
Denison Mines
Monitoring Well (MW) - Well Screen Location (existing/completed)
*Installed as either Vibrating Wire Piezometer (VWP) OR Screened Interval
Commercial Scale Well (CSW) - Well Screen Location (existing/completed)
Well Collar Location
Well Trace
Mineralized Wireframe (>0.05% U3O8)
Test Pattern Perimeter
Phase 1 Outline
N
6374250 N
6374225 N
6374200 N
PHASE 1
GWR-052
Multiple (VWP)
GWR-053
Multiple (VWP)
GWR-038
Ore Zone
GWR-044
Ore Zone
GWR-047
Overlying Sandstone
GWR-046
Overlying Sandstone
GWR-049
Multiple (VWP)
GWR-039
Ore Zone
GWR-051
Multiple (VWP)
GWR-021
Multiple (VWP)
GWR-023
Ore Zone
GWR-040
Ore Zone
GWR-042
Ore Zone
GWR-041
Ore Zone
GWR-019
Ore Zone
GWR-045
GWR-048
Overlying Sandstone
Test Pattern
(5 spot)
GWR-050
Multiple (VWP)
GWR-032
Ore Zone
GWR-022
Ore Zone
GWR-026
Ore Zone
GWR-018
Adjacent Sandstone
25 m
Coordinate System: NAD 83 UTM Zone 13N
Note:
•Labelled wells include 2019 and 2021 Exploration drilling highlights. Historical exploration drilling results are not shown.
•Drill traces, collars and Phoenix mineralized wireframes are projected to the sub-Athabasca unconformity surface.
477100 E
477125 E
477150 E
477175 E

Following the installation of the Test Pattern, three methods of permeability enhancement were successfully evaluated on the five CSWs, with post permeability enhancement testing resulting in observed improvement in hydraulic responses and inter-well connectivity within the Test Pattern. These results exhibit and confirm the ability to engineer additional access to the natural permeability within the deposit.

Twenty single-well injection tests were completed on the Test Pattern to evaluate natural permeability and the efficacy of permeability enhancement methods deployed in the CSWs. Nine single-well pump tests were completed amongst the five CSWs and four of the MWs to evaluate permeability, sustainable pumping rates, hydraulic connectivity, and baseline groundwater conditions. Importantly, testing showed good hydraulic connection between the CSWs in the ore zone horizon and no significant responses in any of the MWs in overlying or underlying horizons (See the figure below). One step-rate injection test was conducted on the center CSW (GWR-040) to evaluate hydraulic connectivity, maximum injection rates and injection pressures.



- Full-Scale Well Pattern Pump and Injection Test

A full-scale well pattern injection and pumping test was conducted to determine hydraulic connectivity for the Test Pattern as a whole, and to evaluate potential production rates for the pattern. The test was run as a modified 4-spot pattern as there was an unanticipated failure of the submersible pump in GWR-042. During the test, injection rates were matched to pumping extraction rates for balanced flow in the Test Pattern. Pumped groundwater from each of the outer wells (GWR-038, GWR-039, and GWR-041) was recycled for injection in the center well (GWR-040) to create a closed system. Production rates for the Test Pattern achieved a sustainable rate of 45.3 litres per minute ('L/min') injection in GWR-040 with minimal pressure on surface (less than 180 psi) balanced with 15.1 L/min extraction at each GWR-038, GWR-039 and GWR-041. This test fundamentally achieved the 50 L/min flow rate assumed in the PFS for an operating well pattern. Hydraulic control of the Test Pattern was confirmed by no significant hydrologic responses observed in any of the overlying or underlying MWs.

- Ion Tracer Test

Following the full-scale injection and pumping test, an ion tracer test was completed using the 4 functional CSWs in the Test Pattern. Flow rates were run at the same levels as the full-scale well pattern test with 45.3 L/min injection at the center well and a balanced extraction flow of 15.1 L/min at each of the three outer wells.

Breakthrough of the ion tracer, as observed by an increase in the total dissolved solids (" **TDS**") occurred at the three extraction wells, was within 9 hours (GWR-039), 12 hours (GWR-041), and 14 hours (GWR-038). These breakthrough times observed during the field test are consistent with previous hydrogeological modelling.

- Remediation Test

After completion of the ion tracer test, a “clean-up” remediation test was conducted to simulate the ability to remove injected fluid from the test pattern. For this test, injection was halted at the center well (GWR-040) and the three extraction wells were pumped to remove the remaining injected ion tracer. Tracer concentrations measured during the eight-day clean-up simulation, as observed by field TDS measurements, declined to as low as 13% of the peak TDS value in GWR-038, 11% of the peak TDS value in GWR-041, and 4% of the peak TDS value in GWR-039.

- Hydrogeological Monitoring

Monitoring during the ion tracer test and subsequent cleanup test included: 376 field measurements of TDS from the CSW extraction wells to identify tracer concentrations; logging of water levels in each of the CSWs along with all of the surrounding MWs at five minute intervals; logging of TDS values at 5 minute intervals in the three overlying MWs to confirm the absence of any tracer concentrations in the overlying horizons; and daily groundwater sampling to send for lab analysis to confirm TDS values measured in the field and the exact concentration of the ion tracer elements.

The ability to maintain hydraulic control was established by sampling the three overlying MWs for TDS values before and after the ion tracer test. No elevated values in TDS were observed during the test, thus confirming there was no migration of the tracer to overlying horizons.

Data collected as part of the 2021 field program will be utilized to update the hydrogeological model for Phoenix, and to provide the necessary datasets for the permitting and preparation of the 2022 Feasibility Field Test.

- Ongoing Permeameter Analysis

In addition to the hydrogeological tests described above, over 1,000 drill core samples were collected from historic holes, re-logged for hydrogeologic characteristics, and analyzed for permeability utilizing the permeameter on-site. Samples were selected to ensure the database of on-core permeability results included representative samples from all of the planned mining phases at Phoenix.

2021 Groundwater Modelling and ISR Simulations

Following completion of the 2021 field test, detailed groundwater modelling and ISR simulations were conducted for Phase 1 of the Phoenix deposit. These tests were calibrated using the results of the 2021 field test and studied the physical flow of water through the groundwater system including flow path, sweep efficiency and groundwater restoration analysis. The results from these tests further support the Proof of Concept analysis completed for Denison in 2019 and support the assumptions made in the PFS.

Historical Mineral Processing and Metallurgical Testing (2014-2018)

In 2014, preliminary metallurgical test work was initiated to assess the basic metallurgical properties of the Phoenix deposit ores. In 2017 and 2018, advanced metallurgical testing was completed, to test mill performance at extremes of potential ore feed grades and impurity levels, as well as optimize processing parameters. Results of this testing are incorporated in the Wheeler PFS Report.

In summary, for both the Phoenix and Gryphon deposits, results of the testing indicate that ores are readily amenable to low-pH base leaching with high uranium extraction rates. Performance in terms of retention time, reagent usage and consumption are all consistent with current industry operating parameters. Test work results were positive, with results generally in line with capacities at existing plants and with yellowcake produced meeting all specifications from ASTM C967-13 “Standard Specifications for Uranium Ore Concentrate”.

In order to support the evaluation of a contemplated ISR operation for Phoenix, during the PFS process, Denison completed Leach Amenability Studies (Bottle Roll Tests) and column leach tests from 2016 to 2018. Testing included subjecting appropriate ore samples to various solution calibrations and monitoring progress of leaching over time. Results of these initial tests demonstrated Phoenix ore responded strongly to low-pH leach conditions with low impurities removal, extremely low reagent consumption levels and high uranium recovery.

Recent Mineral Processing and Metallurgical Testing (2019-2021)

In December 2019, Denison initiated the next phase of metallurgical laboratory testing designed to further evaluate ISR uranium recovery at Phoenix, which focused on utilizing mineralized drill core recovered through the installation of various test wells during the 2019 ISR field program. The metallurgical laboratory test program built upon the laboratory tests completed for the recovery of uranium as part of the project’s PFS and was designed to further increase confidence and reduce risk associated with the application of the ISR mining method. The results are expected to facilitate detailed mine and process plant planning as part of a future FS and provide key inputs for the EA process. Significant components of the metallurgical laboratory test program include specialized core leach tests, column leach tests, bench-scale tests and metallurgical modelling.

- Core Leach Tests:

  Specialized core leach tests involve the testing of intact mineralized core samples, representative of the in-situ conditions at Phoenix, to evaluate uranium recovery for the ISR mining method. Mineralized core samples of between 0.75 metres and 1.5 metres in length were obtained from the 2019 ISR field program. A triple-tube method of core recovery was employed to ensure the core could be recovered with minimal breakage and would be representative of the in-situ Phoenix ore. Core samples were collected to represent the various ore types and grade ranges (~1% to 60% U_3O_8) at Phoenix.

  The specialized laboratory apparatus used for these tests allows for intact core samples (5 centimetres to 25 centimetres in length) to be mounted within a flexible sleeve with a confining pressure applied to the exterior of the sleeve. Lixiviant (in the case of Phoenix, a low pH mining solution) can then be injected into the intact core at one end of the sample without having a way to by-pass the intact core. As a result, the lixiviant travels through the core to the other end of the sample, where a uranium bearing solution is recovered. The tests utilize mining solution (or lixiviant) with low pH and oxidant concentrations and with injection pressures and temperatures similar to those envisaged during commercial ISR operations. Denison considers this type of specialized test of intact competent core samples to be the most representative available laboratory test of the natural leach conditions of the host rock. Accordingly, these tests are expected to provide important detailed metallurgical recovery data to inform the Company’s understanding of the potential scope of the start-up, steady state, and closure of ISR wells.

In February 2020, the Company reported on the results from the initial core leach tests. At that time, over 50 days of testing had been completed on a mineralized core sample recovered from drill hole GWR-016. The core sample was recovered from between 405 and 407 metres below surface within the extent of the high-grade core of Phoenix Zone A. Various parameters for lixiviant composition (including both low pH and oxidant concentration) were tested. In all cases, the lixiviant was injected into the core continuously and only interrupted periodically if a change in the lixiviant composition was required. After the initial test startup, uranium bearing solution recovered from the core sample returned uranium content in the range of 13.5 g/L to 39.8 g/L. The average uranium concentration returned over the last 20 days of testing was 29.8 g/L – which represents a uranium content that is approximately 200% higher than (or three times) the minimum level used for the ISR process plant design in the PFS of 10 g/L.

During 2021, five core leach samples were tested at SRC. Four cores representing the high-grade/low-clay characteristics of the majority of the mineralization in the Phase 1 mining area have been tested with results showing steady-state and average uranium bearing solution ("**UBS**") head grades significantly above the 10g/L level used in the PFS. Given this result, the Company decided to adapt its plans for the remaining metallurgical test work, including the bench-scale tests of the unit operations for the processing plant, to reflect an assumed UBS head-grade recovered from the wellfield of 15g/L.

In addition to the high-grade/low-clay characteristics of Phase 1, the Phoenix ISR operation is also expected to encounter comparatively isolated areas with lower uranium grades and high clay content. These areas may result in a limited number of zones of reduced permeability. In order to understand the ISR leach dynamics in these areas, test work was also initiated on a sample representing high-clay characteristics (above 25% clay). Results obtained from these tests confirm that high-clay content can impact the natural permeability of the ore body and lead to lower UBS head-grades. Importantly, these tests also confirmed that permeability enhancement techniques have the potential to normalize these areas and significantly improve UBS head-grade concentrations to levels that align with core leach tests carried out using samples with higher grades and lower clay content.

Reclamation tests were completed on two cores that had previously undergone leaching in order to inform the ore zone reclamation procedures. The tests used alkaline solutions that have been employed in other ISR operations, at varying concentrations, in order to identify the most efficient flushing parameters for the Phoenix deposit.

· Column Leach Tests:

Additional core samples in the same grade ranges (~1% to 60% U_3O_8) were obtained from the 2019 ISR field program and preserved for metallurgical tests. These samples were crushed and packed into test columns at the test facility, in order to complete traditional column leach tests utilizing the same mining solutions as the Core Leach Tests.

The column leach test program was completed in the second quarter of 2021. The primary purpose of the column leach tests was to recover sufficient volumes of UBS to facilitate bench-scale tests of the unit operations outlined in the flowsheet for the Phoenix processing plant. Over 900 litres of UBS was produced from 64 Kilograms ("**kg**") of Phoenix core samples. Combined results from the four column leach tests are highly positive, with calculated UBS head-grade from the four columns averaging 19g/L, which further supports the decision to increase the overall UBS head-grade assumption for Phoenix.

While not the primary purpose of the column leach tests, average reagent addition rates from the column leach tests have also provided useful information that is supportive of the values published in the PFS.

- Bench Scale Tests:

Some of the 900 litres of UBS generated during the column leach tests have been utilized for several batch tests intended to confirm the anticipated primary unit processes for the Phoenix operation, including: iron/radium precipitation, uranium precipitation and water treatment.

The iron and radium precipitation stage was tested with 20 different conditions using 2 litre UBS batches for each test to define optimal precipitation parameters. Using the optimized parameters defined during the iron and radium precipitation tests, four 5 litre batches of UBS were tested to confirm uranium precipitation parameters.

During the fourth quarter of 2021, the Company commenced processing a high volume of UBS (120 litres) using optimized test conditions in order to finalize the surface processing plant design with process flow sheet, mass balance and major process equipment selection.

Testing efforts continue and are currently focused on water treatment optimization and characterization of the water effluent quality and associated waste streams.

Additionally, over 20 further metallurgical tests have been completed to support the design and permitting of the Feasibility Field Test.

- Metallurgical Modelling:

Concurrent with these tests, Denison is building a metallurgical simulation model with the basic parameters for mass, energy and water balances. The data from all laboratory tests will be incorporated into a model update once testing is completed.

- Iron/Radium Removal from UBS:

The operating plan envisioned for the Phoenix deposit results in minimal "contaminants of concern" remaining on surface at mine closure. The process plant will be designed to remove essentially all contaminants of concern at the front end of the plant with precipitation of iron and radium as the first unit operation. Testing to date has indicated that to remove the majority of iron and radium contaminants would result in the capture of approximately 1% of the uranium in the precipitate and testing of this process and the recovery of such uranium was undertaken in 2020 and 2021.

- Low-Temperature Leach Tests:

  The temperature of the Phoenix deposit at 400 m depth is estimated to be 5 to 10 degrees Celsius. Most uranium mills run their leach circuits at 20 to 50 degrees Celsius. Due to this significant temperature difference, 2020 test work was undertaken at lower temperatures to determine the lixiviant concentrations required to counter the lower leaching kinetics experienced at lower temperatures. Conclusions from completed tests indicate that varying the lixiviant composition can compensate for the impact of lower temperature on the rate of leaching.

Feasibility Study Preparations

In September 2021, Denison announced the decision of the WRJV to advance the ISR mining operation proposed for Phoenix to the FS stage and the selection of Wood PLC, an independent and leading global consulting and engineering firm, to lead and author the FS in accordance with NI 43-101.

The completion of the FS is a critical step in the progression of the project and is intended to advance de-risking efforts to the point where the Company and the WRJV will be able to make a definitive development decision. Key objectives of the Study are expected to include:

- Environmental Stewardship:

Extensive planning and technical work undertaken as part of the ongoing EA, including applicable feedback from consultation efforts with various interested parties, is expected to be incorporated into the FS project designs to support our aspiration of achieving a superior standard of environmental stewardship that meets and exceeds the anticipated environmental expectations of regulators and aligns with the interests of local Indigenous communities;

- Updated Estimate of Mineral Resources:

Mineral resources for Phoenix were last estimated in 2018. Since then, additional drilling has been completed in and around the Phoenix deposit as part of various ISR field tests and exploration drilling. As part of the FS process, an updated mineral resource estimate will be prepared to include subsequent drilling since 2018 and form a basis for mine planning in the FS;

- Mine Design Optimization:

FS mine design is expected to reflect the decision to adopt a freeze wall configuration for containment of the planned ISR well field, instead of the freeze “dome” planned for in the PFS, as well as the results from multiple field test programs and extensive hydrogeological modelling exercises, which have provided various opportunities to optimize other elements of the project – including well pattern designs, permeability enhancement strategies, and both construction and production schedules;

- Processing Plant Optimization:

FS process plant design is expected to reflect the decision to increase the ISR mining uranium head-grade to 15 g/L from the 10 g/L projected in the PFS, as well as the results from extensive metallurgical laboratory studies designed to optimize the mineral processing aspects of the project; and

- Class 3 Capital Cost Estimate:

The FS is also intended to provide the level of engineering design necessary to support a Class 3 capital cost estimate (AACE international standard with an accuracy of -15% /+25%), which is expected to provide a basis to confirm the economic potential of the Wheeler River project highlighted in the PFS completed in 2018.

Sampling, Analysis and Data Verification

See "Athabasca Exploration: Sampling, Analysis and Data Verification" for details.

Mineral Reserve and Mineral Resource Estimates

RPA, an independent technical consulting firm (now SLR) with relevant experience, was retained by Denison on behalf of the WRJV to prepare and audit the mineral resource estimates for the Gryphon and Phoenix deposits in accordance with CIM Definition Standards (2014) and NI 43-101. The Wheeler PFS Report contains a combined mineral resource estimate for the Wheeler River project, with effective dates for the mineral resource estimates for the Gryphon and Phoenix deposits of January 30, 2018 and May 28, 2014, respectively. See "Mineral Reserves and Mineral Resources", above, for a summary of the combined mineral resource estimate for the Wheeler River project.

Phoenix Deposit Mineral Resource Estimation Methodology

Geology, structure, and the size and shape of the mineralized zones have been interpreted using data from 243 diamond drill holes which resulted in three-dimensional wireframe models that represent 0.05% U_3O_8 grade envelopes. The mineralization model generally consists of a higher-grade zone within an envelope of lower-grade material, resulting in two main estimation domains - high-grade and low-grade. Additionally, a small zone of structurally controlled basement mineralization was modelled at the north end of the deposit.

Based on 196 dry bulk density determinations, Denison developed a formula relating bulk density to uranium grade which was used to assign a density value to each assay. Bulk density values were used to weight grades during the resource estimation process and to convert volume to tonnage.

Uranium grade times density ("**GxD**") values and density ("**D**") values were interpolated into blocks in each domain using an inverse distance squared ("**ID2**") algorithm. Hard domain boundaries were employed such that drill hole grades from any given domain could not influence block grades in any other domain. Very high-grade composites were not capped but grades greater than a designated threshold level for each domain were subject to restricted search ellipse dimensions in order to reduce their influence. Block grade was derived from the interpolated GxD value divided by the interpolated D value for each block. Block tonnage was based on volume times the interpolated D value.

The mineral resources estimated for the Phoenix deposit were classified as indicated or inferred based on drill hole spacing and apparent continuity of mineralization. The block models were validated by comparison of domain wireframe volumes with block volumes, visual comparison of composite grades with block grades, comparison of block grades with composite grades used to interpolate grades, and comparison with estimation by a different method.

Gryphon Deposit Mineral Resource Estimation Methodology

The three-dimensional mineralized wireframes were created by Denison utilizing Gemcom software following detailed interpretation of the deposit geology and structure. The wireframes were defined using a threshold of 0.05% U_3O_8 and minimum thickness of two metres. One high grade domain was defined within the A1 lenses and three high grade domains were defined in the D1 lenses based on a threshold of 4.0% U_3O_8. The wireframes and drilling database were sent to RPA for grade modelling following QAQC which included ensuring the wireframes were 'snapped' to the drill hole mineralized intervals.

Based on 279 dry bulk density determinations, a polynomial formula was determined relating bulk density to uranium grade which was used to assign a density value to each assay. Bulk density values were used to weight grades during the resource estimation process and to convert volume to tonnage. Uranium GxD values and D values were interpolated into blocks measuring 5 metres by 1 metre by 2 metres using an ID2 algorithm since variograms were not considered good enough to derive kriging parameters. Hard domain boundaries were employed at the wireframe edges, so that blocks within a given wireframe were only informed by grade data from that wireframe. For the A1 high-grade domain, assays were capped at 30% U_3O_8 with a search restriction applied to composite grades over 20% and for the D1 high-grade domains, assays were capped at 20% U_3O_8 with no search restriction. For the A1-A4, B3-B7, C4-C5 and D2-D4 low-grade domains, assays were capped at 10% U_3O_8. For the C1 low-grade domain, assays were capped at 20% U $_3O_8$ with a search restriction applied to composite grades over 10%. For the B1, B2, E1 and E2 low-grade domains, assays were capped at 15% U_3O_8 with search restrictions applied to composite grades over 10% U $_3O_8$ for the B1 domain and 5.0% U_3O_8 for the E2 domain. For the D1 low-grade domain, assays were capped at 5% U $_3O_8$. Block grade was derived from the interpolated GxD value divided by the interpolated D value for each block. Block tonnage was based on volume times the interpolated D value.

The mineral resources estimated for the Gryphon deposit were classified according to the drill hole spacing and the apparent continuity of mineralization, as either indicated mineral resources (generally, drill hole spacing of 25 x 25 metres) or inferred mineral resources (generally, drill hole spacing of 50 x 50 metres). The block models were validated by comparison of domain wireframe volumes with block volumes, visual comparison of composite grades with block grades, comparison of block grades with composite grades used to interpolate grades, and comparison with estimation by a different method.

Phoenix and Gryphon Deposit Reserve Calculations

The mineral reserve for the Phoenix and Gryphon deposits are summarized in the following table. For Phoenix, the ISR process has been designed to a level appropriate for a PFS and mineral reserve estimation, with application of appropriate modifying factors including geological, mining, hydrogeological, metallurgical and cut-off grades. The Gryphon underground mine design has been completed to a level appropriate for a PFS and the mineral reserve estimation, with application of appropriate modifying factors including geological, mining recovery and dilution and cut-off grades. The estimated mineral reserves are based on previously estimated indicated mineral resources, which are converted to probable reserves.

Mineral Reserve Estimate – Wheeler River Project – September 1, 2018

Deposit	Category	Tonnes	Grade (% U_3O_8)	Million lbs U_3O_8 (100% Basis)
Phoenix	Probable	141,000	19.1	59.7
Gryphon	Probable	1,257,000	1.8	49.7
Total		**1,398,000**	**3.5**	**109.4**

Notes:

1. CIM definitions (2014) were followed for classification of mineral reserves.
2. Mineral reserves for the Phoenix deposit are reported at the mineral resource cut-off grade of 0.8% U3O8 and are based on the block model generated for the May 28, 2014 mineral resource estimate. Mining recovery factor of 85% has been applied to the mineral resource above the cut-off grade.
3. Mineral reserves for the Gryphon deposit are estimated at a cut-off grade of 0.58% U3O8 using a long-term uranium price of US$40/lb, and a US$/CAD$ exchange rate of 0.80. The mineral reserves are based on the block model generated for the January 30, 2018 mineral resource estimate. The cut-off grade is based on an operating cost of $574/tonne, milling recovery of 97%, and a 7.25% fee for Saskatchewan royalties (basic royalty plus resource surcharge).
4. Mineral reserves are stated at a processing plant feed reference point and include diluting material and mining losses.
5. Numbers may not add due to rounding.

Mining Methods

Phoenix

ISR mining has become the industry's leading low-cost uranium production method globally – following on from initial use in the 1960s to extensive use at present in Kazakhstan (the world's largest and lowest cost producer of uranium), the United States, China, Russia, and Australia, amongst others. ISR mining is amenable to uranium deposits in certain sedimentary formations and is well known in the industry for comparatively minimal surface impact, high production flexibility, and low operating and capital costs. In 1998, ISR mining represented roughly 13% of global uranium production, increasing rapidly to the point where it was estimated to account for over 50% of global uranium production as at the date of the Wheeler PFS. There has been continuous development and improvement of ISR mining techniques in past years, particularly in the two decades since the International Atomic Energy Agency ("**IAEA**") published the Manual of Acid In-Situ Leach Uranium Mining Technology (IAEA-TECDOC-1239).

ISR mining involves recovery of uranium by pumping a mining solution (also referred to as a "lixiviant") through an appropriately permeable orebody. The method eliminates the need to physically remove ore and waste from the subsurface – thus eliminating the related surface disturbance and tailings normally related to underground or open pit operations. The mining solution dissolves the uranium as it travels through the ore zone – effectively reversing the natural process that originally deposited the uranium. The mining solution is injected into the ore zone through a series of cased drill holes called injection wells and pumped back to surface via a similar series of recovery wells. The collective of the various injection and recovery wells is referred to as a wellfield. Once on surface, the uranium bearing solution is sent to a surface processing plant for the chemical separation of the uranium. Following the uranium removal, the mining solution (often referred to at this stage as the barren mining solution) is reconditioned and returned back to the wellfield for further production.

ISR wellfields are designed to effectively target delineated mineralization and achieve the operation's desired production level. The wellfield at Phoenix has been designed in the PFS using a standard hexagonal pattern with 10m spacing between wells.

Containment of the solution is a requirement in ISR operations to ensure recovery of the uranium and to minimize regional groundwater infiltration into the ore zone and associated dilution of the mining solution. In typical ISR operations, this is normally achieved through aquitards, such as natural clay or other impermeable geological layers.

At Phoenix, the basement rock below the orebody achieves this purpose but the sandstone formation which hosts and surrounds the ore zone is not impermeable. As a result, the PFS designs proposed that the entire orebody will be isolated by use of an artificial freeze wall “dome” (see below for more information) extending upwards from the basement rock below the orebody. Ground freezing involves the installation of a series of drill holes that are cased to allow for the circulation of a low temperature brine solution, which removes heat from the ground and effectively freezes the natural groundwater in the area of the deposit, thus establishing an impermeable frozen wall surrounding (or in the case of the “dome”, encapsulating) the deposit.

Benefits of ISR operations generally include:

- Minimal environmental impacts, including low noise, dust, and air emissions, low water consumption levels, minimal surface disturbance, and reclamation of the area.
- Ability to scale production up or down to meet market demands.
- Insensitivity to ore grades (i.e., lixiviants will dissolve the uranium at any grades).
- Low initial capital costs and short timeframe to production.
- Low operating costs.
- Enhanced safety practices and procedures for workers – with minimal exposure to natural radiation associated with high-grade uranium orebodies and no requirement to work in an underground mining setting (as all work is performed from surface).

The Company's evaluation of the ISR mining method at Phoenix, as detailed in the PFS, has identified several significant environmental and permitting advantages, particularly when compared to the impacts associated with conventional uranium mining in Canada. The PFS’s plan for the proposed ISR mining operation is expected to produce no tailings, generate very small volumes of waste rock, and has the potential for low volumes or possibly no treated water discharge to surface water bodies, as well as the potential to use the existing power grid to operate on a near zero carbon emissions basis.

The planned use of ground freezing to isolate the ISR operation, has the potential to streamline the mining process, minimize interaction with the environment, and facilitate controlled reclamation of the site at decommissioning.

Taken together, ISR mining at Phoenix has the potential to be one of the most environmentally friendly uranium mining and processing operations in the world.

2020 Phoenix Freeze Wall Design Change

In December 2020, Denison announced the results of a trade-off study, completed approximately 2-years following the completion of the PFS, assessing the merit of adopting a vertical freeze wall design as part of the ISR mining approach planned for Phoenix. Based on the results of the trade-off study, a vertical freeze wall design has the potential to offer significant environmental, operational, and financial advantages compared to the freeze wall “dome” (or “cap”) design previously planned for the project and included in the project’s PFS.

Accordingly, the Company has decided to adapt its plans for the project to use a vertical freeze wall in future Project design and environmental assessment efforts. The trade-off study highlights the potentially significant benefits anticipated from a vertical freeze wall design:

- Enhanced environmental design:

  The freeze wall design provides full hydraulic containment of the ISR wellfield by establishing a physical perimeter around the mining area, which will extend from the basement rock underlying Phoenix to surface – enhancing environmental protection in the area of the ISR mining operation, thereby minimizing potential environmental impacts during the life of the operation, while still establishing a defined area for decommissioning and reclamation;

- Lower technical complexity and operational risks:

  A freeze wall is expected to be installed using existing and proven vertical or angled diamond drilling methods, rather than the directional / horizontal drilling approach proposed in the PFS to establish a freeze cap. The use of conventional diamond drilling methods is expected to substantially decrease the technical complexity associated with project construction. Similarly, the adaptation of previous plans (described in the PFS) to remove the cap design is expected to significantly reduce operational risks by eliminating the potential intersection of freeze holes during the installation of future ISR wells as the ISR wells will no longer have to pierce a freeze cap to access the mining horizon;

- Expected reduction in initial capital costs, with phased mining approach:

  The PFS freeze cap design contemplated the use of a small number of large horizontal freeze holes to encapsulate the entire Phoenix deposit at depth prior to first production. In contrast, the freeze wall design, which consists of vertical / angled freeze holes, provides the flexibility for a phased mining approach that requires a relatively limited initial freeze wall installation to commence mining, with additional ground freezing occurring throughout the life of the mine in sequential phases. This is likely to reduce the project's upfront capital requirements and initial ground freezing time.

- Strengthened project sustainability:

  The predominant drilling method used in the freeze wall design is conventional diamond drilling. This existing and proven method is widely employed and established in northern Saskatchewan. Accordingly, it is anticipated that Denison will be able to leverage the existing skilled work force in the region to increase business and employment opportunities for residents of Saskatchewan's north.

The trade-off study provides for mining to occur over 5 phases, as outlined in the tables below. This approach is expected to match the overall mine production schedule of the PFS.

Freeze Wall Phased Mining Approach						
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	**Total**
Reserves (% of total)*	36%	26%	14%	15%	9%	**100%**
Expected Life (months)	43	31	17	19	11	**121**

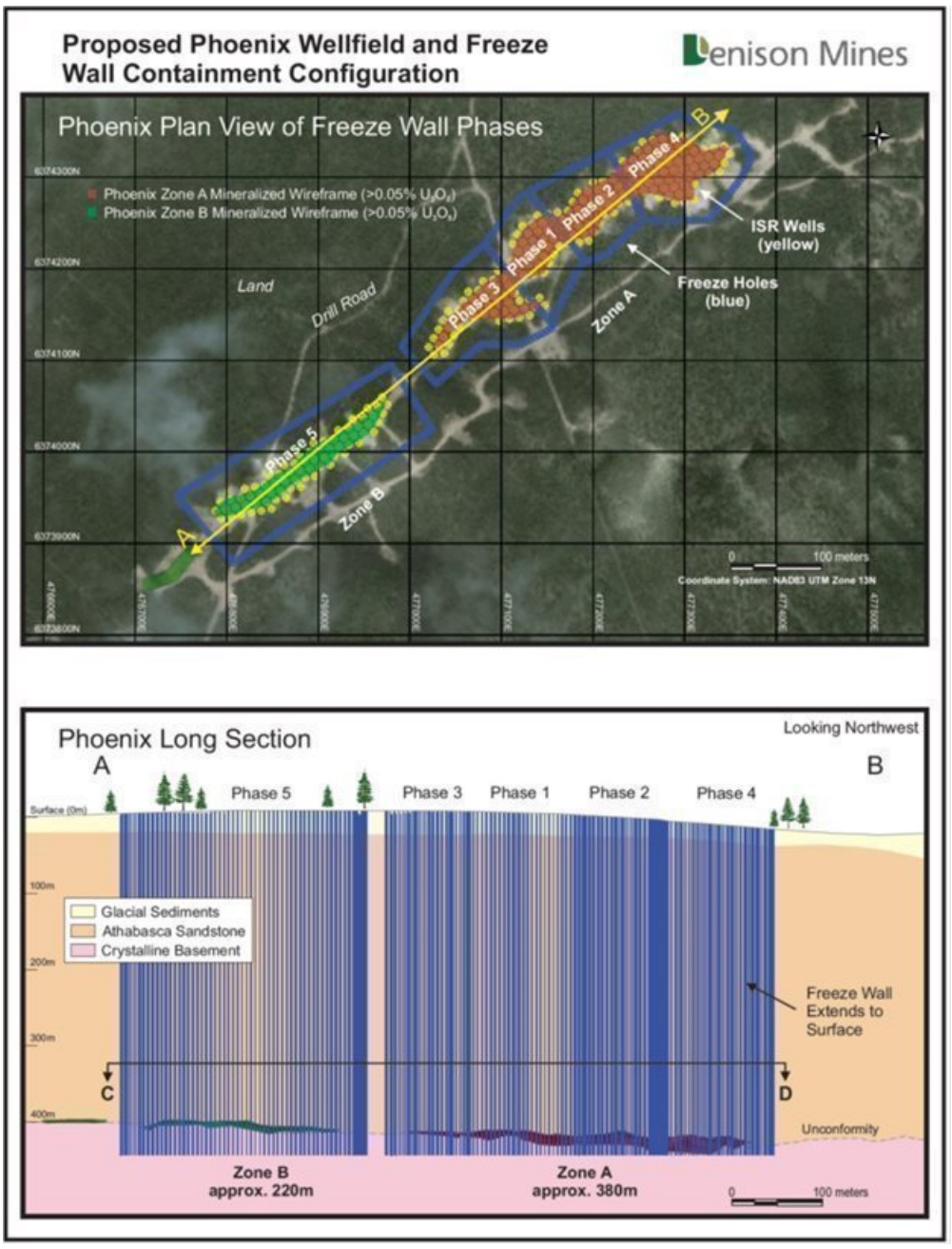
**Note: These amounts are estimates and projections only and do not include Phoenix Zone B2 reserves of 133,000 lbs U_3O_8, representing 0.2% of the total reserves for Phoenix outlined in the PFS. This expected change is driven by the estimated costs and other assumptions set forth in the PFS plus the estimated incremental cost of an expansion of the freeze wall, rendering mining in this area uneconomic. The aggregate reserves, and many of the assumptions and qualifications related thereto, as well as the mine plan associated with the declared reserves are set forth in the Wheeler River PFS.*

Freeze Wall Holes Drilled Per Phase						
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	**Total**
Expected (# of holes)	57	41	54	52	118	**322**
Expected Meterage	24,500	17,600	23,200	22,400	50,700	**138,400**

The currently forecasted freeze wall construction requirements for Phase 1 include 57 vertical freeze holes with 24,500 metres of diamond drilling. For comparison, the PFS model for the freeze cap included 30 horizontal freeze holes installed during construction for an overall drilling meterage of 32,700 m, using more expensive horizontal drilling methods. With the freeze wall design, subsequent mining phase areas would be established prior to completion of mining in the previous phase area to provide uninterrupted mine production.

The freeze wall phased approach is anticipated to minimize initial capital and construction timeline requirements for the Project by spreading out the freeze wall construction over the life of mine. Only the Phase 1 freeze wall is required during initial construction to achieve first production. A reduced initial freeze wall also has a reduced initial freeze plant capacity requirement. As the freeze plant is modular in design, the freezing capacity can also be deferred over the life of mine. The projected lower initial capital requirements associated with the phased freeze wall approach are expected to have positive impacts on the economics of the Project.

Proposed Phoenix Wellfield and Freeze Wall Containment Configuration



Gryphon

The extraction strategy for Gryphon, as described in the PFS, has not changed from the approach described in the Company's preliminary economic assessment released in March 2016. The planned mining method for Gryphon is conventional longhole stoping with backfill. Longhole stoping is a widely used conventional mining method applied in both the Canadian uranium industry as well as in the broader mining industry for the extraction of base metals, gold, and other commodities.

According to the planned approach, access to the Gryphon deposit will be established through two shafts. The primary shaft will provide for movement of personnel and supplies, ore/waste hoisting, and fresh air to the underground operations. The second shaft will be solely for exhaust air and secondary egress. Both shafts will be excavated through blind boring methods. Blind bored shafts have been selected for vertical access in favour of typical full-face shaft sinking with cover grouting or freeze curtain protection. Blind bored shafts offer more competitive costs and construction schedules, and a reduced risk profile while sinking through saturated ground conditions. A composite steel/concrete liner will be installed over the full length of the shaft and grouted into basement rock.

In the underground operation, initial underground development will focus on the establishment of permanent infrastructure and flow through ventilation between the main shaft and the exhaust shaft. Most of the permanent infrastructure will be located on the 500 m level, the level of the main shaft station. Following this, development priorities will be to establish access to the E series lense (E Zone), which provides an early opportunity for ore production and waste rock storage (in mined- out stopes). As mining is initiated in the E Zone, ramp development will continue to provide access to the remainder of the ore zones.

The PFS also assumes that the ore will be hoisted to surface and transported to the McClean Lake mill for processing. A two-year ramp-up to full production is planned, with the full production rate set at 9 million pounds U_3O_8 per year. Processing at the McClean Lake mill will require the negotiation and execution of a toll milling agreement, which is not currently established, and will also require regulatory approvals, which have not been obtained.

After careful consideration of the risks and opportunities associated with concurrent permitting and advancement of project engineering activities, the Company decided to submit a Project Description and initiate the Environmental Assessment process in early 2019 to support the advancement of the Phoenix ISR operation, and to bring the Gryphon operation forward at a later date.

Processing and Recovery

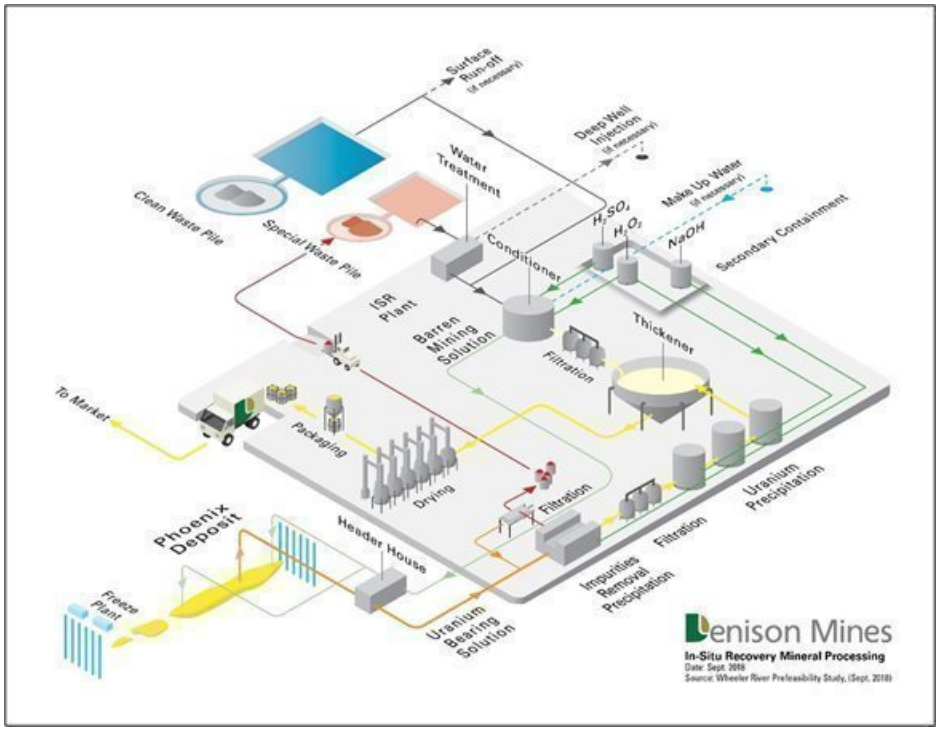
Phoenix

The uranium bearing solution from the Phoenix wellfield will be directed to a self-contained processing facility located adjacent to the wellfield. As per the PFS, the processing plant is expected to house most of the process equipment in a 46,500 square foot pre-fabricated metal building.

The proposed processing plant for the Phoenix ISR process has four major circuits: impurities removal, yellowcake precipitation, dewatering/drying, and packaging. The processing plant will also have filtration systems, bulk chemical storage, process solution storage tanks, and a control room.

Denison is currently conducting additional leaching tests at the Saskatchewan Research Council laboratories in Saskatoon. The future results from these tests are expected to form the basis for the Processing Plant designs planned to be incorporated into a future FS. Testing is expected to include all unit operations currently included in the flow-sheet from the PFS, as summarized in the figure below.

Phoenix ISR Processing Plant Design



Broadly, the ISR processing plant design at Phoenix involves the beneficiation of the uranium bearing solution recovered from the wellfields and pumped to the processing plant, as described below:

- Impurities removal – UBS from the wellfield will be routed to an iron/radium removal circuit, where the pH of the solution will be adjusted to allow the precipitation of iron hydroxide and other metals. Once the iron hydroxide has precipitated out of the solution, the solution will be routed to the primary yellowcake precipitation circuit.

- Yellowcake precipitation – The solution will be pH adjusted to optimal levels for uranium precipitation with sodium hydroxide, then yellowcake product will be precipitated with hydrogen peroxide, using sodium hydroxide (or other suitable high pH solution) to maintain optimal pH. Following uranium precipitation into yellowcake slurry, the barren mining solution will be reconstituted to the proper pH level prior to being pumped back to the wellfield for reinjection.

