UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 40-F

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGEACT OF 1934**

OR

☒ **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 **: 1-14228**

CAMECO CORPORATION

(Exact name of Registrant as specified in its charter)

Canada

(Province or other jurisdiction of incorporation or organization)

1090

(Primary Standard Industrial Classification Code Number)

98-0113090

(I.R.S. Employer Identification)

2121 – 11th Street West , Saskatoon, Saskatchewan , Canada, S7M 1J3 , Telephone: (306) 956-6200

(Address and telephone number of Registrant's principal executive offices)

Doug Pavlick, Power Resources, Inc., Smith Ranch-Highland Operation ,
762 Ross Road , Douglas , Wyoming, USA, 82633
Telephone: (307) 358-6541

(Name, address, (including zip code) and telephone number (including area code) of agent for service in the United States)

Securities registered pursuant to Section 12(b) of the Act:

Title of Class: **Common Shares, no par value**

Trading Symbol(s): **CCJ**

Name of Exchange where Securities are listed: **New York Stock Exchange**

Securities registered or to be registered pursuant to Section 12(g) of the Act: **None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: **None**

Information filed with this Form:

☒ Annual Information Form ☒ Audited annual financial statements

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:

398,059,265 Common Shares outstanding as of December 31, 2021

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

☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, 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 and post 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. ☑

Certain statements in this Form 40-F constitute "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. In Exhibit 99.1 see "Caution about forward-looking information."

Certifications and Disclosure Regarding Controls and Procedures .

(a) **Certifications regarding controls and procedures** . See Exhibits 99.6 and 99.7.

(b) **Evaluation of disclosure controls and procedures** . As of December 31, 2021 an evaluation of the effectiveness of Cameco Corporation's "disclosure controls and procedures" (as such term is defined in Rules 13a-15(e) and 15d-15(e) of the United States Securities Exchange Act of 1934, as amended (the "Exchange Act")) was carried out by Cameco Corporation's Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"). Based on that evaluation, the CEO and CFO have concluded that as of such date Cameco Corporation's disclosure controls and procedures are effective to provide a reasonable level of assurance that information required to be disclosed by Cameco Corporation in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in United States Securities and Exchange Commission (the "Commission") rules and forms.

It should be noted that while the CEO and CFO believe that Cameco Corporation's disclosure controls and procedures provide a reasonable level of assurance that they are effective, they do not expect the disclosure controls and procedures or internal control over financial reporting to be capable of preventing all errors and fraud. 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.

(c) **Management's annual report on internal control over financial reporting** . Management, including Cameco Corporation's CEO and CFO, is responsible for establishing and maintaining adequate "internal control over financial reporting" (as that term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) for Cameco Corporation. Management conducted an evaluation of the effectiveness of internal control over financial reporting based on the Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that Cameco Corporation's internal control over financial reporting was effective as of December 31, 2021.

(d) **Attestation report of the registered public accounting firm** . The effectiveness of Cameco Corporation's internal control over financial reporting as of December 31, 2021 was audited by KPMG LLP, an independent registered public accounting firm, as stated in its report in Exhibit 99.2 – 2021 Consolidated Audited Financial Statements.

(e) **Changes in internal control over financial reporting** . During the fiscal year ended December 31, 2021, there were no significant changes in Cameco Corporation's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, Cameco Corporation's internal control over financial reporting.

Audit & Finance Committee Financial Expert . Cameco Corporation's board of directors has determined that at least one member of its audit and finance committee (the "audit committee") is the sole audit committee financial expert. The audit committee financial expert is Daniel Camus. Mr. Camus has been determined by Cameco Corporation's board of directors to be an independent director as such term is defined under the Canadian Securities Administrators' National Instrument 52-110 (Audit Committees) ("NI 52-110"), the Commission's audit committee independence requirements, and the rules of the New York Stock Exchange (the "NYSE") relating to the independence of audit committee members.

Information concerning the relevant experience of Mr. Camus is included in his biographical information contained in Cameco Corporation's Annual Information Form in Exhibit 99.1. The Commission has indicated that the designation of a person as an audit committee financial expert does not make such person an "expert" for any purpose, impose any duties, obligations or liability on such person that are greater than those imposed on members of the audit committee and board of directors who do not carry this designation, or affect the duties, obligations or liability of any other member of the audit committee or board of directors.

Code of Ethics . Cameco Corporation's code of conduct and ethics (the "Code") is applicable to all directors, officers and employees of Cameco Corporation, including the CEO and CFO. The Code, as well as Cameco Corporation's corporate governance practices and mandates of the board of directors and its committees, and position descriptions for the chief executive officer and the non-executive chair, can be found on Cameco Corporation's website at www.cameco.com under "About – Governance" and are also available in print to any shareholder upon request. Since the adoption of the Code, there have not been any waivers, including implied waivers, from any provision of the Code. In 2021, Cameco Corporation amended its previously filed Code and made non-substantive changes including the addition of information on intellectual property and clarified wording around gifts or invitations from vendors.

The Code was furnished to the Commission on January 24, 2022 as Exhibit 1 to a report on Form 6-K and is incorporated by reference herein as Exhibit 99.16.

Principal Accountant Fees and Services . Our independent registered public accounting firm is KPMG LLP, Saskatoon, Saskatchewan, Canada , Auditor Firm ID: 85. See Exhibit 99.4.

Off-Balance Sheet Arrangements . In the normal course of operations, Cameco Corporation enters into certain transactions that are not required to be recorded on its balance sheet. These activities include the issuing of financial assurances and long-term product purchase contracts. They are disclosed in the following sections of Exhibit 99.3 – 2021 Management's Discussion and Analysis and the notes to the financial statements in Exhibit 99.2 – 2021 Consolidated Audited Financial Statements:

(a) **Financial assurances** . In the 2021 Management's Discussion and Analysis, see the disclosure at "Off-balance sheet arrangements" (page 46). In the 2021 Consolidated Audited Financial Statements, see the disclosure at notes 15, 21 and 25 of the financial statements.

(b) **Long-term product purchase contracts** . In the 2021 Management's Discussion and Analysis, see the disclosure at "Off-balance sheet arrangements" (page 46).

(c) **Other arrangements** . In the 2021 Management's Discussion and Analysis, see the disclosure at "Off-balance sheet arrangements" (page 46). In the 2021 Consolidated Audited Financial Statements, see the disclosure at notes 13 and 14 of the financial statements.

Tabular Disclosure of Contractual Obligations . In the 2021 Management's Discussion and Analysis, see the disclosures at "Financing Activities" (pages 45 and 46) and "Off-balance sheet arrangements" (page 46).

Identification of the Audit Committee. Cameco Corporation has a separately-designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. Cameco Corporation's audit committee is comprised of: Daniel Camus (chair), Leontine Atkins, Ian Bruce, Catherine Gignac and Jim Gowans .

Audited Annual Financial Statements . The report of the independent registered public accounting firm relating to Cameco Corporation's Consolidated Audited Financial Statements as of December 31, 2021 and 2020 is included in Exhibit 99.2 – 2021 Consolidated Audited Financial Statements.

Mine Safety Disclosure . Neither Cameco Corporation nor any of its subsidiaries is the "operator" of any "coal or other mine", as those terms are defined in section 3 of the Federal Mine Safety and Health Act of 1977 (30 U.S.C. 802), that is subject to the provisions of such Act (30 U.S.C. 801 et seq.). Therefore, the provisions of Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 16 of General Instruction B to Form 40-F requiring disclosure concerning mine safety violations and other regulatory matters do not apply to Cameco Corporation or any of its subsidiaries or U.S. mines.

Disclosure Pursuant to the Requirements of the New York Stock Exchange .

(a) **Corporate governance practices**. Disclosure of the significant ways in which Cameco Corporation's corporate governance practices differ from those required for U.S. companies under the NYSE listing standards can be found on Cameco Corporation's website at www.cameco.com under "About – Governance."

(b) **Presiding director at meetings of non-management directors**. Cameco Corporation schedules regular director sessions in which Cameco Corporation's "non-management directors" (as that term is defined in the rules of the NYSE) meet without management participation. Mr. Ian Bruce, as non-executive chair of Cameco Corporation, serves as the presiding director (the "Presiding Director") at such sessions. Each of Cameco Corporation's non-management directors is "independent" as such term is used in the rules of the NYSE. Cameco Corporation's criteria for director independence are available on Cameco Corporation's website at www.cameco.com under "About – Governance."

(c) **Communication with non-management directors**. Shareholders may send communications to Cameco Corporation's Presiding Director or non-management directors by mailing (by regular mail or other means of delivery) to the corporate head office at 2121 – 11 th Street West, Saskatoon, Saskatchewan, Canada, S7M 1J3, in a sealed envelope marked "Private and Strictly Confidential – Attention: Chair of the Board of Directors of Cameco Corporation". Any such envelope will be delivered unopened to the Presiding Director for appropriate action. The status of all outstanding concerns addressed to the Presiding Director will be reported to the board of directors as appropriate.

(d) **Corporate governance guidelines**. According to Section 303A.09 of the NYSE Listed Company Manual, a listed company must adopt and disclose a set of corporate governance guidelines with respect to specified topics. Such guidelines and the charters of the listed company's most important committees of the board of directors are required to be posted on the listed company's website and be available in print to any shareholder upon request. Cameco Corporation operates under corporate governance guidelines that are consistent with the requirements of Section 303A.09 of the NYSE Listed Company Manual. Cameco Corporation's corporate governance guidelines and the charters of its most important committees of the board of directors can be found at Cameco Corporation's website at www.cameco.com under "About – Governance" and are available in print to any shareholder who requests them.

(e) **Independent directors**. The names of Cameco Corporation's non-management directors are: Leontine Atkins, Ian Bruce, Daniel Camus, Donald Deranger, Catherine Gignac, Jim Gowans, Kathryn Jackson, and Don Kayne. Each of the non-management directors is "independent", as such term is used in the rules of the NYSE.

EXHIBIT INDEX

Exhibit No.	Description
99.1	2021 Annual Information Form
99.2	2021 Consolidated Audited Financial Statements
99.3	2021 Management's Discussion and Analysis
99.4	Principal Accountant Fees and Services
99.5	Consent of Independent Registered Public Accounting Firm
99.6	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or 15d 14(a) of the U.S. Securities Exchange Act of 1934, as amended
99.7	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or 15d 14(a) of the U.S. Securities Exchange Act of 1934, as amended
99.8	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.9	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.10	Consent of Alain D. Renaud, P. Geo.
99.11	Consent of Biman Bharadwaj, P. Eng.
99.12	Consent of Scott Bishop, P. Eng.
99.13	Consent of Lloyd Rowson, P. Eng.
99.14	Consent of Gregory M. Murdock, P. Eng.
99.15	Consent of Sergey Ivanov, P. Geo.
99.16	Code of Conduct and Ethics (as amended and restated as of July 2021) (incorporated by reference to Cameco Corporation's Form 6-K, furnished to the Commission on January 24, 2022)
101	Interactive Data File (formatted as Inline XBRL)
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

UNDERTAKING AND CONSENT TO SERVICE OF PROCESS

Undertaking

Cameco Corporation 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.

Consent to Service of Process

Cameco Corporation has previously filed a Form F-X in connection with the class of securities in relation to which the obligation to file this report arises.

Any change to the name or address of the agent for service of process of Cameco Corporation shall be communicated promptly to the Commission by an amendment to the Form F-X referencing the file number of the relevant registration statement.

SIGNATURES

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

DATED this 22nd day of March, 2022.

CAMECO CORPORATION

By: */s/ Grant Isaac*
Name: Grant Isaac
Title: Senior Vice-President and
Chief Financial Officer

EXHIBIT 99.1

Cameco Corporation

2021 Annual Information Form

March 22, 2022



Cameco Corporation

2021 Annual information form

March 22, 2022

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Important information about this document

This annual information form (AIF) for the year ended December 31, 2021 provides important information about Cameco Corporation. It describes our history, our markets, our operations and projects, our mineral reserves and resources, our approach to environmental, social and governance matters (ESG), our regulatory environment, the risks we face in our business and the market for our shares, among other things.

It also incorporates by reference:

- our management's discussion and analysis for the year ended December 31, 2021 (2021 MD&A), which is available on SEDAR (sedar.com) and on EDGAR (sec.gov) as an exhibit to our Form 40-F; and
- our audited consolidated financial statements for the year ended December 31, 2021 (2021 financial statements), which are also available on SEDAR and on EDGAR as an exhibit to our Form 40-F.

Throughout this document, the terms *we, us, our, the company* and *Cameco* mean Cameco Corporation and its subsidiaries

We have prepared this document to meet the requirements of Canadian securities laws, which are different from what United States (US) securities laws require.

The information contained in this AIF is presented as at December 31, 2021, the last day of our most recently completed financial year, and is based on what we knew as of March 15, 2022, except as otherwise stated.

Reporting currency and financial information

Unless we have specified otherwise, all dollar amounts are in Canadian dollars. Any references to $(US) mean US dollars.

The financial information in this AIF has been presented in accordance with International Financial Reporting Standards (IFRS).

Caution about forward-looking information

Our AIF and the documents incorporated by reference include statements and information about our expectations for the future. When we discuss our strategy, plans and future financial and operating performance, or other things that have not yet taken place, we are making statements considered to be *forward-looking information* or *forward-looking statements* under Canadian and US securities laws. We refer to them in this AIF as *forward-looking information*. In particular, the discussions under the headings *Market overview and developments* and *Contracting framework – building a balanced portfolio* in this AIF contain forward-looking information.

Key things to understand about the forward-looking information in this AIF:

- It typically includes words and phrases about the future, such as *anticipate, believe, estimate, expect, plan, will, intend, goal, target, forecast, project, strategy* and *outlook* (see examples on page 2).
- It represents our current views and can change significantly.
- It is based on a number of *material assumptions*, including those we have listed below, which may prove to be incorrect.
- Actual results and events may be significantly different from what we currently expect, due to the risks associated with our business. We list a number of these material risks below. We recommend you also review other parts of this document, including *Risks that can affect our business* starting on page 94, and our 2021 MD&A, which includes a discussion of other material risks that could cause actual results to differ significantly from our current expectations.

Forward-looking information is designed to help you understand management's current views of our near- and longer-term prospects, and it may not be appropriate for other purposes. We will not necessarily update this information unless we are required to by securities laws.

Examples of forward-looking information in this AIF

- our view that we have the strengths to take advantage of the world's rising demand for safe, reliable, affordable, and carbon-free energy
- our expectations for the future of the nuclear industry, including that nuclear power must be a central part of the solution to the world's shift to a low-carbon climate- resilient economy
- our expectations about 2022 and future global uranium supply, consumption, contracting, demand, and market, including the discussion under the headings *Market overview and developments* and *Contracting framework – building a balanced portfolio*
- our expectation about 2022 and future consumption of conversion services
- our efforts to participate in the commercialization and deployment of small modular reactors (SMRs) and increase our contributions to global climate change solutions by exploring SMRs and other emerging opportunities within the fuel cycle
- our expectation that the US Department of Energy (DOE) will make available a portion of its excess uranium inventory over the next two decades
- the discussion under the heading *Our ESG principles and practices,* including our belief there is a significant opportunity for us to be part of the solution to combat climate change and that we are well positioned to deliver significant long-term business value
- our expectations relating to care and maintenance costs and operational readiness costs
- the discussion of our expectations relating to our Canada Revenue Agency (CRA) transfer pricing dispute
- our expectations for future tax payments and rates, including effective tax rates
- future plans and expectations for our uranium properties, advanced projects, and fuel services operating sites, including production levels and the suspension of production at certain properties
- our McArthur River/Key Lake production resumption plans
- estimates of operating and capital costs and mine life for our tier one uranium operations
- estimated decommissioning and reclamation costs for uranium properties and fuel services operating sites
- the discussion of Joint Venture Inkai LLP's (JV Inkai) expansion plans for a 10.4 million pound per year operation (100% basis)
- our mineral reserve and resource estimates
- our expectations that the price of uranium, production costs, and recovery rates will allow us to operate or develop a particular site or sites
- estimates of metallurgical recovery and other production parameters for each uranium property
- production estimates at the McArthur River/Key Lake, Cigar Lake and Inkai operations
- our discussion of the ongoing conflict between Russia and Ukraine