- Yellowcake dewatering/drying – The precipitated yellowcake slurry will be transferred to a filter press, where excess liquid will be removed. Following a fresh water wash step that will further clean the yellowcake product, the resulting yellowcake will be transferred to the dryer, which will further reduce the moisture content, yielding the final dried, free-flowing product.

- Packaging – Refined yellowcake will be packaged in 55-gallon drums.

Taken together, the processing plant is expected to achieve 98.5% recovery of uranium from the uranium bearing solution. The simplified processing plant design, together with the use of the freeze wall containment, creates a potentially closed loop system with the prospect of achieving zero discharge of effluent to the environment. The different types of chemical reagents will be stored, used, and managed to ensure worker and environmental safety, in accordance with standards developed by regulatory agencies and vendors.

Gryphon

The PFS plan assumes that Gryphon ore will be transported to the McClean Lake mill for processing.

The results of the metallurgical test work program completed for the PFS indicate that the Gryphon deposit is amenable to recovery utilizing the existing McClean Lake mill flowsheet. Moreover, the deposit is amenable to processing under similar conditions to those currently used in the McClean Lake mill. The mill is currently processing material from the Cigar Lake mine; however, it has additional licenced processing capacity to a total annual production of up to 24 million pounds U_3O_8. Overall process recovery based on metallurgical test work conducted to date has been estimated at 98.4% for Gryphon ore, with uranium recoveries of 98.2% applied in the financial modelling for Gryphon.

Should Denison proceed with processing the Gryphon deposit at the McClean Lake mill, such processing will require certain modifications to the McClean Lake mill. These modifications include expansion of the leaching circuit, the addition of a filtration system to complement the Counter Current Decantation (CCD) circuit capacity, the installation of an additional tailings thickener, and expansion of the acid plant. Various other upgrades will also be required throughout the mill to permit production at the full 24 million pounds per year U_3O_8 licenced capacity, as described in greater detail in the PFS.

Infrastructure, Permitting and Compliance Activities

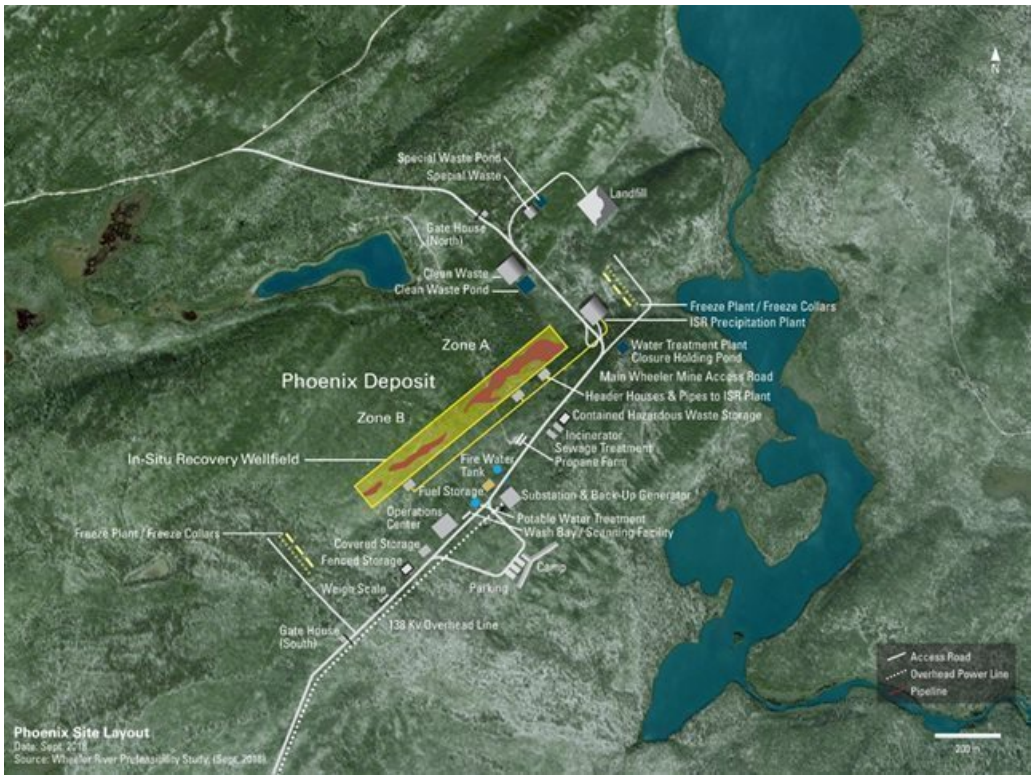
As a remote northern greenfield site, the Wheeler River project would require substantial infrastructure to support operations. The site is located approximately 5 kilometres from a provincial highway and powerline. Tie-ins from that infrastructure into site would be required.

Additional surface infrastructure required to be located at the sites would include:

- 5 km access road from provincial highway 914 to site;
- 5 km power distribution line from provincial power grid into site; and
- 1,600 m airstrip.

In accordance with the plan, production from the Gryphon site will be trucked to the existing McClean Lake mill to the northeast, via existing Provincial Highway 914, including 51 km of new road required between the McArthur River mine and the Cigar Lake mine.

Phoenix Site Conceptual Layout



The figure above reflects the PFS' conceptual plan for the Phoenix operation's surface facilities, showing the relative scale and nominal footprint of site infrastructure, including (all estimated sizes are approximate):

- Area allocation over the defined deposit for an ISR wellfield (90 m x 800 m);
- ISR processing plant (90 m x 48 m);
- Operations centre (61 m x 41 m), including men's and women's dry facilities, 3-bay maintenance shop, welding bay, warehouse, emergency response vehicle storage, mine rescue and emergency response office, laboratory, nurse's station, training room, offices (administration, maintenance, and supply chain), meeting rooms, lunchroom, and radiation monitoring room;
- 150-person camp with kitchen and laundry facilities;
- Personal-vehicle parking;
- Main electrical substation (50 m x 50 m);
- North and south gatehouses;
- Outdoor and covered storage (15 m x 30 m);
- Wash bay and scanning facility;
- 30 m long, 80 tonne weigh scale;
- Potable water treatment facility;

- Fuel storage and dispensing facility (gas and diesel);
- Fire water tank and pumphouse;
- Two bullet propane tank farm;
- Sewage treatment facility;
- Incinerator;
- Backfill plant with storage facility;
- Outdoor fenced hazardous storage area (30 m x 30 m);
- Fenced landfill area (90 m x 90 m);
- Water discharge station;
- Special waste storage (46 m x 46 m, 3,200 cubic metre capacity); and
- Clean waste rock storage (60 m x 60 m, 7,100 cubic metre capacity).

Work completed subsequent to the PFS has identified potential adjustments to the surface layout of the conceptual plan, which are intended to be reflected in the FS.

Taken together, the Phoenix operation has the potential to be one of the most environmentally friendly uranium mining projects in the world. Per the plan in the PFS:

- The planned ISR approach produces no tailings.
- The closed loop system of the processing plant has the potential to eliminate any major sources of treated water to be discharged to the environment. Due to evaporation and moisture content of the yellowcake product, the processing plant may require small volumes of make-up water.
- Minimal volumes of surface run-off will be captured, treated, and used as make-up water in the processing plant, re-injected underground or processed in the water treatment plant.
- Low to near zero carbon emissions due to the lack of heavy equipment and provision of power from the provincial power grid.
- Small volumes of waste products from the iron precipitation circuits will be temporarily stored on surface and disposed of in the underground stopes at Gryphon or other suitable long term storage facility.

At Gryphon, the most significant environmental concern associated with the project will be the management of treated mine effluent. Investigations into environmentally acceptable discharge locations has identified suitable sites nearby that will minimize any impacts from treated effluent discharge. Other waste products, such as potentially acid generating waste rock or low-grade waste products, will be used underground as backfill on a priority basis where possible. Otherwise, such materials will be stored in approved facilities designed for safe closure and decommissioning. Future studies will evaluate the potential for 100% underground storage to eliminate the need for surface facilities.

Denison believes all potential environmental impacts associated with the planned Phoenix or Gryphon operations can be successfully mitigated through the implementation of industry best practices.

The project will require completion of Federal and Provincial environmental impact assessments. In June 2019, the CNSC and the Saskatchewan Ministry of Environment accepted the Project Description submitted by Denison for the ISR uranium mine and processing plant proposed for Phoenix at the Wheeler River project. This acceptance initiated the EA process of assessments for construction, operation and closure of the Phoenix ISR operation in accordance with the requirements of both the *Canadian Environmental Assessment Act, 2012* and the *Saskatchewan Environmental Assessment Act*. 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 River EA, which indicates that the EA will follow the CNSC's generic guidelines.

See “Government Regulation – Environmental Assessments” for more information.

Denison recognizes the importance of early engagement and has been developing relationships with key interested parties since 2016. Amongst Denison’s guiding principles is the utmost respect for Indigenous communities, Indigenous Rights, and traditional knowledge. Denison wishes to share the land and to work in partnership to return meaningful benefits from the Wheeler River project to potentially impacted Rights holders, communities, and/or groups.

Denison understands the importance of protecting the area in which it is working, including the land, the water, the animals, the air and the history. Denison welcomes input from all interested parties through the regulatory engagement and consultation process and interested parties are invited to contact Denison directly to express any comments (positive or negative) or recommendations regarding its activities so the input can be incorporated into project plans, designs, and decisions.

Denison’s principles and objectives are expressed in its Indigenous Peoples Policy, which was designed to reflect Denison'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.

To support its engagement and consultation activities for the Wheeler River project, Denison has developed practices to (1) ensure that employment opportunities are established for residents from the communities of interest; (2) procure goods and services from suppliers from the communities of interest and/or Indigenous-owned suppliers, to support continued exploration and evaluation activities; (3) support important community-led activities related to wellness and/or the preservation of traditional knowledge; and (4) solicit input through engagement and consultation activities into aspects of project designs (for example, selection of mining methods, access road routing, and selection of preferred treated water discharge locations).

Capital and Operating Costs

Capital and operating cost estimates were developed to support the PFS plans for the development of the Gryphon and Phoenix deposits. The estimates address the initial capital, sustaining capital and operating costs required to engineer, procure, construct, commission, and operate the mines, ISR precipitation plant and related infrastructure at the Wheeler River site, and upgrades at the McClean Lake mill based on the project plans outlined in the PFS.

Estimates were completed to 'Association for the Advancement of Cost Engineering' class four level with an accuracy of -15% to -30% on the low side and +20% to +50% on the high side.

The Wheeler River project total capital cost is estimated at approximately $1.13 billion, including $322.5 million of initial pre-production capital for the Phoenix operation and $623.1 million of initial pre-production capital for the Gryphon operation as outlined in the following table.

Capital Cost Summary

Wheeler River Capital Cost (1,000's)			
Area	**Initial**	**Sustaining**	**Total**
Phoenix	$ 322,539	$ 103,411	$ 425,950
Gryphon	$ 623,120	$ 82,743	$ 705,863
Sub Total	**$ 945,659**	**$ 186,154**	**$ 1,131,813**

The capital costs for the ISR mining of the Phoenix deposit are categorized as follows:

Phoenix Capital Cost Summary

Phoenix Capital Cost Details (1,000's)			
Direct Capital Costs	**Initial**	**Sustaining**	**Total**
Wellfield	$ 63,674	$ 35,402	$ 99,076
ISR Precipitation Plant	$ 50,935	$ 4,606	$ 55,541
Water Treatment Plant	$ 1,268	$ 18,676	$ 19,944
Surface Facilities	$ 22,325	$ 49	$ 22,374
Utilities	$ 6,538	$ 803	$ 7,341
Electrical	$ 18,834	$ -	$ 18,834
Civil & Earthworks	$ 44,309	$ 1,331	$ 45,640

Offsite Infrastructure	$ 7,950	$ -	$ 7,950
Decommissioning	$ -	$ 27,454	$ 27,454
Total Direct Costs	**$ 215,834**	**$ 88,321**	**$ 304,155**
Indirect Costs	$ 28,288	$ 5,669	$ 33,957
Other (Owner's) Costs	$ 14,227	$ -	$ 14,227
Contingency Costs	$ 64,190	$ 9,421	$ 73,611
Total Costs	**$ 322,539**	**$ 103,411**	**$ 425,950**

The capital costs for the underground mining of the Gryphon deposit are shown in the following table.

Gryphon Capital Cost Summary

Gryphon Capital Cost Details (1,000's)			
Direct Capital Costs	**Initial**	**Sustaining**	**Total**
Shafts	$ 131,522	$ -	$ 131,522
Surface Facilities	$ 46,932	$ 6,074	$ 53,006
Underground	$ 49,518	$ 68,842	$ 118,360
Utilities	$ 3,946	$ 263	$ 4,209
Electrical	$ 3,613	$ -	$ 3,613
Civil & Earthworks	$ 11,791	$ 483	$ 12,274
McClean Mill Upgrades	$ 49,920	$ -	$ 49,920
Offsite Infrastructure	$ 32,392	$ -	$ 32,392
Decommissioning	$ -	$ 1,575	$ 1,575
Total Direct Costs	**$ 329,634**	**$ 77,237**	**$ 406,871**
Indirect Costs	$ 142,015	$ 5,112	$ 147,127
Other (Owner's) Costs	$ 28,143	$ -	$ 28,143
Contingency Costs	$ 123,328	$ 394	$ 123,722
Total Costs	**$ 623,120**	**$ 82,743**	**$ 705,863**

Operating costs are estimated for the 14-year mine production period. Phoenix mine production is scheduled over 10 years and Gryphon mine production is scheduled over 6.5 years. The table below presents a summary of the Wheeler River prefeasibility level operating cost estimates.

Wheeler River Operating Cost Summary

Cost Area	Phoenix		Gryphon		Total Cost
	$000's	$/lb U_3O_8	$000's	$/lb U_3O_8	$000's
Mining	$ 44,020	$ 0.75	$ 266,202	$ 5.46	$ 310,222
Milling	$ 115,577	$ 1.97	$ 412,621	$ 8.45	$ 528,198
Transport to Convertor	$ 12,341	$ 0.21	$ 10,252	$ 0.21	$ 22,593
Site Support / Administration	$ 82,264	$ 1.40	$ 53,346	$ 1.09	$ 135,610
Total	**$ 254,202**	**$ 4.33**	**$ 742,421**	**$ 15.21**	**$ 996,623**
Total US$		**$ 3.33**		**$ 11.70**	
U_30_8 Sales - lbs in 000's	**58,767**		**48,817**		

The PFS includes an analysis of project economics on a pre-tax basis (100% basis) and a Denison specific post-tax basis (including a 90% ownership basis, reflecting Denison's then pro-forma ownership interest in Wheeler River). Inputs into both pre-tax and post-tax models include:

- Discount rate of 8%.
- Estimated metallurgical process uranium recoveries of 98.5% and 98.2% for Phoenix and Gryphon mill feeds, respectively.
- Project capital and operating cost assumptions, as further described in the PFS.
- Project schedule assumptions, as further described in the PFS.
- Mine production assumptions, as further described in the PFS.
- Uranium pricing scenarios, as follows:
  - Base case: (a) Phoenix – based on UxC's Q3-2018 Uranium Market Outlook Composite Midpoint spot price projection, in constant (uninflated) 2018 dollars, ranging from US$29.48 to US$45.14 per pound U_3O_8 during the Phoenix mine production period; and (b) Gryphon – based on a fixed price of US$50.00 per pound U_3O_8 during the Gryphon mine production period.
  - High case: a fixed price of US$65.00 per pound U_3O_8 for both the Phoenix and Gryphon production.
  - US$ amounts translated to CAD using an exchange rate (US$:CAD$) of 1:1.30.
- Saskatchewan revenue-based royalties and surcharges applicable to uranium revenue, as follows: a) a basic royalty of 5.0% of uranium revenue; b) a resource credit of 0.75% of uranium revenue (which partially offsets the basic royalty); and c) a resource surcharge of 3.0% of the value of uranium revenue. For the purposes of these calculations, revenue has been computed as gross uranium revenue less transportation costs to the convertor.
- No inflation or escalation of revenue or costs have been incorporated.

The Wheeler River project pre-tax indicative economic results are illustrated below.

Pre-tax Economic Results (100% basis)

Pre-Tax Results	NPV 8%	IRR	Payback

Base Case	$1,308 million	38.7%	~ 24 Months
High Case	$2,587 million	67.4%	~ 11 Months

(1) NPV and IRR are calculated to the start of pre-production activities for the Phoenix operation in 2021.

(2) Payback period is stated as number of months to pay back from start of uranium production.

A post-tax Denison-specific economic assessment includes similar inputs as the pre-tax assessment with the following modifications:

- Denison's share of project development costs is included in the project's capital costs along with their impact on Denison's estimated tax pools.
- The impact of the Saskatchewan Profit Royalty as estimated for Denison is included.
- Denison's expected provincial and federal income taxes payable are included.

- Denison's recovery of toll milling fees paid to the MLJV (22.5% owned by Denison) by the WRJV for the toll milling of Gryphon ores are incorporated.

The Wheeler River project post-tax Denison-specific (90% basis) indicative economic results are further detailed in the PFS, and summarized as follows:

Post-tax Economic Results to Denison (90% basis)

Post-Tax Results	NPV 8%	IRR	Payback
Base Case	$755.9 million	32.7%	~26 months
High Case	$1,483.8 million	55.7%	~12 months

(1) NPV and IRR are calculated to the start of pre-production activities for the Phoenix operation in 2021;

(2) Payback period is stated as number of months to pay back from start of uranium production

Waterbury Lake

The Waterbury Lake Uranium Limited Partnership ("**WLULP**") is held by Denison (66.89%) and Korea Waterbury Uranium Limited Partnership ("**KWULP**") (33.09%) as limited partners and Waterbury Lake Uranium Corporation (" **WLUC**") (0.02%), as general partner. Denison holds a 60% interest in WLUC (KWULP, 40%) and, in aggregate, holds a 66.90% interest in the WLULP through its limited partner and general partner ownership interests (KWULP, 33.10%). Denison is operator of the project.

This project description is based on the project's technical report entitled "Preliminary Economic Assessment for the Tthe Heldeth Túé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" effective October 30, 2020 (the "**Waterbury PEA**"). A copy of the Waterbury PEA is available on the Company's website.

The conclusions, projections and estimates included in this description are subject to the qualifications, assumptions and exclusions set out in the Waterbury PEA. We recommend you read the technical report in its entirety to fully understand the project.

Property Description, Location and Access

The Waterbury Lake property is located within the eastern part of the Athabasca Basin in Northern Saskatchewan, which is within Treaty 10, in Nuhenéné / Athabasca Denesųłiné territory, and in Métis Northern Region 1 within the Métis Homeland.

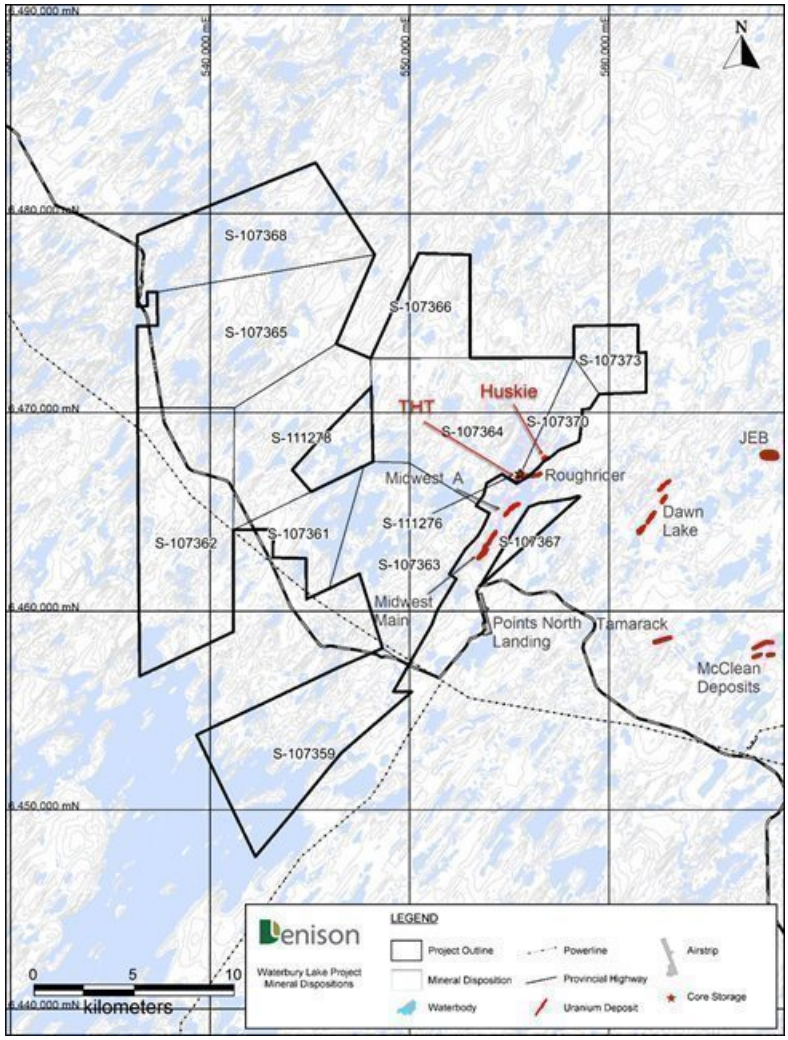
The Waterbury Lake project, as of December 31, 2020, is comprised of thirteen (13) mineral dispositions, covering 40,256 ha. The THT and Huskie Zone deposits are located within the property near its eastern edge. All dispositions have sufficient approved assessment credits to maintain the ground in good standing until at least 2033.

The project dispositions are approximately 750 km by air north of Saskatoon and about 420 km by road north of the town of La Ronge. Points North Landing, a privately-owned service centre with accommodations and an airfield, is located near the eastern edge of the property. Several uranium deposits are located nearby including the Roughrider, McClean Lake, Midwest Main, and Midwest A deposits.

Any uranium produced from the Waterbury Lake property is subject to uranium mining royalties in Saskatchewan in accordance with Part III of The Crown Mineral Royalty Regulations. See “Government Regulation – Canadian Royalties”. Denison has a 2% net smelter return royalty on the portion of the project that it does not own. There are no other contractual royalties on the property.

There are no known environmental liabilities associated with the Waterbury Lake property, and there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

Location of the THT (formerly J Zone) and Huskie Deposits on the Waterbury Lake project


N
S-107368
S-107366
S-107365
S-107373
Huskie
THT
S-107364
S-107370
JEB
S-111276
Midwest A
Roughrider
Dawn
Lake
S-107362
S-107361
S-111276
S-107367
S-107363
Midwest
Main
Points North
Landing
Tamarack
McClean
Deposits
S-107359
LEGEND
Project Outline
Powerline
Airstrip
Mineral Disposition
Provincial Highway
Core Storage
Waterbody
Uranium Deposit
Waterbury Lake Project
Mineral Dispositions
0
5
10
kilometers

History

Uranium exploration activities have been conducted over various portions of the Waterbury Lake mineral claims over the past 50 years. The current Waterbury Lake mineral claims were originally staked by Strathmore Minerals Corp. in 2004. Strathmore subsequently spun out its Canadian assets to Fission in 2007. On January 30, 2008, KWULP and Fission entered into an earn-in agreement for the Waterbury Lake property, pursuant to which Fission granted KWULP the exclusive rights to earn up to a 50% interest in the Waterbury Lake property by funding $14,000,000 of expenditures on or before January 30, 2011. Additionally, Fission retained an overriding royalty interest in the property of 2% of net smelter returns. On April 29, 2010, KWULP had fully funded its $14 million of expenditures and consequently earned a 50% interest in the property. Fission and KWULP subsequently formed the WLULP in December 2010 with each party owning an equal interest. In April 2011, Fission exercised a back-in option right and increased its interest in the WLULP to 60%.

Effective April 26, 2013, Denison acquired Fission and all of Fission's rights and entitlements to the Waterbury Lake property, including the 2% net smelter returns royalty. Denison became manager of WLULP and operator of Waterbury Lake. KWULP has not funded spending programs of the WLULP since January 2014 and, as a result, Denison has increased its interest in the WLULP (now 66.90%) while KWULP has diluted.

The Waterbury Lake uranium project currently contains two deposits: the THT deposit and the Huskie deposit.

The THT uranium deposit was discovered during the winter 2010 drill program. The second drill hole of the campaign, WAT10-063A, was an angled hole drilled from a peninsula extending into McMahon Lake. It intersected 10.5 metres of uranium mineralization grading 1.91% U_3O_8, including 1.0 metre grading 13.87% U_3O_8 as well as an additional four meters grading at 0.16% U_3O_8. Subsequent drilling led Fission to focus on a significant mineralized trend immediately adjacent to the southeastern boundary of disposition S-107370. The maiden mineral resource estimate for THT was issued by Fission in 2011.

Denison first discovered mineralization at the Huskie zone in summer 2017 drill hole WAT17-466A, which intersected 9.10% U_3O_8 over 3.7 metres, including 16.78% U_3O_8 over 2 metres, from 306.5 to 310.2 metres depth. Further drilling in 2017 and 2018 resulted in a maiden mineral resource estimate in December 2018.

Geological Setting, Mineralization and Deposit Types

The Waterbury Lake property is located near the southeastern margin of the Athabasca Basin in the southwest part of the Churchill Structural Province of the Canadian Shield. The Athabasca Basin is a broad, closed, and elliptically shaped, cratonic basin with an area of 425 km east-west by 225 km north-south. The bedrock geology of the area consists of Archean and Paleoproterozoic gneisses unconformably overlain by flat-lying, unmetamorphosed sandstones and conglomerates of the mid-Proterozoic Athabasca Group.

The Waterbury Lake property is located near the transition zone between two prominent litho-structural domains within the Precambrian basement, the Mudjatik Domain to the west and the Wollaston Domain to the east. The Mudjatik Domain is characterized by elliptical domes of Archean granitoid orthogenesis separated by keels of metavolcanic and metasedimentary rocks, whereas the Wollaston Domain is characterized by tight to isoclinal, northeasterly trending, doubly plunging folds developed in Paleoproterozoic metasedimentary rocks of the Wollaston Supergroup, which overlie Archean granitoid orthogenesis identical to those of the Mudjatik Domain. The area is cut by a major northeast-striking fault system of Hudsonian Age. The faults occur predominantly in the basement rocks but often extend up into the Athabasca Group due to several periods of post-depositional movement.

The basement geology beneath the Waterbury Lake project is comprised of approximately northeast-trending corridors of metasediments wrapping around orthogneissic domes. Locally, within the Discovery Bay trend, an east-west trending corridor of metasediments bounded to the

north and south by thick zones of orthogneiss that, based on interpretation of aeromagnetic images, may represent two large dome structures. The metasediments and the orthogneiss domes are interpreted to be Paleoproterozoic and Archean in age, respectively.

The THT deposit is hosted within an east-west trending faulted package of variably graphitic and pyritic metasediments bounded by orthogneiss to both the north and south. The metasedimentary assemblage, which ranges in thickness from 90 to 120 metres and is moderately steep dipping to the north consists of, from north to south, a roughly 50 metre thick pelitic gneiss underlain by a 20 metre thick graphitic pelitic gneiss, underlain by a 10 to 15 metre thick quartz-feldspar wedge, followed by a 20 metre thick graphitic pelitic gneiss, underlain by a 15 to 25 metre thick pelitic gneiss, then back into a footwall orthogneiss. There are discontinuous offsets at the unconformity that range from a few metres to as much as ten metres.

THT is currently defined by 268 drill holes intersecting uranium mineralization over a combined east-west strike length of up to 700 metres and a maximum north-south lateral width of 70 metres. The deposit trends roughly east-west (80°) in line with the metasedimentary corridor and cataclastic graphitic fault zone. A 45 metre east-west intermittently mineralized zone occurs in the target area formerly known as Highland, separating the THT deposit into two segments referred to as the eastern and western lenses which are defined over strike lengths of 260 and 318 metres, respectively. A thin zone of unconformity uranium mineralization lies to the north of the intermittently mineralized zone interpreted to represent a mineralized block that has been faulted and displaced northwards, referred to as the mid lens.

Mineralization thickness varies widely throughout the THT deposit and can range from tens of centimetres to over 19.5 metres in vertical thickness. In cross-section, THT mineralization is roughly trough-shaped with a relatively thick central zone that corresponds with the interpreted location of the cataclasite and rapidly tapers out to the north and south. Locally, a particularly high-grade (upwards of 40% U_3O_8) but often thin lens of mineralization is present along the southern boundary of the metasedimentary corridor, as seen in holes WAT10-066, WAT10-071, WAT10-091, and WAT10-103. Ten-metre step-out drill holes to the south from these high-grade holes have failed to intersect any mineralization, demonstrating the tight nature of mineralization.

Uranium mineralization at the THT deposit is generally found within several metres of the unconformity, at depths ranging from 195 to 230m below surface. Mineralization occurs in three distinct settings: (1) entirely hosted within the Athabasca sediments, (2) entirely within the metasedimentary gneisses or (3) straddling the boundary between them. A semi-continuous, thin zone of uranium mineralization has been intersected in occasional southern THT drill holes well below the main mineralized zone, separated by several meters of barren metasedimentary gneiss. This mineralized zone is informally termed the South-Side Lens and can host grades up to 3.70% U3O8, as seen in drill hole WAT11-142.

The Huskie deposit is entirely hosted within competent basement rocks below the sub-Athabasca unconformity primarily within a faulted, graphite-bearing pelitic gneiss (“graphitic gneiss”) which forms part of an east-west striking, northerly dipping package of metasedimentary rocks flanked to the north and south by granitic gneisses. The Athabasca Group sandstones that unconformably overlie the basement rocks are approximately 200 metres thick.

The deposit comprises three stacked, parallel lenses (Huskie 1, Huskie 2 and Huskie 3), which are conformable to the dominant foliation and fault planes within the east-west striking graphitic gneiss unit. The drilling to date suggests the grade, thickness, and number of lenses present is controlled by the presence of northeast striking faults that cross-cut the graphitic gneiss. The northeast striking faults identified at the Huskie deposit are interpreted to be part of the regional Midwest structure. The deposit occurs over a strike length of approximately 210 metres, dip length of approximately 215 metres and has a true thickness of approximately 30 metres (individual lenses vary in true thickness, typically from 1 metre to 7 metres). The deposit occurs at vertical depths ranging between 240 and 445 metres below surface and 40 to 245 metres below the sub-Athabasca unconformity. The high-grade mineralization within the lenses consists of massive to semi-massive uraninite (pitchblende) and bright yellow secondary uranium minerals occurring along fault or fracture planes, or as replacement along foliation planes. Lower grade mineralization is disseminated within highly altered rocks proximal to fault planes. The mineralization is intimately associated with hematite, which both occur central to a broad and pervasive alteration envelope of white clays, chlorite and silicification.

Exploration

With the exception of drilling and related work, exploration on the Waterbury Lake property has mostly been in the form of geophysical surveys. Airborne magnetic surveys have been flown property-wide and have been used to identify significant basement structures and to help map basement rock types. Airborne and ground-based EM surveys have also been carried out across the property to define conductive, likely graphitic basement structures that may be associated with uranium mineralization. Additionally, ground-based induced polarization (DC-IP) and gravity surveys have aimed to identify zones of low resistivity and negative gravity anomalies resulting from quartz dissolution and clay alteration.

A 16 line, 28.8 kilometre DCIP resistivity survey was completed during October 2018. The survey was designed to map the possible extension of the Midwest structure onto the Waterbury Lake property and to define possible drill targets for future testing.

The most recent exploration work completed on the Waterbury Lake project was in 2020, where 17.6 line kilometres of TEM surveying was completed on the WAT20-G1 grid. This survey defined a weak south-dipping conductor: Conductor ‘C’. The eastern extent of this conductor has poor amplitude and is interpreted to extend deeply into the basement. This interpretation aligns well with the results of drill hole WAT19-493, which was drilled, in 2019, in the GB Northeast area.

No significant geological mapping has been conducted on the Waterbury Lake property to date as the property is predominantly covered by a thick layer of Quaternary sediments resulting in poor outcrop exposure; however, several reconnaissance scale surface geochemical surveys have been undertaken on the Waterbury Lake property.

Drilling

The THT deposit is extremely well defined by 268 drill holes intersecting uranium mineralization over a combined east-west strike length of up to 700 metres and a maximum north-south lateral width of 70 metres. The mineralization thickness varies from tens of centimetres to 19.5 metres and the mineralization is found within several metres of the unconformity at depths of 195 to 230 metres. The THT deposit has been drilled, on

average, at 10 metre by 25 metre spacings across the deposit and in some cases a more dense drill spacing has been applied. The genesis and structural complexity of the deposit are well understood. There are no outlying elements of the deposit requiring further drill testing.

Most recently, the 2019 drilling program commenced in January and was concluded in March. Activities focused on drill testing priority target areas associated with the regional Midwest Structure, which is interpreted to be located along the eastern portion of the Waterbury Lake property. Target areas tested included the GB Zone (3,385 metres; 9 drill holes), Oban South (1,127 metres; 3 drill holes), GB Northeast (323 metres; 1 drill hole) and the Midwest Extension (900 metres; 2 drill holes), with highlight results described below:

GB Zone – Nine drill holes were completed to follow up on basement-hosted mineralization discovered during the summer 2018 drilling program. The winter 2019 drill holes were oriented steeply to the northeast on an approximate 100 x 100 metre spacing to test the faulted graphitic basement sequence which dips steeply to the southwest. Basement-hosted mineralization was intersected in drill hole WAT19-480, highlighted by 0.15% U_3O_8 over 6.0 metres, including 0.26% U_3O_8 over 3.0 metres. Additional basement-hosted mineralized intercepts were obtained approximately 100 metres to the southeast of WAT19-480 in drill hole WAT19-486 highlighted by 0.25% U_3O_8 over 2.0 metres and 0.22% U_3O_8 over 1.5 metres.

Oban South – The target area at Oban South comprises the interpreted intersection of the east-west trending Oban South graphitic conductor and the north-northeast trending regional Midwest structure. Three drill holes were completed as an initial test of the geological concept. The drilling successfully identified a faulted graphitic unit within the basement, which was hydrothermally altered, and a broad zone of desilicification within the lower sandstone, which included 10 ppm uranium and over 100 ppm boron within the basal 12.5 metres of sandstone immediately overlying the unconformity.

GB Northeast – A single reconnaissance drill hole was completed to test a coincident airborne electromagnetic conductor and magnetic low approximately 2.5 kilometres to the northeast of the GB Zone. The drill hole intersected moderately to locally strong sandstone alteration and an altered and faulted graphitic pelite unit immediately below the unconformity. The drill hole was highlighted by a discrete spike in basement radioactivity of 1,520 counts per second ("**cps**"), measured with an RS-125 gamma hand-held spectrometer, within the faulted graphitic pelite unit accompanied by elevated uranium (up to 200 ppm over 0.5 metres) and pathfinder geochemistry.

Sampling, Analysis and Data Verification

For THT, drill core was split once geological logging, sample mark up and photographing were completed. All drill core samples were marked out and split at the splitting shack by employees, put into 5-gallon sample pails and sealed and transported to Points North, Saskatchewan only prior to shipment. The samples were then transported directly to SRC in Saskatoon, Saskatchewan by Marsh Expediting. All geochemical, assay and bulk density samples were split using a manual core splitter over the intervals noted in the sample booklet. Half of the core was placed in a plastic sample bag with the sample tag and taped closed with fibre tape. The other half of the core was returned to the core box in its original orientation for future reference. All drill core samples were evenly and symmetrically split in half in order to try and obtain the most representative sample possible. Mineralized core samples which occur in drill runs with less than 80% core recovery are flagged for review prior to the resource estimation process.

Recovery through the mineralized zone is generally good and assay samples are assumed to adequately represent in situ uranium content. SRC offers an ISO/IEC 17025:2005 accredited method for the determination of U_3O_8 weight % in geological samples. Rock samples are crushed to 60 % at -2 mm and a 100-200g sub sample is split out using a riffler. The sub sample is further crushed to 90% at -106 microns using a standard puck and ring grinding mill. An aliquot of pulp is digested in a concentrated mixture of HNO_3:HCl in a hot water bath for an hour before being diluted by deionized water. Samples are then analyzed by a Perkin Elmer ICP-OES instrument (models DV4300 or DV5300).

Drill core samples collected for bulk density measurements were first weighed as they are received and then submerged in deionized water and re-weighed. The samples are then dried until a constant weight is obtained. The sample is then coated with an impermeable layer of wax and weighed again while submersed in deionized water. Weights are entered into a database and the bulk density of the core waxed and un-waxed (immersion method) is calculated and recorded. Not all density samples had both density measurements recorded. Water temperature at the time of weighing is also recorded and used in the bulk density calculation. The detection limit for bulk density measurements by this method is 0.01 g/cm3.

Prior to the summer 2010 drill program, the only QAQC procedures implemented on drill core samples from the project were those performed internally by SRC. The in-house SRC QAQC procedures involve inserting one to two quality control samples of known value with each new batch of 40 geochemical samples. All of the reference materials used by SRC on the Waterbury project are certified and provided by CANMET Mining and Mineral Services. The SRC internal QAQC program continued through the 2013 drill program. Starting in the summer of 2010 and continuing into the 2013 drill program (discontinued after DDH WAT13-350), an internal QAQC program was designed by Fission to independently provide confidence in the core sample geochemical results provided by SRC. The internal QAQC sampling program determines analytical precision through the insertion of sample duplicates, accuracy through the insertion of materials of “known” composition (reference material) and checks for contamination by insertion of blanks. Blanks, reference standards and duplicates were inserted into the sample sequence including field duplicates (quarter core every 1 in 20 samples), prep and pulp duplicates (inserted by SRC every 1 in 20 samples) and blank samples (1 sample for every mineralized drill hole). Beginning in 2012 certified, internal reference standards were used in all holes drilled at Waterbury Lake, replacing the re-analysed low, medium and high grade reference samples. The results of the QAQC programs indicate there are no issues with the drill core assay data. The data verification programs undertaken on the data collected from the Project support the geological interpretations, and the analytical and database quality, and therefore the data can support mineral resource estimation.

With respect to its work on the Huskie deposit, Denison has developed and documented several QA/QC procedures and protocols for all exploration projects which include the following components: (a) Determination of precision – achieved by regular insertion of duplicates for each stage of the process where a sample is taken or split; (b) Determination of accuracy – achieved by regular insertion of standards or materials of known composition; and (c) Checks for contamination – achieved by insertion of blanks.

SRC has a quality assurance program dedicated to active evaluation and continual improvement in the internal quality management system. The laboratory is accredited by the Standards Council of Canada as an ISO/IEC 17025 Laboratory for Mineral Analysis Testing and is also accredited ISO/IEC 17025:2005 for the analysis of U_3O_8. The laboratory is licensed by the CNSC for possession, transfer, import, export, use, and storage of designated nuclear substances by CNSC Licence Number 01784-5-24.74. As such, the laboratory is closely monitored and inspected by the CNSC for compliance.

All analyses are conducted by SRC, which has specialized in the field of uranium research and analysis for over 30 years. SRC is an independent laboratory, and no associate, employee, officer, or director of Denison is, or ever has been, involved in any aspect of sample preparation or analysis on samples from the THT or Huskie deposits.

The SRC uses a laboratory management system ("LMS") for quality assurance. The LMS operates in accordance with ISO/IEC 17025:2005 (CAN-P-4E) "*General Requirements for the Competence of Mineral Testing and Calibration Laboratories* " and is also compliant to CAN-P-1579 "*Guidelines for Mineral Analysis Testing Laboratories*". The laboratory continues to participate in proficiency testing programs organized by

CANMET (CCRMP/PTP-MAL).

Mineral Processing and Metallurgical Testing

A preliminary assessment of the mineralogical and leaching characteristics of a representative selection of drill core samples from the THT deposit was undertaken between July and December 2011 by Mineral Services Canada.

The study was based on a suite of 48 samples of mineralized material collected from thirty-two drill holes (2010 and 2011 programs). These were chosen to provide good spatial representation of the THT mineralization as well as representing a wide range of uranium content. The samples were derived from the half split core remaining after the initial geochemical / assay sampling process. All samples were submitted to SRC for comprehensive mineralogical analysis and preparation of thin sections for petrographic analysis. The results of mineralogical work were used, in conjunction with spatial considerations, to define suitable composite samples for preliminary leaching test work undertaken by the Saskatchewan Research Council's Mining and Minerals Division ("**SRCMD**").