Material risks

- actual sales volumes or market prices for any of our products or services are lower than we expect for any reason, including changes in market prices, loss of market share to a competitor, trade restrictions or the impact of the COVID-19 pandemic
- we are adversely affected by changes in currency exchange rates, interest rates, royalty rates, or tax rates
- our production costs are higher than planned, or our cost reduction strategies are unsuccessful, or necessary supplies are not available, or not available on commercially reasonable terms
- our strategies may change, be unsuccessful or have unanticipated consequences
- changing views of governments regarding the pursuit of carbon reduction strategies or our view may prove to be inaccurate on the role of nuclear power in pursuit of those strategies
- risks relating to the development and use of new technology or lack of appropriate technology needed to advance our ambition to reach net-zero greenhouse gas emissions
- we are affected by political risks, including the recent and any potential future unrest in Kazakhstan
- operations are disrupted due to problems with our own or our suppliers' or customers' facilities, the unavailability of reagents, equipment, operating parts and supplies critical to production, equipment failure, cyber-attacks, lack of tailings capacity, labour shortages, labour relations issues, strikes or lockouts, underground floods, cave-ins, ground movements, tailings dam failures, transportation disruptions or accidents, unanticipated consequences of our cost reduction strategies, or other development and operating risks
- we are affected by war, terrorism, sabotage, blockades, civil unrest, social or political activism, outbreak of illness (such as a pandemic like COVID-19), accident or a deterioration in political support for, or demand for, nuclear energy
- a major accident at a nuclear power plant

- our estimates and forecasts prove to be inaccurate, including production, purchases, deliveries, cash flow, revenue, costs, decommissioning, reclamation expenses, or receipt of future dividends from JV Inkai
- we are unable to enforce our legal rights under our agreements, permits or licences
- we are subject to litigation or arbitration that has an adverse outcome
- that we may not receive the expected refunds and payments from CRA
- that courts may accept the same, similar or different positions and arguments advanced by CRA to reach decisions that are adverse to us for other tax years
- that CRA does not agree that the court ruling for the years that have been resolved in Cameco's favour should apply to subsequent tax years
- that CRA will not return all or substantially all of the cash and security that has been paid or otherwise secured in a timely manner, or at all
- the possibility of a materially different outcome in disputes with CRA for other tax years
- there are defects in, or challenges to, title to our properties
- our mineral reserve and resource estimates are not reliable, or there are unexpected or challenging geological, hydrological, or mining conditions
- we are affected by environmental, safety and regulatory risks, including workforce health and safety or increased regulatory burdens or delays resulting from the COVID-19 pandemic or other causes
- necessary permits or approvals from government authorities cannot be obtained or maintained
- we may be unable to successfully manage the current uncertain environment resulting from the COVID-19 pandemic and its related operational, safety, marketing, or financial risks successfully, including the risks of significant disruptions to our operations, workforce, required supply or services, and ability to produce, transport, and deliver uranium
- we are impacted by changes in the regulation or public perception of the safety of nuclear power plants, which adversely affect the construction of new plants, the relicensing of existing plants, and the demand for uranium
- government laws, regulations, policies, or decisions that adversely affect us, including tax and trade laws and sanctions on nuclear fuel exports and imports
- our uranium suppliers or purchasers fail to fulfil their commitments
- our McArthur River development, mining or production plans are delayed or fail for any reason
- our Key Lake's mill production plan is delayed or fails for any reason
- our Cigar Lake development, mining or production plans are delayed or fail for any reason
- McClean Lake's mill production plan is delayed or fails for any reason
- water quality and environmental concerns could result in a potential deferral of production and additional capital and operating expenses required for the Cigar Lake operation
- JV Inkai's development, mining or production plans are delayed or fail for any reason
- we may be unsuccessful in pursuing innovation or implementing advanced technologies, including the risk that the commercialization and deployment of SMRs may incur unanticipated delays or expenses, or ultimately prove to be unsuccessful
- our expectations relating to care and maintenance costs or operational readiness costs prove to be inaccurate
- we may become unable to pay our 2022 annual dividend at the expected rate
- we are affected by natural phenomena, including inclement weather, forest fires, flood, and earthquakes

Material assumptions

- our expectations regarding sales and purchase volumes and prices for uranium and fuel services, trade restrictions, and that counterparties to our sales and purchase agreements will honour their commitments
- our expectations for the nuclear industry including its growth profile, market conditions, and the demand for and supply of uranium
- our expectations regarding spot prices and realized prices for uranium
- the ability of Cameco and its contractors to comply with current and future environmental, safety and other regulatory requirements, and to obtain and maintain required regulatory approvals
- our mineral reserve and resource estimates, and the assumptions upon which they are based, are reliable
- our understanding of the geological, hydrological and other conditions at our uranium properties
- JV Inkai's ability to abide by the provisions of the subsoil code, ecological code, and New Currency Law (as defined below)
- our McArthur River development, mining and production plans succeed
- our Key Lake mill is able to process McArthur River ore as expected
- our Cigar Lake development, mining and production plans succeed

- that the construction of new nuclear power plants and the relicensing of existing nuclear power plants not being more adversely affected than expected by changes in regulation or in the public perception of the safety of nuclear power plants
- our ability to continue to supply our products and services in the expected quantities and at the expected times
- our expected production levels for McArthur River/Key Lake, Cigar Lake, JV Inkai, and our fuel services operating sites
- our cost expectations, including production costs, operating costs, capital costs, and the success of our cost reduction strategies
- our expectations regarding tax rates and payments, royalty rates, currency exchange rates and interest rates
- our entitlement to and ability to receive expected refunds and payments from CRA
- in our dispute with CRA that courts will reach consistent decisions for subsequent tax years that are based upon similar positions and arguments
- that CRA will not successfully advance different positions and arguments that may lead to different outcomes for other tax years
- our expectation that we will recover all or substantially all of the amounts paid or secured in respect of the CRA dispute to date
- our decommissioning and reclamation estimates, including the assumptions upon which they are based, are reliable
- the McClean Lake mill is able to process Cigar Lake ore as expected
- operations are not significantly disrupted as a result of political instability, nationalization, terrorism, sabotage, blockades, civil unrest, breakdown, natural disasters, forest or other fires, outbreak of illness (such as a pandemic like COVID-19), governmental or political actions, litigation or arbitration proceedings, cyber- attacks, the unavailability of reagents, equipment, operating parts and supplies critical to production, labour shortages, labour relations issues, strikes or lockouts, underground floods, cave-ins, ground movements, tailings dam failure, lack of tailings capacity, transportation disruptions or accidents, unanticipated consequences of our cost reduction strategies, or other development or operating risks
- the continuing pursuit of greenhouse gas emissions strategies by governments and companies, including Cameco, and the role of nuclear in the pursuit of those strategies
- the availability or development of technologies needed to achieve our net-zero greenhouse gas emissions
- JV Inkai's development, mining and production plans succeed
- the ability of JV Inkai to pay dividends
- that care and maintenance costs and operational readiness costs will be as expected

Our business

Our vision is to energize a clean-air world. We are a pure-play nuclear fuel investment with a proven track record and the strengths to take advantage of the world's rising demand for safe, reliable, affordable, and carbon-free energy. Nuclear energy plants around the world use our uranium products to generate one of the cleanest sources of electricity available today.

Our operations and investments span the nuclear fuel cycle, from exploration to enrichment and fuel manufacturing. Our head office is in Saskatoon, Saskatchewan.

With our extraordinary assets, long-term contract portfolio, strong ESG commitment, employee expertise, comprehensive industry knowledge and strong balance sheet, we are confident in our ability to increase long-term value.

Cameco Corporation

2121 – 11th Street West
Saskatoon, Saskatchewan
Canada S7M 1J3
Telephone: 306.956.6200

This is our head office, registered office and principal place of business.

We are publicly listed on the Toronto and New York stock exchanges, and had a total of 2,095 employees at December 31, 2021.

Business segments

URANIUM

Our uranium production capacity is among the world's largest. However, in 2021, with many of our operations in care and maintenance, we accounted for about 9% of world production. We have controlling ownership of the world's largest high-grade mineral reserves.

Product

- uranium concentrates (U_3O_8)

Mineral reserves and resources

Mineral reserves

- approximately 464 million pounds proven and probable

Mineral resources

- approximately 447 million pounds measured and indicated
- approximately 154 million pounds inferred

Tier-one operations

- McArthur River and Key Lake, Saskatchewan
- Cigar Lake, Saskatchewan
- Inkai, Kazakhstan

Tier-two operations

- Rabbit Lake, Saskatchewan
- Smith Ranch-Highland, Wyoming
- Crow Butte, Nebraska

Advanced projects

- Millennium, Saskatchewan
- Yeelirrie, Australia
- Kintyre, Australia

Exploration

- focused on North America
- approximately 0.85 million hectares of land

FUEL SERVICES

We are an integrated uranium fuel supplier, offering refining, conversion, and fuel manufacturing services.