Mineralogical analysis, utilizing XRD, quantitative mineralogical analysis (Q-Min), petrography and SEM-EDS analysis, determined that the most abundant uranium-bearing minerals in the THT deposit are uraninite and/or pitchblende, and coffinite. The gangue mineralogy is essentially comprised of various amounts of quartz, phyllosilicates (illite-sericite, chlorite, biotite, kaolinite) and (Fe, Ti)-oxides (hematite, goethite and anatase). Feldspars also occur in most samples and carbonates as well as a variety of sulphides are locally present. Ni-arsenides are recognized throughout the samples as well. The results of the mineralogical analyses identified five groupings of samples with ore mineralogies typically dominated by either uranium oxide or uranium silicate phases.

Preliminary acid leaching tests were undertaken by SRCMD on composite samples prepared from the sample set. Only the leaching time and rate of acid addition were considered in the tests while the other parameters (e.g. solid percentage in the slurry, temperature, pressure and agitation conditions) remained fixed. A total of five composite samples were defined based on spatial location. Acid leaching (H_2SO_4) was performed on each of the composite samples for 12 hours under atmospheric pressure and at a temperature of 55-65°C. Agitation was used to create adequate turbulence. Sodium Chlorate was used as the oxidant. The tests were undertaken on the assay lab rejects from XRD analyses that were ground to 90% passing 106 microns. The percentage of solids in the slurry was set at 50%. The only variables were the acid addition and leaching residence time. Two different H_2SO_4 dosages were used to create an initial leaching environment with 25 mSc/cm and 55 mSc/cm, respectively. Each composite sample was split into two subsamples labelled A and B. The A sample was used to test high acid addition with high initial conductivity and the B sample was used to test low acid addition with low initial conductivity. The preliminary acid leaching tests showed that maximum extraction rates of 97.6 % to 98.5 % U_3O_8 can be obtained (depending on the acid addition) within 4 to 8 hours of leaching time, and that the leaching efficiency was variably affected by acid addition and leaching time.

Additional test work was undertaken in 2020. Leaching tests to determine key ISR data such as optimum reagent addition rates at lower leaching temperatures (10 to 20 degrees Celsius) and expected Uranium Bearing Solution (UBS) head grade were conducted and the outcomes were used to drive reagent quantities.

A new composite THT east pod metallurgical testing sample was generated from 33 individual assay reject samples stored at the SRC facilities in Saskatoon. The individual samples, distributed through the deposit, allowed for the preparation of a deposit representative sample. The composite sample assayed 2.72% U_3O_8. Acid leaching tests at 10 deg C, using hydrogen peroxide (H_2O_2) oxidant, with varying sulphuric acid (H_2SO_4) concentrations (100, 80, 60 and 40 g/L) showed that extraction rates of 90% U_3O_8 can be obtained within 2 hours of leaching time, and that the leaching efficiency was affected by acid addition.

Mineral Resource Estimates

The Mineral Resources for the Waterbury Lake Project comprise the THT and the Huskie deposits. The Mineral Resource Statement presented herein represents the Mineral Resource evaluation prepared for the Waterbury Lake Project in accordance with NI 43-101.

Tthe Heldeth Túé Deposit

The THT deposit is estimated to contain an indicated mineral resource, using a base case cut-off grade of 0.10% U_3O_8, totaling 12,810,000 lbs based on 291,000 tonnes at an average grade of 2.00% U_3O_8 (100% basis).

For the 2013 mineral resource estimate, a 3D wireframe model was constructed based generally on a cut-off grade of 0.03 to 0.05 % U_3O_8 which involved visually interpreting mineralized zones from cross sections using histograms of U_3O_8. 3D rings of mineralized intersections were created on each cross section and these were tied together to create a continuous wireframe solid model in Gemcom GEMS 6.5 software. The modeling exercise provided broad controls on the size and shape of the mineralized volume. Inverse distance squared interpolation restricted to a mineralized domain was used to estimate tonnes, density and U_3O_8 grades as well as gold, arsenic, cobalt, copper, molybdenum and nickel grades into the block model.

A range of resources at various U_3O_8 cut-off grades (COG) has been estimated for THT. The current indicated resource is stated using a grade cut-off of 0.10% U_3O_8.

Two passes were used to interpolate all of the blocks in the wireframe, but 99% of the blocks were filled by the first pass. The size of the search ellipse, in the X, Y, and Z direction, used to interpolate grade into the resource blocks is based on 3D semi-variography analysis (completed in GEMS) of mineralized points within the resource model. For the first pass, the search ellipse was set at 25 x 15 x 15 metres in the X, Y, and Z

directions, respectively. For the second pass, the search ellipse was set at 50 x 30 x 30 metres in the X, Y and Z directions, respectively. The Principal azimuth is oriented at 75º, the Principal dip is oriented at 0° and the Intermediate azimuth is oriented at 0°.

Huskie Deposit

The Huskie Deposit is currently estimated to contain an inferred mineral resource, using a base case cut-of-grade of 0.10% U_3O_8, totaling

5,687,000 lbs U_3O_8 based on 268,000 tonnes at an average grade of 0.96% U_3O_8 (100% basis). The Huskie Deposit resource estimate was prepared by Denison and independently audited and verified to confirm that the mineral resources were estimated in accordance with the widely accepted CIM Estimation of Mineral Resource and Mineral Reserve Best Practices Guidelines. The mineral resources may be affected by further infill and exploration drilling that may result in increases or decreases in subsequent mineral resource estimates. The mineral resources may also be affected by subsequent assessments of mining, environmental, processing, permitting, taxation, socio-economic, and other factors.

For the 2018 mineral resource estimate, GEOVIA GEMS™ software (version 6.8) was used to build three-dimensional mineralized wireframes for the Huskie 1, Huskie 2 and Huskie 3 lenses based on lithological and structural data from core logs and geochemical assay (or radiometric probe) data collected from 28 holes totaling 12,273 metres completed by Denison. A lower cut-off of 0.05% U_3O_8 and a minimum thickness of 1 metre was selected for the mineralized wireframe model**.**

The mineral resource model was constrained by the mineralization wireframes. The assay database (% U_3O_8 or % eU_3O_8) used for resource modelling consists of 201 assays from the 10 mineralized boreholes, contained within the three mineralized lenses. The 0.5 metre interval assays were composited to 1.0 metre lengths. Capping was considered, with only assay data from Huskie 2 being capped for % U_3O_8. Density values were assigned to the database based on a regression between U_3O_8 and density data pairs using the relationship determined for Denison's Gryphon deposit, which is also hosted within comparable basement rocks. The validity of the Gryphon grade:density regression for the Huskie deposit was confirmed by plotting 12 bulk dry density samples collected by the technical report authors from the Huskie deposit. Variograms were modelled to determine appropriate search radii for grade estimation.

An accumulation-like approach was used, wherein "U_3O_8*density" and "density" were estimated into a three-dimensional block model, constrained by wireframes in two passes using ID2. A %U_3O_8 grade was then calculated into each block by dividing the estimated U_3O_8*density by the estimated density. A block size of 10 by 5 by 5 metres was selected. Search radii were based primarily on visual observations and variogram analyses. The estimation of U_3O_8*density and density were based on two estimation passes. The block model was validated using nearest neighbour estimation and by visual inspection of the block grades relative to composites and swath plots comparing the ID2 and nearest neighbour model. All blocks were classified as Inferred.

No pre-feasibility or feasibility studies have been completed to allow conversion of the mineral resources to mineral reserves. Consequently, no mineral reserves exist for the Waterbury Lake property at the present time.

Mining Operations

The THT deposit is proposed to be mined using the ISR method. The Indicated Mineral Resource used for the Waterbury PEA mine plan includes only the THT East pod estimated at 9.7 million pounds of U_3O_8 with an average grade of 2.49% over 178,000 tonnes.

A small percentage of the THT East pod resource has not been included in the mine plan due to sterilization by freeze methods. Due to the geometry of the deposit and the nature of freeze technology applied to the deposit to allow for sufficient containment of mining fluid, the extreme western and easternmost portions of the deposit have not been considered in the Potentially Recoverable Resource. The collective resource attributed to sterilization is 206,180 lbs, representing 1.7% of the THT East pod.

Additionally, an 85% mining recovery factor was applied to the projected resource available for mining to account for sweep efficiencies and metallurgical recovery envisioned and deemed appropriate for the nature of the THT deposit. The mining recovery factor is a product of the metallurgical recovery and sweep efficiencies based on knowledge gained during the project development of the Phoenix deposit utilizing the ISR method. The sweep efficiency is defined as the percentage of mineralized rock in contact with the lixiviant as it circulates between the injection wells and surrounding recovery wells. The metallurgical recovery is determined by the amount and rate at which the uranium dissolves from the rock when in contact with the lixiviant.

Tthe Heldeth Túé East Pod Projected Mine Production (0% Grade cut-off [(1)])

Deposit Category	Classification	Percentage	Tonnes	Pounds U_3O_8 (100% Basis)	Grade (% U_3O_8)
Tthe Heldeth Túé East Pod: In-Situ Resource	Indicated	100%	211,997	11,633,762	2.49%
Sterilized Resource	Indicated	100%	(2,980)	(206,180)	-
Tthe Heldeth Túé East Pod: Mineable Resource	Indicated	100%	209,017	11,427,582	-
Mining Recovery Factor		85%			
Projected Mine Production			**177,664**	**9,713,445**	**2.49%**

(1) Projected Mine Production presented at a 0% grade cut off to reflect nonselective ISR mining method.

The foregoing is based upon estimated indicated mineral resources. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

A key hydrologic property that affects ISR mining is the permeability (hydraulic conductivity) of the ore zone and, just as importantly, the hydraulic communication (interconnectedness of the permeability/porosity) across the ore zone. The ability to transmit fluids through the ore body via well injection and recovery is fundamental to the efficacy of ISR mining.

Denison has performed permeameter testing of exploratory boring cores that were recovered from the ore zone and overlying and underlying strata at the site. The permeameter testing was conducted utilizing a portable nitrogen gas probe permeameter adapted for testing drill core pieces. Permeameter testing measures the matrix permeability of the core sample. Permeameter testing was performed by applying an epoxy ring at the sample location and sealing the permeameter probe against the ring to ensure a tight seal. Pressure is measured upstream of the probe tip at a sampling interval of two seconds, and the pressure decay of the nitrogen gas injection is measured to determine permeability in the drillcore at the sample location. In general, the gas pressure pulse applied to the drillcore is approximately 30 to 50 psi, and test durations are less than 20 minutes per test. This methodology was applied extensively at the Phoenix project, with testing conducted on core at approximate 10 centimeter intervals, resulting in a total of over 1,200 measurements.

Permeameter test results were reported for 150 core sample measurements in the THT East pod. Of the 150 measurements, 25 were from core collected within the mineralized zone, 43 were from the overlying Athabasca Sandstones, with the remainder from the underlying metasedimentary basement. The samples were further grouped into lithologic units.

The median hydraulic conductivity value for all of the mineralized samples for the THT is 1.1E-10 m/s with a range of 1.0E-13 to1.7E-07 m/s. The matrix permeability test work conducted for the Phoenix deposit at Wheeler River and outlined in Denison's press release dated February 24, 2020 shows hydraulic conductivity values ranging from 1.5 x 10-13 to 5.0 x 10-6 m/s for the Phoenix Deposit: the permeameter testing results from cores collected from borings at the Phoenix project correlates reasonably well to the hydraulic conductivity values published from the pumping and injection tests conducted at Phoenix. The data from Phoenix suggest that permeameter data can provide a reasonable initial estimate of hydraulic conductivity.

Given the positive correlation between bulk hydraulic conductivity testing and permeameter testing of core samples in estimating hydraulic conductivity at the Phoenix deposit at Wheeler River, it is reasonable to assume a similar correlation for the THT deposit based on a comparable geologic setting. The recently conducted permeameter testing from the THT deposit should provide a reasonable initial estimate of hydraulic conductivity, although, the degraded state of the core most likely biased the tested samples toward lower permeabilities. Based on the currently available data, the hydraulic conductivity estimated from the THT permeameter testing appears to be notably lower than what was estimated for the Phoenix Project.

Several factors should be considered in the evaluation of permeability and its potential impacts to ISR mining applied to the THT deposit. First, as previously indicated, the samples suitable for conducting the permeameter testing are biased toward the more dense and intact (and likely lower permeability) core material. Second, the inter-well spacing (distance between wells within a well pattern) planned for the project will be less than what is proposed for the Wheeler River project at the Phoenix deposit, which will reduce the residence time for lixiviant to move from injection well to extraction well. Third, application of permeability enhancement methods will be utilized to increase the near well-bore permeability within the mineralized zone.

In conventional ISR operations, containment of the mining solution is typically achieved by natural impermeable bounding layers in the geological strata and/or by creating a natural drawdown (via pumping) of the water table towards the ore zone. At the THT deposit, there is a natural impermeable layer below the deposit, in the form of a competent package of basement rocks, but the deposit is otherwise hydraulically connected to the vast regional groundwater system in the overlying sandstone formation that defines the Athabasca Basin.

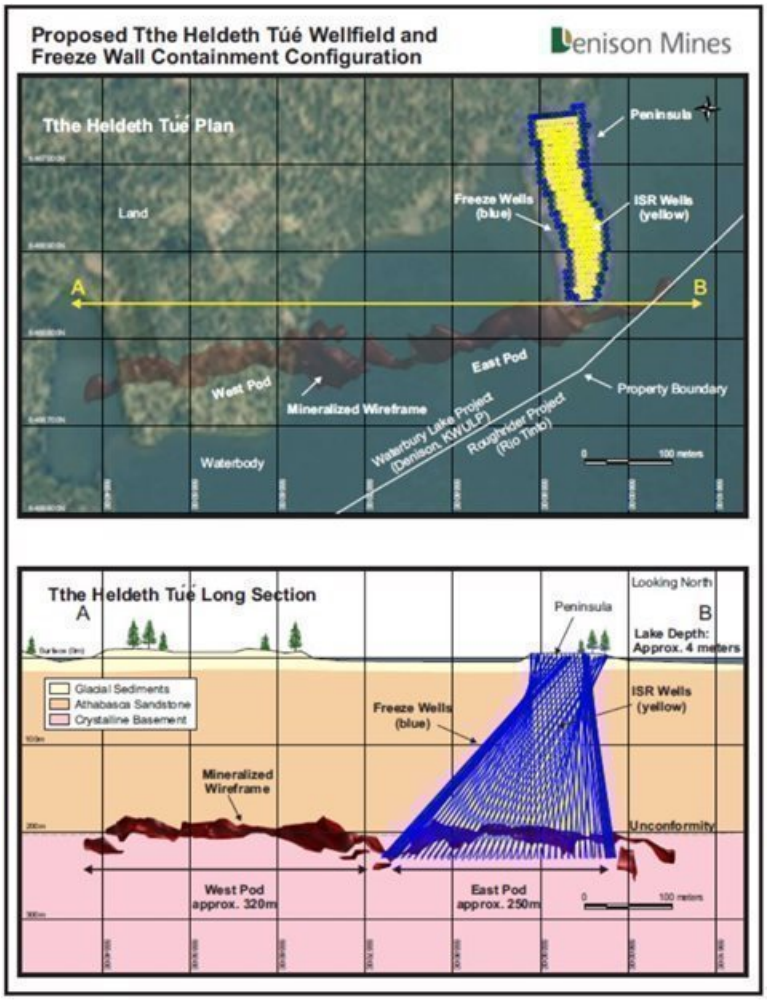
In order to maintain containment, the entire deposit will be isolated by use of an artificial and impermeable freeze wall that will surround the deposit. The freeze wall will be established by drilling a series of cased holes from surface and along the perimeter of the deposit, and keyed into the basement rock. The freeze wall will be comprised of 92 holes planned at a 7 metre spacing at the target depth of 200 metres and extend 30 metres below the unconformity elevation. The freeze wall is planned to be drilled entirely from land on the peninsula on McMahon Lake which extends to the eastern portion of THT. Freeze holes will be angled out to surround the mining zone with the minimum drilling angle limited to 45º to reduce technical risk of drilling and installing the freeze holes. Circulation of a low temperature brine solution in the holes will remove heat from the ground, freezing the natural groundwater, and establishing an impermeable frozen wall around the deposit.

The wellfield design included in the Waterbury PEA uses 184 wells at 7 metre spacing arranged in a 5-spot pattern, with four injection wells around one recovery well. The wells will be drilled from surface within the freeze wall and angled out to penetrate the mineralized zone at depth with a roughly 7 metre spacing.

Eight monitoring wells will be installed outside of the freeze wall to detect and remediate any excursion of lixiviant from the mining zone.

Summary THT ISR Wellfield Wells		
	Number of Wells	*Drill Metres*
Recovery Wells	66	20,637
Injection Wells	118	36,896
Monitoring Wells	8	1,750
Total	**192**	**59,283**

Proposed THT Wellfield and Freeze wall configuration


Proposed Tthe Heldeth Túé Wellfield and Freeze Wall Containment Configuration
Denison Mines
Tthe Heldeth Túé Plan
Peninsula
Land
Freeze Wells (blue)
ISR Wells (yellow)
A
B
East Pod
West Pod
Mineralized Wireframe
Property Boundary
Waterbury Lake Project (Denison, KWULP)
Roughrider Project (Rio Tinto)
Waterbody
0
100 meters
Tthe Heldeth Túé Long Section
A
Looking North
B
Peninsula
Lake Depth: Approx. 4 meters
Glacial Sediments
Athabasca Sandstone
Crystalline Basement
Freeze Wells (blue)
ISR Wells (yellow)
Mineralized Wireframe
Unconformity
West Pod approx. 320m
East Pod approx. 250m
0
100 meters

Processing and Recovery Operations

Final mineral processing of the UBS expected to be recovered from the THT deposit is assumed to occur at the nearby McClean Lake mill. The mill is owned by the MLJV of which Orano Canada holds a 77.5% interest, and Denison Mines Inc. (a wholly-owned subsidiary of Denison) holds a 22.5% interest. The mill is currently processing material from the Cigar Lake mine under a toll milling agreement (up to 18 million lbs U_3O_8 per year); however, it has approximately 6 million lbs U_3O_8 per year in additional licenced processing capacity, with a total licensed capacity of up to 24 million lbs U_3O_8 per year. The Waterbury PEA assumes a recovery rate of 98.5% from the processing of UBS from the THT deposit at the McClean Lake mill.

It is assumed that the UBS will be transported to McClean Lake in trucks utilizing specifically designed tanks for transportation. The trucks would return with necessary lixiviant to complete ISR mining at THT. The McClean Lake Mill is assumed to have all necessary infrastructure to process the UBS and provide the lixiviant except for the facilities to provide surge storage of UBS and lixiviant at both the THT site and at McClean Lake.

The limited metallurgical testing of the THT deposit and a review of the Roughrider PEA indicates that a UBS head grade of 7 g/l may be possible through enhanced permeability techniques commercially available. The metallurgical tests completed during the Waterbury PEA indicate that approximately 27,000 tonnes of sulphuric acid will be required to leach the approximate 10 million lbs of U_3O_8 located within the THT East pod. Approximately 9,000 tonnes of hydrogen peroxide will be required. Lixiviant concentrations of 35 g/L hydrogen peroxide and 100 g/L of sulphuric acid have been estimated from metallurgical leach tests. Currently available data from metallurgical leach tests indicate no iron needs be added to the lixiviant.

Processing THT at the McClean Lake mill would require minor mill modifications. THT UBS, trucked to the mill, would be stored in a tank or pond, providing surge capacity for both the mine and mill. From the UBS storage it would be pumped into the mill leach circuit. The McClean mill may find it advantageous to mix the UBS into their leaching process to take advantage of the low pH, reducing acid addition rates for their other feed streams. Following CCD solution clarification, the solution would be processed as per the current mill flowsheet.

Toll milling agreement terms have not been assessed as part of this study. UBS from the THT deposit at a production rate 2.1 million lbs of U_3O_8/yr will make up a small portion of the entire McClean Lake mill feed (estimated in the range of 10 to 15%). Final drummed “yellowcake” will be a blend of the entire feed stream through McClean. The THT deposit is a relatively clean ore feed source in comparison to either Cigar Lake or the Midwest deposits both of which have contaminates of concern, that could result in penalties at the refinery. The scope of this study has not considered what other ores will be co-milled with the THT UBS, and therefore the final product make-up cannot be determined.

Infrastructure, Permitting and Compliance Activities

The THT site infrastructure has been modelled after the Wheeler River Phoenix infrastructure scaled appropriately for the requirements of the THT project.

Main land access to the site is from Saskatchewan Highway 905, via a road developed by Rio Tinto for their Roughrider exploration requirements. A road extension of 1.5 km will be required to access the ISR wellfield. Additionally, the existing road has been assumed to be upgraded from highway 905 to facilitate trucking of UBS and lixiviant.

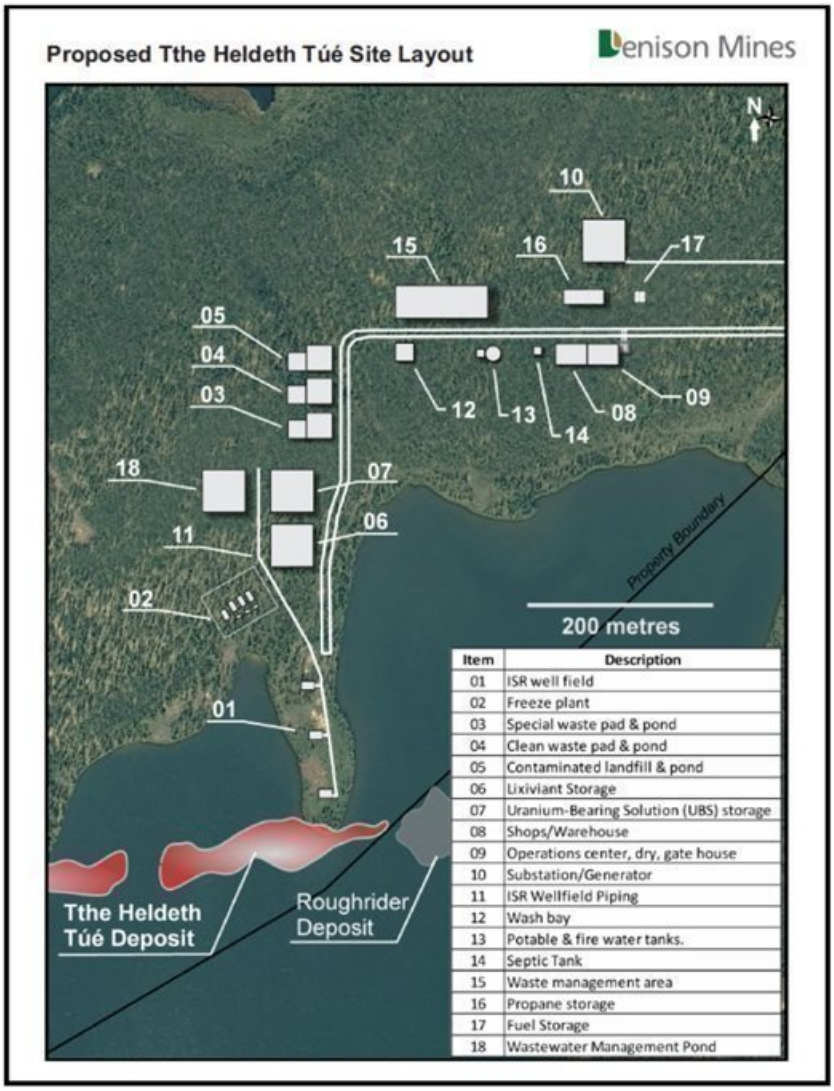


Due to the initial capital costs required to install a standalone processing plant at THT, processing of the THT deposit is expected to occur at the McClean Lake mill with the UBS being transported via trucks from the THT site to McClean Lake on the existing provincial road (45 kilometre one way). The trucks would complete the return trip to THT loaded with lixiviant.

Electrical power has been chosen for the PEA to be fed from a substation located approximately 13 km from the THT Site. Power has been assumed to be brought to site at 25 kV. A tradeoff study was completed as part of this study to compare line power to power generated at site, the conclusion of which favored line power. Additional work studying transmission and distribution options is required should further studies be completed.

The planned surface infrastructure at the THT site includes:

- ISR wellfield and header houses
- Freeze plant
- Special and clean waste pads
- UBS and lixiviant transportation pump stations for loading and unloading transport trucks
- UBS storage pond
- Lixiviant solution storage pond
- Contaminated landfill
- Operations center, complete with potable water, fire suppression and septic
- Electrical distribution
- Wash bay, warehouse and shop
- Propane and fuel storage tanks
- Operational waste water management pond



The planned infrastructure at McClean Lake includes:

- UBS storage pond
- Lixiviant Storage pond
- Lixiviant transportation truck loading station

At this stage, no environmental fatal flaws have been identified for the project. Through project design and implementation of various best management practices, project effects on the environment are expected to be avoided or minimized while meeting all applicable environmental guidelines and regulations. Given the proximity of the project to a surface waterbody it is likely that the most significant public concern will be the potential impacts to the lake, and it will be imperative for Denison to demonstrate how the groundwater and surface water environments will remain protected. The project will require completion of a provincial environmental assessment and federal licensing which includes the review of the environmental assessment to support a licensing decision. The approval process is anticipated to take 24 months following the submission of the draft licensing and environmental impact assessment documents.

Denison recognizes the importance of early identification of Interested Parties, and in particular, Indigenous and non-Indigenous Communities of Interest who may have an interest in the THT project based on historical and / or contemporary land use activities, known and asserted traditional territories, and / or historical precedent with the uranium industry in the eastern Athabasca Basin region. As noted above, also of importance is the strong interest most Interested Parties hold with respect to the protection of water, further underscoring the need for a proper and complete engagement strategy. As part of this process, Denison has identified a number of potential Communities of Interest for the THT project and can begin the process of suitable and appropriate engagement for the stage of the development of the THT project. This will assist Denison to determine the number and scale of Impact Benefit Agreements, which are often an important element as part of advancing a resource extraction project through the regulatory process in Canada.

Capital and Operating

The capital costs for the THT project were estimated relying on available data from the Wheeler River PFS and the 2016 NI 43-101 Cigar Lake Operation Technical Report, as well as based on quotes and first principles estimates. The initial capital investment is estimated at $111.6 million, sustaining capital at $24.8 million and decommissioning costs at $25.2 million. The initial CAPEX includes a 30% contingency and excludes $20.1 million of project evaluation costs that must be incurred prior to construction. These costs should be considered when assessing the merit of advancing the project to a development decision in the future. The THT capital costs are outlined as follows:

THT Capital Costs ($ million) (1)			
	Initial	*Sustaining*	*Total*
Wellfield	49.6	24.4	74.0
Milling (McClean Lake modifications)	1.1	-	1.1
Surface facilities	2.1	-	2.1
Utilities	0.7	-	0.7
Electrical	5.0	-	5.0
Civil & earthworks	5.8	0.4	6.2
Offsite infrastructure	7.5	-	7.5
Decommissioning	-	19.4	19.4
Construction Indirect	14.0	-	14.0
Subtotal	**85.8**	**44.2**	**130.0**
Contingency	25.8	5.8	31.6
Total Capital Costs (100%)	**111.6**	**50.0**	**161.6**

(1) Initial capital costs exclude $20.1 million of estimated pre-construction project evaluation and development costs.

The operating costs for the THT project were estimated relying on available data from the Wheeler River PFS as well as historical milling cost from the MLJV for Toll Milling fees estimates, as well as first principal estimates. The total operating costs are estimated at $155.7 million ($16.27 per lb of produced U_3O_8).

The THT ISR operation is estimated to produce total mine production of 9.7 million pounds U_3O_8 over an approximate six year mine-life with final processing occurring at Denison's 22.5% owned McClean Lake mill.

THT Operating Cost per Pound U_3O_8		
	CAD$	*US$*
Mining / Wellfield	5.73	4.31
Milling / Processing	8.07	6.07
Transport to converter	0.53	0.40
Site support and administration	1.94	1.46
Total Operating Costs per pound U_3O_8	**$16.27**	**$12.23**

Each WLULP partner reports its share of the operations in its own tax return. As each partner has a unique tax profile, the THT project has been evaluated using two different cash flow model approaches:

- Pre-Tax Basis - A pre-tax discounted cash flow model which shows the economics of the project on a 100% basis. This case includes the Saskatchewan uranium Resource Surcharge (3.0%) and the Saskatchewan Basic Royalty (4.25% with Resource Credit) and excludes tax specific items related to Canadian Federal and Provincial income taxes and Saskatchewan profit-based royalties, each of which will vary depending on each partner's unique facts and circumstances; and
- Post-Tax Basis - A post-tax discounted cash flow model, specific to Denison which shows the economics of the project based on Denison's ownership interest in the project. This case includes the Saskatchewan uranium Resource Surcharge (3.0%) and the Saskatchewan Basic Royalty (4.25% with Resource Credit) as well as tax specific items related to Canadian Federal and Provincial income taxes and Saskatchewan profit-based royalties and other non-tax related items which are unique and applicable to Denison's economic interest in the THT project.

The calendar years referred to in the economic model developed for the Project are indicative only and should not be understood as reflecting the Company's plans for advancing the project. Any advancement of the Project, or the timing thereof, is subject to various factors, some of which may be outside of the Company's control. The Company has advised that it will provide additional applicable guidance on its intentions to advance the Project in its public disclosure, as appropriate.

Inputs and assumptions to both the pre-tax and post-tax cash flow models include:

- An estimated 3-year pre-production period;
- Life of mine production of 177,664 tonnes at an average grade of 2.49% U_3O_8 containing 9,713,445 lbs of U_3O_8;

- A project mine production period of approximately 6 years, reaching current planned capacity of 2.1 million lbs of U_3O_8 in the second year of production, operating at that rate for four years and declining to 0.3 million lbs of U_3O_8 in the final year of production;
- Estimated metallurgical process uranium recoveries of 98.5%;
- A base case uranium pricing scenario, provided by Denison, and based on UxC's Q3-2020 Uranium Market Outlook Report Composite Midpoint spot price projection, in constant / uninflated dollars, ranging from US$49.43 to US$57.07 per pound U_3O_8 during the THT mine production period, translated to CAD using an exchange rate of 1.33 CAD/USD;
- Project capital costs of $161,608,000 (100% basis). This amount excludes $20,127,000 of pre-construction project evaluation and development capital costs (100% basis);
- Project operating costs of $155,693,000 (100% basis);
- No inflation or escalation of revenue or costs has been incorporated. Costs are expressed in 2020 Canadian dollars;
- Adjustments for financing (via debt or equity) and any associated carrying charges thereon (interest, other financing charges) are not included;
- Adjustments for working capital (timing adjustments in cash receipts re uranium sales and / or CAPEX, OPEX payments) are not included; and
- The THT economic model does not include any intellectual property charges that may be borne by the project in the future from the use of Wheeler River ISR related proprietary information.

The pre-tax base case cash flow model is based on the inputs noted above and the following additional notes:

- The evaluation of the project is on a 100% ownership basis;
- No toll milling revenue or production credits applicable to MLJV participants is included;
- No Saskatchewan Profit Royalty is included;
- No provincial / federal tax calculations are included; and
- Net Present Value ("NPV") calculations assume a discount rate of 8% (see Section 22.5.1 of PEA for additional information) and are measured from the start of the pre-production period.

The THT project economic results are quite sensitive to the price of uranium. To illustrate the impact on the project from lower and higher uranium price assumptions than those in the pre-tax base case, the PEA considers an additional two pricing scenarios: (1) the Low Case, which uses an estimated fixed uranium selling price of US$35.00/lb U_3O_8 for all production; and (2) a High Case, which uses an estimated fixed uranium selling price of US$65.00/lb U_3O_8 for all production.

A summary of the economic results of the pre-tax low, base and high case scenarios are illustrated in the table below.

Pre-tax Economic Results (100% basis) Summary – Low, Base and High Case

	Low Case	**Base Case**	**High Case**
Uranium price assumption	US$35 per lb U_3O_8	UxC spot price (3)	US$65 per lb U_3O_8
Pre-tax $NPV_{8\%}$ (1)	$38,260,000	$177,295,000	$264,932,000
Pre-tax IRR (1)	17.4%	39.1%	50.0%
Pre-tax payback period (2)	~33 months	~22 months	~18 months

(1) NPV and IRR are calculated to the start of pre-production activities for the THT project.

(2) Payback period is stated as number of months to pay-back from the start of January 2028.

(3) Spot price forecast is based on "Composite Midpoint" scenario from UxC's Q3'2020 Uranium Market Outlook ("UMO") for the years 2028 to 2033 and is stated in constant (not-inflated) dollars.

The post-tax base case cash flow model is specific to Denison's ownership interest in Waterbury Lake and Denison's specific facts and circumstances as it relates to: a) tax pools it has available to it to reduce taxable income for Saskatchewan Profit Royalties as well as Canadian Federal and Provincial income taxes, and b) benefits that accrue to it from its interest in the MLJV.

Denison, through Denison Waterbury Corp, currently has a 66.90% ownership interest in the WLULP. The post-tax base case cash flow model is based on the inputs noted above, Denison's current ownership interest in the WLULP and the following additional items:

- Adjustments for Denison's share of pre-construction project evaluation and development capital costs including contingency, and the associated impact on Denison's estimated tax pools;
- The economic benefits associated with DMI's 22.5% share of the MLJV as it relates to THT toll milling at McClean;
- The impact of the Saskatchewan Profit Royalty applicable on uranium production; and
- Denison's expected Federal and Provincial income taxes payable (refer to section 22.6.1 of the Waterbury PEA for additional information).

Discounting for NPV calculations remains at 8% (refer to Section 22.5.1 of Waterbury PEA for additional information), and the impact of estimated net smelter royalties of $3.8 million owing to Denison on KWULP's share of THT production has not been included (refer to Section 4.5 of Waterbury PEA for additional information).

A summary of the economic results of the post-tax low, base and high case scenarios are illustrated in the table below.

Post tax Economic Results Summary, Low, Base and High Case

	Low Case	*Base Case*	*High Case*
Uranium price assumption	US$35 per lb U_3O_8	UxC spot price (3)	US$65 per lb U_3O_8
Post-tax $NPV_{8\%}$ (1)	$13,564,000	$72,470,000	$109,038,000
Post-tax IRR (1)	13.5%	30.4%	38.9%
Post-tax payback period (2)	~34 months	~23 months	~19 months

(1) NPV and IRR are calculated to the start of pre-production activities for the THT project.

(2) Payback period is stated as number of months to pay-back from the start of January 2028.

(3) Spot price forecast is based on "Composite Midpoint" scenario from UxC's Q3'2020 Uranium Market Outlook ("UMO") for the years 2028 to 2033 and is stated in constant (not-inflated) dollars.

The PEA is a preliminary analysis of the potential viability of the project's mineral resources, and should not be considered the same as a Pre-Feasibility or Feasibility Study, as various factors are preliminary in nature. There is no certainty that the results from the PEA will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

McClean Lake

The McClean Lake projects are owned by Denison (22.5%) and Orano Canada (77.5%). Orano Canada is the operator/manager of the projects.

Except as otherwise noted below, the project descriptions are based on the Company's technical reports: (A) the "Technical Report on the Denison Mines Inc. Uranium Properties, Saskatchewan, Canada" dated November 21, 2005, as revised February 16, 2006 (the "**McClean Technical Report**"), (B) the "Technical Report on the Sue D Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada" dated March 31, 2006 (the "**Sue D Report**"), and (C) the "Technical Report on the Mineral Resource Estimate for the McClean North Uranium Deposits, Saskatchewan" dated January 31, 2007 (the "**McClean North Technical Report**"), copies of which are available on the Company's profile on the SEDAR website at www.sedar.com. Scott Wilson RPA (since acquired by SLR) was engaged to prepare and deliver the McClean Technical Report (authored by Richard E. Routledge, M.Sc., P.Geo.), the Sue D Report and the McClean North Technical Report (each authored by Richard E. Routledge, M.Sc., P.Geo. and James W. Hendry, P.Eng.). Each author was an independent Qualified Persons for the purposes of NI 43-101. By letter dated October 20, 2009, Orano Canada received from Scott Wilson RPA subsequent corrections to the resource estimate in the McClean North Technical Report, which revisions have been incorporated herein as applicable.

The conclusions, projections and estimates included in this description are subject to the qualifications, assumptions and exclusions set out in the technical reports. We recommend you read the technical reports in their entirety to fully understand the projects.

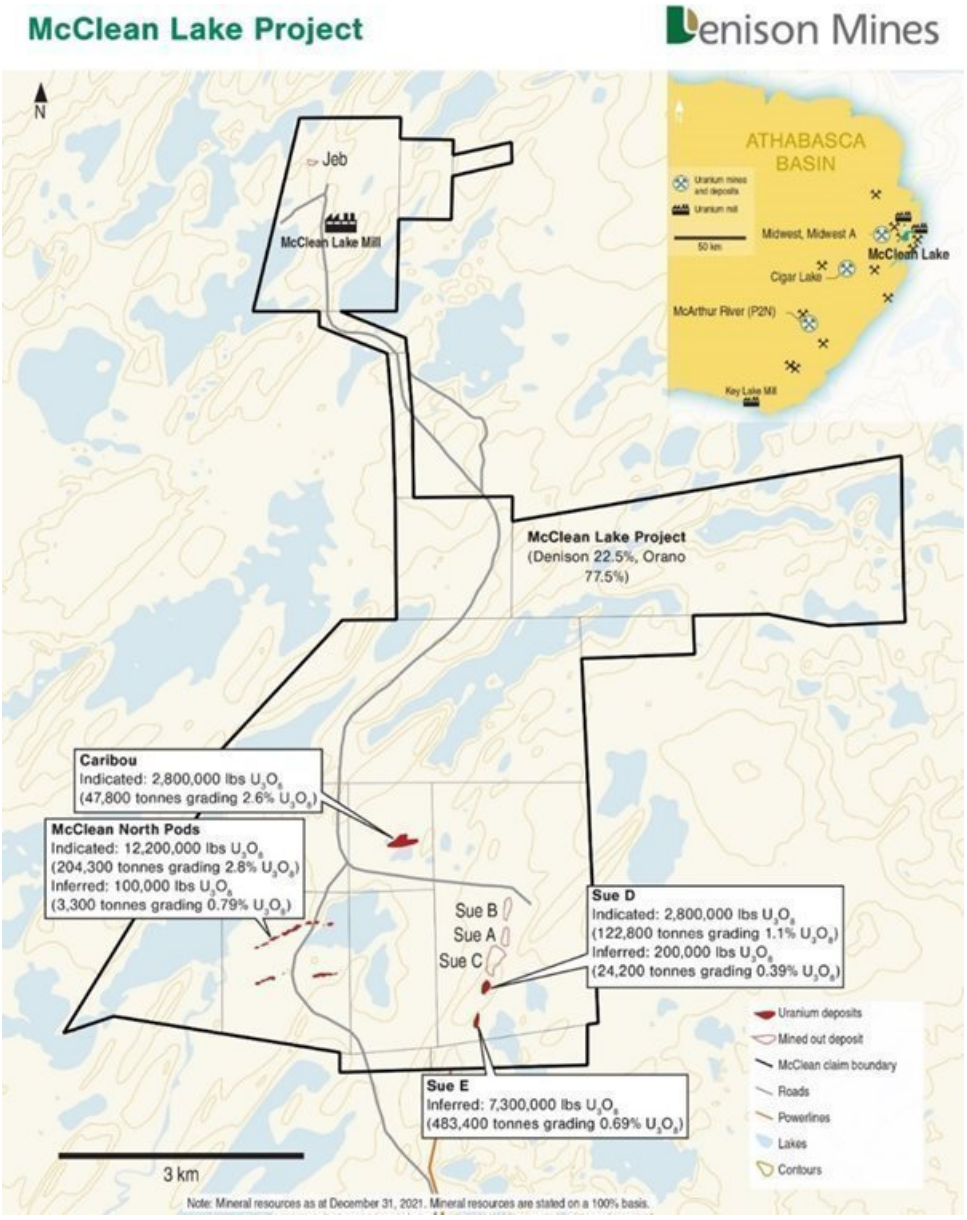
Property Description, Location and Access

The McClean Lake property is located within the eastern part of the Athabasca Basin in northern Saskatchewan, approximately 26 kilometres west of the Rabbit Lake mine and approximately 750 kilometres north of Saskatoon. Access to the McClean Lake site is by both road and air. Goods are transported to the site by truck over an all–weather road connecting with the provincial highway system. Air transportation is provided through the Points North airstrip about 25 kilometres from the project site.