Products

- uranium trioxide (UO_3)
- uranium hexafluoride (UF_6)
  (we have about 21% of world primary conversion capacity)
- uranium dioxide (UO_2)
- fuel bundles, reactor components and monitoring equipment used by CANDU reactors

Operations

- Blind River refinery, Ontario (refines uranium concentrates to UO_3)
- Port Hope conversion facility, Ontario (converts UO_3 to UF_6 or UO_2)
- Cameco Fuel Manufacturing Inc. (CFM), Ontario (manufactures fuel bundles and reactor components)

For information about our revenue and gross profit by business segment for the years ended December 31, 2021 and 2020, see our 2021 MD&A as follows:

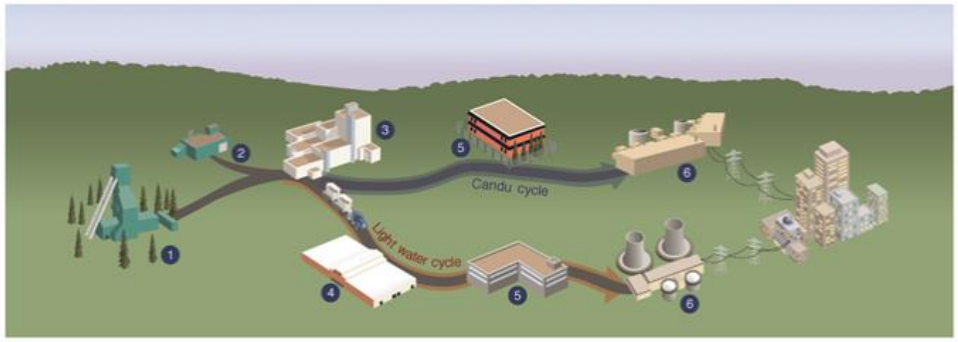
- uranium – page 49
- fuel services – page 51

OTHER FUEL CYCLE INVESTMENTS

Enrichment

We have a 49% interest in Global Laser Enrichment LLC (GLE) which is testing third-generation enrichment technology that, if successful, will use lasers to commercially enrich uranium. GLE is the exclusive licensee of the proprietary SILEX laser enrichment technology, third generation uranium enrichment technology that is in the development phase.

The nuclear fuel cycle



Our operations and investments span the nuclear fuel cycle, from exploration to fuel manufacturing.

1 Mining

Once an orebody is discovered and defined by exploration, there are three common ways to mine uranium, depending on the depth of the orebody and the deposit's geological characteristics:

- *Open pit mining* is used if the ore is near the surface. The ore is usually mined using drilling and blasting.
- *Underground mining* is used if the ore is too deep to make open pit mining economical. Tunnels and shafts provide access to the ore.
- *In situ recovery (ISR)* does not require large scale excavation. Instead, holes are drilled into the ore and a solution is used to dissolve the uranium. The solution is pumped to the surface where the uranium is recovered.

1 Milling

Ore from open pit and underground mines is processed to extract the uranium and package it as a powder typically referred to as *uranium ore concentrates* (UOC) or *yellowcake* (U_3O_8). The leftover processed rock and other solid waste (tailings) is placed in an engineered tailings facility.

2 Refining

Refining removes the impurities from the uranium concentrate and changes its chemical form to *uranium trioxide* (UO_3).

3 Conversion

For light water reactors, the UO_3 is converted to *uranium hexafluoride* (UF_6) gas to prepare it for enrichment. For heavy water reactors like the CANDU reactor, the UO_3 is converted into powdered *uranium dioxide* (UO_2).

4 Enrichment

Uranium is made up of two main isotopes: U-238 and U-235. Only U-235 atoms, which make up 0.7% of natural uranium, are involved in the nuclear reaction (fission). Most of the world's commercial nuclear reactors require uranium that has an enriched level of U-235 atoms.

The enrichment process increases the concentration of U-235 to between 3% and 5% by separating U-235 atoms from the U-238. Enriched UF_6 gas is then converted to powdered UO_2.

5 Fuel manufacturing

Natural or enriched UO_2 is pressed into pellets, which are baked at a high temperature. These are packed into zircaloy or stainless steel tubes, sealed and then assembled into fuel bundles.

6 Generation

Nuclear reactors are used to generate electricity. U-235 atoms in the reactor fuel fission, creating heat that generates steam to drive turbines. The fuel bundles in the reactor need to be replaced as the U-235 atoms are depleted, typically after one or two years depending upon the reactor type. The used – or *spent* – fuel is stored or reprocessed.

Spent fuel management

The majority of spent fuel is safely stored at the reactor site. A small amount of spent fuel is reprocessed. The reprocessed fuel is used in some European and Japanese reactors.

Major developments

2019

July

- We announce that a tribunal of international arbitrators has ruled in favour of Cameco Inc. in its contract dispute with TEPCO, awarding $40.3 million (US) in damages and $5 million (US) for costs, expenses and pre-award interest.
- We enter into a new collective agreement with unionized employees at our McArthur River and Key Lake operations, which expires on December 31, 2022.
- We enter into a new three-year collective agreement with unionized employees at our Port Hope conversion facility, which expires on July 1, 2022.

2020

March

- We announce the temporary suspension of production at Cigar Lake as a precautionary measure due to the threat posed by the COVID-19 pandemic.

April

- We announce temporary operational changes at our fuel services division as a precautionary measure due to the challenge of maintaining an adequate workforce due to the COVID-19 pandemic.
- We extend the temporary Cigar Lake production suspension and withdraw our 2020 outlook.

May

- We announce resumption of production at our Port Hope UF_6 plant and the Blind River refinery, and the continued Cigar Lake mine production suspension.

June

- We announce that the Federal Court of Appeal upheld the 2018 decision of the Tax Court of Canada in Cameco's favour for the 2003, 2005 and 2006 tax years.

September

- We resume production at Cigar Lake.

October

- We issue $400 million of debentures, bearing interest at $2.95%, maturing in 2027.
- We receive notification and announce that CRA has sought leave from the Supreme Court of Canada to appeal the June 2020 decision of the Federal Court of Appeal.

November

- We redeem $400 million of debentures, bearing interest at 3.75%, maturing in 2022.

December

We announce a second temporary suspension of production at Cigar Lake as a precautionary measure due to the increasing risks posed by the COVID-19 pandemic.

2021

January

- We announce the closing of the agreement between Cameco, Silex Systems Limited and GE-Hitachi Nuclear Energy, completing the ownership restructuring of GLE with Cameco's interest in GLE increasing from 24% to 49%.

February

- We announce the Supreme Court of Canada dismissed CRA's application for leave to appeal the June 26, 2020 decision of the Federal Court of Appeal with respect to the 2003, 2005 and 2006 tax years.

April

- We announce plans to restart production at the Cigar Lake mine.

October

- We file a notice of appeal with the Tax Court of Canada, asking it to order the reversal of CRA's transfer pricing adjustment and the return of $777 million in cash and letters of credit we paid or secured for the tax years 2007 through 2013, with costs.

In February 2022, we announce plans to transition McArthur River and Key Lake from care and maintenance to planned production of 15 million pounds per year (100% basis) by 2024. 40% below its annual licensed capacity, and to reduce production at Cigar Lake in 2024 to 13.5 million pounds per year (100% basis), 25% below its annual licensed capacity. This announcement was a major development in our business.

How Cameco was formed

Cameco was incorporated under the *Canada Business Corporations Act* on June 19, 1987.

We were formed when two crown corporations were privatized and their assets merged:

- Saskatchewan Mining Development Corporation (SMDC) (uranium mining and milling operations); and
- Eldorado Nuclear Limited (uranium mining, refining and conversion operations) (now Canada Eldor Inc.).

There are constraints and restrictions on ownership of shares in the capital of Cameco (Cameco shares) set out in our company articles, and a related requirement to maintain offices in Saskatchewan. These are requirements of *the Eldorado Nuclear Limited Reorganization and Divestiture Act* (Canada), as amended, and *The Saskatchewan Mining Development Corporation Reorganization Act*, as amended, and are described on pages 118 and 119.

We have made the following amendments to our articles:

2002
- increased the maximum share ownership for individual non-residents to 15% from 5%
- increased the limit on voting rights of non-residents to 25% from 20%

2003
- allowed the board to appoint new directors between shareholder meetings as permitted by the *Canada Business Corporations Act*, subject to certain limitations
- eliminated the requirement for the chair of the board to be ordinarily resident in the province of Saskatchewan

We have one main subsidiary:

- Cameco Europe Ltd., a Swiss company we have 100% ownership of through subsidiaries

At January 1, 2022, we do not have any other subsidiary that is material, either individually or collectively.

For more information

You can find more information about Cameco on SEDAR (sedar.com), EDGAR (sec.gov) and on our website (cameco.com).

See our most recent management proxy circular for additional information, including how our directors and officers are compensated and any loans to them, principal holders of our securities, and securities authorized for issue under our equity compensation plans. We expect the circular for our May 10, 2022 annual meeting of shareholders to be available on April 6, 2022.

See our 2021 financial statements and 2021 MD&A for additional financial information.

Our strategy

We are a pure-play nuclear fuel investment, focused on providing nuclear fuel products across the fuel cycle, on providing a clean source of energy, and on taking advantage of the long-term growth we see coming in our industry. Our strategy is set within the context of what we believe is a transitioning market environment, where increasing populations, and a growing focus on electrification and decarbonization are expected to durably strengthen the long-term fundamentals for our industry. Nuclear energy must be a central part of the solution to the world's shift to a low-carbon, climate resilient economy. It is an option that can provide the power needed, not only reliably, but also safely and affordably, and in a way that will help avoid some of the worst consequences of climate change.

Our strategy is to capture full-cycle value by:

- remaining disciplined in our contracting activity, building a balanced portfolio in accordance with our contracting framework
- profitably producing from our tier-one assets and aligning our production decisions with our contract portfolio and market signals

- being financially disciplined to allow us to self-manage risk
- exploring other emerging and non-traditional opportunities within the fuel cycle, which align with our commitment to responsibly and sustainably manage our business and increase our contributions to global climate change solutions

We expect our strategy will allow us to increase long-term value, and we will execute it with an emphasis on safety, people and the environment.

For more information on our strategy, see our 2021 MD&A.

Market overview and developments

A market in transition

In 2021, there was a significant improvement in uranium prices and market sentiment. Spot uranium prices for the year were up nearly 40%, reaching their highest level in nine years. The uranium available in the spot market thinned driven by record spot market purchases primarily by the Sprott Asset Management LP Physical Uranium Trust, which has purchased approximately 33.6 million pounds since its inception in 2021, but also including other financial funds, producers and junior uranium companies who have indicated that the long-term fundamentals point to growing demand and supply uncertainty. The thinning of material available in the spot market and rising spot uranium prices motivated some utilities to return to the term market both with on-market request for proposals as well as continued off-market contracting. As a result, the long-term price increased by 22%, ending the year at $42.75 (US) per pound. Despite an increase in contracting in the long-term market, the volume of uranium executed under long-term contracts remained well below annual consumption levels, continuing the inventory destocking that was already underway in the industry and adding to the growing wedge of uncovered requirements that we believe will need to be filled at a time when the availability of sufficient supply is not guaranteed. With a renewed focus on security of supply we believe we are in the early stages of a market transition, with utilities turning to proven producers and assets to meet their uncovered requirements.

Durable demand growth

The benefits of nuclear energy came clearly into focus with a durability we believe has not been previously seen, driven by the accountability created by the net-zero carbon targets being set by countries and companies around the world. These targets are turning attention to a triple challenge. First, is to lift one-third of the global population out of energy poverty by growing clean and reliable baseload electricity. Second, is to replace 85% of the current global electricity grids that run on carbon-emitting sources of thermal power with a clean, reliable alternative. And finally, is to grow global power grids by electrifying industries, such as private and commercial transportation, home, and industrial heating, largely powered with carbon-emitting sources of thermal energy today. Additionally, the energy crisis experienced in some parts of the world has amplified concerns about energy security and highlighted the role of energy policy in balancing three main objectives: providing a clean emissions profile; providing a reliable and secure baseload profile; and providing an affordable levelized cost profile. Too much focus on one objective, has left some jurisdictions struggling with power shortages and spiking energy prices. There is increasing recognition that nuclear power, with its clean emissions profile, reliable and secure baseload characteristics and low, levelized cost has a key role to play in achieving decarbonization goals.

Demand and energy policy highlights

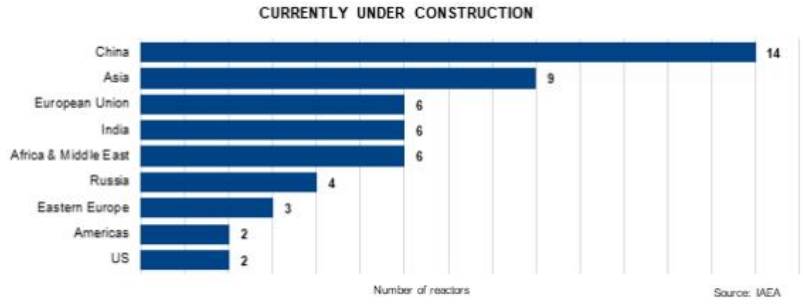
- On behalf of the Sprott Physical Uranium Trust, Sprott issued an At-The-Market (ATM) program allowing it to sell discretionary shares and use the proceeds to purchase U_3O_8. The initial limit was for up to $300 million (US), and on September 9, 2021, Sprott increased the ATM program limit to $1.3 billion (US) followed by another increase to $3.5 billion (US) on November 23. As of March 15, 2022, the fund had raised about $1.56 billion (US) and purchased approximately 33.6 million pounds U_3O_8. In addition to its listing on the Toronto Stock Exchange, Sprott is obligated to seek a US listing for the trust.
- In March 2021, Yellow Cake PLC (YCA) raised $100 million (US) to exercise their option with KAP to purchase approximately 3.5 million pounds of U_3O_8 as well as an additional purchase of 440,000 pounds U_3O_8. Subsequently, YCA agreed to purchase an additional 2 million pounds U_3O_8 from Kazatomprom (KAP). In October, YCA then raised approximately $150 million (US) and used the proceeds to fund the purchase of 2 million pounds U_3O_8 from Curzon Uranium Limited and purchased an additional 1 million pounds U_3O_8 from KAP. The net impact of other transactions in 2021 resulted in YCA acquiring an additional 0.6 million pounds U_3O_8.

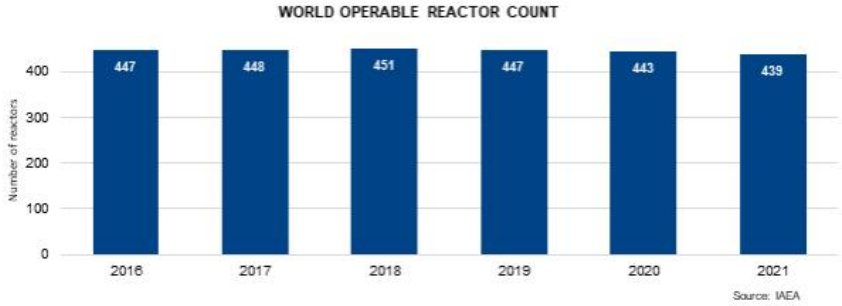
- On October 18, 2021, KAP announced their 48.5% initial investment into a privately-held physical uranium fund for $50 million (US). The fund has a projected second stage of development to raise up to an additional $500 million (US), through either a public or private offering.
- Many countries, states, and utilities announced net-zero carbon targets in 2020 and 2021. Notable countries include China, Japan, South Korea, United States (US), Canada, and France. While most of these targets are further out in the future, many of the plans include an important role for nuclear.
- The International Atomic Energy Agency (IAEA) increased its projections for nuclear out to 2050 for the first time since the Fukushima events in 2011. This includes nuclear generating capacity doubling to 792 GWe, from 393 GWe in 2020, which represents a 10% rise over the prior forecast.
- The 2021 World Nuclear Association Nuclear Fuel Report was released in September and includes numerous positive developments for the industry. It highlights the prospects for nuclear growth and linkages to countries now targeting net-zero carbon emissions. Improved growth in China makes the most notable impact to higher demand projections post 2030. On the supply side, uranium production through 2025 declined significantly relative to the previous report in 2019, demonstrating the growing need for more production out in time.
- China's 14th five-year plan and related policy documents covering the 2021 to 2025 period were published in March as part of their plan to be carbon neutral by 2060. Nuclear received increased attention in the plan relative to the prior version. The key objective stated was China targeting 70 GWe operating and 50 GWe under construction through 2025. Additionally, China's Nuclear Energy Association (CNEA) stated that by 2030, China could reach up to 120 GWe in operation.
- In Japan, Kansai's Mihama 3 restarted after over ten years and represents the first Japanese reactor in service over forty years to be restarted. In October, Fumio Kishida of the Liberal Democratic Party, was confirmed as Japan's 100th Prime Minister. He has stated support for Japan's energy policy which is targeting 20% to 22% nuclear by 2030 as part of its plan for carbon neutrality by 2050.
- Russia's nuclear generation reached historic records in 2021 as Leningrad II-2 became the latest operating reactor. In addition, Rosatom announced plans to build about 15 new 1,200 MWe Gen 3+ reactors by 2035, with most units being built at existing sites where units that were built in the 1970s are to be decommissioned.
- In the European Union (EU), on February 2, 2022, the European Commission approved in principle a Complementary Climate Delegated Act (CDA), which includes specific nuclear and gas energy activities in the list of economic activities covered by the EU Taxonomy. This defines certain nuclear energy projects as green and sustainable for access to low-cost financing. The nuclear-related activities included are all advanced Generation IV nuclear technology with no expiry date, new Generation III+ nuclear reactors until 2045, and lifetime extension to existing nuclear reactors until 2040, while comprehensive nuclear safety and waste management requirements apply to all. The CDA now goes to the European Parliament and Council for debate.
- The Netherlands has recently elected a new government which has promised to build two new nuclear power reactors and become climate neutral by 2050.
- In France, President Emmanuel Macron announced plans to build up to 14 new reactors, for the first time in decades, to meet its 2050 carbon neutral goal. This includes the building of six EPR2s and launching of studies for the building of eight additional EPR2s Additionally, Électricité de France announced that 32 900 MWe reactors were approved for expanded life spans from 40 years to 50 years.
- In the United Kingdom (UK), Prime Minster Boris Johnson confirmed plans for all UK electricity to come from low-carbon sources including nuclear and renewables by 2035.
- Germany closed three reactors at the end of 2021 and remains scheduled to close the last three operating reactors at the end of 2022.
- In the US, Exelon's Byron and Dresden plants in Illinois were saved from early closure with the signing of the Climate and Equitable Jobs Act. This comprehensive energy bill included nearly $700 million (US) in new state subsidies over the next five years.
- US President Biden signed the $1.2 trillion (US) bipartisan infrastructure bill that includes $6 billion (US) to support at-risk nuclear plants and support for the US Department of Energy (DOE) with advanced reactors by 2030.
- India's first domestically designed 700 MWe pressurized heavy water reactor at Kakrapar is nearing commercial operation, an important milestone for the country. Three more units of this design are expected to come online in the next few years. The country is targeting an expansion to 22.5 GWe operating by 2031.
- In South Korea on March 9, 2022, Yoon Seok-youl of the Peoples Power Party became the country's new president elect. He is notably pro nuclear and has stated that he wants nuclear energy to account for 30% of total energy generation,