The mineral property consists of four (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 these mineral leases, as renewed from time to time. Mineral leases are for terms of 10 years with the right to renew for successive 10-year periods provided that the leaseholders are not in default of the terms of the lease. A mineral claim grants the holder the right to explore for minerals within the claim lands and the right to apply for a mineral lease. The current mineral leases have terms that expire between November 2025 and August 2026 and title to the mineral claims is secure until at least 2041. It is expected that the leases will be renewed in the normal course, as required, to enable all the McClean Lake deposits to be fully exploited.

The right to use and occupy the lands at McClean Lake has been granted in a surface lease agreement with the province of Saskatchewan. The McClean surface lease was entered into in 2002, has a term until 2035 (33 years) and covers a land area of approximately 3,677 hectares.

The uranium produced from the McClean Lake deposits is subject to uranium mining royalties in Saskatchewan in accordance with Part III of The Crown Mineral Royalty Regulations. See "Government Regulation - Canadian Royalties." In addition, a royalty of 2% of the spot market price on all U_3O_8 produced from the Sue E deposit is payable to the previous owner of a portion of the deposit.


McClean Lake Project
Denison Mines
N
Jeb
McClean Lake Mill
ATHABASCA BASIN
Uranium mines and deposits
Uranium mill
50 km
Midwest, Midwest A
McClean Lake
Cigar Lake
McArthur River (P2N)
Key Lake Mill
McClean Lake Project
(Denison 22.5%, Orano 77.5%)
Caribou
Indicated: 2,800,000 lbs U3O8
(47,800 tonnes grading 2.6% U3O8)
McClean North Pods
Indicated: 12,200,000 lbs U3O8
(204,300 tonnes grading 2.8% U3O8)
Inferred: 100,000 lbs U3O8
(3,300 tonnes grading 0.79% U3O8)
Sue B
Sue A
Sue C
Sue D
Indicated: 2,800,000 lbs U3O8
(122,800 tonnes grading 1.1% U3O8)
Inferred: 200,000 lbs U3O8
(24,200 tonnes grading 0.39% U3O8)
Sue E
Inferred: 7,300,000 lbs U3O8
(483,400 tonnes grading 0.69% U3O8)
Uranium deposits
Mined out deposit
McClean claim boundary
Roads
Powerlines
Lakes
Contours
3 km
Note: Mineral resources as at December 31, 2021. Mineral resources are stated on a 100% basis.

History

Several operators and related joint ventures have managed the McClean Lake project from 1968 to present. Their involvement has resulted in the discovery of several uranium deposits including McClean North, McClean South, JEB, Sue trend (A,B,C,D,E) and Caribou. Exploration activities over the project have involved extensive geophysical surveys, both airborne and ground, in addition to exploration/delineation diamond drilling.

Uranium production from the McClean Lake deposits at the onsite McClean mill facility to date (current to 2021) is approximately 50 million pounds U_3O_8. The ore feed for production is almost entirely sourced from mining activities of the Sue (A, B, C, and E) and JEB deposits.

1968 – 1974 (Gulf Minerals Canada Ltd.)

From 1968 to 1974, the entire area was held under permit (Permit #8) by Gulf Minerals Canada Ltd. During this period, Gulf flew an airborne radiometric survey over the area and conducted reconnaissance and ground level surveys.

1974 – 1985 (Canadian Occidental Petroleum Ltd.)

In 1974 Gulf reduced their land holding and allowed Permit #8 to lapse. Canadian Occidental Petroleum Ltd. (" **CanOxy**") acquired the ground and flew a reconnaissance survey over the area in July of that same year and staked a 260 square kilometre area called then the Wolly property (now divided into the McClean Lake and Wolly properties). CanOxy operated the project from 1974 to 1985 at first without partners, then in 1977, in partnership with Inco Ltd.

Initial exploration consisted of geochemical and ground radiometric prospecting with follow up drilling. Several geophysical methods were also used, but correlation with geochemical and radiometric anomalies was generally poor. In 1977, airborne magnetic and EM surveys were flown over the property. The results indicated conductive trends and helped to better define the regional basement structure and lithology. The first significant discovery came in 1978, when the Tent Lake zone was found along a major conductive trend. Following this discovery, the emphasis was on geophysical rather than geochemical or radiometric targets. From 1979 to 1985, several major discoveries were made based mainly on geophysics and improved geological interpretations. This included the McClean North deposit in 1979, the McClean South deposit in 1980, the Candy Lake zone in 1981 and the JEB deposit in 1982. During this period, CanOxy completed 781 drill holes for 118,540 metres of drilling; most of them concentrated in the area now known as the McClean Lake property.

CanOxy prepared estimates of tonnages, grades and contained uranium for McClean Southeast and Southwest deposits as of 1980, which have not been verified by Denison. The results of these estimates are set out below. The Company is not treating this historical estimate as current mineral resources or mineral reserves.

1985 – 2020 (Minatco / Denison Mines / OURD)

In January 1985, Minatco entered into a joint venture agreement with CanOxy and Inco to become the operator of the project. Geophysical and drilling programs were conducted throughout the project area to follow up existing mineralized areas and explore new zones. In 1987, an additional zone (Pod 5) was found in McClean North. Several very significant discoveries were also made the following year, in 1988: two new mineralized zones, Sue A and B were found in the Sue area, which would lead to the discovery of the highly productive Sue trend; mineralization was indicated on the McClean South conductor, west of the McClean Southwest pod; and additional mineralization was found in McClean North. Additional work in the Sue area over the next few years, led to the Sue C deposit in 1989, the Sue D deposit in 1990 and the Sue E deposit in 1991. From 1985 to 1993, Minatco completed 1,160 drill holes for a total of 171,090 metres of drilling on the Wolly and McClean Lake projects, most of them concentrated again in the area now known as the McClean Lake property. In 1990, the CanOxy-Inco JV sold out to Minatco.

In 1993, Denison Mines Ltd. exchanged with Minatco a 70% interest in the Midwest Lake project for a 22.5% interest in the McClean Lake project. OURD obtained a 7.5% interest. Orano Canada (formerly Cogema Resources Inc.) also acquired the uranium assets of TOTAL (Minatco in Canada) and became the operator of the McClean Lake Project.

In 1993, the McClean Lake property was created and defined as a portion of the Wolly property outlined by a surface lease (containing the JEB, Sue and McClean deposits).

2020 (Orano Canada / Denison)

In 2020, OURD sold its 7.5% interest in the MLJV to Orano Canada.

Geological Setting, Mineralization and Deposit Types

The McClean Lake uranium deposits lie near the eastern margin of the Athabasca Basin in the Churchill Structural Province of the Canadian Shield. The bedrock geology of the area consists of Precambrian gneisses unconformably overlain by flat lying, unmetamorphosed sandstones and conglomerates of the Athabasca Group. The Precambrian basement complex is composed of an overlying Aphebian aged supracrustal metasedimentary unit infolded into the older Archean gneisses. The younger Helikian aged, Athabasca sandstone was deposited onto this basement complex. The basement surface is marked by a paleoweathered zone with lateritic characteristics referred to as regolith.

The McClean Lake uranium deposits which include the Sue deposits (A to E), McClean deposits (North and South), Caribou deposit and JEB deposit are unconformity-related deposits of the unconformity-hosted variety.

Exploration and Drilling

Exploration activities including ground geophysics and diamond drilling were conducted by Orano Canada from 1994 to present. The majority of exploration has been focused on areas of known mineralization at McClean North/South, Sue Trend, JEB and the Tent Seal Trend. Other target areas on the property which have also been subject to ground geophysics and drilling include Candy Lake, Bena, Vulture and Moffat Lake. In 2002 the discovery of Caribou, the high- grade unconformity related uranium deposit was made approximately 2 kilometres northwest of the Sue C open pit. No other significant discoveries have been made since 2002. During the period 1994 to 2019 Orano Canada completed 98,498 metres of drilling in 505 holes, with no significant exploration conducted on the property in 2020.

The 2021 exploration program was designed to test for the potential expansion of previously discovered mineralization in the McClean South 8W and 8E pods, as well as to test for new mineralization in the surrounding area. Fifteen drill holes totalling 4,083 metres were completed during the 2021 program. Three of the final four drill holes completed by Orano Canada returned uranium mineralization at the McClean South target area, with the results highlighted by drill hole MCS-34, which returned 8.67% U_3O_8 over 13.5 metres (including 78.43% U_3O_8 over 1.1 metres) with a cut-off grade of 0.05% and true thickness estimated to be approximately 85%).

For 2022, a diamond drilling program consisting of 18 to 22 drill holes for approximately 5,000 m is planned. The drill targets are designed to expand the mineralization around the newly discovered pod within the McClean South Conductor, between the 8W and 8E pods. As the program will be a results driven program, contingency targets have been designed to test the mineralization in the two historical pods as well.

Sampling, Analysis and Data Verification

The following description applies to all exploration on the McClean Lake property.

Following the completion of a drill hole, the hole is radiometrically logged using a downhole slim-line gamma probe. The gamma-log results provide an immediate equivalent uranium value (eU%) for the hole, which, except in high-grade zones, is reasonably accurate. The gamma-log results, however, have not been used for the purposes of estimating mineral reserves or resources unless core loss is significant. 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. A background geochemistry sample is collected every 10 metres down the hole.

All sampled core is split in half, one half retained and the other sent to an independent laboratory. Lost core is not an issue at the McClean project as core recovery has been good. Control samples are routinely assayed with each batch of core samples analyzed.

The mineralization in the various McClean deposits is highly variable in both mineralogy and uranium content. The principal minerals identified in the deposits are pitchblende, uraninite and niccolite. As a result of the highly variable uranium content, a variable density formula was developed for the McClean deposits. This formula was modified over the years to account for the fact that it originally tended to underestimate U_3O_8 content where the U_3O_8 values were associated with high values of nickel and arsenic.

No opinion can be given regarding security of samples in the mid to late 1970s and the late 1980s other than to indicate that subsequent geological work and all metallurgical and geotechnical work have confirmed the results. All procedures reviewed follow generally accepted industry practice. A good demonstration of the reliability is that JEB and the Sue deposits (B and C) have been mined out and more uranium has been recovered into stockpiles than had been estimated from surface drilling.

Mineral Reserve and Mineral Resource Estimates

Estimation procedures have evolved over the years. At the time of the feasibility study in 1990, polygonal methods were used for the JEB, the Sue A, the Sue B, the Sue C deposits and for the McClean zones. Prior to the start of mining at the JEB deposit, the mineral reserves were re-evaluated using computerized methods whereby block models were constructed and geostatistical methods were implemented. Much more recently, these mineral resource estimates have been further refined using Whittle pit optimization software. Appropriate tests and audits of the databases on all the McClean deposits have been carried out by past qualified Denison personnel. In the case of JEB, Sue C and Sue B, the amount of U_3O_8 recovered into stockpiles was higher than that estimated from surface drilling.

The Company received the McClean Technical Report from Scott Wilson RPA (now SLR) on its mineral reserves and mineral resources at certain of the deposits (Sue A, B, E and McClean North and Caribou) at McClean Lake. See "Mineral Reserves and Mineral Resources", above, for a summary of the mineral resource and mineral reserve estimates remaining, after adjusting for mining activity, as applicable.

In preparing the McClean Technical Report, Scott Wilson RPA reviewed previous estimates of mineral reserves and mineral resources at the applicable properties, and examined and analyzed data supporting the previous estimates, as well as other available data regarding the properties, including extensive information from Orano Canada.

For the Sue E deposit, Scott Wilson RPA constructed a block model using indicator kriging to both map out and geologically constrain mineralized areas. A block that had at least one nearby composite within 10 metres of its centre, and that had composites from at least two different drill holes in its search neighbourhood was classified as part of the indicated mineral resource. The indicated mineral resource was evaluated by Scott Wilson RPA in 2005 using Whittle economic evaluation software showing that the Sue E pit economics were robust and mineral reserves were estimated. Mining was completed at the Sue E pit during 2008 recovering about 91% of the probable mineral reserves estimated. Scott Wilson RPA classified approximately 7.3 million of the pounds outside the current pit as inferred mineral resources. Confirmatory drilling in 2006 by the operator has indicated that this may be reduced to 2.0 million pounds, but mineral resources have not been re-estimated.

The mineral resource estimate for the Caribou deposit is based on a block model for which grade was interpolated using ordinary kriging. Since there were no plans for the mining of this deposit at the date of the McClean Technical Report, the economic potential was not evaluated and mineral reserves were not estimated.

With respect to the Sue D deposit, the Company received the Sue D Report in 2006, authored by Scott Wilson RPA. Scott Wilson RPA carried out an independent mineral resource estimate for Sue D by conventional 3-D computer block modeling. A minimum vertical mining width of two metres was employed with a 0.1% U_3O_8 cut-off.

Due to the significant increase in the price of uranium from 2004 to 2006, Denison engaged Scott Wilson RPA to re-evaluate the uranium resources in the McClean North trend that are amenable to other methods of mining. The original McClean Technical Report had only evaluated mineral resources and mineral reserves of the high grade portions under the assumption that they would be mined using a blind shaft mining method. The Company received the McClean North Technical Report on the mineral reserves and resources at the McClean North uranium project in 2007.

The re-evaluation of McClean North was carried out by conventional 3-D computer block modeling. Wire frames were constructed for each of pods 1, 2 and 5. The estimate included internal dilution, but not external dilution, and was carried out at a 0.1% U_3O_8 cut-off. This mineral resource estimate is based entirely on diamond drill information. Block cell dimensions were selected at 8 metre (easting) x 5 metre (northing) and a 2 metre bench height or approximately 180 tonnes/block. Scott Wilson RPA constructed a mineral resource wireframe based on kriging, and constructed a special waste wireframe, that generally surrounds the mineral resource wireframe, using similar kriging parameters but with larger search distances. Subsequent to this report, the Company and Scott Wilson RPA reviewed the block model and estimation procedures in October 2009 and made a slight revision to the mineral resource estimate for the McClean North deposit.

Mining Operations

McClean Lake consists of nine known ore deposits: JEB; Sue A, B, C, D and E; McClean North; McClean South; and Caribou. In 1995, the development of the McClean Lake project began. Mill construction commenced in 1995 and ore processing activities reached commercial production in November 1999. Mining operations also commenced, and the following deposits have been mined out to date: JEB (1996 to 1997), Sue C (1997 to 2002), Sue A (2005 to 2006), Sue E (2005 to 2008) and Sue B (2007 to 2008). Various test mining programs from 2006 to date have also been conducted at McClean North.

The MLJV is currently assessing the Surface Access Borehole Resource Extraction (" **SABRE**") mining method technology for extraction of the McClean North deposits. See "Denison's Operations – SABRE Mining Program" below for more information on SABRE.

At December 2021, the remaining ore reserves consist of a limited quantity of stockpiled ore from historical Sue B open pit mining operations and SABRE test mining activities at McClean North. Approximately 87,454 tonnes of Sue B ore at a grade of 0.35% U_3O_8 and 2,481 tonnes of McClean Lake North ore (mined via SABRE, as defined below), at an average grade of 0.80% U_3O_8, are stockpiled on surface as at the end of 2021.

Low-grade special waste from the mining of the JEB, Sue C, Sue A, Sue E and Sue B deposits has been disposed of in the mined-out Sue C pit. In the future, Cigar Lake special waste is also expected to be disposed of in the Sue C Pit. By agreement between the CLJV and the MLJV, costs to update the Sue Water Treatment Plan and costs to dewater the Sue C pit for Cigar Lake special waste will be shared 50/50 between the CLJV and MLJV.

Processing and Recovery Operations

Processing of the McClean Lake ore stockpiles is anticipated to occur prior to the end of life of the McClean Lake mill. Historical processing of the McClean Lake orebodies through 2000 to 2010 has demonstrated strong performance, with recoveries above 97%. The MLJV anticipates processing of the remaining stockpiles to have similar performance results.

Development and Production

In 2012, Orano Canada (then AREVA) initiated an internal study evaluating the feasibility of mining the McClean North, Caribou and Sue D deposits via conventional underground methods. The internal study was completed in April 2014; however, no formal technical report has been prepared by Denison in accordance with NI 43-101 and a production decision has been deferred by the MLJV.

As part of the continuing development of the SABRE mining method in 2021, a small test mining program at McClean North generated 1,500 tonnes of high-value ore, which was processed at the McClean Lake mill in late 2021. Based on the success of the 2021 SABRE test mining program, the MLJV partners plan to evaluate the potential use of the SABRE method for future mining operations at the McClean Lake and Midwest properties. See "Denison Operations-SABRE Mining Program" for more information.

Infrastructure, Permitting and Compliance Activities

The McClean Lake uranium mill, one of the world's largest uranium processing facilities, is contracted to process ore from the Cigar Lake mine under a toll milling arrangement between the MLJV and the CLJV. The site has been in operation since the late 1990's and consists of the mill, a tailings management facility, administration offices and building, camp facilities, back-up power supply, water treatment plants and a host of other minor facilities. The site is connected to the provincial power grid and provincial highways. Points North Landing Airport provides transportation to and from site for personnel on a daily basis.

As a uranium site, the CNSC permits the operations. On July 1, 2017 the McClean site received a 10 year license for operations until June 30, 2027. See "Denison's Operations – McClean Lake Mill License" for more details.

Midwest

The Midwest project is owned by Denison (25.17%) and Orano Canada (74.83%) pursuant to the Midwest Joint Venture Agreement. Orano Canada is the operator of the project.

Except as otherwise noted below, this project description is based on the project's technical report entitled "Technical Report with an Updated Mineral Resource Estimate for the Midwest Property, Northern Saskatchewan, Canada" dated March 26, 2018 (the "**Midwest Technical Report**"), a copy of which is available on the Company's profile on the SEDAR website at www.sedar.com.

The conclusions, projections and estimates included in this description are subject to the qualifications, assumptions and exclusions set out in the technical report. We recommend you read the technical report in its entirety to fully understand the project.

Property Description, Location and Access

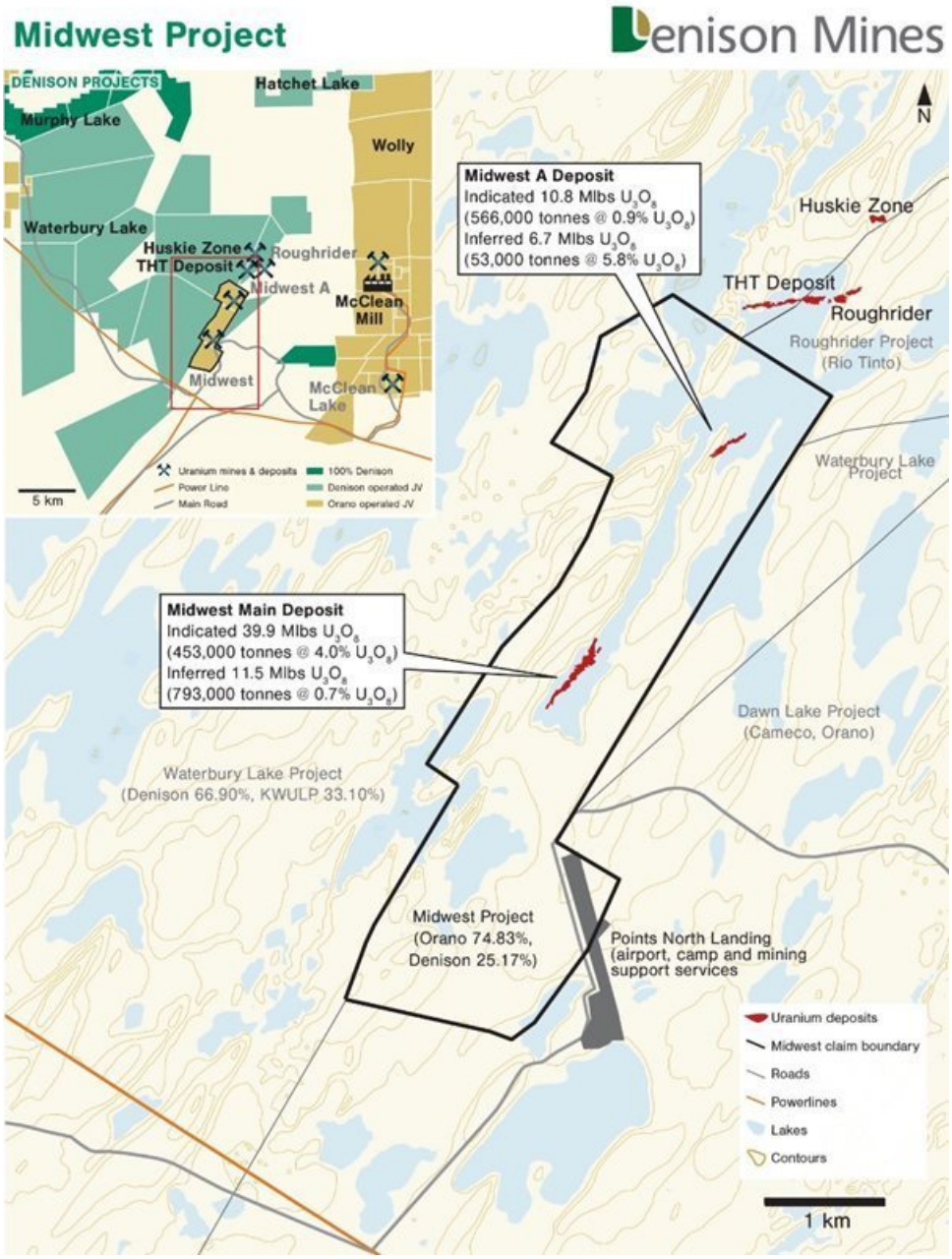
The Midwest property is located within the eastern part of the Athabasca Basin in northern Saskatchewan. The northern portion of the property is located on South McMahon Lake, about one kilometre from the Points North Landing airstrip and about 25 kilometres west by existing roads from the McClean Lake mill on the McClean Lake property. The site is approximately 750 km by air north of Saskatoon and about 420 km by road north of the town of La Ronge.

Access to the Midwest property is by both road and air. Goods are transported to the site by truck over an all-weather road connecting with the provincial highway system. Air transportation is provided through the Points North airstrip.

The property consists of three (3) contiguous mineral leases, covering 1,426 hectares and contains both the Midwest Main and Midwest A deposits. The mineral lease containing the Midwest Main deposit (ML 5115) is 556 hectares in size. Each of the mineral leases is at an annual assessment rate of $75.00 per hectare and has sufficient approved assessment credits to maintain the ground in good standing until 2041. There is no current production from these mineral leases. Leases must be renewed every 10 years as part of an administrative process.

Since the completion of the underground test mine at the Midwest Main deposit in 1988 and 1989, the site has been under an environmental monitoring and site security surveillance program. At present, there is an inactive water treatment plant, two water storage ponds and a core storage area on the site, as well as a dam in the Mink Arm of South McMahon Lake. All of the facilities used in the test mine program and all of the existing surface facilities are located on lands owned by the province of Saskatchewan. The right to use and occupy the lands was granted in a surface lease agreement with the province of Saskatchewan. The original surface lease agreement of 1988 was replaced by a new agreement in 2002. This new surface lease is valid for a period of 33 years. Obligations under the surface lease agreement primarily relate to annual reporting regarding the status of the environment, the land development and progress made on northern employment and business development. The Midwest surface lease covers an area of approximately 646 hectares.

Location of the Midwest Main and Midwest A deposits on the Midwest project



Any uranium produced from the Midwest deposits is subject to uranium mining royalties in Saskatchewan in accordance with Part III of The Crown Mineral Royalty Regulations. See “Government Regulation - Canadian Royalties.” A portion of Denison's interest in the Midwest project (i.e. 5.5% of the project reducing to 3.44% after payout) is subject to a sliding-scale, gross overriding royalty ranging from 2% to 4% payable to two previous owners of a portion of the Midwest project.

There are no known significant factors or risks that may affect access, title, the right, or ability of Orano Canada to perform work at/on the Midwest property.

History

Initial exploration work in the vicinity of the two Midwest deposits began in 1966. Canada Wide Mines Ltd., a subsidiary of Esso Resources Canada Ltd., was operator of the project from 1968 to 1982. From 1968 to 1975, exploration was carried out on an exploration permit which included the area covered by the current mineral leases. Most of the work was concentrated on the area near South McMahon Lake where uranium mineralized boulders were found. In 1974, the exploration permit was changed to mineral leases.

During the winter season of 1977, one of the holes drilled through the unconformity encountered mineralization. In January 1978, the Midwest Main deposit was intersected by the first drill holes. During 1978 through 1980, a further 439 holes were drilled (for a total of about 650) to delineate the deposit and to explore the surrounding area of the mineral leases.

In 1987, Denison acquired a 45% interest in the Midwest project and became the operator. An underground test mine program was completed in 1989 which confirmed the results of the surface drilling program and identified a high grade historical mineral reserve containing 35.7 million pounds of U_3O_8 at an average diluted grade of 4.5% U_3O_8, considered to be mineable by underground methods. This is a historical estimate, not being treated as current mineral reserves. During this time, Denison also performed an EM-37 survey and geotechnical drilling on the Midwest Main deposit. Exploration drilling was conducted to the east (1988) and along the conductive trend to the north of Midwest Main deposit (1989).

In 1993, the respective owners of McClean Lake and Midwest combined their interests to make two complementary projects with one mill at McClean Lake. In order to accomplish this, a portion of Denison's interest in Midwest was exchanged for an interest in McClean Lake. This transaction, together with several related ownership changes, resulted in Denison's ownership interest in Midwest being reduced to 19.5% and Minatco, Orano Canada's predecessor in title, becoming the operator.

In 1999, Denison increased its interest in Midwest by 5.50% through the exercise of first refusal rights. With the uncertainty of the timing and costs of the Midwest development and the desire to eliminate the obligation to pay advance and future royalties on production from Midwest, Denison decreased its interest in Midwest from 25% to 19.96% effective March 31, 2001. Orano Canada, the operator/manager of Midwest, also reduced its interest from 70.5% to 54.84% for the same reason.

At the end of 2004, in order to take advantage of rapidly increasing uranium prices, Denison again increased its interest at Midwest, along with its joint venture partners, by buying the 20.70% interest in Midwest then held by Redstone Resources Inc. This purchase permitted Denison to acquire a further 5.21% interest in Midwest, bringing its interest to 25.17%. Orano Canada's interest increased to 69.16% and OURD's interest increased to 5.67%.

In 2020, OURD sold its interest in Midwest to Orano Canada.

Geological Setting, Mineralization and Deposit Types

The Midwest deposits are classified as 'unconformity-type' uranium deposits and occur approximately 200 metres below surface straddling the unconformable contact between overlying Athabasca Group sandstones and the underlying Paleoproterozoic and Archean basement rocks belonging to the Wollaston-Mudjatik Transition Zone. The north-northeast Midwest structural trend that controls the Midwest Main and Midwest A uranium deposits follows a steeply-dipping, graphitic pelitic gneiss, basement unit that is bounded by granitic gneisses or granite to both the east and west. The sub-Athabasca unconformity surface is relatively flat on a regional scale, however there is a slight uplift along the north-northeast Midwest trend and a generally higher elevation to the east. Fault zones in the basement are often characterized by brecciation and strong hydrothermal alteration with clay mineral development. These fault zones generally extend into the overlying Athabasca Group sandstone.

The Midwest Main deposit is lens to cigar shaped, 600 metres long, 10 to over 100 metres wide, with thicknesses ranging from 5 metres to 10 metres. The deposit consists of a near-massive, high-grade mineralized core that straddles the unconformity approximately 210 metres below surface. The high-grade core is surrounded by lower-grade, more dispersed, fracture-controlled mineralization in both sandstone and, in minor amounts, in basement rocks. The high-grade mineralization forms a roughly flat-lying lensoid concentration, with a root extending down into the basement rocks along a steeply-dipping fault.

The Midwest A deposit is approximately 450 metres long, 10 to 60 metres wide, ranges up to 70 metres in thickness and occurs between 150 and 235 metres below surface. Mineralization straddles the unconformity contact with minor amounts hosted within basement structures immediately below the unconformity. Thicker zones of mineralization above the unconformity are concentrated in conglomerate units at the base of the Athabasca sandstone. Similar to Midwest Main, a high-grade core of mineralization is surrounded by a lower-grade, more dispersed, fracture-controlled envelope.

Exploration and Drilling

Under Orano Canada's operatorship, exploration activities resumed in 2004. Exploration drilling was initiated some three kilometres to the northeast of the Midwest deposit to test ground around a historic hole MW-338 that had returned an isolated intercept of 3.8 metres at 6.9% U_3O_8. Between 2005 and 2009, a further 50,831 metres of drilling was completed in 191 drill holes on the property, which discovered and delineated the Midwest A deposit and identified and evaluated several other mineralized areas, including the Josie Zone, lying between the Midwest and the Midwest A deposits. 76 of these holes (20,794.9 metres) have intersected the mineralization associated with the Midwest A deposit. Additional geophysical programs were also conducted.

The Midwest Main deposit was intensively drilled in the late 1970's and 1980s. Drill holes defining the Midwest deposit include 615 drill holes, of which 362 are mineralized. By type, these include exploration, shallow reconnaissance (<100 metres), and geotechnical drill holes. Between 2004 and 2017, only 11 drill holes have been completed on the Midwest Main deposit area under Orano Canada's operatorship. Four inclined geotechnical holes were drilled in 2004 and four shallow geotechnical drill holes were completed in 2006. Three additional exploration drill holes were carried out within the deposit outlines in 2006 (MW-677, MW-678, and MW-685).

No exploration work was conducted at Midwest during the period 2010 to 2017, 2019 or 2020. The winter 2018 drill program comprised 4,709 metres in 12 completed diamond drill holes. Drilling was conducted on the Points North conductor (6 drill holes, 2,269 metres) to test exploration targets, and at Midwest Main (6 drill holes, 2,440 metres) to collect additional information from the unconformity-hosted mineralized zone and to test underlying basement targets. The drilling validated mineralization at the Midwest Main deposit (based on preliminary radiometric equivalent uranium results), but did not intersect any high-grade mineralization on the Points North conductor, or below the Midwest Main deposit within the basement.

In 2021, Orano Canada completed an exploration program consisting of 2,669 metres of diamond drilling in 8 holes completed over four different target areas: The Camille Zone (4 holes), Midwest Main (1 hole), the Dam Zone (1 hole), and the Points North Zone (2 holes). Elevated radioactivity and indicative alteration were identified from drilling in each of these areas.

For 2022, a two-line, 4.0 km Moving Loop Transient Electromagnetic Survey (ML-TEM) is planned north of the Midwest A deposit, towards the northern claim boundary to better define the Midwest conductor north of the Midwest A deposit, where there is an apparent 500 metre dextral shift of the conductor. Existing drilling in the area has not validated the EM conductor, and the increased ground EM coverage will better guide targeting for future drilling.

Sampling, Analysis and Data Verification

During 2017, Orano Canada undertook a comprehensive review of the databases for both the Midwest Main and Midwest A deposits ahead of an updated mineral resource estimate. Concerns were identified at both deposits that needed to be addressed to increase both the confidence and the accuracy of the final estimate.

Given the historic nature of the data at Midwest Main a limited amount of data was readily available digitally: downhole gamma probe (" **probe**") data existed only as paper logs making it previously unavailable to be used, no comprehensive 3D geological model was available, perched mineralization was not fully modeled, and further data QAQC was needed. Midwest A has a much more modern data set; however, no dry bulk density measurements were available, the latest drilling from September 2007 to December 2009 was not taken into account in the previous estimate, and the High Grade Zone was assigned an average uranium grade rather than performing grade modelling. Additionally, both deposits required new probe to chemical uranium assay grade ("**grade**") correlations for the calculation of equivalent uranium (eU), combination of probe and grade data based on core recovery and probing/drilling parameters to be available for estimation, updated lithology and structural models (geological models), and an updated block model.

Work began with verifying the grade data against assay certificates and a historical nine track database from ESSO. Some discrepancies were noted in the sample locations as well as some of the grades due to typographical errors. When compared to the original drill logs and the probe logs, these were able to be rectified.

The Midwest deposits often have core loss associated with the mineralization, due to the high amount of clay alteration and quartz dissolution which makes core recovery while drilling difficult. This results in gaps in the grade dataset that are typically addressed by using probe radiometric equivalent uranium (eU) data. Digital probe data was available for Midwest A, however for Midwest Main most of probe data was never digitized and remained only available on paper logs. The paper logs for 218 holes were digitized and added to the Midwest data set. This was followed up by ensuring the probe data was depth corrected (depth matched with grade data), as well as the creation of new probe to grade correlations for both deposits.

Midwest Main had a robust density to grade correlation; however, Midwest A did not have any dry bulk density measurements taken. The only density data at Midwest A was in the form of specific gravity measurements which do not take into account porosity and therefore tend to overestimate the density. Due to the high density of uranium, density is a vital reference for the expected tonnage of high-grade uranium deposits, which has a direct effect on the amount of uranium estimated. Given this uncertainty at Midwest A, previous resource estimations were forced to use a very conservative grade to density regression formula to avoid overestimation of resources. During a 2017 site visit, 25 dry bulk density measurements were taken from the remaining Midwest A drill core and sent for dry bulk density and geochemical analyses. A new grade to density regression formula was established showing an increase to the correlation by approximately 10%.

Various chemical assay methods have been employed at the Midwest Project prior to Orano Canada assuming operatorship in 2004. The methods described herein pertain to the program from 2004 onwards. Drill core with anomalous total gamma radioactivity (>200 counts per second utilizing a SPP2 or SPPγ scintillometer) was sampled over 0.5 metre intervals. Sampling is undertaken on site by splitting the core in half, with one half submitted for analysis and the other half retained in the core box for future reference. Uranium chemical assays are performed by SRC in Saskatoon. Sample preparation involves crushing and pulverizing core samples to 90% passing -106 microns. Splits of the resultant pulps are initially submitted for multi-element ICP-MS analysis following partial (HNO_3:HCl) and total (HF:HNO_3:$HClO_4$) digestions. Samples with ≥ 1,000 ppm U (partial digest) are re-assayed for U_3O_8 using an ISO/IEC 17025:2005 accredited method for the determination of U $_3O_8$ weight %. Pulp splits are digested using aqua-regia and the solution analyzed for U_3O_8 weight % using ICP-OES.

For composite exploration samples, collected over 20 metre (upper sandstone) or 10 metre intervals (lower sandstone and basement), major and trace elements are determined using ICP-MS or ICP-OES after partial and total digestions. Boron values are obtained through NaO_2/$NaCO_3$ fusion followed by ICP-OES. In addition to internal checks by SRC, Orano Canada has rigorous QAQC procedures including the insertion of standard reference materials, blanks and field duplicates.

For mineral resource estimation purposes, wherever core recovery was less than 75%, the eU values derived from a calibrated downhole gamma probe are substituted for chemical assays where possible. Core recovery at Midwest Main is typically good with poorer recovery observed at Midwest A. For the Midwest A and Midwest Main updated mineral resource estimates reported herein, 64% and 16% of the assay intervals relied on eU grades, respectively.

Orano Canada has performed detailed QAQC and data verification, where possible, of all datasets, which in Denison's opinion are in accordance with industry best practice. Denison has performed additional QAQC and data verification of the drilling database including review of the QAQC methods and results, verification of assay certificates against the database assay table, review of downhole probe and eU calculation procedures, standard database validation checks and two site visits to the Midwest project in early 2018. Denison has reviewed Orano Canada's procedures and protocols and considers them to be reasonable and acceptable for mineral resource estimation.

Mineral Processing and Metallurgical Testing

Several programs of metallurgical testing have been carried out on Midwest Main mineralization. The two main studies were completed by Melis Engineering in 1990 and by SEPA (Service d'Études, de Procédés et Analyses, engineering department of the Orano Group in France) in 1998. Both studies show that good metallurgical recovery of uranium can be achieved. The current McClean mill milling process differs from what was planned by Melis as a separate facility was planned in the study. The leaching tests done by SEPA on the Midwest Main mineralization samples showed that 99.5% of uranium could be extracted using the following conditions:

- Leach time 24 hours
- Acid addition 120 kg/tonne
- Free acid at end of test 25 g/l
- Oxidation, 02 at 2 bar pressure
- Redox 470 m.v.

The current process for Cigar Lake ore being processed at the McClean mill requires an eight hour leaching time which is substantially less than what is proposed as optimal for Midwest Main ore (24 hours).

The Midwest Main deposit has a relatively high amount of arsenic (5-10% overall), which could affect the water quality discharge from the mill if not properly precipitated into the tailings. The SEPA study proposed using ferric sulphate to precipitate the arsenic in the tailings. Currently the mill is addressing moderate arsenic levels in the Cigar Lake ore feeds using barium chloride and ferric sulphate to precipitate it from solution.

Test work was conducted by Denison in 1992 at Lakefield Research to determine if the recovery of nickel and cobalt was feasible along with the extraction of uranium (Lakefield Research, 1992). Test work indicated that a precipitate with good grades of nickel and cobalt could be produced from a raffinate solution after the arsenic and radium are precipitated. It is estimated that an overall process recovery of 54% for both nickel and cobalt could be achieved.

The McClean mill has seen many upgrades and changes since the 1992 and 1998 studies were conducted. Review of the studies and additional metallurgical testing will likely need to be conducted prior to assessing the feasibility of mining of Midwest Main.

There has been no mineral processing or metallurgical test work completed on the Midwest A deposit.

Mineral Resource Estimates

The Company retained SRK to independently review and audit an updated mineral resource estimate for the Midwest project completed by Orano Canada in November 2017. The review and audit was done in accordance with CIM Definition Standards (2014) and NI 43-101. The Company received a memorandum from SRK dated March 9, 2018, which was incorporated into the Midwest Technical Report. See “Mineral Reserves and Mineral Resources”, above, for a summary of the mineral resource estimate for the Midwest project.

In November 2017, Orano Canada provided Denison with a comprehensive project database consisting of drill hole data, mineralized wireframes and block models for both the Midwest Main and Midwest A deposits. The Midwest database was sent to SRK to conduct review and audit of the updated mineral resource estimate completed by Orano Canada. For the audited mineral resource estimate, SRK used data collected from several drilling campaigns completed between 1977 and 2009, including a total of 156 drill holes for Midwest A and 305 drill holes for Midwest Main. The audited mineral resource estimate includes expanded Low Grade and High Grade zones for Midwest A and three primary mineralized zones at Midwest Main, namely Unconformity, Perched and Basement zones. A summary of the audited estimation methodology and for Midwest A and Midwest Main are described below.

The Midwest A block model consists of two main mineralized domains, Low-Grade and High-Grade zones constructed using a 0.05% U cut-off with minimum thickness of two metres and 10.0% U cut-off with minimum thickness of one metre, respectively. A perched zone was identified, but was not considered for resource estimation. The Midwest A deposit consists of data from 113 boreholes of which 69 boreholes intersect the mineralization itself. Grades are comprised of 64% eU data, derived from a calibrated downhole gamma probe, and 36% chemical assay data. Sample data were composited to one metre length. An accumulation-like approach was used, wherein GxD (where grade is in percent uranium) and density were estimated into a three-dimensional block model, constrained by wireframes in two passes using ordinary kriging. The grade was then calculated into each block by dividing the estimated GxD by the estimated density. A block size of 5 by 5 by 2 metres was selected. Search radii were based on variogram analyses with a relatively flat ellipsoid used aligned roughly to the unconformity surface.

Grade capping was not performed, however, the treatment of high grades was considered during estimation by limiting the influence of GxD

composites greater than 20 and density composites greater than 3, to a neighbourhood of 7.5 cubic metres within the low-grade zone. Classification is based on drillhole spacing, with blocks classified as Indicated only found in the sandstone and upper basement portion of the Low Grade zone with drillhole space of 30 metres or less. The lower basement and all other sandstone blocks are classified as inferred mineral resources.

The Midwest Main block model considered three styles of mineralization to construct the mineralized domains: unconformity, perched and basement. Mineralized domains were constructed using a 0.05% U cut-off with a minimum thickness of two metres. The Midwest Main deposit consists of data from 305 boreholes that intersected the mineralization, with new downhole gamma probe eU data for unsampled locations or in areas of poor core recovery (less than 75% core recovery). Grades are comprised of 16% eU data, derived from a calibrated downhole gamma probe, and 84% chemical assay data. Sample data were composited to one metre length.

Similar to Midwest A, two attributes, density and GxD, were calculated into each block using ordinary kriging, and the uranium grade was then calculated by dividing the estimated GxD by the estimated density. A block size of 5 by 5 by 2 metres was selected. Search radii were based on variogram analyses with a relatively flat ellipsoid used aligned roughly to the unconformity surface. Capping was not performed, however, higher grade composites were limited to a 5-cubic-metre neighbourhood of influence. This was applied to all zones, with high grade thresholds varying by zone. Classification is based on estimation passes, with blocks classified as Indicated only in the Unconformity zone and in regions of tight borehole spacing up to a nominal spacing of 17.5 metres. All other blocks are classified as inferred mineral resources.