reversing President's Moon Jae-in's phase out plan. He also vowed to make South Korea a major exporter of nuclear technology and integrate it with renewable energy to push for carbon neutrality. In addition, in January 2022, the prior government announced plans to revise its green taxonomy and consider SMRs as eligible for state funding, reversing its stance to drop nuclear projects.

- During September and October Cameco announced signing several non-binding arrangements to evaluate and explore possible opportunities to partner on the development and deployment of SMR and advanced reactor technologies and evaluate opportunities to supply uranium, fuel services and other services.

According to the IAEA there are currently 439 reactors operating globally and 52 reactors under construction. Several nations are appreciating the clean energy benefits of nuclear power. They have reaffirmed their commitment to it and are developing plans to support existing reactor units and are reviewing their policies to encourage more nuclear capacity. Several other non-nuclear countries have emerged as candidates for new nuclear capacity. In the EU, specific nuclear energy projects have been identified for inclusion under its sustainable financing taxonomy and therefore eligible for access to low-cost financing. Even in countries with phase-out policies, there is growing debate about the role of nuclear power, with public opinion polls showing growing support for it. The growth in demand is not just in the form of new builds, it is medium-term demand in the form of reactor life extensions, and it is near-term growth as early reactor retirements are prevented. And we are seeing momentum building for non-traditional commercial uses of nuclear power around the world such as development of small modular reactors and advanced reactors, with numerous companies and countries pursuing projects.





Supply uncertainty

Low uranium prices, government-driven trade policies, and the COVID-19 pandemic have had an impact on the security of supply in our industry. Despite the recent increase in uranium prices, years of underinvestment in new capacity has shifted risk from producers to utilities. In addition to the decisions many producers, including the lowest-cost producers, have made to preserve long-term value by leaving uranium in the ground, there have been a number of unplanned supply disruptions related to the impact of the COVID-19 pandemic and associated supply chain challenges on uranium mining and processing activities. In addition, according to industry transport experts, there is a risk of transport disruptions for Class 7 nuclear material. Uranium is a highly trade-dependent commodity. Adding to security of supply concerns is the role of commercial and state-owned entities in the uranium market, and trade policies that highlight the disconnect between where uranium is produced and where it is consumed. Over 80% of primary production is in the hands of state-owned enterprises, after taking into account the cuts to primary production that have occurred over the last several years. Furthermore, nearly 90% of primary production comes from countries that consume little-to-no uranium, and nearly 90% of uranium consumption occurs in countries that have little-to-no primary production. As a result, government-driven trade policies can be particularly disruptive for the uranium market.

Supply and trade policy highlights

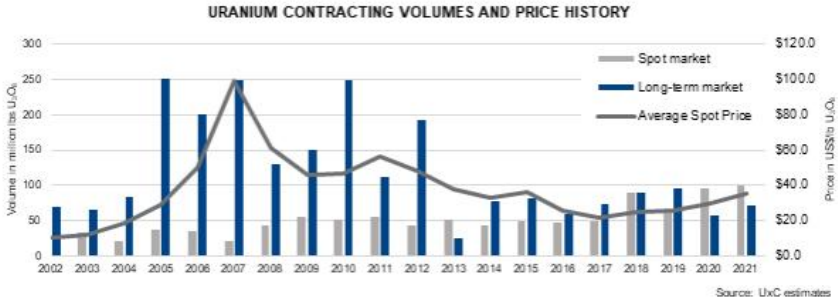
- On February 24, 2022, Russia invaded Ukraine, which has resulted in the imposition of a number of global sanctions against Russia. Currently, the global nuclear industry relies on Russia for approximately 15% of its supply of uranium concentrates, 27% of conversion supply and 39% of enrichment capacity. With escalating aggression in Ukraine by Russian forces, there is growing uncertainty about the ability to continue to rely on nuclear fuel supplies coming out of Russia or that ship through Russian ports.
- On February 9, 2022, Cameco announced its plan to transition its McArthur River mine and Key Lake mill to planned production of 15 million pounds per year (100% basis) by 2024, 40% below its annual licensed capacity, and to reduce production at Cigar Lake in 2024 to 13.5 million pounds per year (100% basis), 25% below its annual licensed capacity.
- In early January 2022, Kazakhstan saw the most significant political instability since it became independent in 1991. The events resulted in a state of emergency being declared across the country. With the assistance of the Collective Security Treaty Organization (CSTO), the government restored the order and in the second half of January, the state of emergency was gradually lifted and withdrawal of CSTO forces from Kazakhstan was completed. KAP reported that its operations have been unaffected by these events.
- In its 2021 fourth quarter operations and trading update, KAP confirmed its intent to maintain production levels at 20% below those stipulated in its Sub Soil Use Agreements through 2023. For 2022, production is expected to be between 54.6 million pounds and 57.2 million pounds U_3O_8 (100% basis). It also noted that wellfield development, procurement and supply chain challenges, including inflationary pressure on production materials and reagents, are expected to continue throughout 2022. In addition, it indicated its costs could be impacted by potential changes to the tax code in Kazakhstan and by possible local social funding requests.
- On November 19, 2021, KAP announced the approval of a plan to develop JV Budenovskoye LLP. The plan is for production at Budenovskoye Blocks 6 and 7 of up to 6.5 million pounds U_3O_8 (100% basis) no earlier than 2024, ramping up to 15.6 million pounds U_3O_8 (100% basis) no earlier than 2026. It is owned 51% by KAP and 49% by Stepnogorsk Mining and Chemical Plant LLP. KAP confirmed that the anticipated ramp up production from 2024-2026 is fully committed for supplying Russia under an offtake contract.
- China General Nuclear Power Group acquired a 49% stake in Ortalyk LLP. This KAP subsidiary holds the Central Mynkuduk in situ recovery (ISR) mine with a capacity of about 5.2 million pounds U_3O_8 (100% basis) and the planned Zhalpak ISR mine with capacity of about 2 million pounds U_3O_8 (100% basis).
- Unplanned production disruptions at the Cigar Lake mine and the McClean Lake mill as a precaution due to the COVID-19 pandemic resulted in production for the year being about 6 million pounds (100% basis) below annual licensed capacity. The Cigar Lake mine restarted in mid-April. On July 1 production at the mine was again temporarily suspended as a precaution due to the proximity of a forest fire, but with the risk subsided and all infrastructure intact, operations resumed a short time after.
- ConverDyn's parent, Honeywell, announced a 2023 restart of its UF_6 conversion facility.
- Supply from the Ranger mine ceased in January, as planned, after 40 years in operation. Ranger had been milling about 4 million pounds U_3O_8 per year in recent years.
- Orano's Cominak mine shut in March 2021, as expected, due to depletion of reserves. The mine had been producing about 3 million pounds U_3O_8 per year in recent years.

- In August, the US DOE published a Request for Information to inform the establishment and procurement strategy of a Strategic Uranium Reserve program. The $75 Million (US) appropriated for the program for 2021 was rolled into 2022.

Long-term contracting creates full-cycle value for proven productive assets

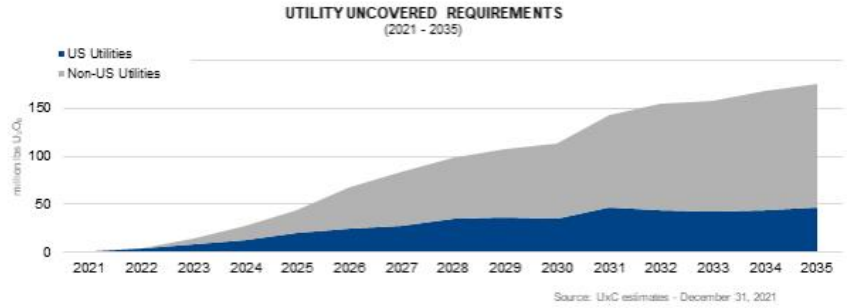
Global population is on the rise, and there is a growing focus on electrification and decarbonization. With the world's need for safe, clean, reliable baseload energy, it is becoming increasingly clear that nuclear power will be an essential part of the clean-energy transition. We remain confident in the future of the nuclear industry. Demand is increasing in the near, medium, and long term with reactor restarts, cancellation of early reactor retirement decisions, life extensions, construction of new reactors, and a growing focus on non-traditional uses of nuclear power.

Like other commodities, the demand for uranium is cyclical. However, unlike other commodities, uranium is not traded in meaningful quantities on a commodity exchange. The uranium market is principally based on bilaterally negotiated long-term contracts covering the annual run-rate requirements of nuclear power plants, with a small spot market to serve discretionary demand. History demonstrates that in general, when prices are rising and high, uranium is perceived as scarce, and a lot of contracting activity takes place with proven and reliable suppliers. The higher prices discovered during this contracting cycle drive investment in higher-cost sources of production, which due to lengthy development timelines, tend to miss the contracting cycle and ramp up after demand has already been captured by proven producers. The new uncommitted supply exposed to the small, discretionary spot market becomes value destructive. The downward pressure on price creates the perception that uranium is abundant, potentially resulting in a failure of long-term price signals. When prices are declining and low, like we have seen over the past number of years, there is no perceived urgency to contract, and contracting activity and investment in new supply drops off. After years of low prices, and a lack of investment in supply, and as the uncommitted material available in the spot market begins to thin, as we are seeing currently, security-of-supply tends to overtake price concerns. Utilities re-enter the long-term contracting market to ensure they have a reliable future supply of uranium to run their reactors.



UxC reports that over the last five years approximately 400 million pounds U_3O_8 equivalent have been locked-up in the long-term market, while approximately 810 million pounds U_3O_8 equivalent have been consumed in reactors. We remain confident that utilities have a growing gap to fill.

We believe the current backlog of long-term contracting presents a substantial opportunity for commercially motivated suppliers like us who are proven reliable suppliers with tier-one productive capacity and a record of honouring our supply commitments. As a low-cost producer, we manage our operations to capture value throughout these price cycles.



In our industry, customers do not come to the market right before they need to load nuclear fuel into their reactors. To operate a reactor that could run for more than 60 years, natural uranium and the downstream services have to be purchased years in advance, allowing time for a number of processing steps before a finished fuel bundle arrives at the power plant. At present, we believe there is a significant amount of uranium that needs to be contracted to keep reactors running into the next decade.

UxC estimates that cumulative uncovered requirements are about 1.4 billion pounds to the end of 2035. With the lack of investment over the past decade due to low uranium prices, there is growing uncertainty about where uranium will come from to satisfy growing demand. In fact, utilities have started to secure supply under long-term contracts, which has resulted in a 22% increase in the long-term price of uranium over the past year.

As utilities' uncovered requirements continue to grow, primary and secondary supplies decline, and as continued demand for uranium from producers and other intermediaries leads to a thinning of the material available in the spot market, we expect there will be increased competition to secure uranium under long-term contracts on terms that will ensure the availability of reliable primary supply to meet growing demand.

Supply has become less certain as a result of low prices, production curtailments, lack of investment, end of reserve life, unplanned production disruptions, supply chain challenges, shrinking secondary supplies and trade policy issues. As a result, we believe we are starting to see a market transition that is shifting risk from the suppliers to the users of uranium fuel. We will continue to take the actions we believe are necessary to position the company for long-term success. Therefore, we will continue to align our production decisions with market signals and our contract portfolio. We will undertake contracting activity which is intended to ensure we have adequate protection under our contract portfolio, while maintaining exposure to the rewards that come from having uncommitted, low-cost supply to place into a strengthening market.

Contracting framework – building a balanced portfolio

The purpose of our contracting framework is to deliver value. Our approach is to secure a solid base of earnings and cash flow by maintaining a balanced contract portfolio that optimizes our realized price.

Contracting decisions need to consider the uranium market structure, the nature of our competitors, and the current market environment. The vast majority of run-rate fuel requirements are procured under long-term contracts. The spot market is thinly-traded where utilities pick-up small, discretionary volumes. This market structure is reflective of the baseload nature of nuclear power and the relatively small proportion of the overall operating costs the fuel represents compared to other sources of baseload electricity. Additionally, about half of the fuel supply is not sensitive to market prices and is typically supplied by diversified mining companies that produce uranium as a by-product or state-owned entities with production volume strategies or ambitions to serve state nuclear power ambitions with low-cost fuel supplies. We evaluate our strategy in the context of our market environment and continue to adjust our actions in accordance with our contracting framework:

- First, we will not produce from our tier-one assets to sell into an oversupplied spot market. We will not produce from these assets unless we can deliver our tier-one pounds under long-term contracts that provide an acceptable rate of return.
- Second, we do not intend to build an inventory of excess uranium. Excess inventory serves to contribute to the sense that uranium is abundant and creates an overhang on the market, and it ties up working capital on our balance sheet.

- Third, in addition to our committed sales, we will capture end-user demand in the market where we think we can obtain value. We will take advantage of opportunities the market provides, where it makes sense from an economic, logistical and strategic point of view. Those opportunities may come in the form of spot, mid-term or long-term demand, and will be additive to our current committed sales.
- Fourth, once we capture demand, we will decide how to best source material to satisfy that demand. Depending on the timing and volume of our production, purchase commitments, and our inventory volumes, this means we may be active buyers in the market in order to meet our demand obligations.
- And finally, in general, if we choose to source material to meet demand by purchasing it, we expect the price of that material will be more than offset by the leverage to market prices in our sales portfolio over the long-term.

In addition to this framework, our contracting decisions always factor in who the customer is, our desire for regional diversification, the product form, and logistical factors.

Ultimately, our goal is to protect and extend the value of our contract portfolio on terms that recognize the value of our assets and pricing mechanisms that provide adequate protection when prices go down and allow us to benefit when prices rise. We believe using this framework will allow us to create long-term value. Our focus will continue to be on ensuring we have the financial capacity to execute on our strategy and self-manage risk.

Long-term contracting

Uranium is not traded in meaningful quantities on a commodity exchange. Utilities have historically bought the majority of their uranium and fuel services products under long-term contracts that are bilaterally negotiated with suppliers, and they have met the rest of their needs on the spot market. We sell uranium and fuel services directly to nuclear utilities around the world as uranium concentrates, UO_2 and UF_6, conversion services, or fuel fabrication. We have a solid portfolio of long-term sales contracts that reflect the long-term, trusting relationships we have with our customers.

In general, we are always active in the market, buying and selling uranium when it is beneficial for us and in support of our long-term contract portfolio. We undertake activity in the spot and term markets prudently, looking at the prices and other business factors to decide whether it is appropriate to purchase or sell into the spot or term market. Not only is this activity a source of profit, it gives us insight into underlying market fundamentals.