Development and Production

In early 2007, Orano Canada completed an internal study evaluating the feasibility of mining the Midwest Main deposit via open pit mining methods and processing the resulting ore at the McClean Lake mill. In November 2007, the Midwest Joint Venture partners made a formal production decision to proceed with the development of the Midwest Main deposit. Subsequently, in November 2008, the Midwest Joint Venture partners announced that the development of the Midwest Main project would be delayed for an indefinite period due to delays and uncertainties associated with the regulatory approval process, increasing capital and operating cost estimates and the depressed state of the uranium market at the time.

Despite this decision, the MWJV partners advanced the environmental assessment process and, after several years of work, the final version of the Midwest Project Environmental Impact Statement ("**EIS**") was submitted to provincial and federal governments in September 2011. A Comprehensive Study Report was drafted by the CNSC and circulated for federal, provincial and Indigenous review, and in September 2012, the Midwest EIS was approved.

For 2022, the MLJV and MWJV have approved modest budgets to evaluate the technical and economic merit of the potential use of the SABRE and ISR mining methods at the Midwest Main and Midwest A deposits.

Other Exploration Properties

Other Denison Properties - 2021 Exploration Activities

Results from the 2021 programs completed at Denison's greenfield exploration properties are discussed below. For Sampling, Analysis and Data Verification Procedures with respect thereto, see "Athabasca Exploration: Sampling, Analysis and Data Verification".

Ford Lake

The Ford Lake project is wholly-owned and operated by Denison, and consists of 9,649 hectares in five dispositions. The project is located approximately 40 kilometres southwest of the high-grade Phoenix deposit. The current project lands were established by Denison in 2004. Exploration on the property has been carried out sporadically since the 1970's.

During the first and second quarters of 2021, a 6-line Small Moving Loop (" **SML**") Electromagnetic ("**EM**") survey was conducted on the Company's Ford Lake property to resolve a complex, multiple conductor trend. Planning and permitting activities commenced in the fourth quarter for a 2022 exploration drilling program designed to test prospective conductive anomalies identified in the 2021 SML EM survey.

Moon Lake South

The Moon Lake South Property is 75%-owned, and operated, by Denison, with the remaining 25% owned by CanAlaska Uranium Ltd. The property consists of one claim for 2,716 hectares. The 2020 Moon Lake South geophysics program was completed as part of a combined 2020 Moon Lake South/North Geophysics program, including a Stepwise Moving Loop ("**SWML**") EM survey. The 2021 Moon Lake South exploration drilling program commenced in early September 2021 and was completed during the fourth quarter. The program was designed to evaluate the CR-3 conductive corridor by drill testing conductive anomalies identified by the 2020 SWML EM survey.

A total of 4 holes were completed to target depth, for a total of 3,356.3 metres. Low-grade unconformity associated uranium mineralization was intersected in two of four holes completed, as determined from total gamma down-hole probe data.

The 2021 exploration drilling program successfully explained the conductive response outlined in the 2020 SWML EM survey, and Denison has now confirmed three mineralized occurrences over a strike length of approximately 4 kilometres along the CR-3 conductive corridor.

Moon Lake North

The Moon Lake North project is wholly-owned and operated by Denison. The property comprises ten contiguous mineral claims totalling 1,068 hectares. Although exploration work has been conducted on and around the current project lands since the late 1960's, no drilling has been

completed on the Moon Lake North project lands prior to 2021.

During the fourth quarter of 2021, an exploration drilling program was completed, based out of Denison's Wheeler River camp, in conjunction with drilling on Denison's Wheeler River and Moon Lake South properties. A total of 1,384 meters was drilled in two diamond drill holes, which were designed to evaluate the CR-3 conductive corridor by drill testing a conductive anomaly from the 2020 SWML EM survey. A graphitic semibrittle

fault was intersected in each of the holes completed, which was interpreted to represent the CR-3 conductor.

Denison Directly-Owned Projects, Athabasca Basin, Saskatchewan

Denison's other Athabasca projects range in exploration maturity and present numerous exploration opportunities. Denison continuously reviews its significant land package with a view to generating new exploration targets or creating spin-out opportunities. The table below provides a list of Denison's Athabasca projects as at December 31, 2021.

Projects	Denison Ownership	JV Partner	# Claims	Hectares
Bachman Lake	100%		5	11,419
Bell Lake	100%		7	24,320
Brown Lake	100%		3	1,755
Candle Lake	45.09%[1]	Uranium One Inc.; JCU	1	2,595
Crawford Lake	100%		5	11,800
Darby	60.12%	Uranium One Inc.	9	15,392
Epp Lake	100%		2	865
Ford Lake	100%		5	9,649
Hatchet Lake	70.15%	Eros Resources Corp.	9	10,212
Hook-Carter	80%	ALX Resources Corp.	8	24,691
Johnston Lake	100%		9	28,647
Lynx Lake	60.12%	Uranium One Inc.	1	1,274
Mann Lake	30%	Cameco; Orano Canada	2	3,407
Marten	100%		2	5,008
Moon Lake	60.12%	Uranium One Inc.	2	4,309
Moon Lake North	100%		10	1,068
Moon Lake South	75%	CanAlaska Uranium Ltd.	1	2,716
Murphy Lake	100%		8	8,686
Packrat	100%		1	1,621
Park Creek	49%	Cameco	8	7,798
Russell Lake	37.82%	Cameco; Mr. W.P. Boyko	1	355
South Dufferin	100%		9	12,283
Torwalt Lake	100%		1	812
Turkey Lake	100%		1	3,789
Waterfound	11.78%[1]	Orano Canada; JCU	25	11,670
Waterfound North	60.12%	Uranium One Inc.	4	4,124
Wolly	21.32%[1]	Orano Canada; JCU	17	23,700
Wolverine	100%		3	5,036
TOTAL:			**159**	**239,001**

Notes:
(1) Denison also owns an additional indirect interest, through its 50% ownership of JCU. See table below.

Denison Indirectly-Owned Exploration Projects, through JCU

Denison is indirectly involved in eleven uranium projects located in the Athabasca Basin of Saskatchewan through its 50% ownership of JCU. The table below provides a list of JCU's Athabasca Basin project interests as at December 31, 2021.

Projects	JCU Ownership	JV Partner
Beatty River	21.4253%	Orano Canada; UEX
Candle Lake	25%	Uranium One Inc.; Denison
Christie Lake	34.4508%	UEX Corporation
Close Lake	10.3128%	Orano Canada; Cameco
Cree Extension	30.0990%	Cameco; Orano Canada
Millennium	30.0990%	Cameco
Moon Lake[(1)]	20.1494%	Cameco; Orano Canada
Moore Tomblin	13.5947%	Orano Canada; Cameco
Waterfound	25.801%	Orano Canada; Denison
Wheeler River	10%	Denison
Wolly	13.1077%	Orano Canada; Denison

Notes:
(1) This property shares a name with, but is distinct from, Denison's Moon Lake property listed on the prior page.

Additionally, as at December 31, 2021, Denison is indirectly involved in the Kiggavik project in Nunavut through its 50% ownership of JCU:

Projects	JCU Ownership	JV Partner
Kiggavik	33.8123%	Orano Canada; Urangesellschaft Canada Ltd.

Athabasca Exploration: Sampling, Analysis and Data Verification

Unless otherwise specifically disclosed herein, the following describes the procedures and protocols for all Athabasca exploration programs operated by Denison in reference to drill hole surveying, downhole radiometric surveying, core logging, core sampling, sample preparation methods, analytical procedures, Quality Assurance and Quality Control ("**QAQC**") and data verification. For Sampling, Analysis and Data Verification procedures employed by other operators, past or present, on projects in which Denison holds an ownership interest, refer to those project sections within the AIF, specifically for McClean Lake, Midwest and Waterbury Lake.

Drill Hole Surveying

Drill collars are typically sited and surveyed in the field using a Differential Global Positioning System ("DGPS") to determine accurate coordinates and elevation. The drill rig azimuth and dip are aligned using a field compass (set to the appropriate magnetic declination) or a rig alignment tool. The trajectory of all drill holes is determined with a Reflex survey instrument in single shot mode, which measures the azimuth and inclination of the drill hole. Measurements are collected at approximately 50 metre intervals down the hole.

Downhole Radiometric Probe Surveying

When possible, all drill holes are surveyed immediately after drilling with a downhole radiometric probe to measure natural gamma radiation. Each survey consists of either a HPL2375 single sodium iodide (NaI) scintillation crystal tool or a 2GHF-1000 triple gamma (one sodium iodide crystal and two ZP1320 high flux Geiger-Mueller (GM) tubes) tool attached to a MX-Series winch with a MGX data recorder connected to a portable computer.

Downhole logging measurements are completed within the drill rods for both down and up survey runs using MSLog software provided by Mt Sopris. Logging speeds are maintained at approximately 10 metres/minute. Individual data recordings are stored separately for each run on a portable laptop computer.

Total count measurements from each survey are converted to radiometric equivalent grade U_3O_8 % ("**eU_3O_8**") values using conversion coefficients derived from calibration facilities at the SRC test pits located in Saskatoon, Saskatchewan. The calibration facilities allow for regular checks on both probes and probing equipment and to monitor or identify maintenance issues before field operations begin. The site consists of four mineralized holes, with isolated uranium concentrations of 1.4, 1.6, 1.6 and 0.21 metres wide with U grades varying from 0.063, 0.29, 1.25 and 4.07%, respectively. Individual probes are calibrated using the NaI crystal measurements a minimum of two times per year, normally before and after the winter and summer field seasons. Survey results are also corrected for attenuation of signal in water and for the thickness of steel pipe in the hole. GM tubes are checked for drift at the site; however, calibration factors for these probes were derived separately using direct comparisons of total count values with assay core results as high as 80% U_3O_8. The "in-situ" nature of this calibration procedure allows for a wider spectrum of predicted results than using the SRC calibration facilities.

A deposit-specific radiometric-grade correlation has been developed for the Company's Phoenix deposit, where the gamma signature obtained from the high flux Geiger-Muller tubes of the triple gamma probe can be used to estimate in-situ uranium grade. The radiometric-grade correlation was developed by an independent 3rd party by comparing geochemical sample assays collected from the Phoenix deposit to their corresponding probe data. Only intervals with high core recovery were selected for the correlation process to ensure a representative comparison between the data sets. Raw gamma probe data is first converted to adjusted counts per second (cps) by correcting raw gamma counts per second for fluid absorption, casing absorption, and dead-time. Adjusted cps are then calibrated into an equivalent grade based on the correlation between the grade-thickness (GT) product of the adjusted cps and assay data from representative mineralized intercepts. A total of 50 mineralized intercepts were used to develop the radiometric-grade correlation for Phoenix.

The Company typically reports eU_3O_8, derived from a calibrated downhole total gamma probe, as preliminary during its exploration programs and subsequently reports definitive assay grades following sampling and chemical analysis of the mineralized drill core.

Core Logging

Denison employs suitably qualified persons to log all drill core in detail at dedicated, custom-built core logging facilities proximal to drilling operations. Routine logs completed for each drill hole include lithology, sandstone texture, paleoweathering, mineralization, alteration, structure (interval and point), geotechnical and gamma (handheld scintillometer). Where deemed necessary, additional logs may be collected to assist in constraining geophysical survey results. These logs may include magnetic susceptibility or other physical property measurements. For advanced projects where mining studies may be applicable geotechnical logs are expanded and may also include point load testing. All logging data, together with collar and survey information and a drill hole summary, are uploaded to a DHLogger database with central storage on Denison's server at the Saskatoon office. In addition, the drill core is photographed, both wet and dry, before it is stored at project sites either in racks or as cross-stacks. Drill core handling and sampling protocols are in accordance with industry best practices.

Core Sampling, Sample Preparation and Assaying

Assay Samples

Denison submits drill core samples for chemical U_3O_8 assay for all mineralized intervals, where core recovery permits. Mineralized intervals are identified by handheld scintillometer and confirmed by downhole gamma probe logs. All mineralized core is broken into approximately 10-centimetre pieces and measured with a handheld scintillometer (RS-120 or RS-125) by removing each piece of drill core from the ambient background, noting the most pertinent reproducible result in counts per second ("**cps**"), and carefully returning it to its correct place in the core box. Any core registering over 500 cps is marked for sampling, typically over 50-centimetre intervals. A threshold of 300 cps has been used at Wheeler River's Gryphon deposit since the beginning of 2017. Additional non-mineralized 'shoulder' samples are marked over 50-centimetre intervals to flank both ends of the mineralized intervals. In areas of strong mineralization, more than one sample on either end is sometimes required. All core samples are split in half with a hand splitter according to the sample intervals marked on the core. One-half of the core is returned to the core box for future reference, and the other half is tagged and sealed in a plastic bag. Bags containing mineralized samples are sealed for shipping in metal or plastic pails, depending on the radioactivity level.

Because the mineralized drill cores are classified as hazardous materials and are regulated under requirements governing the transport of dangerous goods, Denison staff have been trained in the proper handling and transport of the cores and deliver them from the core facility directly to the laboratory without outside contact.

All drill core U_3O_8 assays are conducted by SRC. The assay sample preparation and analytical procedures are as follows:

- Drill core samples are received by the analytical laboratory from Denison in sealed five-gallon plastic or metal pails. Each sample is contained in a sealed plastic bag with a sample tag. A packing slip is enclosed that contains instructions and a sample number list. Samples are verified against the packing slip. Any extra samples or missing samples are noted and Denison is informed.
- Samples are sorted and processed according to lithology (sandstone or basement) and level of radioactivity.
- Sample preparation includes drying, jaw crushing to 60% passing -2 millimetres and pulverizing to 90% passing -106 microns.
- The resultant pulp is split and digested using a two-acid partial digest (HNO_3:HCl) and a three-acid 'total' digest (HF: HNO_3:$HClO_4$) and the respective solutions analyzed for multi-elements, including uranium, using ICP-OES (SRC analytical method ICP1). Boron values are obtained through $NaO_2/NaCO_3$ fusion followed by ICP-OES.
- When uranium partial values, as obtained above, are ≥1,000 ppm, sample pulps are re-assayed for U_3O_8 using SRC's ISO/IEC 17025:2005 accredited method for the determination of U_3O_8 wt%. A split of the sample pulp is digested using aqua-regia (HCl:HNO_3 in the ratio 3:1), and the solution analyzed for U_3O_8 wt% using ICP-OES.F

Bulk Dry Density Sampling

Samples are routinely collected from mineralized intersections for bulk dry density determination as required for mineral resource estimation. Density samples are typically collected at a frequency of one density sample per 10 assay samples, also ensuring the density samples are representative of the uranium grade range and the different domains of the deposit. The density samples comprise half-split core over 10-centimeter intervals, and for each sample, the depth, rock type and scinitllometer reading is recorded. Density samples are sent to SRC for analysis, along with the mineralized core samples for assay. At SRC, the density samples are first weighed as received and then submerged in de-ionized water and re-weighed. The samples are then dried until a constant weight is obtained. The sample is then coated with an impermeable layer of wax and weighed again while submersed in de-ionized water. Weights are entered into a database and the bulk density of each sample is calculated. Water temperature at the time of weighing was also recorded and used in the bulk density calculation. Following bulk density determination, the samples are sent for uranium assay using SRC's ISO/IEC 17025:2005 accredited method for the determination of U_3O_8 wt% in order to ensure a direct correlation can be made between density and assay values.

Exploration Samples

Three other types of drill core samples are collected during routine exploration, the results of which are used to prioritize drill holes for follow-up exploration or determine geochemical and/or alteration vectors toward mineralization, as follows:

1. Composite geochemical samples are collected over approximately 10-metre intervals in the upper Athabasca sandstone and in fresh lithologies beneath the unconformity (basement) and over 5-metre intervals in the basal sandstone and altered basement units. The samples consist of 1 to 2 centimetre thick disks of core collected from the top or bottom of each row of core in the box over the specified interval. Care is taken not to cross lithological contacts or stratigraphic boundaries. These samples are submitted to SRC for sample preparation and multi-element analysis. The same sample preparation procedures are used as described above for U3O8 assay samples. The pulps are analyzed using the ICPMS Exploration Package, which includes a total digest (HF:HNO3:HClO4) and partial digest (HNO3:HCl) followed by ICP-MS analysis. Boron values are obtained through NaO2/NaCO3 fusion followed by ICP-OES.

2. Representative/systematic core disks (one to five centimetres in width) are collected at regular 5 to 10-metre intervals throughout the entire length of core until basement lithologies become unaltered. These samples are analyzed for clay minerals using reflectance spectroscopy. Samples for reflectance clay analyses are analyzed by Denison using an ArcSpectro FT-NIR ROCKET spectrometer and sent to AusSpec International Ltd. (AusSpec) for interpretation.

3. Select spot samples are collected from significant geological features (i.e. radiometric anomalies, structure, alteration etc.). Core disks ranging from 1 to 2 centimetres thick are collected for reflectance spectroscopy, while split core samples are collected for geochemical analysis. The same reflectance spectrometry or geochemical procedures as described above are used.

These sampling types and approaches are typical of uranium exploration and definition drilling programs in the Athabasca Basin.

Data Handling

After the analyses are completed, analytical data are securely sent using electronic transmission of the results by SRC to Denison. The electronic results are secured using WINZIP encryption and password protection. These results are provided as a series of Adobe PDF files containing the official analytical results ("assay certificates") and a Microsoft Excel spreadsheet file containing only the analytical results. Analytical data received from the lab is imported directly into Denison's DH Logger database. The data is subject to validation using triggers built into the database to identify blank or standard assays that fall outside the accepted limits that require re-analysis. Field duplicates are validated using control charts. The laboratory is immediately notified of any problematic samples or batches, which are re-analyzed. The lab reports assay values that fall below the method detection limit (MDL) as 'less than' values (<MDL) These values are automatically replaced with a value of half the MDL by the database during import. The database is backed up on- and off-site every day.

QAQC

SRC has an internal QAQC program dedicated to the active evaluation and continual improvement in the internal quality management system. The laboratory is accredited by the Standards Council of Canada as an ISO/IEC 17025 Laboratory for Mineral Analysis Testing and is also accredited ISO/IEC 17025:2005 for the analysis of U_3O_8. The laboratory is licensed by the Canadian Nuclear Safety Commission (CNSC) for possession, transfer, import, export, use, and storage of designated nuclear substances by CNSC Licence Number 01784-5-24.7. As such, the laboratory is closely monitored and inspected by the CNSC for compliance. All analyses are conducted by SRC, which has specialized in the field of uranium research and analysis for over 30 years. SRC is an independent laboratory, and no associate, employee, officer, or director of Denison is, or ever has been, involved in any aspect of sample preparation or analysis on samples. SRC uses a Laboratory Management System (LMS) for Quality Assurance. The LMS operates in accordance with ISO/IEC 17025:2005 (CAN-P-4E) "General Requirements for the Competence of Mineral Testing and Calibration Laboratories" and is also compliant with CAN-P-1579 "Guidelines for Mineral Analysis Testing Laboratories". The laboratory continues to participate in proficiency testing programs organized by CANMET (CCRMP/PTP-MAL).

SRC routinely inserts standard reference materials and blanks into batches of the Company's samples as an internal check on accuracy and contamination. Quality control samples (reference materials, blanks, and duplicates) are included with each analytical run, based on the rack sizes associated with the method. Before the results leave the laboratory, the standards, blanks, and split replicates are checked for accuracy and issued, provided the senior scientist is fully satisfied. If, for any reason, there is a failure in an analysis, the sub-group affected will be re-analyzed and checked again. A Corrective Action Report will be issued, and the problem is investigated fully to ensure that any measures to prevent the re-occurrence can and will be taken. All human and analytical errors are, where possible, eliminated. If the laboratory suspects any bias, the samples are re-analyzed, and corrective measures are taken.

Denison has developed several QAQC procedures and protocols for all exploration projects to independently monitor laboratory performance, which includes the analysis of uranium standards, blanks, field duplicates and exploration standards, as follows:

Uranium Standards - Due to the radioactive nature of the standard material, insertion of the standard materials is preferable at SRC instead of in the field. During sample processing, the appropriate standard grade is determined, and an aliquot of the appropriate standard is inserted into the analytical stream for each batch of materials assayed. Uranium standards are typically inserted at a minimum rate of 1 in every 40 samples. For the Wheeler River project up until the end of 2018, Denison used standards provided by Joint Venture partner Cameco for uranium assays. Six Cameco uranium assay standards were prepared for use in monitoring the accuracy of uranium assays received from the laboratory. For Wheeler River from 2019 and onward, and for other Denison projects, a suitable matrix-matched Certified Reference Material ("**CRM**") is used as a standard.

Blanks - Denison employs a lithological blank composed of quartzite to monitor the potential for contamination during sampling, processing, and analysis. The selected blank consists of a material that contains lower contents of U_3O_8 than the sample material but is still above the detection limit of the analytical process. Due to the sorting of the samples submitted for assay by SRC based on radioactivity, the blanks employed must be inserted by SRC after this sorting takes place in order to ensure that these materials are ubiquitous throughout the range of analytical grades. In effect, if the individual geologists were to submit these samples anonymously, they would invariably be relegated to the minimum radioactive grade level, preventing their inclusion in the higher radioactive grade analyses performed by SRC. Blanks are typically inserted at a minimum rate of 1 in every 40 samples. For the Wheeler River project up until the end of 2018, Denison used blanks provided by Joint Venture partner Cameco. For Wheeler River from 2019 and onward, and for other Denison projects, another suitable blank material is used, as provided by SRC.

Field Duplicates - The Company inserts duplicate samples in the sample stream as a check on the precision of SRC. Core duplicates are prepared by collecting a second sample of the same interval, through splitting the original sample, or other similar techniques, and are submitted as an independent sample. Duplicates are typically submitted at a minimum rate of one per 25 samples. The collection may be further tailored to reflect field variation in specific rock types or horizons.

Exploration Standards – Denison has prepared three in-house 'exploration standards' to independently monitor laboratory performance during the processing of routine drill core exploration samples. These standards aim to test laboratory accuracy and precision for a variety of trace metals at low levels, as required for Athabasca uranium exploration.

Assay Checks – In addition to the QAQC described above, up until the end of 2018, Denison sent one in every 25 U_3O_8 assay samples to SRC's Delayed Neutron Counting (DNC) laboratory, a separate umpire facility located at SRC in Saskatoon, to compare the uranium values using two different methods, by two separate laboratories. After 2019, assay samples were sent to the SRC's X-ray fluorescence ("XRF") lab for umpire analyses. All radioactive samples are monitored and recorded as per CNSC licence 01784-5-24.7. Furthermore, downhole radiometric probe results provide eU_3O_8 data, used by the Company for comparisons with SRC U_3O_8 results.

Assay Checks – In addition to the QAQC described above, up until the end of 2018, Denison sent one in every 25 U_3O_8 assay samples to SRC's Delayed Neutron Counting (DNC) laboratory, a separate umpire facility located at SRC in Saskatoon, to compare the uranium values using two different methods, by two separate laboratories. All radioactive samples are monitored and recorded as per CNSC licence 01784-1-09.0. Decommissioning of SRC's DNC facility is planned for early 2019. SRC is planning to have an X-ray fluorescence ("XRF") lab running in the spring of 2019 for umpire analyses, which will operate on a similar independent basis as the DNC facility. Furthermore, downhole radiometric probe results provide equivalent uranium data (eU_3O_8) that is used internally by the Company for comparisons with SRC U_3O_8 results.

Data Verification

Denison engages with independent consultants for estimation of mineral resources on its mineral properties, in accordance with CIM Standards and NI 43-101, as well as other studies, including the PFS and ISR field testing and engineering studies. In this regard, the independent consultants undertake rigorous data verification, including, but not limited to, Denison's field procedures, databases and assay results.

Prior to public disclosure of drilling results, including preliminary radiometric equivalent grades ("eU_3O_8") and chemical assay grades ("U_3O_8"), the results are subject to data verification by Qualified Persons employed by Denison. This includes checks of 10 to 20% of the results (typically as composited intervals) against non-composited eU_3O_8 determinations and laboratory assay certificates.

Denison's Operations

McClean Lake Mill

The MLJV owns a state-of-the-art uranium processing facility located on the eastern edge of the Athabasca Basin in northern Saskatchewan, approximately 750 kilometres north of Saskatoon. Orano Canada is the operator/manager of the facility.

The McClean Lake mill is specially designed and constructed to process high grade uranium ores in a safe and environmentally responsible manner. The mill uses sulphuric acid and hydrogen peroxide leaching and a solvent extraction recovery process to extract and recover the uranium product from the ore. In addition to the mill facility, other infrastructure on the site includes a sulphuric acid plant, a ferric sulphate plant, an oxygen plant, an electricity transmission line tied into the provincial power grid, a 14 megawatt back-up diesel power plant, warehouses, shops, offices and living accommodations for site personnel.

In 2016, an expansion of the mill was completed and an increase to the licensed capacity of the mill was approved – resulting in an increase to the licensed production capacity of the mill to 24 million pounds U_3O_8 per year. This increased licensed capacity allowed for the processing of 100% of ore production from the Cigar Lake mine, up to 18 million pounds U_3O_8 per year, and provides the flexibility for the mill to process ore from other sources in the future.

Operations

The McClean Lake mill began production of uranium concentrates in 1999, with the first ore fed to the mill on June 22, 1999 and commercial production achieved on November 1, 1999. The mill operated until the end of June 2010, producing approximately 50 million pounds U_3O_8, when it was placed on stand-by due to a lack of ore. In 2014, the McClean Lake mill re-commenced operations with the delivery of ore shipments from the Cigar Lake Mine, owned by the CLJV and operated by Cameco. In 2014, the mill processed over 456,800 pounds of U_3O_8 with a 97.5% recovery rate. Mill feed consisted of a blend of Cigar Lake ores and stockpiled Sue B and McClean Lake North ores (mined via SABRE). In 2015, production ramped up and the mill produced approximately 11.3 million pounds of U_3O_8 with a 98.9% recovery rate.

In 2016, the mill produced 17.3 million pounds of U_3O_8 with a 99% recovery, and mill feed was all Cigar Lake ore. From 2017 to 2019, the mill has produced just over 18.0 million pounds of U_3O_8 per year, processing 100% mill feed from Cigar Lake with recoveries at approximately 99%.

During the fourth quarter of 2019, the McClean Lake Union Unifor Local 48-S ratified a new collective bargaining agreement. The new three-year agreement includes a two-weeks-in two-weeks-out rotation, which was implemented in 2020.

In response to the COVID-19 pandemic, the CLJV, operated by Cameco, temporarily suspended production at the Cigar Lake mine from the end of March 2020 until September 2020, and then again from the end of December 2020 until April 2021. Coordinated therewith, the MLJV suspended operations at the McClean Mill for the duration of the CLJV's suspended production.

The table below shows the operating statistics for McClean Lake over the last five years.

McClean Lake Operations	**2021**	**2020**	**2019**	**2018**	**2017**
Ore Milled (thousand tonnes)	35,409	27,773	45,456	42,624	36,374
Average Grade (% U_3O_8)	16.30	17.19	17.89	19.19	22.78
MLJV Production (thousand pounds U_3O_8)	176	-	-	-	-
Denison's share MLJV Production (thousand pounds U_3O_8)	40	-	-	-	-
Toll Mill Production (thousand pounds U_3O_8)	12,335	10,069	18,012	18,018	18,015

For information pertaining to taxes and royalties, see "Government Regulation – Saskatchewan Royalties" and "Government Regulation – Canadian Income and Other Taxes."

Mill Licence

The McClean Lake site is operated under various permits, licences, leases and claims granted and renewed from time to time, all of which are currently in good standing. Several key regulatory achievements were completed in 2017 for McClean Lake: (a) the issuance by the CNSC of a 10 year license for operation of both McClean and Midwest projects; (b) the receipt of renewal of provincial approvals to operate for a 6 year term, expiring on October 31, 2023; and (c) CNSC approval to expand the existing tailings facility up to an elevation of 448 metres above sea level ("**m ASL**"). Historically CNSC issued Mine Operating Licences were granted for a 5-year term, but in 2009 the McClean Lake operations received an 8 year term and in 2017 was granted a further 10 year term: UMOL-MINEMILL-McLEAN.00/2017 (the " **Mine Operating License**") which is valid for the period July 1, 2017 to June 30, 2027. In addition to renewal of all previously licensed activities, the current licence authorizes mining of the McClean North deposits using hydraulic borehole mining methods (SABRE) and includes the care and maintenance activities at the Midwest site.

On January 12, 2022, the Canadian Nuclear Safety Commission approved an amendment to the Mine Operating License, to allow for TMF Expansion phase 2 (see below), along with the associated revised Preliminary Decommissioning Plan and cost estimate for the Mclean Lake and Midwest Operations.

Tailings Disposal

The disposal of mill tailings in an environmentally acceptable manner has led to advances in the design and construction of new tailings management facilities. In the McClean tailings management facility ("**TMF**"), tailings are deposited sub-aqueously from a barge. This procedure minimizes tailings segregation, reduces concerns of freezing and dust generation, and controls radiation and radon emissions from the pond. This facility has been designed to receive tailings from processing high grade Midwest and Cigar Lake ores in addition to tailings from the McClean Lake deposits.

Under the regulatory approved "**TMF Optimization**" project, the tailings capacity of the TMF was increased in two stages during the period 2013 to 2018. The TMF Optimization project involved the sloping of the TMF walls and the placement of a bentonite liner to increase the TMF capacity up to an elevation of 443 m ASL.

A second project, called "**TMF Expansion**", entails adding additional tailings capacity over and above that created through the TMF Optimization project. The first phase of the project entails increasing the consolidated tailings elevation of the TMF up to 448 m ASL. On April 19, 2017, the MLJV received regulatory approvals for the TMF Expansion project. Following such receipt, construction activities were initiated in 2018 with re-sloping of the pit walls, installation of a new tailings pipe bench, decommissioning of 12 dewatering wells and the relocation of the contaminated landfill from the TMF to the Sue C site.

In 2019, phase one construction activities continued and work on placing additional bentonite liner commenced. By the end of September 2019, the first phase of the TMF Expansion was completed with the bentonite liner reaching a level of ~447.4 m ASL. The regulatory costs associated with the TMF Expansion Phase 1 work was funded by the MLJV while the CLJV funded predominantly all the construction costs.

With the first phase of the TMF Expansion, the TMF was expected to reach its capacity in 2027. In January 2022, the CNSC approved the amendment to the Mine Operating License for the McClean Lake operation to further extend the capacity and life of the TMF, with plans to raise the TMF capacity to 468 m ASL.

The TMF Optimization and TMF Expansion projects allow for the continued use of an existing disturbed area for increased tailings capacity while avoiding impacts to any new environment.

Cigar Lake Toll Milling

In 2002, Denison and its partners entered into an agreement with the CLJV to process Cigar Lake ore at the McClean Lake mill. Pursuant to that agreement, all Cigar Lake ore was to be leached at the McClean Lake mill with the pregnant aqueous solution being divided between the McClean Lake and Rabbit Lake facilities for processing into uranium concentrates. In order to process this Cigar Lake ore, an expansion of the McClean Lake mill was required. The expansion and modifications of the McClean Lake mill to raise its capacity to 13.0 million pounds U_3O_8 were completed in 2008 and all costs were paid for by the CLJV.

As a result of delays in the startup of the Cigar Lake mine and the exhaustion of permitted ore deposits at McClean Lake, the McClean Lake mill was placed on stand-by at the end of June of 2010. Under the Cigar Lake toll milling agreement, the CLJV funded a considerable portion of the McClean Lake stand-by costs, with the relative proportion of the stand-by costs paid by each party calculated on the basis of the percentage of mineral reserves between the McClean Lake and Cigar Lake joint ventures.

In 2011, the CLJV and the MLJV agreed to amend the toll milling agreement. Under the new milling arrangement, the McClean Lake operation is to process and package 100% of the uranium produced from the Cigar Lake mine. To accommodate the annual production of 18.0 million pounds U_3O_8 from the CLJV, the mill has been further expanded to an annual licensed capacity of 24.0 million pounds U_3O_8. All costs for the expansion of the McClean Lake mill and a portion of the TMF Optimization and TMF Expansion were paid or will be paid for by the CLJV (see "Denison's Operations - McClean Lake - Tailings Disposal").

As noted above, in connection with the operational and market impacts of the COVID-19 pandemic, both the Cigar Lake mine and McClean Lake mill temporarily suspended production and milling from the end of March 2020 until September 2020, and then again from the end of December 2020 until April 2021.

During the year ended December 31, 2021, the McClean Lake mill processed approximately 12.2 million pounds U_3O_8 for the CLJV.

Cigar Lake Toll Milling – APG Transaction

Pursuant to the APG Transaction in February 2017, certain of Denison's interests in the Cigar Lake toll milling proceeds have been sold to APG and its subsidiary Centaurus Royalties Ltd. ("**Centaurus**") for aggregate gross proceeds to Denison of $43,500,000. The APG Transaction is comprised of the following elements: (1) a 13 year limited recourse lending arrangement involving a loan from APG to 9373721 Canada Inc. ("**SPV**") (the "**APG Loan**") and a further loan from SPV to DMI (the "**SPV Loan**") each for $40,800,000 (collectively, the "**Lending Arrangement**"); and (2) $2,700,000 in proceeds from the sale, to Centaurus, of a stream equal to Denison's 22.5% share of proceeds from the toll milling of Cigar Lake ore by the McClean Lake mill for specified Cigar Lake toll milling throughput in excess of 215 million pounds U_3O_8 after July 1, 2016 (the "**Stream Arrangement**").

Additional details of the APG Transaction are as follows:

- No Warranty of the Future Rate of Production - No warranty is provided by Denison (including DMI and SPV) to APG (including Centaurus), under the terms of the Lending Arrangement or the Stream Arrangement, regarding: the future rate of production at the Cigar Lake mine and / or the McClean Lake mill; or the amount or collectability of proceeds to be received by the MLJV in respect of toll milling of Cigar Lake ore.
- APG Loan Details - The APG Loan will accrue interest at a rate of 10% per annum and does not have a predetermined principal repayment schedule. The APG Loan is secured by a first priority interest in the assets of SPV which will essentially consist of the SPV Loan to DMI.
- SPV Loan Details - The SPV Loan will accrue interest at a rate of approximately 10% per annum and does not have a predetermined principal repayment schedule. The SPV Loan is limited in its recourse against DMI such that it is generally repayable only to the extent of Denison's share of the toll milling revenues earned by the MLJV from the processing of the first 215 million pounds of U_3O_8 from Cigar Lake ore on or after July 1, 2016. Denison will guarantee the limited recourse loan repayments and will grant a second ranking pledge of its share of DMI to secure performance by DMI of its obligations to pay the SPV Loan. The share pledge is second ranking to Denison's existing pledge of its shares of DMI to the Bank of Nova Scotia ("**BNS**") under the terms of its Letters of Credit Facility.

As discussed above, the McClean Lake mill had temporary suspensions of operations in connection with the COVID-19 pandemic. As a result of the APG Transaction, Denison has sold the toll milling revenue to be earned from the processing of the Cigar Lake ore and the reduction toll milling revenue as a result of the suspensions of operations has no economic impact on Denison due to the limited recourse nature of the SPV Loan. The suspensions resulted in a non-cash decrease in revenue recognized by Denison, limited to a reduction in the drawdown of the Company's deferred revenue balance.

Surface Access Borehole Resource Extraction (SABRE) Mining Program

The SABRE program is focused on developing a viable alternate mining method combining surface drilling and borehole mining technology. Benefits of the method may include a reduced time to production, reduced or deferred capital costs, as well as minimized safety and environmental risks.

Hydraulic borehole mining is a technique used to extract materials through a small access borehole, typically less than one-half of a metre in diameter, resulting in a very small disturbance to the surface. A mining tool containing a high-pressure water jet nozzle is lowered through the access borehole in the overburden and sandstone to the mineralized horizon. The high-pressure water jet is used to cut or erode the mineral-bearing ore and to create a cavity up to four metres in diameter. The cuttings are transported to surface in a slurry form and sent through a series of screens and settling ponds to separate the ore from the jetting water. Jetting water is filtered further and re-used in the process. Each mined out cavity is backfilled after completion with a cemented mixture in the mineralized horizon.

Between 2007 and 2012, approximately 2,100 tonnes of ore was recovered through various SABRE test mining programs, a portion of which has been fed to the mill between 2007 and 2014. After the completion of several significant milestones in 2012 and 2013, a decision was made in late 2013 to suspend the SABRE program in 2014 in response to the low uranium price environment. In 2015, SABRE activities were limited to patent applications and upgrading down-hole sonar capabilities with the objective of improving surveying of cavity dimensions and mining performance. In 2016, an expanded program was evaluated for SABRE including the re-tooling of the program to allow for larger volumes and jetting pressures designed to increase the production rate. In addition, the purchase, installation and testing of a new solid / liquid separation system was completed to assess the improvement in recovery of small uranium particles from the production slurry created during the SABRE mining process.

In 2017 and 2018, development of the re-tooled SABRE program continued with engineering of larger diameter mining pipes, procurement of high-pressure pumps and a tendering process to contract drilling equipment and labour for a further mining test. In addition, in 2018 four access holes were drilled and cased from surface to just above the McClean North orebody elevation. At the time, it was expected that these access holes would be used in 2020 as part of planned mining tests using the re-tooled equipment. In 2019, engineering and procurement activities for the re-tooled mining equipment continued and various equipment acceptance testing activities were completed. Due in part to COVID-19 pandemic related operational disruptions, work at SABRE in 2020 focused on further de-risking various elements of the SABRE equipment and the SABRE mining process.

In 2021, the MLJV completed the SABRE test mining program at McClean North, using the access holes drilled in 2018. The SABRE field test ran safely from May to September 2021 with four cavities mined and the recovery of approximately 1,500 tonnes of high-value ore ranging in grade from 4% to 11% U_3O_8. The program was concluded successfully with no safety, environmental or radiological incidents. Importantly, key operating objectives associated with the test program – including targets for cavity diameter, rates of recovery, and mine production rates – were all achieved during the field test.

This test represents the achievement of an important milestone for the SABRE technology. Based on the success of the 2021 program, Orano and Denison plan to evaluate the potential use of this innovative method for future mining operations at their jointly owned McClean Lake and Midwest properties.

The majority of the ore recovered from the 2021 test mining program was processed at the McClean Lake mill in late 2021, resulting in the production of 176,000 pounds of U_3O_8 (Denison's share: 40,000 pounds of U_3O_8).

Denison Closed Mines Group

Denison formed its Denison Environmental Services division (" **DES**") in 1997 to provide mine decommissioning and mine care and maintenance services to industry and government, as well as to manage Denison's post mine closure environmental obligations on its Elliot Lake landholdings. In late 2019, driven by a new strategic vision for Denison as an integrated mining company with expertise across the full mining life cycle, Denison discontinued the use of the DES name. The team of closed mine care & maintenance specialists and environmental professionals previously working under DES are now part of Denison's Closed Mines group, which is positioned within the organization alongside each of Denison's exploration and project development teams.

The Closed Mines group remains focused on post-closure mine care and maintenance services, and its technical team is principally located in Elliot Lake, Ontario.

The primary activities of the Closed Mines group include the ongoing monitoring of Denison's two reclaimed Elliot Lake mine sites, plus environmental monitoring, effluent treatment and maintenance services for third-party clients.

Environmental, Health, Safety and Sustainability Matters

The Company has an Environmental, Health, Safety & Sustainability Policy (the " **EHSS Policy**") that affirms Denison's commitment to prioritize the safety of its workers, its contractors, its community and the environment as well as the principles of sustainable development. Under the EHSS Policy, the Company has committed to run its operations in compliance with applicable legislation, in a manner that minimizes the impact on our ecosystem. The EHSS Policy mandates the use of regular monitoring programs to identify risks to the environment, to the public, Indigenous Rights holders, and to Denison's employees and contractors and to ensure compliance with regulatory requirements. The EHSS Policy also sets out Denison's requirement to train its employees regarding environmental, health and safety compliance and sustainability best practices.

The EHSS Policy requires regular reporting to the Board regarding the Company's compliance and the results of the Company's monitoring. To assist the Board with its responsibilities in overseeing environmental, health and safety matters, the Board has established the Environment, Health, Safety & Sustainability Committee (the "**EHSS Committee**") which works with management to discuss matters affecting the environment, health and safety and its stakeholders and reporting and making recommendations to the Board.

Indigenous Peoples Policy

In late 2021, Denison announced that its Board of Directors approved the adoption of an Indigenous Peoples Policy (the " **IPP**"), 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.

The IPP was developed based on Denison's experiences with, as well as feedback and guidance received from, Indigenous communities with whom the Company is actively engaged. This approach was designed to ensure the IPP appropriately captures a mutual vision for reconciliation.

Denison's IPP reflects the Company's belief that reconciliation is advanced through collaboration with Indigenous peoples and communities to build long-lasting, respectful, trusting and mutually beneficial relationships while aspiring to avoid adverse impacts of Denison's activities and operations.

The IPP identifies 5 key areas of action that will support the ongoing development of a continuously evolving Reconciliation Action Plan (" **RAP**"): Engagement; Empowerment; Environment; Employment; and Education. Through the RAP, Denison is striving to interweave the principles of reconciliation throughout all areas of the company's operations.

In expressing the Company's intentions in the IPP, Denison carefully considered the standards and principles articulated by The United Nations Declaration on the Rights of Indigenous Peoples and Call to Action 92 (Business and Reconciliation) from Canada's Truth and Reconciliation Commission.

Exploration Agreement

In early 2021, Denison and the English River First Nation (" **ERFN**") announced the execution of an Exploration Agreement (the " **Exploration Agreement**") in respect of Denison's exploration and evaluation activities within the ERFN traditional territories. This agreement reflects Denison's desire to operate its business in a progressive and sustainable manner that respects ERFN rights and advances reconciliation with Indigenous peoples.

The Exploration Agreement establishes a framework for a cooperative and mutually beneficial relationship between Denison and ERFN whereby Denison's exploration and evaluation activities are consented to by ERFN and Denison agrees to support ERFN's interests in relation to community development and benefits, environmental protection and monitoring, as well as sustainable and predictable consultation and engagement processes. Through this cooperative approach, the parties seek to continue building a strong and positive foundation for Denison to proceed with its exploration and evaluation activities, in the traditional territory of ERFN, in a manner that is informed by and respects the rights and interests of ERFN.

COVID-19

With the onset of the COVID-19 pandemic and its impact on operations in Canada in early March 2020, Denison rapidly adjusted its operations to adapt to restrictions on the ability to conduct business "as per usual". Throughout the remainder of 2020 and 2021, Denison staff worked from home wherever possible and adopted COVID-19 specific health and safety and related operating procedures across its business, including modified work scheduling, enhanced cleaning protocols, various physical distancing measures and special travel protocols designed by Denison for northern Saskatchewan. Where applicable, the Company's protocols incorporated feedback received from potentially impacted communities in northern Saskatchewan to minimize any health and safety risks associated with travel to and from site.

Denison continues to follow guidance from health officials and monitor the COVID-19 pandemic and its impact on operations across the various jurisdictions in which it operates.

Operational Performance

Safety and environmental incidents are tracked and reported quarterly to the Company's Environment, Health, Safety and Sustainability Committee.

Evaluation and Exploration

In 2021, Denison's project evaluation and exploration teams (and its contractors engaged to support those teams) had 0 lost time injuries, 0 recordable injuries, and 6 first aid incidents. There were 8 equipment/property damage incidents in the year. There were two minor reportable environmental incidents in 2021; where applicable, remediation activities have been completed and no environmental impact of such incidents has been detected.

Closed Mines

The Closed Mines group has continued its excellent safety performance and, as at December 31, 2021, the team had worked a total of 716,158 cumulative hours without a lost time injury, representing over 12 years of continuous service without a lost time injury. There were 2 equipment/property damage incidents in the year. There were no issues of environmental non-compliance by the Closed Mines group in 2021.

McClean Lake Operation

During 2021, a total of 678,877 hours were worked by Orano Canada employees, contractors and visitors. During this time, there were 8 medical incidents, 6 restricted work injuries and 3 lost time incidents. There were 5 reportable environmental incidents. The facility has maintained its internationally recognized ISO 14001:2004 and OHSAS 18001 certification.

Reclamation and Decommissioning Plans

Elliot Lake

Denison's uranium mine at Elliot Lake, Ontario, which started operations in 1957, was permanently closed upon completion of deliveries of U_3O_8 to Ontario Hydro in May 1992. During its 35 years of continuous operation, the facility produced 147 million pounds of U_3O_8 in concentrates from the milling of 70 million tons of ore. By 1998, all significant capital reclamation activities at Denison's two closed Elliot Lake mines had been completed and, for the most part, decommissioning has progressed to the long-term monitoring phase (see "Government Regulation – Canadian Uranium Industry").

During 2021, the water treatment plants operated as planned and all environmental targets were met. Monitoring and other remediation related expenses were $815,000 for the year. Reclamation expenses for 2022 are budgeted to be $900,000. All expenditures are funded from the Reclamation Trust described below. It is estimated that sufficient funds are in the Reclamation Trust to meet all monitoring costs through 2027.

All activities and monitoring results are reviewed regularly by the CNSC and the Elliot Lake Joint Regulatory Group, which consists of federal and provincial regulators. Pursuant to a Reclamation Funding Agreement, effective June 30, 1994, with the Governments of Canada and Ontario, Denison has established a Reclamation Trust from which all spending on its Elliot Lake reclamation activities is funded. When the Reclamation Trust was first established in 1994, Denison was required to deposit 90% of its cash receipts after deducting permitted expenses, as defined in such agreement, into the Reclamation Trust. In 1997, the Governments of Canada and Ontario agreed to suspend the 90% funding requirement provided Denison maintained four years of cash requirements in the Reclamation Trust. Early in 1999, the Governments of Canada and Ontario agreed to further amend the Reclamation Funding Agreement, effective when Denison received an amended site decommissioning licence, which was obtained on April 22, 1999. Pursuant to that amendment, Denison is required to maintain sufficient funds in the Reclamation Trust to meet six years of cash requirements.

The decommissioned Denison mine site contains two flooded tailings management areas (Denison TMA 1 and Denison TMA 2) and two effluent treatment plants ("**ETP**"). Water cover is used to inhibit oxidation and acidification of the tailings and reduce gamma and radon exposure. Pond water, which passively flows to the ETP when levels are high enough, is treated to remove radium-226 at the ETPs prior to being discharged into the watershed. In 2021, Denison TMA-1 ETP treated 941 ML of water and Denison TMA-2 ETP treated 156 ML of pond water.

The Stanrock mine site tailings management area has a vegetated cover, with no contained surface water. Surface water runoff and seepage are collected in a holding pond and treated to remove radium-226 at the ETP prior to discharge to the watershed. In 2021, the Stankrock ETP treated 1048 ML of runoff and seepage.

Effluent quality at all ETPs met provincial and federal limits included in the site licenses and guidelines prior to release.

McClean Lake and Midwest

The McClean Lake and Midwest projects are combined under a single Mine Operating License issued by the CNSC. The most recent combined Preliminary Decommissioning Plan was prepared by Orano Canada and approved by the CNSC in January 2022, concurrently with its approval of an amendment to the operating license for phase 2 of the TMF Expansion.

The updated Preliminary Decommissioning Plan estimates the total decommissioning and reclamation costs for both projects to be $102,098,000 (a reduction from the previously approved 2016 plan, which estimated $107,241,000). Denison's share of the financial assurances required to be provided to the Province of Saskatchewan has decreased from $24,135,000 to $22,972,000.

Other Projects

Denison's exploration and evaluation activities are subject to Saskatchewan environmental regulations. In 2021, the Company recorded a reclamation obligation of $1,228,000, which represents Denison's best estimate of the present value of its estimated future decommissioning and reclamation costs.

Government Regulation

Saskatchewan Exploration and Land Tenure

In Canada, natural resource exploration and land tenure activity fall under provincial legislative jurisdiction. In Saskatchewan, the management of mineral resources and the granting of exploration and mining rights for mineral substances and their use are regulated by the *Crown Minerals Act* (Saskatchewan) and *The Mineral Tenure Registry Regulations*, 2012, that are administered by the Saskatchewan Ministry of Energy and Resources.

The right to explore for minerals in Saskatchewan is acquired under a mineral claim from the province. The initial term of a mineral claim is two years, renewable for successive one–year periods, provided the mineral claim is in good standing. To maintain a mineral claim in good standing, generally, the holder of a mineral claim must expend a prescribed amount on exploration. Excess expenditures (also known as assessment credits) can be applied to satisfy expenditure requirements for future claim years. Except for exploration purposes, a mineral claim does not grant the holder the right to mine minerals. A holder of a mineral claim in good standing has the right to convert a mineral claim into a mineral lease. Surface exploration work on a mineral claim requires additional governmental approvals.

The right to mine minerals in Saskatchewan is acquired under a mineral lease from the province. A mineral lease is for a term of 10 years, with a right to renew for successive 10-year terms in the absence of default by the lessee. The lessee is required to spend certain amounts for work during each year of a mineral lease. A mineral lease cannot be terminated except in the event of default and for certain environmental concerns, as prescribed in *The Crown Minerals Act* (Saskatchewan). However, mineral leases may be amended unilaterally by the lessor by amendment to *The Crown Minerals Act* (Saskatchewan) or *The Crown Mineral Royalty Regulations, 2013* (Saskatchewan).

Mineral rights, held through mineral claims and mineral leases, are distinct from surface rights. The surface facilities and mine workings are located on lands owned by the province of Saskatchewan. The right to use and occupy lands is acquired under a surface lease from the province of Saskatchewan. A surface lease is for a period of time, up to a maximum of 33 years, as is necessary to allow the lessee to operate its mine and plant and thereafter carry out the reclamation of the lands involved. Surface leases are also used by the province of Saskatchewan as a mechanism to achieve certain environmental, radiation protection and socio-economic objectives, and contain certain undertakings in this regard.

Environmental Assessments

The assessment of a proposed uranium project in Saskatchewan involves both a provincial and federal EA. In Saskatchewan, the assessment of a project with joint federal and provincial jurisdiction is coordinated through established protocols in order to align with the “one project-one assessment” model for the proponent and the public without compromising any statutory requirements of the legislation of either jurisdiction.

In the province of Saskatchewan, the *Environmental Assessment Act* is administered by the Ministry of Environment (“**SKMOE**”). The level of assessment for mining projects is dependent on the specific characteristics of each individual project. A proponent is required to conduct an EA for a project that is considered to be a “development” pursuant to the Saskatchewan *Environmental Assessment Act* and subsequently prepare and submit an environmental impact statement (“**EIS**”) to the SKMOE for approval.

Federally, the *Canadian Environmental Assessment Act, 2012* ("**CEAA 2012**") includes the *Regulations Designating Physical Activities* to clarify when a federal EA is required and which federal agency will act as the "responsible authority" for the conduct of the EA. For uranium projects, the CNSC is designated as the "responsible authority" under the CEAA 2012 and carries full authority to complete the screening of the proposed project and any subsequent environmental assessments.

The Government of Canada implemented a new *Impact Assessment Act* (the "**IAA**"), to replace the CEAA 2012 on August 28, 2019. The transitional provision (section 182 of the IAA) provide that a CNSC designated project EA, which commenced under the CEAA 2012, is to be continued under the CEAA 2012. This means that the Wheeler River EA will continue the assessment process under CEAA 2012.

An EA is a planning and decision-making tool, which involves predicting potential environmental effects through each phase of the project (construction, operation, decommissioning and post-decommissioning) at the site, and within the local and regional assessment areas. Under CEAA 2012, an EA's scope focuses on potential adverse environmental effects that are within federal jurisdiction including: (a) fish and fish habitat and other aquatic species; (b) migratory birds; (c) federal lands; (d) effects that cross provincial or international boundaries; (e) effects that impact on Indigenous peoples, such as their use of lands and resources for traditional purposes, and (f) changes to the environment that are directly linked to or necessarily incidental to any federal decisions about a project.

Wheeler River

Project Description and Environmental Assessment

In 2019, Denison executed on its decision to advance the Wheeler River Project through the EA regulatory process following the release of the PFS. Activities completed in 2019 included the submission of two key documents to provincial and federal regulators, with respect to the proposed ISR mining operation: 1) the Saskatchewan Provincial Technical Proposal and the Federal Project Description and 2) the Terms of Reference. Acceptance of these documents was announced by both the SKMOE and the CNSC on June 1, 2019. Following a public review and comment period, final confirmation of the scope and guidelines for the Project EA was received from the CNSC on December 20, 2019. The Company identified the EA process as a key element of the Project's critical path.

In early 2020, shortly after the initiation of the EA technical assessments, Denison suspended all EA related studies in connection with the onset of the global COVID-19 pandemic. Formal correspondence was sent to the Project regulatory agencies (CNSC and SKMOE) as well as the local communities and Indigenous groups to inform them of the suspension.

In November 2020, Denison announced a plan to restart the EA in early 2021. In keeping with the requirements of the CNSC to post all EA related documents on the federal project registry website, a formal notification was submitted to the CNSC and the SKMOE to inform them of the recommencement of the EA.

Also in 2020, Denison presented the CNSC and the SKMOE with the possible change in freeze containment design for the Project. The discussion of the freeze design was originally outlined in the Project Description and Technical Proposal as a design feature intended to protect the regional ground water through complete encapsulation of the mining chamber by means of a freeze dome. Based on the results of the 2020 freeze wall trade-off study (see "Wheeler River – Mining Methods"), Denison identified the potential to reduce operational and environmental risks with a vertical freeze wall. Denison, under the direction of the CNSC, updated the 2019 Federal Project Description and Provincial Technical Proposal to reflect the change, which was submitted and accepted by the regulators in December 2020.

Technical studies related to the EA continued throughout 2021. Assessment components, including the ecological risk assessment and hydrogeological modelling, were of significant focus in order to support the engineering design and mitigation measures for the Wheeler River Project. In addition, the Company's consultants completed assessments on air quality, the terrestrial environment, hydrology and worker health and safety. The Company has worked closely with the primary regulatory agencies involved in the Project, the Canadian Nuclear Safety Commission ('CNSC') and the Saskatchewan Ministry of Environment ('SKMOE'), in order to ensure that the Company's methodology for the EA assessment components is in line with regulatory requirements and expectations.

Environmental Baseline Data Collection

Select baseline work continued throughout the 2021 field season, including ongoing monitoring of several air quality parameters, ambient noise and surface water flow. Groundwater sampling and flow measurements were collected at several wells within and outside of the Phoenix deposit. Long term local and regional groundwater data supports the EA and any future refinements to the hydrogeological conceptual site model, a key instrument in determining the reclamation criteria for the mining area.

Corporate Social Responsibility

Denison has been focused on strengthening many long-term relationships, and building new relationships, with Indigenous and non-Indigenous communities who have a strong connection to the land on which the Wheeler River project is located. Denison supports various community initiatives and activities, as part of its focus on community investment.

The Company has conducted site tours for the Indigenous and municipal leaders for communities of interest, including two site tours in 2019. These tours have focused on introducing the community members to the site and an overview of the Company's project-related activities and offering an opportunity for collaboration regarding the advancement of the project.

Between 2017 and 2019 the Company had executed a series of MOUs in support of the advancement of Wheeler River with certain First Nations and Métis communities who assert the project falls within their traditional territories and/or 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, and facilitate sharing in the benefits that will flow from the project.

In 2020 and 2021, Denison maintained regular communication with various interested parties to provide timely updates about planned field activities and changes to those plans due to the COVID-19 pandemic. Recognizing that the remote location of communities in northern Saskatchewan pose a unique risk for COVID-19 transmission and treatment, in early April 2020, Denison provided financial support and the procurement of COVID-19 safety supplies, such as hand sanitizer and cleaning products to a number of remote communities in northern Saskatchewan to help build inventory of supplies necessary to respond to a COVID-19 outbreak.

In late April 2020, a number of Indigenous and non-Indigenous communities in the northwest of Saskatchewan experienced COVID-19 outbreaks. In response, a unique collective of Indigenous and non-Indigenous leaders came together to create the Northwest Communities Incident Command Centre, focused on ensuring the communities responded to COVID-19 from a regional perspective. Denison provided financial support for this initiative, and invited other exploration companies to do the same. Additionally, Denison worked directly with the Command Centre to get input on the development of a travel protocol for travel through northern Saskatchewan that would be respectful of the deep concern for the potential transmission of COVID19 in northern Saskatchewan through activities like Denison's exploration and evaluation activities.

Denison's travel protocol was shared with the Saskatchewan Mining Association (" **SMA**") and has been provided as an example of best practice for other SMA members to refer to while travelling to and from remote sites.

In 2021, coordinated with the decision to restart the EA process (discussed above), the Company resumed engagement activities with interested parties in accordance with the requirements and guidelines for a Federal and Provincial EA. The Company met with multiple interested parties to discuss ongoing EA studies and Project components and plans for the incorporation of Indigenous land use studies into the draft EIS planned for submission in 2022.

Additionally, in 2021 Denison has progressed discussions with interested parties on agreements to support Indigenous contribution and engagement on the Wheeler River project as well as Denison's other exploration activities.

For example, Denison announced that it had entered into a Participation and Funding Agreement (the "Participation Agreement") and Letter of Intent with ERFN in connection with the advancement of the ISR uranium mining operation proposed for Wheeler River. These agreements outline a mutually agreeable framework and applicable funding arrangements to facilitate ERFN's participation and engagement in the EA process, including ERFN's meaningful contribution to Denison's environmental understanding of the Wheeler River project in a holistic way that respects ERFN's rights and interests. The LOI further outlines a mutual desire to co-develop a future Shared Prosperity Agreement with respect to the Wheeler River project, which is intended to reflect a shared vision of how new uranium mining operations in the Athabasca Basin region can prioritize sustainability while also offering new and creative ways to generate wealth and prosperity for all parties involved in the advancement of the Project.

McClean and Midwest

Environmental matters related to the McClean Lake uranium facility and the Midwest project are regulated by the CNSC and the SKMOE. A number of other ministries and departments of the federal and Saskatchewan governments also regulate certain aspects of the operation. Prior to proceeding with development of the McClean Lake uranium facility and Midwest project, the proponents were required to submit Environmental Impact Statements for review. After completion of that review and receipt of recommendations, the federal and Saskatchewan governments issued the appropriate initial authorizations, subject to the normal licensing renewal process, for the McClean Lake uranium facility in 1995 and for Midwest in 2012.

Licensing and Permitting

The federal government recognizes that the uranium industry has special importance in relation to the national interest and therefore regulates the mining, extraction, use and export of uranium under the *Nuclear Safety and Control Act* ("**NSCA**"). The NSCA is administered by the CNSC which issues licences pursuant to the regulations under the NSCA.

In the event EA approvals by both the provincial and federal governments are granted, a project will be allowed to proceed to the second tier of approvals for licenses. The federal (CNSC) licensing process requires the submission of detailed engineering design packages as well as detailed management plans for all facets of the operation as part of their licensing process. The federal licenses are typically the license (i) to prepare a site and construct, (ii) operate, (iii) decommission, and (iv) abandon. Under provincial jurisdiction, a number of permits and approvals are required prior to construction. Key requirements include the execution of a Surface Lease Agreement with the Province of Saskatchewan and an Approval to Construct and Operate a Pollutant Control Facility as regulated under the Saskatchewan *Environmental Management and Protection Act* (2010).

Activities at McClean Lake and Midwest are currently carried out under a single operating license issued by the CNSC and are subject to all applicable federal statutes and regulations and to all laws of general application in Saskatchewan, except to the extent that such laws conflict with the terms and conditions of the licences or applicable federal laws.

Decommissioning activities at Elliot Lake are currently carried out under two decommissioning licences issued by the CNSC: for the Stanrock tailings area and the Denison mine site and tailings areas. Decommissioning of the facilities pursuant to the terms of the decommissioning licences has been completed. The CNSC has initiated the actions to combine the Stanrock and Denison sites under one Waste Facility Operating Licence. There are no significant differences between the different forms of licences. After a lengthy period of care, maintenance and monitoring, Denison may apply to the CNSC for permission to cease care of the reclaimed sites.

Saskatchewan Royalties

The province of Saskatchewan imposes royalties on the sale of uranium extracted from ore bodies in the province in accordance with Part III of The Crown Mineral Royalty Regulations (the "**Regulations**") pursuant to The Crown Minerals Act (the " **Act**"). Significant revisions to the uranium royalty regime in Saskatchewan became effective on January 1, 2013, with the resulting regime consisting of the following three components:

(i) Basic Royalty: Computed as 5% of gross revenues derived from uranium extracted from ore bodies in the province;
(ii) Saskatchewan Resource Credit: Reduction in the basic royalty equal to 0.75% of gross revenues derived from uranium extracted from ore bodies in the province; and
(iii) Profit Royalty: Two-tier rate structure, computed as 10% or 15% of net profits derived from the mining and processing of uranium extracted from ore bodies in the province.

Gross revenue, for the Basic Royalty, is determined in accordance with the Regulations and allows for reductions based on specified allowances. Net profit, for the Profit Royalty, is calculated based on the recognition of the full dollar value of a royalty payer's exploration, capital, production, decommissioning and reclamation costs, in most cases, incurred after January 1, 2013. Net profits will be taxed under the profit royalty at a rate of 10% for net profits up to and including $22.00 per kg ($10 per pound) of uranium sold, and at 15% for net profits in excess of $22.00 per kg. The $22.00 per kg threshold is applicable for 2013 (the base year) and is indexed in subsequent years for inflation. For 2021, the indexed amount is $24.29 per kg.

Under this system, each owner or joint venture participant in a uranium mine is a royalty payer. Individual interests are consolidated on a corporate basis for the computation and reporting of royalties due to the province.

Royalty payments are due to the province on or before the last day of the month following the month in which the royalty payer sold, or consumed, the uranium for the purposes of the basic royalty, and quarterly installments are required based on estimates of net profits in respect of the profit royalty.

Canadian Income and Other Taxes

Denison and its Canadian subsidiaries are subject to federal and provincial income taxes. In 2021, taxable income was subject to federal taxes at a rate of 15%, and provincial taxes in Saskatchewan, Ontario, Quebec, British Columbia and the Yukon Territory at rates varying between 11.5% and 12.0%. Taxable income for each entity is allocated between provinces and territories based on a two point average of the proportion of salaries and revenues attributable to each province or territory. Denison expects that it will not be liable for Canadian income taxes on a current tax basis for the financial year ended 2021. As a resource corporation in Saskatchewan, Denison is also subject to a resource surcharge equal to 3% of the value of resource sales from production in Saskatchewan, if any, during the year.

In recent years, including 2021, Denison has issued shares eligible for treatment as “flow through shares”, as defined in subsection 66(15) of *the Income Tax Act* (Canada). As a result, a significant portion of Denison's Canadian Exploration Expenditures have been renounced to shareholders and are not available to Denison as a tax deduction in the current year or future years.

Audit / Review by Taxing Authorities

From time to time, Denison is subject to audit / review by taxing authorities. In certain jurisdictions, periodic reviews are carried out by taxing authorities in the ordinary course of business. Denison cooperates with all requests received from taxing authorities, and is not currently engaged in a material dispute with any of the applicable taxing authorities.

Risk Factors

Denison's business, the value of the Shares and management's expectations regarding the same 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 than anticipated.

The Board of Directors of Denison have, as part of their mandate, responsibility for the identification of the principal risks of the Company's business and ensuring the implementation of appropriate systems to manage these risks. Where appropriate, they have delegated responsibility for periodic review of certain risks to the Committees of the Board with mandates relevant to such risks.

Audit	Corp Gov & Nominating	Compensation	EHSS	Technical
Financial reporting, internal controls, ethics, and cyber security risks	Compliance, governance and succession risks	Compensation related risks	Health & safety, environment and sustainability risks	Operational performance risks

Management, with input from the Committees, will report to the Board at least semi-annually on the assessment of material risks to the Company.

The following are those risks, uncertainties and other factors pertaining to the outlook and conditions currently known to Denison that have been identified by the Company as having the potential to negatively affect Denison's business and the value of the Shares. Current and prospective security holders of Denison should carefully consider these risk factors. However, these factors are not, and should not be construed as being exhaustive, and other circumstances that are currently not foreseen by management of Denison could arise to negatively affect Denison's business and its Shareholders.

Capital Intensive Industry and Uncertainty of Funding

The exploration and development of mineral properties and operation of mines and associated facilities requires a substantial amount of capital and the ability of the Company to proceed with any of its plans with respect thereto depends on its ability to obtain financing through joint ventures, equity financing, debt financing or other means. The Company intends to use the proceeds from its prior equity offerings as described in the applicable prospectus or other public disclosure for each such offering; however, the Company's ability to achieve such plans and objectives could change as a result of a number of internal and external factors. The Company's ultimate use might vary substantially from its planned use. There is no assurance that the proceeds from such prior offerings will be sufficient to meet Denison's business objectives or are not redirected to other business objectives at the discretion of the Company's management and the Board.

To fund additional activities, including certain exploration, evaluation and development activities, the Company anticipates it will require additional financing. General market conditions, volatile uranium markets, a claim against the Company, a significant disruption to the Company's business or operations, or other factors may make it difficult to secure the financing necessary to fund the substantial capital that is typically required in order to advance a mineral project, such as the Wheeler River project, through the testing, permitting and feasibility processes to a production decision, or to place a property, such as the Wheeler River project, into commercial production. Similarly, there is uncertainty regarding the Company's ability to fund additional exploration of the Company's projects or the acquisition of new projects.

There is no assurance that the Company will be successful in generating and/or obtaining required financing as and when needed on acceptable terms, and failure to obtain such additional financing could result in the delay or indefinite postponement of any or all of the Company's exploration, development or other growth initiatives.

COVID-19 Outbreaks

Outbreaks of COVID-19 have caused, and may cause further, disruptions to the Company's business and operational plans. Such disruptions may result from (i) restrictions that governments and communities impose to address the COVID-19 outbreak, (ii) restrictions that the Company and its contractors and subcontractors impose to ensure the safety of employees and others, (iii) shortages of employees and/or unavailability of contractors and subcontractors, and/or (iv) interruption of supplies from third parties upon which the Company relies. It is presently not possible to predict the extent or duration of any such disruption. A disruption may have a material adverse effect on the Company's business, financial condition and results of operations, which could be rapid and unexpected. These disruptions may severely impact the Company's ability to carry out its business plans for 2022 and beyond.

Global Financial Conditions

Global financial conditions are subject to volatility arising from international geopolitical and global economic developments, as well as general financial market turbulence, and market expectations of the same. Examples of such are the broad market impacts observed in connection with the COVID-19 pandemic, including market volatility and global inflation, and the Russian invasion of Ukraine. Access to public financing and credit in Canada can be negatively impacted by global financial conditions. Accordingly, the health of the global financing and credit markets may impact the ability of Denison to obtain equity or debt financing in the future and the terms at which financing or credit is available to Denison. Instances of volatility and market turmoil could adversely impact Denison's operations and the trading price of the Shares.

Speculative Nature of Exploration and Development

Exploration for minerals and the development of mineral properties is speculative and involves significant uncertainties and financial risks that even a combination of careful evaluation, experience and technical knowledge may not eliminate. While the discovery of an ore body may result in substantial rewards, few properties which are explored prove to return the discovery of a commercially mineable deposit and/or are ultimately developed into producing mines. As at the date hereof, many of Denison's projects are preliminary in nature and mineral resource estimates include inferred mineral resources, which are considered too speculative geologically to have the economic considerations applied that would enable them to be categorized as mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Major expenses may be required to properly evaluate the prospectivity of an exploration property, to estimate mineral resources, establish mineral reserves and ultimately develop an orebody. There is no assurance that the Company's uranium deposits are commercially mineable.

Imprecision of Mineral Reserve and Mineral Resource Estimates

Mineral reserve and resource figures are estimates, and no assurances can be given that the estimated quantities of uranium are in the ground and could be produced, or that Denison will receive the prices assumed in determining its mineral reserves. Such estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry best practices. Valid estimates made at a given time may significantly change when new information becomes available. While Denison believes that the Company's estimates of mineral reserves and mineral resources are well established and reflect management's best estimates, by their nature, mineral reserve and resource estimates are imprecise and depend, to a certain extent, upon statistical inferences and geological interpretations, which may ultimately prove inaccurate. Furthermore, market price fluctuations, as well as increased capital or production costs or reduced recovery rates, may render mineral reserves and resources uneconomic and may ultimately result in a restatement of mineral reserves and resources. The evaluation of mineral reserves or resources is always influenced by economic and technological factors, which may change over time.

Risks of, and Market Impacts on, Developing Mineral Properties

Denison's uranium production is dependent in part on the successful development of its known ore bodies, discovery of new ore bodies and/or revival of previously existing mining operations. It is impossible to ensure that Denison's current exploration and development programs will result in profitable commercial mining operations. Where the Company has been able to estimate the existence of mineral resources and mineral reserves, such as for the Wheeler River project, substantial expenditures are still required to establish economic feasibility for commercial development and to obtain the required environmental approvals, permits and assets needed to commence commercial operations.

Development projects are subject to the completion of successful feasibility studies, engineering studies and environmental assessments, the issuance of necessary governmental permits and the availability of adequate financing, the completion or attainment of which are subject to their own risks and uncertainties. Additionally, the inability to achieve necessary tasks or obtain required inputs, or any delays in the achievement of any key project tasks or inputs, could cause significant delays in timing, cost or results of the assessment of feasibility and/or the process to advance a project to a development decision. The economic feasibility of development projects is based upon many factors, including, among others: the accuracy of mineral reserve and resource estimates; metallurgical recoveries; capital and operating costs of such projects; government regulations relating to prices, taxes, royalties, infrastructure, land tenure, land use, importing and exporting, and environmental protection; political and economic climate; and uranium prices, which are historically volatile and cyclical.

Where a feasibility study is completed by Denison, such as for the Wheeler River project, any estimates of mineral reserves and mineral resources, development costs and schedule, operating costs and estimates of future cash flow contained therein, will be based on Denison's interpretation of the information available to-date. Development projects have no operating history upon which to base developmental and operational estimates. Particularly for development projects, economic analyses and feasibility studies contain estimates based upon many factors, including estimates of mineral reserves, the interpretation of geologic and engineering data, anticipated tonnage and grades of ore to be mined and processed, the configuration of the ore body, expected recovery rates of uranium from the ore, estimated operating costs, anticipated climatic conditions and other factors. In addition, results from further studies completed on the project may alter the plans and/or schedule for a project, which in turn may cause potentially significant delays to previous estimates of schedule and/or increases in estimated costs. As a result, it is possible that actual capital and operating costs and economic returns will differ significantly from those estimated for a project prior to production. For example, the plan and schedule, the capital and operating cost projections, and the related economic indicators, in the Wheeler PFS Report may vary significantly from the capital and operating costs and economic returns estimated by a final feasibility study or actual expenditures.

The decision as to whether a property, such as the Wheeler River project, contains a commercial mineral deposit and should be brought into production will depend upon market conditions, as well as the results of exploration and evaluation programs and/or feasibility studies, and the recommendations of duly qualified engineers and/or geologists, all of which involves significant expense and risk.

It is not unusual in the mining industry for new mining operations to take longer than originally anticipated to bring into a producing phase, and to require more capital than anticipated. Any of the following events, among others, could affect the profitability or economic feasibility of a project or delay or stop its advancement: unavailability of necessary capital, unexpected problems during the start-up phase delaying production, unanticipated changes in grade and tonnes of ore to be mined and processed, unanticipated adverse geological conditions, unanticipated metallurgical recovery problems, incorrect data on which engineering assumptions are made, unavailability of labour, increases in operating costs (including due to inflation), increased costs of mining or processing and refining facilities, unavailability of economic sources of power and water, unanticipated transportation costs, changes in government regulations (including regulations with respect to the environment, prices, royalties, duties, taxes, permitting, restrictions on production, quotas on exportation of minerals, etc.), changes or delays in in permitting and regulatory approval processes or restrictions associated with permitting or regulatory approvals, fluctuations in uranium prices, and accidents, labour actions and force majeure events.

The ability to sell and profit from the sale of any eventual mineral production from a property will be subject to the prevailing conditions in the applicable marketplace at the time of sale and applicable government regulations. The demand for uranium and other minerals is subject to global economic influences and changing attitudes of consumers and demand from end-users.

Many of these factors are beyond the control of a mining company and therefore represent a market risk which could impact the long term viability of Denison and its operations.

Denison has a History of Negative Operating Cash Flow

Denison had negative operating cash flow for recent past financial reporting periods. Denison anticipates that it will continue to have negative operating cash flow until such time, if at all, its Wheeler River project goes into production. To the extent that Denison has negative operating cash flow in future periods, Denison may need to allocate a portion of its cash reserves and/or physical uranium holdings to fund such negative cash flow. Denison may also be required to raise additional funds through the issuance of equity or debt securities. There can be no assurance that additional capital or other types of financing will be available when needed or that these financings will be on terms favourable to Denison.

Risks Associated with the Selection of Novel Mining Methods

As disclosed in the Wheeler PFS Report, Denison has selected the ISR mining method for production at the Phoenix deposit. While test work completed to date indicates that ground conditions and the mineral reserves estimated to be contained within the deposit are amenable to extraction by way of ISR, actual conditions could be materially different from those estimated based on the Company's technical studies and field testing completed to-date. While industry best practices have been utilized in the development of its estimates, actual results may differ significantly.

The MLJV is also developing the SABRE mining method, and Orano Canada and Denison plan to evaluate the potential use of this innovative method for future mining operations at their jointly owned McClean Lake and Midwest properties. While important milestones for the SABRE technology have been achieved to date, actual operations for a full-scale mining operation have not been proven and could be materially different than currently projected or otherwise anticipated.

Denison and the MLJV, respectively, must complete work to further advance and/or confirm its current estimates and projections for development of either mining method to the level of a feasibility study. As a result, it is possible that actual costs and economic returns of any mining operations may differ materially from Denison's or the MLJV's best estimates, as applicable.

If these novel mining methods can be advanced, their commercial use beyond the projects for or on which they are being developed could present a significant opportunity for Denison and/or the MLJV to expand upon the benefits of such investments in innovation; however, the ability and process for a joint venture, or either partner thereof, to use the mining method on projects outside of their respective joint ventures has not yet been established.

Dependence on Obtaining Licenses, and other Regulatory and Policy Risks

Uranium mining and milling operations and exploration activities, as well as the transportation and handling of the products produced, are subject to extensive regulation by federal, provincial and state governments. Such regulations relate to production, development, exploration, exports, imports, taxes and royalties, labour standards, occupational health, waste disposal, protection and remediation of the environment, mine decommissioning and reclamation, mine safety, toxic substances, transportation safety and emergency response, and other matters. Compliance with such laws and regulations is currently, and has historically, increased the costs of exploring, drilling, developing, constructing, operating and closing Denison's mines and processing facilities. It is possible that the costs, delays and other effects associated with such laws and regulations may impact Denison's decision with respect to exploration and development properties, including whether to proceed with exploration or development, or that such laws and regulations may result in Denison incurring significant costs to remediate or decommission properties in accordance with applicable environmental standards.

The development of mines and related facilities is contingent upon governmental approvals that are complex and time consuming to obtain and which may involve the coordination of multiple governmental agencies. Environmental and regulatory review has become a long, complex and uncertain process that can cause potentially significant delays. Obtaining these government approvals includes among other things, completing environmental assessments and engaging with local communities. See 'Engagement with Canada's First Nations and Métis' for more information regarding Denison's community engagement. In addition, future changes in governments, regulations and policies, such as those affecting Denison's mining operations and uranium transport, could materially and adversely affect Denison's results of operations and financial condition in a particular period or its long-term business prospects.

The ability of the Company to obtain and maintain permits and approvals and to successfully explore and evaluate properties and/or develop and operate mines may be adversely affected by real or perceived impacts associated with its activities that affect the environment and human health and safety at its projects and in the surrounding communities. The real or perceived impacts of the activities of other mining companies, locally or globally, may also adversely affect the Company's ability to obtain and maintain permits and approvals. The Company is uncertain as to whether all necessary permits will be obtained or renewed on acceptable terms or in a timely manner. Any significant delays in obtaining or renewing such permits or licenses in the future could have a material adverse effect on Denison.

On March 20, 2020, Denison announced a temporary suspension of activities related to the EA for the Wheeler River project, an important part of which involves extensive in-person engagement and consultation with various interested parties. Accordingly, the decision to suspend the EA was partially motivated by the significant social and economic disruptions that emerged as a result of the COVID-19 pandemic. The EA process is a key element of the Wheeler River project's critical path. While the EA process has resumed, the Company is not currently able to estimate the impact of the temporary suspension on the project development schedule, cost estimates or other project development assumptions and projections outlined in the PFS, and users are specifically cautioned against relying on the estimates provided therein regarding the start of pre-production activities in 2021 and first production in 2024.

Denison expends significant financial and managerial resources to comply with such laws and regulations. Denison anticipates it will have to continue to do so as the trend toward stricter government regulation may continue. Because legal requirements are frequently changing and subject to interpretation, Denison is unable to predict the ultimate cost of compliance with these requirements or their effect on operations. While the Company has taken great care to ensure full compliance with its legal obligations, there can be no assurance that the Company has been or will be in full compliance with all of these laws and regulations, or with all permits and approvals that it is required to have.

Failure to comply with applicable laws, regulations and permitting requirements, even inadvertently, may result in enforcement actions. These actions may result in orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment or remedial actions. Companies may be required to compensate others who suffer loss or damage by reason of their exploration or other activities and may have civil or criminal fines or penalties imposed for violations of applicable laws or regulations.

Engagement with Canada's First Nations and Métis

First Nations and Métis rights, entitlements and title claims may impact Denison's ability and that of its joint venture partners to pursue exploration, development and mining at its Saskatchewan properties. Pursuant to historical treaties, First Nations in northern Saskatchewan ceded title to most traditional lands but continue to assert title to the minerals within the lands. Métis people have not signed treaties; they assert Aboriginal rights throughout Saskatchewan, including Aboriginal title over most if not all of the Company's project lands.

Managing relations with the local First Nations and Métis communities is a matter of paramount importance to Denison. Engagement with, and consideration of other rights of, potentially affected Indigenous peoples may require accommodations, including undertakings regarding funding, contracting, environmental practices, employment and other matters and can be difficult. This may affect the timetable and costs of exploration, evaluation and development of the Company's projects.

The Company's relationships with communities of interest are critical to ensure the future success of its existing operations and the construction and development of its projects. There is an increasing level of public concern relating to the perceived effect of mining activities on the environment and communities. Adverse publicity relating to the mining industry generated by non-governmental organizations and others could have an adverse effect on the Company's reputation or financial condition and may impact its relationship with the communities in proximity to which it operates. While the Company is committed to operating in a socially responsible manner, there is no guarantee that the Company's efforts in this regard will mitigate this potential risk.

The inability of the Company to maintain positive relationships with communities of interest, including local First Nations and Métis, may result in additional obstacles to permitting, increased legal challenges, or other disruptions to the Company's exploration, development and production plans, and could have a significant adverse impact on the Company's share price and financial condition.

Environmental, Health and Safety Risks

Denison has expended significant financial and managerial resources to comply with environmental protection laws, regulations and permitting requirements in each jurisdiction where it operates, and anticipates that it will be required to continue to do so in the future as the historical trend toward stricter environmental regulation may continue. The uranium industry is subject to, not only the worker health, safety and environmental risks associated with all mining businesses, including potential liabilities to third parties for environmental damage, but also to additional risks uniquely associated with uranium mining and processing. The possibility of more stringent regulations exists in the areas of worker health and safety, the disposition of wastes, the decommissioning and reclamation of mining and processing sites, and other environmental matters each of which could have a material adverse effect on the costs or the viability of a particular project.

Denison's facilities operate under various operating and environmental permits, licences and approvals that contain conditions that must be met, and Denison's right to pursue its development plans is dependent upon receipt of, and compliance with, additional permits, licences and approvals. Failure to obtain such permits, licenses and approvals and/or meet any conditions set forth therein could have a material adverse effect on Denison's financial condition or results of operations.

Although the Company believes its operations are in compliance, in all material respects, with all relevant permits, licences and regulations involving worker health and safety as well as the environment, there can be no assurance regarding continued compliance or ability of the Company to meet stricter environmental regulation, which may also require the expenditure of significant additional financial and managerial resources.

Mining companies are often targets of actions by non-governmental organizations and environmental groups in the jurisdictions in which they operate. Such organizations and groups may take actions in the future to disrupt Denison's operations. They may also apply pressure to local, regional and national government officials to take actions which are adverse to Denison's operations. Such actions could have an adverse effect on Denison's ability to advance its projects and, as a result, on its financial position and results.

Global Demand and International Trade Restrictions

The international nuclear fuel industry, including the supply of uranium concentrates, is relatively small compared to other minerals, and is generally highly competitive and heavily regulated. Worldwide demand for uranium is directly tied to the demand for electricity produced by the nuclear power industry, which is also subject to extensive government regulation and policies. In addition, the international marketing of uranium is subject to governmental policies and certain trade restrictions. For example, the supply and marketing of uranium from Russia is limited by international trade agreements.

In general, trade agreements, governmental policies and/or trade restrictions are beyond the control of Denison and may affect the supply of uranium available for use in markets like the United States and Europe, which are currently the largest markets for uranium in the world. Similarly, trade restrictions or foreign policy have the potential to impact the ability to supply uranium to developing markets, such as China and India. If substantial changes are made to regulations affecting the global marketing and supply of uranium, the Company's business, financial condition and results of operations may be materially adversely affected.

Volatility and Sensitivity to Uranium Market Prices

The value of the Company's mineral resources, mineral reserves and estimates of the viability of future production for its projects are heavily influenced by long and short term market prices of U_3O_8. Historically, these prices have seen significant fluctuations, and have been and will continue to be affected by numerous factors beyond Denison's control. Such factors include, among others: demand for nuclear power, political, economic and social conditions in uranium producing and consuming countries, public and political response to nuclear incidents, reprocessing of used reactor fuel and the re-enrichment of depleted uranium tails, sales of excess civilian and military inventories (including from the dismantling of nuclear weapons) by governments and industry participants, uranium supplies from other secondary sources, and production levels and costs of production from primary uranium suppliers.

Uranium prices failing to reach or sustain projected levels can impact operations by requiring a reassessment of the economic viability of the Company's projects, and such reassessment alone may cause substantial delays and/or interruptions in project development, which could have a material adverse effect on the results of operations and financial condition of Denison.

Public Acceptance of Nuclear Energy and Competition from Other Energy Sources

Growth of the uranium and nuclear power industry will depend upon continued and increased acceptance of nuclear technology as a clean means of generating electricity. Because of unique political, technological and environmental factors that affect the nuclear industry, including the risk of a nuclear incident, the industry is subject to public opinion risks that could have an adverse impact on the demand for nuclear power and increase the regulation of the nuclear power industry.

Nuclear energy competes with other sources of energy, including oil, natural gas, coal and hydro-electricity. These other energy sources are, to some extent, interchangeable with nuclear energy, particularly over the longer term. Technical advancements in, and government subsidies for, renewable and other alternate forms of energy, such as wind and solar power, could make these forms of energy more commercially viable and put additional pressure on the demand for uranium concentrates. Sustained lower prices of alternate forms of energy may result in lower demand for uranium concentrates.

Current estimates project increases in the world's nuclear power generating capacities, primarily as a result of a significant number of nuclear reactors that are under construction, planned, or proposed in China, India and various other countries around the world. Market projections for future demand for uranium are based on various assumptions regarding the rate of construction and approval of new nuclear power plants, as well as continued public acceptance of nuclear energy around the world. The rationale for adopting nuclear energy can be varied, but often includes the clean and environmentally friendly operation of nuclear power plants, as well as the affordability and round-the-clock reliability of nuclear power. A change in public sentiment regarding nuclear energy could have a material impact on the number of nuclear power plants under construction, planned or proposed, which could have a material impact on the market's and the Company's expectations for the future demand for uranium and the future price of uranium.

The recent Russian invasion of Ukraine, and the unprecedented attacks occurring in the immediate vicinity of the Zaporizhzhia nuclear power plant in Ukraine, has caused alarm amongst certain observers. Much of this concern is based on partial or poorly informed facts, owing to the lack of detailed understanding of the design capabilities of modern nuclear power plants and the nature of the fluid situation in Ukraine. The Russian invasion of Ukraine has highlighted to many global policymakers the significant geopolitical risk associated with an over reliance on sources of energy from politically unstable jurisdictions. In many cases, this has resulted in increased calls for a renewed focus on energy independence, to which many nations have identified nuclear power as a potentially critical energy alternative that can both improve energy sovereignty and support the achievement of carbon emission reduction climate goals.

Market Price of Shares

The market price of Denison's Shares may experience wide fluctuations which may not necessarily be related to the financial condition, operating performance, underlying asset values or prospects of the Company. These factors include macroeconomic developments in North America and globally, market perceptions of the attractiveness of particular industries – including mining and nuclear energy – and volatile trading due to unpredictable general market or trading sentiments.

The market price of Denison's Shares are likely to increase or decrease in response to a number of events and factors, including: Denison's operating performance and the performance of competitors and other similar companies; the breadth of the public market for the Shares and the attractiveness of alternative investments; volatility in metal prices; the number of Shares to be publicly traded after an offering pursuant to any prospectus or prospectus supplement; the public's reaction to the Company's press releases, material change reports, other public announcements and its filings with the various securities regulatory authorities; the arrival or departure of key personnel; public perception of the nuclear industry and reaction to the developments therein; changes in recommendations by research analysts who track the Shares or the shares of other companies in the sector; developments that affect the market for all resource sector securities; changes in general economic and/or political conditions (including inflation); acquisitions, strategic alliances or joint ventures involving Denison or its competitors; and the other risk factors listed herein.

Many of these factors that could impact the market price of the Company's Shares are not directly related to Denison's results or operations and are, therefore, not within Denison's control. Accordingly, the market price of the Shares at any given point in time may not accurately reflect the long-term value of Denison.

Financial markets have recently experienced significant price and volume fluctuations that have particularly affected the market prices of equity securities of companies and that have often been unrelated to the operating performance, underlying asset values or prospects of such companies. From January 1, 2021 to December 31, 2021, the closing price of the Shares on the NYSE American ranged as low as US$0.63 to as high as US$2.14 and daily trading volumes ranged from approximately 98,000 to 8,204,000 Shares and the closing price of the Shares on the TSX ranged from as low as C$0.79 to as high as C$2.64 and daily trading volumes ranged from approximately 334,000 to 27,472,000 Shares. These volatilities do not represent all trading in the Shares and significant trading volume is facilitated through other trading markets for the Shares in Canada or the United States; for example, such reported aggregate daily trading volumes for "DNN" has ranged from approximately 2,373,700 to 219,113,700 in calendar 2021.

During calendar 2021, the Company has been affected by the results of a seemingly significant change in investor sentiment towards nuclear energy and uranium in connection with a global trend towards the transition to “clean” energy sources, which is believed to have resulted in increased trading volumes and price volatility of the Shares. Investor sentiment can change quickly, and investors may make investment decisions based on third party media and/or social media discussions that may not accurately reflect the Company’s disclosure or actual results of operations. Such sentiments may cause volatility in the trading price of the shares and may or may not be reflective of individual investor’s views as to the value of the underlying assets.

Market sentiment and trading in an entity’s shares can also be impacted by its inclusion in, or exclusion from, certain equity benchmarks and/or investable indices. For example, in 2021 Denison’s Shares were added to the S&P/TSX Composite Index, the headline index for the Canadian equity market. This inclusion could impact the Company’s Share price positively, with increased interest in purchasing the Shares. However, a decline in the index could result in investors selling the Shares of the Company for reasons that are unrelated to the Company’s operating results, underlying asset values or prospects. In addition, the removal of the Company from the S&P/TSX Composite could have a negative impact on the market price of Shares, as certain shareholders who link investments to the index could be required to sell the Shares for reasons that are unrelated to the Company’s operating results, underlying asset values or prospects our actual results.

Accordingly, the market price of the Shares may decline even if the Company’s operating results, underlying asset values or prospects have not changed. Additionally, these factors, as well as other related factors, may cause decreases in asset values that are deemed to be other than temporary, which may result in impairment losses. There can be no assurance that continuing fluctuations in price and volume will not occur. If such increased levels of volatility and market turmoil continue, the Company’s operations could be adversely impacted, and the trading price of the Shares may be materially adversely affected.

Securities class-action litigation often has been brought against companies following periods of volatility in the market price of their securities. Denison may in the future be the target of similar litigation. Securities litigation could result in substantial costs and damages and divert management's attention and resources.

Dilution from Further Issuances

While active in exploring for new uranium discoveries in the Athabasca Basin region, Denison’s present focus is on advancing the Wheeler River project to a development decision, with the potential to become the next large scale uranium producer in Canada. Denison will require additional funds to further such activities.

Denison may sell additional debt or equity securities (including through the sale of securities convertible into Shares) to finance its exploration, evaluation, development, construction and other operations, acquisitions or other projects. Denison is authorized to issue an unlimited number of Shares. Denison cannot predict the size of future sales and issuances of debt or equity securities or the effect, if any, that future sales and issuances of debt or equity securities will have on the market price of the Shares. Sales or issuances of a substantial number of equity securities, or the perception that such sales could occur, may adversely affect prevailing market prices for the Shares. With any additional sale or issuance of equity securities, investors may suffer dilution of their voting power and it could reduce the value of their investment.

Reliance on Other Operators

At some of its properties, Denison is not the operator and therefore is not in control of all of the activities and operations at the site. As a result, Denison is and will be, to a certain extent, dependent on the operators for the nature and timing of activities related to these properties and may be unable to direct or control such activities.

As an example, Orano Canada is the operator and majority owner of the MLJV and MWJV in Saskatchewan, Canada. The McClean Lake mill employs unionized workers who work under collective agreements. Orano Canada, as the operator, is responsible for most operational and production decisions and all dealings with unionized employees. Orano Canada may not be successful in its attempts to renegotiate the collective agreements, which may impact mill and mining operations. Similarly, Orano Canada is responsible for all licensing and dealings with various regulatory authorities. Orano Canada maintains the regulatory licences in order to operate the McClean Lake mill, all of which are subject to renewal from time to time and are required in order for the mill to operate in compliance with applicable laws and regulations. Any lengthy work stoppages, or disruption to the operation of the mill or mining operations as a result of a licensing matter or regulatory compliance, may have a material adverse impact on the Company's future cash flows, earnings, results of operations and financial condition.

Reliance on Contractors and Experts

In various aspects of its operations, Denison relies on the services, expertise and recommendations of its service providers and their employees and contractors, whom often are engaged at significant expense to the Company. For example, the decision as to whether a property contains a commercial mineral deposit and should be brought into production will depend in large part upon the results of exploration programs and/or feasibility studies, and the recommendations of duly qualified third-party engineers and/or geologists. In addition, while Denison emphasizes the importance of conducting operations in a technically sound, safe and sustainable manner, it cannot exert absolute control over the actions of these third parties when providing services to Denison or otherwise operating on Denison's properties. Any material error, omission, act of negligence or act resulting in a technical failure, environmental pollution, accidents or spills, industrial and transportation accidents, work stoppages or other actions could adversely affect the Company's operations and financial condition.

Acquisition of Physical Uranium

The Company used the substantial majority of the proceeds of the March 2021 Offering to fund the purchase of physical uranium as part of a financing initiative in connection with the advancement of the Company's uranium projects. There is no assurance that the strategy will be successful. Specific risks to the achievement of this strategy include the following:

- The Company intends to use the physical uranium, in part, to support the potential financing of the development of the Wheeler River project. There is no assurance that the physical uranium may be pledged as security for any potential financing, that the full value of the uranium held will be recognized by any party providing financing or that the Company's ownership of the physical uranium will enhance the Company's ability to access future project financing. Further, should the purchased uranium be used as security for a future financing, there is a risk that it would no longer be available for sale by the Company to meet any other objectives described for use of the proceeds of the March 2021 Offering.
- The Company may be required to sell a portion or all of the physical uranium accumulated to funds its operations should other forms of financing not be available to fund the Company's capital requirements.

Reliance on Facilities

Any uranium currently owned by the Company, such as the 2.5 million pounds U_3O_8 acquired with the proceeds of the March 2021 Offering, will be stored at one or more licensed uranium conversion facilities ("**Facilities**") owned by different organizations. As the number of duly licensed Facilities is limited, there can be no assurance that storage arrangements that are commercially beneficial to the Company will be readily available. Failure to negotiate commercially reasonable storage terms with the Facilities may have a material impact on the Company's plans with respect to the physical uranium holdings.

Any loss or damage of the uranium may not be fully covered or absolved by contractual arrangements with the Facilities or the Company's insurance arrangements, and the Company may be financially and legally responsible for losses and/or damages not covered by indemnity provisions or insurance. Any failure to recover all of the uranium holdings could have a material adverse effect on the financial condition of the Company.

Foreign Exchange Rates

The Company maintains its accounting records and reports its financial position and results in Canadian dollars. Fluctuations in the U.S. currency exchange rate relative to the Canadian currency could significantly impact the Company, including its financial results, operations or the trading value of its securities, as the price of uranium is quoted in U.S. dollars, and a decrease in value of U.S. dollars would result in a relative decrease in the valuation of uranium and the associated market value from a Canadian currency perspective. In addition, the Company's outstanding common share purchase warrants (issued pursuant to the February 2021 Offering and the March 2021 Offering) have a U.S. dollar denominated exercise price, and fluctuations in relative currency exchange rates will impact the proceeds raised from the exercises of such warrants. Exchange rate fluctuations, and any potential negative consequences thereof, are beyond the Company's control.

Benefits Not Realized From Transactions

Denison has completed a number of transactions over the last several years, including without limitation the acquisition of International Enexco Ltd., the acquisition of Fission, the acquisition of JNR, the sale of its mining assets and operations located in the United States to Energy Fuels Inc., the Mongolia Transaction, the optioning of the Moore Lake property to Skyharbour Resources Ltd., the acquisition of an 80% interest in the Hook-Carter property from ALX, the acquisition of an interest in the Moon Lake property from CanAlaska, entering into the APG Transaction, the Cameco Transaction and the JCU Acquisition. Despite Denison's belief that these transactions, and others which may be completed in the future, will be in Denison's best interest and benefit the Company and Denison's shareholders, Denison may not realize the anticipated benefits of such transactions or realize the full value of the consideration paid or received to complete the transactions. This could result in significant accounting impairments or write-downs of the carrying values of mineral properties or other assets and could adversely impact the Company and the price of its Shares.

Inability to Exploit, Expand and Replace Mineral Reserves and Mineral Resources

Denison's mineral reserves and resources at its Wheeler River, Waterbury Lake, McClean Lake and Midwest projects are Denison's material future sources of possible uranium production. Unless other mineral reserves or resources are discovered or acquired, Denison's sources of future production for uranium concentrates will decrease over time if its current mineral reserves and resources are exploited or otherwise depleted. There can be no assurance that Denison's future exploration, development and acquisition efforts will be successful in replenishing its mineral reserves and resources. In addition, while Denison believes that many of its properties demonstrate development potential, there can be no assurance that they can or will be successfully developed and put into production in future years.

Competition for Properties

Significant competition exists for the limited supply of mineral lands available for acquisition. Participants in the mining business include large established companies with long operating histories. In certain circumstances, the Company may be at a disadvantage in acquiring new properties as competitors may have incumbency advantages, greater financial resources and more technical staff. Accordingly, there can be no assurance that the Company will be able to compete successfully to acquire new properties or that any such acquired assets would yield resources or reserves or result in commercial mining operations.

Property Title Risk

The Company has investigated its rights to explore and exploit all of its material properties and, to the best of its knowledge, those rights are in good standing. However, no assurance can be given that such rights will not be revoked, or significantly altered, to its detriment. There can also be no assurance that the Company's rights will not be challenged or impugned by third parties, including the federal, provincial and local governments in Canada, as well as by First Nations and Métis.

There is also a risk that Denison's title to, or interest in, its properties may be subject to defects or challenges. If such defects or challenges cover a material portion of Denison's property, they could have a material adverse effect on Denison's results of operations, financial condition, reported mineral reserves and resources and/or long-term business prospects.

Ability to Maintain Obligations under Credit Facility and Other Debt

The Credit Facility has a term of one year, and will need to be renewed on or before January 31, 2023. There is no certainty what terms of any renewal may be, or any assurance that such renewal will be made available to Denison.

Denison is required to satisfy certain financial covenants in order to maintain its good standing under the Credit Facility. Denison is also subject to a number of restrictive covenants under the Credit Facility and the APG Transaction, such as restrictions on Denison's ability to incur additional indebtedness and sell, transfer or otherwise dispose of material assets. Denison may from time to time enter into other arrangements to borrow money in order to fund its operations and expansion plans, and such arrangements may include covenants that have similar obligations or that restrict its business in some way.

Events may occur in the future, including events out of Denison's control, which could cause Denison to fail to satisfy its obligations under the Credit Facility, APG Transaction or other debt instruments. In such circumstances, the amounts drawn under Denison's debt agreements may become due and payable before the agreed maturity date, and Denison may not have the financial resources to repay such amounts when due. The Credit Facility and APG Transaction are secured by DMI's main properties by a pledge of the shares of DMI. If Denison were to default on its obligations under the Credit Facility, APG Transaction or other secured debt instruments in the future, the lender(s) under such debt instruments could enforce their security and seize significant portions of Denison's assets.

Change of Control Restrictions

The APG Transaction and certain other of Denison's agreements contain provisions that could adversely impact Denison in the case of a transaction that would result in a change of control of Denison or certain of its subsidiaries. In the event that consent is required from our counterparty and our counterparty chooses to withhold its consent to a merger or acquisition, then such party could seek to terminate certain agreements with Denison, including certain agreements forming part of the APG Transaction, or require Denison to buy the counterparty's rights back from them, which could adversely affect Denison's financial resources and prospects. If applicable, these restrictive contractual provisions could delay or discourage a change in control of our company that could otherwise be beneficial to Denison or its shareholders.

Decommissioning and Reclamation

As owner of the Elliot Lake decommissioned sites and part owner of the McClean Lake mill, McClean Lake mines, the Midwest uranium project and certain exploration properties, and for so long as the Company remains an owner thereof, the Company is obligated to eventually reclaim or participate in the reclamation of such properties. Most, but not all, of the Company's reclamation obligations are secured, and cash and other assets of the Company have been reserved to secure this obligation. Although the Company's financial statements record a liability for the asset retirement obligation, and the security requirements are periodically reviewed by applicable regulatory authorities, there can be no assurance or guarantee that the ultimate cost of such reclamation obligations will not exceed the estimated liability contained on the Company's financial statements.

As Denison's properties approach or go into decommissioning, regulatory review of the Company's decommissioning plans may result in additional decommissioning requirements, associated costs and the requirement to provide additional financial assurances. It is not possible to predict what level of decommissioning and reclamation (and financial assurances relating thereto) may be required from Denison in the future by regulatory authorities.

Technical Innovation and Obsolescence

Requirements for Denison's products and services may be affected by technological changes in nuclear reactors, enrichment and used uranium fuel reprocessing. These technological changes could reduce the demand for uranium or reduce the value of Denison's environmental services to potential customers. In addition, Denison's competitors may adopt technological advancements that give them an advantage over Denison.

Mining and Insurance

Denison's business is capital intensive and subject to a number of risks and hazards, including environmental pollution, accidents or spills, industrial and transportation accidents, labour disputes, changes in the regulatory environment, natural phenomena (such as inclement weather conditions, earthquakes, pit wall failures and cave-ins) and encountering unusual or unexpected geological conditions. Many of the foregoing risks and hazards could result in damage to, or destruction of, Denison's mineral properties or processing facilities in which it has an interest; personal injury or death; environmental damage; delays in or interruption of or cessation of exploration, development, production or processing activities; or costs, monetary losses and potential legal liability and adverse governmental action. In addition, due to the radioactive nature of the materials handled in uranium exploration, mining and processing, as applicable, additional costs and risks are incurred by Denison and its joint venture partners on a regular and ongoing basis.

Although Denison maintains insurance to cover some of these risks and hazards in amounts it believes to be reasonable, such insurance may not provide adequate coverage in the event of certain circumstances. No assurance can be given that such insurance will continue to be available, that it will be available at economically feasible premiums, or that it will provide sufficient coverage for losses related to these or other risks and hazards.

Denison may be subject to liability or sustain loss for certain risks and hazards against which it cannot insure or which it may reasonably elect not to insure because of the cost. This lack of insurance coverage could result in material economic harm to Denison.

Anti-Bribery and Anti-Corruption Laws

The Company is subject to anti-bribery and anti-corruption laws, including the *Corruption of Foreign Public Officials Act* (Canada) and the United States Foreign Corrupt Practices Act of 1977, as amended. Failure to comply with these laws could subject the Company to, among other things, reputational damage, civil or criminal penalties, other remedial measures and legal expenses which could adversely affect the Company's business, results from operations, and financial condition. It may not be possible for the Company to ensure compliance with anti-bribery and anti-corruption laws in every jurisdiction in which its employees, agents, sub-contractors or joint venture partners are located or may be located in the future.

Climate Change

Due to changes in local and global climatic conditions, many analysts and scientists predict an increase in the frequency of extreme weather events such as floods, droughts, forest and brush fires and extreme storms. Such events could materially disrupt the Company's operations, particularly if they affect the Company's sites, impact local infrastructure or threaten the health and safety of the Company's employees, contractors and/or local communities. In addition, reported warming trends could result in later freeze-ups and warmer lake temperatures in the Athabasca Basin region, potentially affecting the Company's winter exploration programs at certain of its material projects. Any such event could result in material economic harm to Denison.

The Company is focused on operating in a manner designed to minimize the environmental impacts of its activities; however, certain environmental impacts from mineral exploration and mining activities may be inevitable. Increased environmental regulation and/or the use of fiscal policy by regulators in response to concerns over climate change and other environmental impacts, such as additional taxes levied on activities deemed harmful to the environment, could have a material adverse effect on Denison's financial condition or results of operations.

Information Systems and Cyber Security

Although to date the Company has not experienced any information security breaches or any losses relating to cyber-attacks, there can be no assurance that the Company will not incur such losses in the future.

One of the most important things a company can do to prevent information security breaches is to ensure its people understand the importance of protecting its data and systems. In light of that, the Company has an Information Technology Acceptable Use Policy for its employees, for which it seeks annual review and affirmation of compliance, with procedures and practices in place designed to protect Denison's information technology ("**IT**") infrastructure. Denison also regularly deploys mandatory company-wide information technology and cyber-security training, to ensure familiarity with the risks and mitigation strategies, with the modules last launched in 2019 and 2022.

The Company's operations depend upon the availability, capacity, reliability and security of its IT infrastructure, and its ability to expand and update this infrastructure as required, to conduct daily operations. Denison relies on various IT systems in all areas of its operations, including financial reporting, contract management, exploration and development data analysis, human resource management, regulatory compliance and communications with employees and third parties.

These IT systems could be subject to network disruptions caused by a variety of sources, including computer viruses, security breaches and cyber-attacks, as well as network and/or hardware disruptions resulting from incidents such as unexpected interruptions or failures, natural disasters, fire, power loss, vandalism and theft. The Company's operations also depend on the timely maintenance, upgrade and replacement of networks, equipment, IT systems and software, as well as pre-emptive expenses to mitigate the risks of failures.

The ability of the IT function to support the Company's business in the event of any such occurrence and the ability to recover key systems from unexpected interruptions cannot be fully tested. There is a risk that, if such an event actually occurs, the Company's continuity plan may not be adequate to immediately address all repercussions of the disaster. In the event of a disaster affecting a data centre or key office location, key systems may be unavailable for a number of days, leading to inability to perform some business processes in a timely manner. As a result, the failure of Denison's IT systems or a component thereof could, depending on the nature of any such failure, adversely impact the Company's reputation and results of operations.

Unauthorized access to Denison's IT systems by employees or third parties could lead to corruption or exposure of confidential, fiduciary or proprietary information, interruption to communications or operations or disruption to the Company's business activities or its competitive position. Further, disruption of critical IT services, or breaches of information security, could have a negative effect on the Company's operational performance and its reputation. The Company's risk and exposure to these matters cannot be fully mitigated because of, among other things, the evolving nature of these threats. As a result, cyber security and the continued development and enhancement of controls, processes and practices designed to protect systems, computers, software, data and networks from attack, damage or unauthorized access remain a priority.

The Company applies technical and process controls in line with industry-accepted standards to protect information, assets and systems, and is always considering initiatives to enhance its cyber and data security; however, these controls may not adequately prevent cyber-security breaches. There is no assurance that the Company will not suffer losses associated with cyber-security breaches in the future, and may be required to expend significant additional resources to investigate, mitigate and remediate any potential vulnerabilities. As cyber threats continue to evolve, the Company may be required to expend additional resources to continue to modify or enhance protective measures or to investigate and remediate any security vulnerabilities.

Dependence on Key Personnel and Qualified and Experienced Employees

Denison's success depends on the efforts and abilities of certain senior officers and key employees. Certain of Denison's employees have significant experience in the uranium industry, and the number of individuals with significant experience in this industry is small. While Denison does not foresee any reason why such officers and key employees will not remain with Denison, if for any reason they do not, Denison could be adversely affected. Denison has not purchased key man life insurance for any of these individuals. Denison's success also depends on the availability of qualified and experienced employees to work in Denison's operations and Denison's ability to attract and retain such employees. In addition, Denison's ability to keep essential operating staff in place may also be challenged as a result of potential COVID-19 outbreaks or quarantines.

Conflicts of Interest

Some of the directors and officers of Denison are also directors of other companies that are similarly engaged in the business of acquiring, exploring and developing natural resource properties. Such associations may give rise to conflicts of interest from time to time. In particular, one of the consequences would be that corporate opportunities presented to a director or officer of Denison may be offered to another company or companies with which the director or officer is associated, and may not be presented or made available to Denison. The directors and officers of Denison are required by law to act honestly and in good faith with a view to the best interests of Denison, to disclose any interest which they may have in any project or opportunity of Denison, and, where applicable for directors, to abstain from voting on such matter. Conflicts of interest that arise will be subject to and governed by the procedures prescribed in the Company's Code of Ethics and by the OBCA.

Disclosure and Internal Controls

Internal controls over financial reporting are procedures designed to provide reasonable assurance that transactions are properly authorized, assets are safeguarded against unauthorized or improper use, and transactions are properly recorded and reported. Disclosure controls and procedures are designed to ensure that information required to be disclosed by a company in reports filed with securities regulatory agencies is recorded, processed, summarized and reported on a timely basis and is accumulated and communicated to the company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance with respect to the reliability of reporting, including financial reporting and financial statement preparation.

Potential Influence of KEPCO and KHNP

Effective December 2016, KEPCO indirectly transferred the majority of its interest in Denison to KHNP Canada. Denison and KHNP Canada subsequently entered into an amended and restated strategic relationship agreement effective September 19, 2017 (the "**KHNP SRA**") (on substantially similar terms as the original strategic relationship agreement between Denison and KEPCO), pursuant to which KHNP Canada is contractually entitled to Board representation. Provided KHNP Canada holds over 5% of the Shares, it is entitled to nominate one director for election to the Board at any shareholder meeting.

KHNP Canada's shareholding level gives it a large vote on decisions to be made by shareholders of Denison, and its right to nominate a director may give KHNP Canada influence on decisions made by Denison's Board. Although KHNP Canada's director nominee will be subject to duties under the OBCA to act in the best interests of Denison as a whole, such director nominee is likely to be an employee of KHNP and he or she may give special attention to KHNP's or KEPCO's interests as indirect Shareholders. The interests of KHNP and KEPCO, as indirect Shareholders, may not always be consistent with the interests of other Shareholders.

The KHNP SRA also includes provisions granting KHNP Canada a right of first offer for certain asset sales and the right to be approached to participate in certain potential acquisitions. The right of first offer and participation right of KHNP Canada may negatively affect Denison's ability or willingness to entertain certain business opportunities, or the attractiveness of Denison as a potential party for certain business transactions. KEPCO's large indirect shareholding block may also make Denison less attractive to third parties considering an acquisition of Denison if those third parties are not able to negotiate terms with KEPCO or KHNP Canada to support such an acquisition.

United States investors may not be able to obtain enforcement of civil liabilities against the Company

The enforcement by investors of civil liabilities under the United States federal or state securities laws may be affected adversely by the fact that the Company is governed by the OBCA, that the majority of the Company's officers and directors are residents of Canada, and that all, or a substantial portion, of their assets and the Company's assets are located outside the United States. It may not be possible for investors to effect service of process within the United States on certain of its directors and officers or enforce judgments obtained in the United States courts against the Company or certain of the Company's directors and officers based upon the civil liability provisions of United States federal securities laws or the securities laws of any state of the United States.

There is some doubt as to whether a judgment of a United States court based solely upon the civil liability provisions of United States federal or state securities laws would be enforceable in Canada against the Company or its directors and officers. There is also doubt as to whether an original action could be brought in Canada against the Company or its directors and officers to enforce liabilities based solely upon United States federal or state securities laws.

If the Company is characterized as a passive foreign investment company, U.S. holders may be subject to adverse U.S. federal income tax consequences

U.S. investors should be aware that they could be subject to certain adverse U.S. federal income tax consequences in the event that the Company is classified as a 'passive foreign investment company' ("PFIC") for U.S. federal income tax purposes. The determination of whether the Company is a PFIC for a taxable year depends, in part, on the application of complex U.S. federal income tax rules, which are subject to differing interpretations, and the determination will depend on the composition of the Company's income, expenses and assets from time to time and the nature of the activities performed by the Company's officers and employees. The Company may be a PFIC in one or more prior tax years, in the current tax year and in subsequent tax years. Prospective investors should carefully read the discussion below under the heading 'Material United States Federal Income Tax Considerations for U.S. Holders' and the tax discussion in any applicable prospectus supplement for more information and consult their own tax advisors regarding the likelihood and consequences of the Company being treated as a PFIC for U.S. federal income tax purposes, including the advisability of making certain elections that may mitigate certain possible adverse U.S. federal income tax consequences that may result in an inclusion in gross income without receipt of such income.

As a foreign private issuer, the Company is subject to different U.S. securities laws and rules than a U.S. domestic issuer, which may limit the information publicly available to U.S. investors

The Company is a foreign private issuer under applicable U.S. federal securities laws and, therefore, is not required to comply with all of the periodic disclosure and current reporting requirements of the U.S. Exchange Act and related rules and regulations. As a result, the Company does not file the same reports that a U.S. domestic issuer would file with the SEC, although it will be required to file with or furnish to the SEC the continuous disclosure documents that the Company is required to file in Canada under Canadian securities laws. In addition, the Company's officers, directors and principal shareholders are exempt from the reporting and 'short swing' profit recovery provisions of Section 16 of the U.S. Exchange Act. Therefore, the Company's securityholders may not know on as timely a basis when its officers, directors and principal shareholders purchase or sell securities of the Company as the reporting periods under the corresponding Canadian insider reporting requirements are longer. In addition, as a foreign private issuer, the Company is exempt from the proxy rules under the U.S. Exchange Act.

The Company may lose its foreign private issuer status in the future, which could result in significant additional costs and expenses to the Company

The Company may lose its foreign private issuer status if a majority of the Shares are owned of record in the United States and the Company fails to meet the additional requirements necessary to avoid loss of foreign private issuer status. The regulatory and compliance costs to the Company under U.S. federal securities laws as a U.S. domestic issuer may be significantly more than the costs the Company incurs as a Canadian foreign private issuer eligible to use the multijurisdictional disclosure system. If the Company is not a foreign private issuer, it would not be eligible to use the multijurisdictional disclosure system or other foreign issuer forms and would be required to file periodic and current reports and registration statements on U.S. domestic issuer forms with the SEC, which are more detailed and extensive than the forms available to a foreign private issuer.

Denison's Securities

The Shares

The Company is entitled to issue an unlimited number of Shares. As of December 31, 2021, Denison had an aggregate of 812,429,995 Shares issued and outstanding, and 817,699,142 Shares issued and outstanding as at the date hereof.

Shareholders are entitled to receive notice of, and to one vote per share at, every meeting of Shareholders and to share equally in the assets of Denison remaining upon the liquidation, dissolution or winding up of Denison after the creditors of Denison have been satisfied.

ATM Program Activity

Denison issued 4,230,186 common shares under the 2020 ATM program, at an average price of $0.93 per share, for aggregate gross proceeds of $3,914,000, and incurred issue expenses of $466,000, including commissions of $78,000. The 2020 ATM program was terminated in connection with the March 2021 Offering.

During 2021, the Company issued 3,840,000 shares under the 2021 ATM program. The common shares were issued at an average price of $2.08 per share for aggregate gross proceeds of $7,975,000. The Company also recognized issue costs of $748,000 related to its ATM share issuances which includes $160,000 of commissions and $588,000 associated with the set-up of the 2021 Shelf Prospectus and 2021 ATM Program.

Price Range and Trading Volume of Shares

The Shares trade on the TSX under the symbol "DML" and on the NYSE American under the symbol "DNN". The following table sets forth, for the periods indicated, the reported intra-day high and low sales prices and aggregate volume of trading of the Shares on the TSX and NYSE American during the year ended December 31, 2021.

Month	High (CAD$) TSX	Low (CAD$) TSX	Volume TSX	High (US$) NYSE American	Low (US$) NYSE American	Volume NYSE American
January	1.04	0.79	26.07 M	0.83	0.6252	7.37 M
February	2.29	0.85	76.38 M	1.80	0.6615	49.76 M
March	1.67	1.11	90.61 M	1.33	0.8628	32.02 M
April	1.68	1.17	35.38 M	1.34	0.93	15.71 M
May	1.62	1.25	60.31 M	1.34	1.02	13.99 M
June	1.82	1.45	49.00 M	1.50	1.175	14.73 M
July	1.55	1.17	36.68 M	1.26	0.9169	7.93 M
August	1.61	1.25	22.89 M	1.27	0.9768	5.10 M
September	2.26	1.55	104.45 M	1.80	1.23	28.56 M
October	2.45	1.68	95.42 M	1.97	1.33	13.98 M
November	2.64	1.91	98.42 M	2.135	1.49	12.11 M
December	2.09	1.65	66.43 M	1.64	1.275	8.31 M

Source: Bloomberg

The trading of the Shares on the TSX and the NYSE American do not represent all trading in the Shares, and significant volumes of trading may be facilitated through other platforms; for example, reported aggregate daily trading volumes for "DNN" has ranged from approximately 2,373,700 to 219,113,700 in calendar 2021.

Prior Sales

During the year ended December 31, 2021, the Company issued the following securities pursuant to the Company's Option Plan and Share Unit Plan, as applicable:

Stock Options:

Date of Issuance	Options Issued (#)	Exercise Prices ($)
March 8, 2021	3,666,000	$ 1.26
May 10, 2021	303,000	$ 1.43
August 9, 2021	98,000	$ 1.39
November 8, 2021	73,000	$ 2.40
November 29, 2021	31,000	$ 2.03
TOTAL	**4,171,000**	

Share Units:

Date of Issuance	Restricted Share Units (#)	Performance Share Units (#)
March 23, 2021	1,730,000	-
May 10, 2021	156,000	-
August 9, 2021	19,000	-
November 9, 2021	37,000	-
November 29, 2021	16,000	
TOTAL	**1,958,000**	**0**

Dividends

Shareholders are entitled to receive dividends if, as and when declared by the Board of Directors. The Company is restricted under its Credit Facility from paying dividends, and the directors are focused on dedicating cash flow to reinvestment in the business of the Company. Accordingly, no dividends have been declared to date.

Denison's Management

Denison's Directors

The following table sets out the names and the provinces and countries of residence of each of the directors of Denison as of the date hereof, their respective positions and offices held with Denison and their principal occupations during the five preceding years. The following table also identifies the members of each committee of the Board of Directors.

Name and Province and Country of Residence	Principal Occupation and Employment for Past Five Years	Director Since[1]
David Cates Ontario, Canada	President and Chief Executive Officer of the Company since 2015.	2018
W. Robert Dengler[5,8,10] Ontario, Canada	Corporate Director since 2006.	2006
Brian Edgar[3,4] British Columbia, Canada	Chairman of Silver Bull Resources, Inc., a mineral exploration company listed on both OTCMKTS and the TSX, since 2012, and President and Chief Executive Officer of Dome Ventures Corporation, a subsidiary of Silver Bull Resources Inc., since 2005.	2005
Ron Hochstein[7,9,11] Chair of the Board British Columbia, Canada	President and Chief Executive Officer of Lundin Gold Inc. since 2014.	2000
Yun Chang Jeong Gyeongsangbuk-do, Korea	General Manager of the Nuclear Fuel Supply division of KHNP; prior: has held various positions at KHNP.	2022
David Neuburger[3,9,11] Saskatchewan, Canada	Corporate Director since 2018; prior: Vice President, General Manager, Kupol Operations for Kinross Gold Corporation from 2013 to 2018.	2021
Laurie Sterritt British Columbia, Canada	Managing Director at Leaders International since 2018; prior: Consultant at Laurie Sterritt Consulting Inc. from 2017 to 2021.	2022
Jennifer Traub[5, 7] British Columbia, Canada	Partner in the Securities Group at Cassels Brock & Blackwell LLP since 2000 and serves as Co-Chair of the firm's Mining Group.	2021
Patricia M. Volker[2,6] Ontario, Canada	Corporate Director since 2016.	2018

Notes:

(1) The term of office of each of the directors of Denison will expire at the Annual Meeting of the Shareholders currently scheduled to be held on May 4, 2022.
(2) Chair, Audit Committee
(3) Member, Audit Committee
(4) Chair, Corporate Governance and Nominating Committee
(5) Member, Corporate Governance and Nominating Committee
(6) Chair, Compensation Committee
(7) Member, Compensation Committee
(8) Chair, Environment, Health, Safety & Sustainability Committee
(9) Member, Environment, Health, Safety & Sustainability Committee
(10) Chair, Technical Committee
(11) Member, Technical Committee

Denison's Executive Officers

The following table sets out the names and the provinces or states and countries of residence of each of the executive officers of Denison as of the date hereof, their respective positions and offices held with Denison and their principal occupations during the five preceding years.

Name and Province and Country of Residence	Position with Denison and Employment for Past Five Years
David Cates Ontario, Canada	President and Chief Executive Officer since 2015.
Gabriel McDonald Ontario, Canada	Executive Vice President and Chief Financial Officer, with Denison since 2015.
David Bronkhorst Saskatchewan, Canada	Vice President Operations since 2019; prior: Vice President, Mining, Projects and Technology at Cameco until retirement in 2016.
Kevin Himbeault Saskatchewan, Canada	Vice President Plant Operations & Regulatory Affairs since 2022; prior: Operations Manager at the Key Lake mill for Cameco since 2015.
Elizabeth Sidle Ontario, Canada	Vice President Finance since 2021; prior: Director Finance at Denison since 2016.
Amanda Willett British Columbia, Canada	Vice President Legal since June 2020 and Corporate Secretary since June 2016; prior: Corporate Counsel at Dension from June 2016.

The directors and executive officers of Denison, as a group, beneficially own, or control or direct, directly or indirectly, 4,710,950 Shares, or less than one percent of the Shares as of the date of this AIF. No single director or officer beneficially owns or controls or directs, directly or indirectly, one percent or more of the Shares as of the date of this AIF. The information as to Shares beneficially owned or directed by the directors and officers, not being within the knowledge of the Company, has been furnished by each such individual.

Cease Trade Orders, Bankruptcies, Penalties or Sanctions

Other than as referred to below, no director or officer of the Company:

(a) is, as at the date of this AIF, or has, within the previous ten year period, been a director or executive officer of a company (including Denison) that:

(I) was subject to a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation that was in effect for a period of more than 30 consecutive days that was issued (A) while that person was acting in such capacity or (B) after that person ceased to act in such capacity but which resulted from an event that accrued while that person was acting in that capacity; or

(ii) became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets (A) while that person was acting in such capacity or (B) within a year of that person ceasing to act in such capacity, or

(b) has, within the previous ten year period, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold such person's assets; or

(c) is, or has been, subject to any penalties or sanctions (i) imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority, or (ii) imposed by a court or regulatory body that would likely be considered important to a reasonable security holder in making an investment decision.

Ron Hochstein was a director of Sirocco Mining Inc. (" **Sirocco**"). Pursuant to a plan of arrangement completed on January 31, 2014, Canadian Lithium Corp. amalgamated with Sirocco to form RB Energy Inc. ("**RBI**"). In October 2014, RBI commenced proceedings under the Companies' Creditors Arrangement Act (the "**CCAA**"). CCAA proceedings continued in 2015 and a receiver was appointed in May 2015. The TSX de-listed RBI's common shares in November 24, 2014 for failure to meet the continued listing requirements of the TSX. Ron Hochstein was a director of RBI until October 3, 2014.

Conflicts of Interest

Some of Denison's directors and officers are also directors and/or officers of other natural resource companies and, consequently, there exists the possibility for such directors and officers to be in a position of conflict relating to any future transactions or relationships between the Company and such other companies or common third parties. However, the Company is unaware of any such pending or existing conflicts between these parties. Any decision made by any of such directors and officers involving the Company are made in accordance with their duties and obligations to deal fairly and in good faith with the Company and such other companies and their obligations to act in the best interests of Denison's shareholders. In addition, each of the directors of the Company discloses and refrains from voting on any matter in which such director may have a conflict of interest.

None of the present directors or senior officers of the Company, and no associate or affiliate of any of them, has any material interest in any transaction of the Company or in any proposed transaction which has materially affected or will materially affect the Company.

Investor relations, administrative service fees and other pass-through expenses of $164,000 were incurred during the financial year ended December 31, 2021 with Namdo Management Services Ltd., a company which shared a common director with Denison until the second fiscal quarter of 2021. These services were incurred in the normal course of operating a public company.

In addition, one of Denison's directors, Mr. Jeong, is employed by KHNP, a subsidiary of KEPCO and the parent corporation of KHNP Canada. Through its corporate holdings, KEPCO holds approximately 7.13% of the outstanding Shares as of the date hereof (the majority of which are held directly by KHNP Canada). The Company and KHNP Canada are parties to the KHNP SRA, which may present a conflict of interest for Mr. Jeong. The KHNP SRA provides KHNP Canada with a right of first offer for certain asset sales and the right to be approached to participate in certain potential acquisitions being considered by Denison. While the Company is not aware of a pending or existing conflict of interest with Mr. Jeong as of the date hereof, the interests of KEPCO, KHNP and KHNP Canada as shareholders of Denison and their business relationships with Denison may place Mr. Jeong in a position of conflict as a director of the Company in the future.

Interest of Management and Others in Material Transactions

Other than as disclosed in this AIF, no director or executive officer of Denison, no person or company that beneficially owns, controls or directs, indirectly or directly, more than 10% of the Shares, and no associate or affiliate of any of them, has or has had, within the three most recently completed financial years or during the current financial year, any material interest, direct or indirect, in any transaction which materially affects or is reasonably expected to materially affect Denison.

Standing Committees of the Board

The Audit Committee

The audit committee of the Company's Board of Directors is principally responsible for:

- recommending to the Company's Board of Directors the external auditor to be nominated for election by the Company's shareholders at each annual general meeting and negotiating the compensation of such external auditor;
- overseeing the work of the external auditor;
- reviewing the Company's annual and interim financial statements, its MD&A in respect thereof and press releases regarding earnings before they are reviewed and approved by the Board of Directors and publicly disseminated by the Company;
- reviewing the Company's financial reporting procedures for the Company's public disclosure of financial information extracted or derived from its financial statements;
- overseeing the Company's practices with respect to the identification and management of financial reporting, financial compliance and related risks; and
- overseeing other areas of risk for the Company, including related-party transactions, conflicts, internal audit and cyber security risks.

The Company's Board of Directors has adopted an audit committee mandate/terms of reference (the " **Mandate**") which sets out the Audit Committee's mandate, organization, powers and responsibilities. The complete Mandate is attached as Schedule A to this AIF.

Below are the details of each Audit Committee member, including his or her name, whether she or he is independent and financially literate as such terms are defined under National Instrument 52-110 - *Audit Committees* of the Canadian Securities Administrators ("**NI 52-110**") and his or her education and experience as it relates to the performance of his or her duties as an Audit Committee member. All three audit committee members have "financial expertise" within the meaning of the *U.S. Sarbanes-Oxley Act* of 2002, as amended, and are financially literate under NI 52-110. The qualifications and independence of each member is discussed.

Director	Independent[1]	Financially Literate[2]	Education & Experience Relevant to Performance of Audit Committee Duties
Patricia Volker Chair of the Committee	Yes	Yes	· Chartered Professional Accountant, Chartered Accountant, Certified Management Accountant · B.Sc. · Served in various capacities in the accounting profession during a 30+ year career · Served for over 17 years in various positions at the Chartered Professional Accountants of Ontario, most recently as the Director of Public Accounting and Special Projects. · Serves on private and public company audit and/or finance committees · Holds the Institute of Corporate Directors, Director designation

Director	Independent[1]	Financially Literate[2]	Education & Experience Relevant to Performance of Audit Committee Duties
Brian Edgar	Yes	Yes	· Law degree, with extensive corporate finance experience · Held positions of Chairman (since 2011) and President and Chief Executive Officer (2005 to 2011) of a public company. · Has served on audit committees of a number of public companies
David Neuburger	Yes	Yes	· Completed Financial Accounting and Managerial Accounting courses as part of a Masters of Business Administration (MBA) Program. · Disclosure Committee experience with Cameco, including review of quarterly and annual financial statements and management's discussion & analysis · Served on another public company audit committee

Notes:

(1) Independent within the meaning of NI 52-110.

(2) To be considered financially literate, a member of the Committee must have the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Company's financial statements.

The following table discloses the fees billed to the Company by its independent auditors during the last two fiscal years.

Financial Year Ending [1]	Audit Fees [2]	Audit-Related Fees [3]	Tax Fees [4]	All Other Fees [5]
December 31, 2021	$475,700	$27,820	28,747	Nil
December 31, 2020[6]	$416,654	$27,300	24,015	Nil

Notes:

1. These amounts include accruals for fees billed outside the period to which the services related.

2. The aggregate fees billed for audit services of the Company's consolidated financial statements, including services normally provided by an auditor for statutory or regulatory filings or engagements and other services only the auditor can reasonably provide. The Audit Fees in 2020 and 2021 include fees related to reviews of interim consolidated financial statements (2021: $80,250; 2020: $83,817) and the extensive work required of the auditors to support, and conduct consent procedures in connection with, the Company's various equity issuances (2021: $181,900; 2020: $160,000).
3. The aggregate fees billed for specified audit procedures, assurance and related services that are reasonably related to the performance of the audit or review of the Company's financial statements and are not disclosed in the Audit Fees column. Audit-related fees in 2020 and 2021 were billed for certain specified procedures engagements and the audit of certain subsidiary financial statements.
4. The aggregate fees billed for tax compliance, tax advice, and tax planning services, such as transfer pricing and tax return preparation.
5. The aggregate fees billed for professional services other than those listed in the other three columns.
6. Fees in 2020 have been re-classified from prior years, to present consistently as described in Notes 1, 2 and 3, above. Fees in 2020 include $167,904 of audit fees and $27,300 of audit-related fees for professional services billed by the Company's former auditor, PricewaterhouseCoopers LLP.

Since the commencement of the Company's most recently completed financial year, there has not been a recommendation of the Audit Committee to nominate or compensate an auditor which was not adopted by the Company's Board of Directors.

The Audit Committee has adopted specific policies and procedures for the engagement of non-audit services as described in Section D of the Mandate.

Effective October 1, 2020, at the request of the Company, the Company's prior auditor, PricewaterhouseCoopers LLP, resigned as auditors of the Company and KPMG LLP was appointed to fill their vacancy for the fiscal year ended December 31, 2020.

Other Board Committees

The Board currently has four other committees in addition to the Audit Committee, namely the Corporate Governance and Nominating Committee, the Compensation Committee, the Environment, Health, Safety and Sustainability Committee and the Technical Committee. Each standing committee of the Board operates according to its mandate, which is approved by the Board and sets out the committee's duties and responsibilities. A discussion of each committee and its composition can be found in the most recent management information circular prepared in connection with the Company's Shareholder meeting ("**Circular**"), and copies of the standing committee mandates are available at www.denisonmines.com.

Corporate Governance

As a Canadian reporting issuer with its Shares listed on the TSX, Denison has in place a system of corporate governance practices which is responsive to applicable Canadian requirements, including National Policy 58-201 - *Corporate Governance Guidelines* of the Canadian Securities Administrators (the "**Guidelines**"). Denison's corporate governance practices meet or exceed the Guidelines and all other applicable Canadian requirements. Reference is made to the Corporate Governance Practices section of the Circular, which contains a description of the Company's system of corporate governance practices with reference to the Guidelines.

Denison is classified as a foreign private issuer under U.S. securities law and its Shares are also listed on the NYSE American. Pursuant to the rules of the NYSE American, a foreign private issuer is permitted to follow home country practice except with respect to certain rules, with which Denison complies.

Legal and Regulatory Proceedings

Except as described below, the Company was not a party to, and none of the Company's property was the subject of, any material legal

proceedings in 2021, and the Company knows of no such material legal proceedings that are contemplated. However, from time to time, the Company may become party to litigation incidental to its business or other litigation matters deemed by the Company to not be material.

Uranium Industry a.s. Arbitration

Pursuant to the terms of the Amended and Restated Share Purchase Agreement between Denison and UI dated November 25, 2015 (the " **GSJV Purchase Agreement**") with respect to the Mongolia Transaction, the Company had sold its interest in the Gurvan Saihan Joint Venture (the

"**GSJV**") effective December 1, 2015 (the "**Mongolia Transaction**"). In connection with the closing the Company received US$1,250,000 and retained rights to receive additional proceeds from contingent payments of up to US$12,000,000, for total consideration of up to US$13,250,000. The contingent payments are payable as follows: (1) US$5,000,000 within 60 days of the issuance of a mining licence for an area covered by any of the four principal exploration licences held by the GSJV, being the Hairhan, Haraat, Gurvan Saihan and Ulzit projects (the "**First Project**"); (2) US$5,000,000 within 60 days of the issuance of a mining licence for an area covered by any of the other exploration licences held by the GSJV (the "**Second Project**"); (3) US$1,000,000 within 365 days following the production of an aggregate of 1,000 pounds U_3O_8 from the operation of the First Project; and (4) US$1,000,000 within 365 days following the production of an aggregate of 1,000 pounds U_3O_8 from the operation of the Second Project.

The issuance by the Mongolian government of mining licence certificates for the Hairhan, Haraat, Gurvan Saihan and Ulzit projects in 2016 triggered an obligation for UI to make an aggregate of US$10,000,000 of contingent payments to Denison by November 16, 2016.

Pursuant to a January 2017 extension agreement (the "**Extension Agreement**") entered into between UI and the Company, the payment due date for the contingent payments was extended from November 16, 2016 to July 16, 2017. As consideration for the extension, UI agreed to pay interest on the contingent payments at a rate of 5% per year, payable monthly up to July 16, 2017 and a US$100,000 instalment amount towards the balance of contingent payments. The first payment under the Extension Agreement was due on or before January 31, 2017. The required payments were not made.

On February 24, 2017, the Company served notice to UI that it was in default of its obligations under the GSJV Agreement and the Extension Agreement and on December 12, 2017, the Company filed a Request for Arbitration between the Company and UI under the Arbitration Rules of the London Court of International Arbitration. Hearings in front of the arbitration panel were held in December 2019. The final award was rendered by an arbitration panel on July 27, 2020, with the panel finding in favour of Denison and ordering UI to pay the Company US$10,000,000 plus interest at a rate of 5% per annum from November 16, 2016, plus certain legal and arbitration costs.

On January 13, 2022, the Company and UI executed a Repayment Agreement, pursuant to which the parties negotiated the repayment of the debt owing from UI to Denison. Under the terms of the Repayment Agreement, UI has agreed to make scheduled payments on account of the Arbitration Award, plus additional interest and fees, through a series of quarterly installments and annual milestone payments, until December 31, 2025. The total amount payable to Denison under the Repayment Agreement is approximately US$16 million. The Repayment Agreement includes customary covenants and conditions in favour of Denison, including certain restrictions on UI's ability to take on additional debt, in consideration for Denison's deferral of enforcement of the arbitration award while UI is in compliance with its obligations under the Repayment Agreement. The Company has received an initial US$2 million debt repayment instalment in January 2022.

Material Contracts

Reference is made to the material contracts which have been filed by Denison with the Canadian securities regulatory authorities on the SEDAR website at www.sedar.com.

Below are the particulars of each contract, other than those entered into in the ordinary course of business, that is material to Denison and that was entered into between January 1, 2021 and the date hereof or was entered into before that date but is still in effect:

1. The following agreements executed in connection with the APG Transaction:

    a. The loan agreement between DMI and SPV dated January 31, 2017 with respect to the DMI Loan;
    b. The loan agreement between SPV and APG dated January 31, 2017 with respect to the SPV Loan;
    c. The performance guarantee by Denison as guarantor in favour of the SPV as beneficiary and APG as permitted assignee, pursuant to which Denison has agreed to guarantee the performance of DMI's obligations to SPV under the SPV Loan, which guarantee has been assigned by SPV in favour of APG;
    d. The streaming agreement between the DMI and Centaurus dated January 31, 2017 with respect to the Stream Arrangement; and
    e. The performance guarantee by Denison as guarantor in favour of Centaurus as beneficiary, pursuant to which Denison has agreed to guarantee the performance of DMI's obligations to Centaurus under the Stream Arrangement.

2. The Reclamation Funding Agreement made as of the 21st day of December 1995 among Denison Mines Limited (" **DML**"), Her Majesty the Queen in Right of Canada (the "**Government of Canada**") and Her Majesty the Queen in Right of the Province of Ontario (the "**Government of Ontario**") as amended by the Amending Agreement made as of the 11th day of April 1997 among DML (now DMI), the Government of Canada and the Government of Ontario and as further amended by the Amending Agreement made as of the 25th day of February 1999 among DML, the Government of Canada and the Government of Ontario and further amended by an Assignment and Novation Agreement made as of the 29th day of December, 2003 among Denison Energy, DMI, the Government of Canada and the Government of Ontario.

    According to the Reclamation Funding Agreement, the Company is required to maintain funds in an Environmental Trust sufficient for the succeeding six years of the estimated reclamation and on-going care and monitoring expenditures for the Company's closed Elliot Lake mining facility.

3. The KHNP SRA dated September 19, 2017 between the Company and KHNP Canada.

   The KHNP SRA provides for a long-term collaborative business relationship between the parties, replacing the strategic relationship agreement made as of June 15, 2009 among the Company, KEPCO and KEPCO Canada Uranium Investment Limited Partnership. Under the KHNP SRA, KHNP Canada is entitled to the nomination of one Board representative, provided that KHNP Canada's shareholding percentage stays above 5%.

The KHNP SRA also provides that if Denison intends to sell an interest in certain of its substantial assets, it will first notify KHNP Canada of each such proposed sale and provide KHNP Canada with a 30-day right of first offer to allow KHNP Canada to purchase the interest in the asset that Denison proposes to sell. The KHNP SRA provides that Denison will allow KHNP Canada to participate in potential purchases of certain assets, including a mill facility, a producing mine or a mineral resource for which a production feasibility study has been completed, which Denison plans to pursue with a co-investor. KHNP Canada's ability to purchase will not be available where Denison and KHNP Canada cannot agree on terms within a reasonable time or where their involvement would adversely affect Denison's ability to pursue an investment opportunity.

The right of first offer and co-investment rights are subject to pre-existing contractual commitments and do not apply to certain pre-existing transactions. KHNP Canada is also entitled to subscribe for additional Shares in order to maintain or increase its shareholding percentage in Denison to thresholds which are relevant to its rights under the KHNP SRA, in circumstances where Denison completes a public offering or broadly distributed private placement to raise proceeds of greater than $10 million.

Denison is entitled to terminate the KHNP SRA if KHNP Canada's shareholding percentage in Denison drops below 5% and stays below 5% for 60 days following delivery of a notice to that effect by Denison to KHNP Canada or if Denison completes an Extraordinary Transaction, as defined in the KHNP SRA.

4. The Credit Facility dated January 30, 2015, and all subsequent amendments including the Eighth Amending Agreement dated January 21, 2022 to the Fourth Amended and Restated Credit Facility.

Names and Interests of Experts

The Company's Independent Registered Public Accounting Firm is KPMG LLP, Chartered Professional Accountants, Licensed Public Accountants, who have issued an independent auditor's report dated March 3, 2022 in respect of Denison's consolidated financial statements as at December 31, 2021 and 2020, and for the two years then ended, and an independent auditor's report dated March 3, 2022 on the effectiveness of the Company's internal control over financial reporting as at December 31, 2021. KPMG have confirmed that they are independent with respect to the Company within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and any applicable legislation or regulations, and also that they are independent accountants with respect to the Company under all relevant US professional and regulatory standards.

David Bronkhorst, P.Eng., Denison's Vice President Operations, who is a "Qualified Person" within the meaning of this term in NI 43-101, has prepared sections of this AIF that are of a scientific or technical nature pertaining to the Company's mineral projects and has verified the data disclosed therein. To the knowledge of Denison, David Bronkhorst is the registered or beneficial owner, directly or indirectly, of less than one percent of the outstanding Shares.

Andy Yackulic, P.Geo., Denison's Director Exploration, who is a "Qualified Person" within the meaning of this term in NI 43-101, has prepared sections of this AIF that are of a scientific or technical nature pertaining to the Company's mineral projects and has verified the data disclosed therein. To the knowledge of Denison, Andy Yackulic is the registered or beneficial owner, directly or indirectly, of less than one percent of the outstanding Shares.

SRK was retained as a qualified person for the preparation of the Wheeler PFS Report dated October 30, 2018, the principal author of which was Mark Liskowich, P.Geo., formerly of SRK. SRK and its team were independent in accordance with the requirements of NI 43-101.

EngComp was retained as a qualified person for the preparation of the Waterbury PEA Report dated October 30, 2020, the principal author of which was Gordon Graham, P.Eng. of EngComp. EngComp and its team were independent in accordance with the requirements of NI 43-101.

SLR (then Scott Wilson RPA) was retained to independently review and audit the mineral reserves and mineral resources in accordance with the requirements of NI 43-101 and prepared the following technical reports: (a) McClean Technical Report dated November 21, 2005 as amended on February 16, 2006 by Richard E. Routledge, M.Sc., P.Geo. and James W. Hendry, P.Eng.; (b) McClean North Technical Report dated January 31, 2007 by Richard E. Routledge, M.Sc., P.Geo.; and (c) Sue D Report dated March 31, 2006 by Richard E Routledge, M.Sc., P.Geo. and James W. Hendry, P.Eng.

The Midwest Technical Report dated March 26, 2018 was authored by Dale Verran, MSc, P.Geo, Pr.Sci.Nat., formerly of the Company, Chad Sorba, P.Geo of the Company, and independent authors provided by SRK, G. David Keller, PGeo, formerly of SRK, and Oy Leuangthong, PEng, of SRK. SRK and its team were independent in accordance with the requirements of NI 43-101.

To the knowledge of Denison as of the date hereof, each of SRK, EngComp and SLR and each of their respective partners, employees and consultants who participated in the preparation of the aforementioned reports, or who were in a position to influence the outcome of such reports, are the registered or beneficial owner, directly or indirectly, of less than one percent of the outstanding Shares.

Additional Information

Additional information regarding the Company is available on the SEDAR website at www.sedar.com. Further information concerning the Company, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, options to purchase securities and interests of insiders in material transactions, where applicable, is contained in the management information circular for the Company's most recent meeting of shareholders. Additional financial information is provided in the Company's audited consolidated financial statements and MD&A for the financial year ended December 31, 2021.

A copy of this AIF, as well as the Circular and such other information and documentation that the Company makes available via SEDAR, can be found at www.sedar.com. In addition, certain of this information is distributed to shareholders in connection with Denison's Annual General Meeting of Shareholders. The Company will provide any of the foregoing documents subject to its rights to require people who are not security holders of the Company to pay a reasonable charge. Copies of these documents may be obtained by writing to:

Denison Mines Corp.
1100 – 40 University Avenue
Toronto, Ontario, M5J 1T1

Telephone: (416) 979-1991
Facsimile: (416) 979-5893
Email: info@denisonmines.com

Schedule A

Audit Committee Mandate and Charter

A. Composition of the Committee

(1) The Board shall appoint annually from among its members at the first meeting of the Board following the annual meeting of the shareholders a committee to be known as the Audit Committee (the "Committee") to be composed of three (3) directors or such other number not less than three (3) as the Board may from time to time determine.

(2) Any member of the Committee may be removed or replaced at any time by the Board. Any member of the Committee ceasing to be a director or ceasing to qualify under A(3) below shall cease to be a member of the Committee. Subject to the foregoing, each member of the Committee shall hold office as such until the next annual appointment of members to the Committee after his or her election. Any vacancy occurring in the Committee shall be filled at the next meeting of the Board.

(3) Each member of the Committee shall:

(a) be a member of the Board;
(b) not be an officer or employee of the Company or any of its affiliates;
(c) be an unrelated director as defined in the Toronto Stock Exchange (the "TSX") Corporate Governance Guidelines ("TSX Guidelines") as the same may be amended from time to time;
(d) satisfy the independence requirements applicable to members of audit committees under each of Multilateral Instrument 52-110 – Audit Committees of the Canadian Securities Administrators ("M1 52-110"), Rule 10A-3(b)(1)(ii) of the United States Securities and Exchange Commission, and any other applicable laws and regulations, as the same may be amended from time to time (with the TSX Guidelines, "Applicable Laws"); and
(e) satisfy the financial literacy requirements prescribed by Applicable Laws.

(4) A majority of the Committee shall constitute a quorum.

(5) The Committee shall elect annually a chairperson from among its members.

B. Purpose

(1) The Committee's purpose is to assist the Board in its supervision of the management of the business and affairs of the Company through oversight of:

(a) the integrity of the Company's financial statements, Management's Discussion and Analysis ("MD&A") and other financial reporting;
(b) the integrity of the Company's internal control and management information systems;
(c) the Company's compliance with all applicable laws, rules, regulations, policies and other requirements of governments, regulatory agencies and stock exchanges relating to accounting matters and financial disclosure;
(d) the Company's practices with respect to the identification and management of financial reporting, financial compliance and related risks;
(e) the auditor's qualifications and activities;
(f) communication among the auditor, management and the Board; and
(g) such other matters as are determined by the Board from time to time.

C. Committee Resources

(1) The Committee shall have direct channels of communication with the Company's auditor to discuss and review specific issues as appropriate.

(2) The Committee, or any member of the Committee with the approval of the Committee, may retain at the expense of the Company such independent legal, accounting (other than the auditor) or other advisors on such terms as the Committee may consider appropriate and shall not be required to obtain the approval of the Board in order to retain or compensate any such advisors.

(3) The Committee shall have unrestricted access to Company personnel and documents and shall be provided with all necessary funding and other resources to carry out its responsibilities.

D. Committee Responsibilities

(1) The responsibilities of the Committee shall be to:

(a) with respect to financial accounting matters:

(i) review with management and the external auditors the annual consolidated financial statements, MD&A and press release announcing annual financial results of operations before making recommendations to the Board relating to approval of such documents;

(ii) review with management and the external auditors interim financial statements, MD&A and press release announcing interim financial results of operations before making recommendations to the Board relating to approval of such documents;

(iii) review and discuss with management and the external auditors all public disclosure documents containing audited or unaudited financial information including: any Prospectus; the Annual Report; interim unaudited reports; and any material change report pertaining to the Company's financial matters. The Committee will review the consistency of the foregoing documents with facts, estimates or judgments contained in the audited or unaudited financial statements;

(iv) satisfy itself that adequate procedures are in place for the review of the Company's disclosure of financial information extracted or derived from the Company's financial statements, other than the Company's financial statements, MD&A and earnings press releases, and shall periodically assess the adequacy of those procedures;

(v) prior to the completion of the annual audit, and at any other time deemed advisable by the Committee, review and discuss with management and the auditor the quality of the Company's accounting policies and financial statement presentation, including, without limitation, the following:

1. all critical accounting policies and practices to be used, including, without limitation, the reasons why certain estimates or policies are or are not considered critical and how current and anticipated future events may impact those determinations as well as an assessment of any proposed modifications by the auditors that were not made;

2. all alternative accounting treatments for policies and practices that have been discussed by management and the auditors; and

3. other material written communications between the auditor and management, including, without limitation, any management letter, schedule of unadjusted differences, the management representation letter, report on internal controls, as well as the engagement letter and the independence letter;

(vi) review annually the accounting principles and practices followed by the Company and any changes in the same as they occur;

(vii) review new accounting principles of the Chartered Professional Accountants of Canada and the International Accounting Standards Board which would have a significant impact on the Company's financial reporting as reported to the Committee by management;

(viii) review the status of material contingent liabilities as reported to the Committee by management;

(ix) review potentially significant tax problems as reported to the Committee by management; and

(x) review any errors or omissions in the current or prior year's financial statements which appear material as reported to the Committee by management;

(b) with respect to the external auditors:

(I) be directly responsible for recommending the appointment of the auditor, the auditor's compensation, retention and termination and for oversight of the work of the auditor (including, without limitation, resolution of disagreements between management and the auditor regarding financial reporting) for the purpose of preparing or issuing an audit report or performing other audit, review or services for the Company;

(ii) approve, prior to the auditor's audit, the auditor's audit plan (including, without limitation, staffing), the scope of the auditor's review and all related fees;

(iii) satisfy itself as to the independence of the auditor. The Committee shall pre-approve any non-audit services (including, without limitation, fees therefor) provided to the Company or its subsidiaries by the auditor or any auditor of any such subsidiary and shall consider whether these services are compatible with the auditor's independence, including, without limitation, the nature and scope of the specific non-audit services to be performed and whether the audit process would require the auditor to review any advice rendered by the auditor in connection with the provision of non-audit services. The Committee shall not allow the auditor to render any non-audit services to the Company or its subsidiaries that are prohibited by Applicable Law; and

(iv) review and approve the Company's policies concerning the hiring of employees and former employees of the Company's auditor or former auditor.

(c) with respect to internal controls:

(i) oversee management's design, testing and implementation of the Company's internal controls and management information systems and review the adequacy and effectiveness thereof.

(d) with respect to concerns and complaints:

(i) establish procedures for:

1. the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters; and

2. the confidential, anonymous submission by employees of the Company of concern regarding questionable accounting or auditing matters.

(e) with respect to ethics:

(i) be responsible for oversight and enforcement of the Code of Ethics for the Chief Executive Officer, Senior Financial Officers and Other Officers of the Company, subject to the supervision of the Board.

(f) with respect to general audit matters:

(i) inquire of management and the external auditors as to any activities that may or may not appear to be illegal or unethical;

(ii) review with management, the operations analyst and the external auditors any frauds reported to the Audit Committee;

(iii) review with the external auditors the adequacy of staffing for accounting and financial responsibilities; and

(iv) report and make recommendations to the Board as the Committee considers appropriate.

(g) with respect to general risk matters:

(i) review and monitor all related party transactions which may be entered into by the Company;

(ii) approve, or disapprove, material contracts where the Board determines it has a conflict;

(iii) review, at least annually, the management of the Company's privacy and cyber security risk exposure and the policies, procedures and mitigation plans in place to protect the security and integrity of the Company's information systems and data

(iv) receive reports from the Disclosure Committee pursuant to the Company's Disclosure Policy, and review and recommend to the Board of Directors the members of the Disclosure Committee from time to time and where a vacancy occurs at any time in the membership of the Disclosure Committee; and

(v) review with management, at least annually, the Company's policies and practices respecting insurance

(2) In addition, the Board may refer to the Committee such matters and questions relating to the Company as the Board may from time to time see fit.

(3) Any member of the Committee may require the auditors to attend any or every meeting of the Committee.

E. Meetings

(1) The times of and the places where meetings of the Audit Committee shall be held and the calling of and procedure at such meetings shall be determined from time to time by the Committee, provided however that the Committee shall meet at least quarterly, and the Committee shall maintain minutes or other records of its meetings and activities. Notice of every such meeting to be given in writing not less than five (5) days prior to the date fixed for the meeting, and shall be given to the auditors of the Company, that the auditors shall be entitled to attend and be heard thereat. Meetings shall be convened whenever requested by the auditors, the operations analyst or any member of the Audit Committee in accordance with the Ontario Business Corporations Act.

(2) As part of each meeting of the Committee at which it recommends that the Board approve the financial statements of the Company, and at such other times as the Committee deems appropriate, the Committee shall meet separately with the auditor to discuss and review specific issues as appropriate.

F. Evaluation of Charter and Mandate

(1) On at least an annual basis, the Committee shall review and assess the adequacy of this Charter and Mandate and recommend any proposed changes to the Board of Directors.

(2) All prior resolutions of the Board relating to the constitution and responsibilities of the Audit Committee are hereby repealed.

Schedule B

Glossary of Technical Terms

Note: The terms related to Mineral resources and mineral reserves presented herein are as defined in "CIM DEFINITION STANDARDS on Mineral Resources and Mineral Reserves" prepared by the CIM Standing Committee on Reserve Definitions, adapted by CIM Council, May 10, 2014.

eU_3O_8 or **eU**
This term refers to equivalent U_3O_8 grade derived from the downhole logging of drill holes using a calibrated total gamma probe.

Feasibility Study
A Feasibility Study is a comprehensive technical and economic study of the selected development option for a mineral project that includes appropriately detailed assessments of applicable Modifying Factors together with any other relevant operational factors and detailed financial analysis that are necessary to demonstrate, at the time of reporting, that extraction is reasonably justified (economically mineable). The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study.

Historical Estimate
A historical estimate means an estimate of the quantity, grade or metal or mineral content of a deposit that an issuer has not verified as a current mineral resource or mineral reserve, and which was prepared before the issuer acquiring, or entering into an agreement to acquire, an interest in the property that contains the deposit.

Indicated Mineral Resource
An indicated mineral resource is that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

Inferred Mineral Resource
An inferred mineral resource is that part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes

Measured Mineral Resource
A measured mineral resource is that part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

Mineral Reserve
A mineral reserve is the economically mineable part of a measured or indicated mineral resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A mineral reserve includes diluting materials and allowances for losses that may occur when the material is mined.

Mineral Resource
A mineral resource is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial materials in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge.

Modifying Factors
Modifying Factors are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

Preliminary Feasibility Study or Pre-Feasibility Study
A Pre-Feasibility Study is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Mineral Resource may be converted to a Mineral Reserve at the time of reporting. A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.

Probable Mineral Reserve
A 'probable mineral reserve' is the economically mineable part of an indicated, and in some circumstances, a measured mineral resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

Proven Mineral Reserve
A 'proven mineral reserve' is the economically mineable part of a measured mineral resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that

demonstrate, at the time of reporting, that economic extraction is justified.

Qualified Person

A 'Qualified Person' means an individual who is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these; has experience relevant to the subject matter of the mineral project and the technical report and is a member or licensee in good standing of a professional association of geoscientists and/or engineers meeting the criteria set out in NI 43-101.

EXHIBIT 99.4

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Denison Mines Corp.

We consent to the use of:

- our report dated March 3, 2022 on the consolidated financial statements of Denison Mines Corp. (the "Entity") which comprise the consolidated statements of financial position as of December 31, 2021 and 2020, the related consolidated statements of income (loss) and comprehensive income (loss), changes in equity, and cash flow for the years then ended, and the related notes (collectively the "consolidated financial statements"), and

- our report dated March 3, 2022 on the effectiveness of the Entity's internal control over financial reporting as of December 31, 2021

each of which is included in the Annual Report on Form 40-F of the Entity for the fiscal year ended December 31, 2021.

We also consent to the incorporation by reference of such reports in the Registration Statement (No. 333-258939) on Form F-10 and Registration Statements (Nos. 333-48174, 333-148915, 333-190121 and 333-224641) on Form S-8 of the Entity.

/s/ KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants

March 25, 2022
Toronto, Canada

EXHIBIT 99.5

CERTIFICATION

REQUIRED BY RULE 13a-14(a) OR RULE 15d-14(a)

I, David D. Cates, certify that:

1. I have reviewed this annual report on Form 40-F of Denison Mines Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;

4. The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the issuer and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

(c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and

5. The issuer's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: March 25, 2022

By: "David D. Cates"

Name: David D. Cates
Title: President and Chief Executive Officer

CERTIFICATION

REQUIRED BY RULE 13a-14(a) OR RULE 15d-14(a)

I, Gabriel McDonald, certify that:

1. I have reviewed this annual report on Form 40-F of Denison Mines Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the issuer as of, and for, the periods presented in this report;

4. The issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the issuer and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

(c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and

5. The issuer's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: March 25, 2022

By: "Gabriel McDonald"

Name: Gabriel McDonald
Title: Executive Vice President and Chief Financial Officer

EXHIBIT 99.6

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350

In connection with the Annual Report of Denison Mines Corp. (the "Company") on Form 40-F for the period ended December 31, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned certifies, pursuant to 18 U.S.C. 1350, and SEC Rule 13a-14(b), that to the best of my knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 25, 2022

By: *"David D. Cates"*	By: *"Gabriel McDonald"*
Name: David D. Cates	Name: Gabriel McDonald
Title: President and Chief Executive Officer	Title: Executive Vice President and Chief Financial Officer

EXHIBIT 99.7

SRK Consulting (Canada) Inc.
1500, 155 University Avenue
Toronto, Ontario, Canada
M5H 3B7

T: +1.416.601.1445
F: +1.416.601.9046

toronto@srk.com
www.srk.com

CONSENT

Ladies and Gentlemen:

The undersigned company hereby consents to (1) the references to the undersigned company's name included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the registration statement on Form F-10 (File No. 333-258939) of Denison Mines Corp. (the "Registration Statement") in connection with the reports entitled (a) "Prefeasibility Study Report for the Wheeler River Uranium Project Saskatchewan, Canada" dated October 30, 2018, (b) "Technical Report with an Updated Mineral Resource Estimate for the Midwest Property, Northern Saskatchewan, Canada" dated March 26, 2018, and (c) "Preliminary Economic Assessment for Tthe Heldeth Túé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" with an effective date of October 30, 2020, and (2) all other references to the undersigned company included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the Registration Statement.

Dated: March 25, 2022

SRK CONSULTING (CANADA) INC.

Per: (Signed)
Authorized Signatory

Local Offices:
Saskatoon
Sudbury
Toronto
Vancouver
Yellowknife

Group Offices:
Africa
Asia
Australia
Europe
North America
South America

EXHIBIT 99.8

CONSENT

Ladies and Gentlemen:

The undersigned hereby consents to (1) the references to the undersigned's name included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the registration statement on Form F-10 (File No. 333-258939) of Denison Mines Corp. (the "Registration Statement") in connection with the report entitled "Prefeasibility Study Report for the Wheeler River Uranium Project Saskatchewan, Canada" dated October 30, 2018, and (2) all other references to the undersigned included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the Registration Statement.

Dated: March 25, 2022

(Signed) Mark Liskowich

_____

Mark Liskowich, P.Geo.

EXHIBIT 99.9

SRK Consulting (Canada) Inc.
1500, 155 University Avenue
Toronto, Ontario, Canada
M5H 3B7

T: +1.416.601.1445
F: +1.416.601.9046

toronto@srk.com
www.srk.com

CONSENT

Ladies and Gentlemen:

The undersigned hereby consents to (1) the references to the undersigned's name included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the registration statement on Form F-10 (File No. 333-258939) of Denison Mines Corp. (the "Registration Statement") in connection with the reports entitled (a) "Technical Report with an Updated Mineral Resource Estimate for the Midwest Property, Northern Saskatchewan, Canada" dated March 26, 2018, and (b) "Preliminary Economic Assessment for Tthe Heldeth Túé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" with an effective date of October 30, 2020, and (2) all other references to the undersigned included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the Registration Statement.

Dated: March 25, 2022

Per: (Signed) Oy Leuangthong
Oy Leuangthong, PEng.
SRK Consulting (Canada) Inc.

EXHIBIT 99.10

CONSENT OF ENGINEER

Ladies and Gentlemen:

The company hereby consents to (1) the references to the undersigned company's name included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the registration statement on Form F-10 (File No. 333-258939) of Denison Mines Corp. (the "Registration Statement") in connection with (a) the report entitled "Prefeasibility Study Report for the Wheeler River Uranium Project Saskatchewan, Canada" dated October 30, 2018, and (b) the report entitled "Preliminary Economic Assessment for Tthe Heldeth Túé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" with an effective date of October 30, 2020, and (2) all other references to the undersigned company included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the Registration Statement and to the inclusion and incorporation by reference of the information derived from the Technical Report in the Annual Report on Form 40-F and the Registration Statement.

Dated: March 25, 2022

ENGCOMP ENGINEERING AND COMPUTING PROFESSIONALS INC.

By: (Signed) Jason L.G. Mewis .
Name: Jason L.G. Mewis, P.Eng.
Title: President

EXHIBIT 99.11

CONSENT OF QUALIFIED PERSON

Ladies and Gentlemen:

The undersigned hereby consents to (1) the references to the undersigned's name included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the registration statement on Form F-10 (File No. 333-258939) of Denison Mines Corp. (the "Registration Statement") in connection with (a) the report entitled "Prefeasibility Study Report for the Wheeler River Uranium Project Saskatchewan, Canada" dated October 30, 2018, and (b) the report entitled "Preliminary Economic Assessment for Tthe Heldeth Túé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" with an effective date of October 30, 2020, and (2) all other references to the undersigned included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the Registration Statement and to the inclusion and incorporation by reference of the information derived from the Technical Report in the Annual Report on Form 40-F and the Registration Statement.

Dated: March 25, 2022

(Signed) Gordon Graham

_____

Gordon Graham, P.Eng.
Engcomp Engineering & Computing Professionals Inc.

EXHIBIT 99.12

SLR Consulting (Canada) Ltd
55 University Avenue, Suite 501,Toronto, ON M5J 2H7

CONSENT

Ladies and Gentlemen:

The undersigned company hereby consents to (1) the references to the undersigned company's name included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the registration statement on Form F-10 (File No. 333-258939) of Denison Mines Corp. (the "Registration Statement") in connection with (a) the report entitled "Technical Report on the Denison Mines Inc. Uranium Properties, Saskatchewan, Canada" dated November 21, 2005, as revised on February 16, 2006, (b) the report entitled "Technical Report on the McClean North Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada" dated January 31, 2007, (c) the report entitled "Technical Report on the Sue D Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada" dated March 31, 2006, and (d) the report entitled "Prefeasibility Study Report for the Wheeler River Uranium Project Saskatchewan, Canada" dated October 30, 2018, (2) all other references to the undersigned company included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the Registration Statement and to the inclusion and incorporation by reference of the information derived from the Technical Report in the Annual Report on Form 40-F and the Registration Statement.

Dated: March 25, 2022
SLR Consulting (Canada) Ltd.
(formerly Roscoe Postle Associates Inc.)

Per:

(Signed) ***Deborah A. McCombe***

Deborah A. McCombe, P.Geo.
Technical Director – Global Mining Advisory

EXHIBIT 99.13

SLR Consulting (Canada) Ltd
55 University Avenue, Suite 501,Toronto, ON M5J 2H7

CONSENT

Ladies and Gentlemen:

The undersigned hereby consents to (1) the references to the undersigned's name included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the registration statement on Form F-10 (File No. 333-258939) of Denison Mines Corp. (the "Registration Statement") in connection with (a) the report entitled "Technical Report on the Denison Mines Inc. Uranium Properties, Saskatchewan, Canada" dated November 21, 2005, as amended on February 16, 2006, (b) the report entitled "Technical Report on the McClean North Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada" dated January 31, 2007, (c) the report entitled "Technical Report on the Sue D Uranium Deposit Mineral Resource Estimate, Saskatchewan, Canada" dated March 31, 2006, and (2) all other references to the undersigned included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the Registration Statement and to the inclusion and incorporation by reference of the information derived from the Technical Report in the Annual Report on Form 40-F and the Registration Statement.

Dated: March 25, 2022

(Signed) ***Richard E. Routledge***

Richard E. Routledge, M.Sc., P.Geo.
Associate Principal Geologist
SLR Consulting (Canada) Ltd.
(formerly Roscoe Postle Associates Inc.)

EXHIBIT 99.14

CONSENT OF GEOLOGIST

Ladies and Gentlemen:

The undersigned hereby consents to (1) the references to the undersigned's name included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the registration statement on Form F-10 (File No. 333-258939) of Denison Mines Corp. (the "Registration Statement") in connection with the reports entitled "Technical Report with an Updated Mineral Resource Estimate for the Midwest Property, Northern Saskatchewan, Canada" dated March 26, 2018, and (2) all other references to the undersigned included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the Registration Statement and to the inclusion and incorporation by reference of the information derived from the Technical Report in the Annual Report on Form 40-F and the Registration Statement.

Dated: March 25, 2022

(Signed) Dale Verran

_____

Dale Verran, MSc, P.Geo., Pr.Sci.Nat.

EXHIBIT 99.15

CONSENT

Ladies and Gentlemen:

The undersigned hereby consents to (1) the references to the undersigned's name included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the registration statement on Form F-10 (File No. 333-258939) of Denison Mines Corp. (the "Registration Statement") in connection with the report entitled "Technical Report with an Updated Mineral Resource Estimate for the Midwest Property, Northern Saskatchewan, Canada" dated March 26, 2018, and (2) all other references to the undersigned included or incorporated by reference in the Annual Report on Form 40-F of Denison Mines Corp. and the Registration Statement and to the inclusion and incorporation by reference of the information derived from the Technical Report in the Annual Report on Form 40-F and the Registration Statement.

Dated: March 25, 2022

(Signed) Chad Sorba

_____
Chad Sorba, P.Geo.
Denison Mines Corp.