We deliver large volumes of uranium every year, therefore our net earnings and operating cash flows are affected by changes in the uranium price. Market prices are influenced by the fundamentals of supply and demand, market access and trade policy issues, geopolitical events, disruptions in planned supply and demand, and other market factors.

The objectives of our contracting strategy are to:

- maximize realized price while providing some certainty for our future earnings and cash flow
- focus on meeting the nuclear industry's growing annual uncovered requirements with our tier-one production
- establish and grow market share with strategic customers

We have a portfolio of long-term contracts that have a mix of base-escalated pricing and market-related pricing mechanisms, including provisions to protect us when the market price is declining and allow us to benefit when market prices go up. This is a balanced and flexible approach that allows us to adapt to market conditions, put a floor on our average realized price and deliver the best value over the long term.

This approach has allowed us to realize prices higher than the market prices during periods of weak uranium demand, and we expect it will enable us to realize increases linked to higher market prices in the future.

Base-escalated (fixed prices escalated over the term of the contract) contracts for uranium: typically use a pricing mechanism based on a term-price indicator at the time the contract is accepted and escalated over the term of the contract.

Market-related contracts for uranium: are different from base-escalated contracts in that the pricing mechanism may be based on either the spot price or the long-term price, and that price is as quoted at the time of delivery rather than at the time the contract is accepted. These contracts sometimes provide for discounts, and often include floor prices and/or ceiling prices, which are usually escalated over the term of the contract.

Fuel services contracts: the majority of our fuel services contracts use a base-escalated mechanism per kgU and reflect the market at the time the contract is accepted.

Optimizing our contract portfolio

We work with our customers to optimize the value of our contract portfolio. With respect to new contracting activity, there is often a lag from when contracting discussions begin and when contracts are executed. With our large pipeline of business under negotiation in our uranium segment, and a value driven strategy, we continue to be strategically patient in considering the commercial terms we are willing to accept. Much of our pending business is off-market but we are starting to see more on-market activity emerge. We remain confident that we can add acceptable new sales commitments to our portfolio of long-term contracts to underpin the long-term operation of our productive capacity and capture long-term value.

Given our view that uranium prices need to rise to ensure the availability of long-term supply to fuel growing demand for safe, clean, reliable, carbon-free nuclear energy, our preference today is to sign long-term contracts with market-related pricing mechanisms. Unsurprisingly, we believe our customers too expect prices to rise and prefer to lock-in today's prices, with a fixed-price mechanism. Our goal is to balance all these factors, along with our desire for customer and regional diversification, with product form, and logistical factors to ensure we have adequate protection and will benefit from higher prices under our contract portfolio, while maintaining exposure to the rewards that come from having low-cost supply to deliver into a strengthening market.

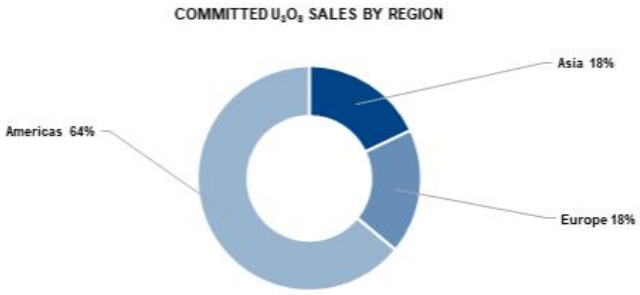
With respect to our existing contracts, at times we may also look for opportunities to optimize the value of our portfolio. In cases where a customer is seeking relief under an existing contract due to a challenging policy, operating, or economic environment, or we deem the customer's long-term demand to be at risk, we may consider options that are beneficial to us and allow us to maintain our customer relationships.

Contract portfolio status

We have commitments to sell over 160 million pounds of U_3O_8 with 34 customers worldwide in our uranium segment, and over 48 million kilograms as UF_6 conversion with 30 customers worldwide in our fuel services segment. Over the next five years in our uranium segment, the annual average sales commitments under our contract portfolio at December 31, 2021 are 18 million pounds per year, with commitment levels in 2022, 2023 and 2024 higher than the average and in 2025 and 2026 lower than the average.

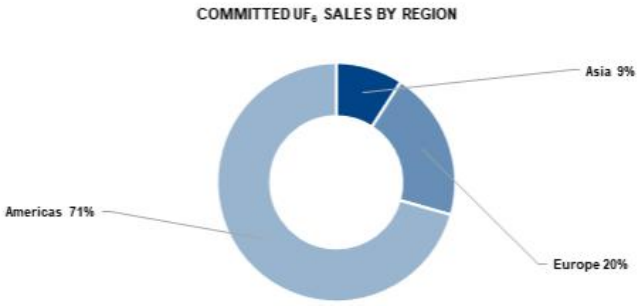
Customers – U_3O_8:

Five largest customers account for 59% of commitments



Customers – UF_6 conversion:

Five largest customers account for 52% of commitments



Managing our contract commitments

To meet our delivery commitments and to mitigate risk, we have access to a number of sources of supply, which includes uranium obtained from:

- our existing production
- purchases under our JV Inkai agreement, under long-term agreements and in the spot market
- our inventory in excess of our working requirements
- product loans

We allow sales volumes to vary year-to-year depending on:

- the level of sales commitments in our long-term contract portfolio
- our production volumes
- purchases under existing and/or new arrangements
- discretionary use of inventories
- market opportunities

Our supply discipline

As spot is not the fundamental market, true value is captured under a long-term contract portfolio and is measured over the full commodity cycle. Therefore, we align our uranium production decisions with our contract commitments and market opportunities to avoid creating an oversupply in a thinly-traded spot market or building an excess inventory. In accordance with market conditions, and to mitigate risk, we evaluate the optimal mix of our production, inventory and purchases in order to satisfy our contractual commitments and in order to return the best value possible over the entire commodity cycle. During a prolonged period of uncertainty, this could mean leaving our uranium in the ground. As a result, since 2016, we have left almost 115 million pounds of uranium in the ground (100% basis) through our supply curtailment activities. We have purchased more than 55 million pounds in the spot market and in 2018 we drew down our inventory by almost 20 million pounds. That totals about 190 million pounds (100% basis) of uranium that we have pulled out of the market.

Today we believe we are in the early stages of a uranium market transition, driven by the growing demand for nuclear energy and the increasingly undeniable conclusion that it must be an essential part of the clean-energy transition. As the market continues to transition, we expect to continue to place our uranium under long-term contracts and to meet rising demand with production from our best margin operations. We will continue to adjust our actions based on market signals and our contract portfolio with the intent of being able to self-manage risk, and to capture long-term value.

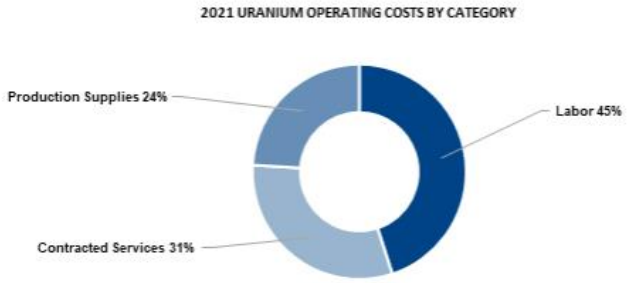
With the improvements in the market and the new long-term contracts we have put in place, it is time for us to proceed with the next phase of our supply discipline strategy. Continuing with our indefinite supply discipline, starting in 2024, we plan to be operating at about 40% below productive capacity (100% basis) compared to 75% below productive capacity (100% basis) in 2021. To achieve this, we will begin preparing McArthur River/Key Lake to ensure it is operationally ready to reach our 2024

production plan. A return to production at McArthur River/Key Lake will significantly improve our financial performance by allowing us to source more of our committed sales from the lower-cost produced pounds and we will no longer be required to expense care and maintenance costs directly to cost of sales. However, until we achieve a reasonable production rate, we expect to incur between $15 million to $17 million per month in operational readiness costs, which will be expensed directly to cost of sales. Operational readiness costs include all of the costs associated with care and maintenance in addition to the costs to complete critical projects, perform maintenance readiness checks, and recruit and train sufficient mine and mill personnel before beginning operations. This is not an end to our supply discipline. Over the course of 2022 and 2023, we will undertake all of the activities necessary to ensure we are operationally ready to achieve the 2024 production plan of 15 million pounds (100% basis) per year, 40% below the annual licensed capacity of the operation. Once we reach the planned production at McArthur River/Key Lake, starting in 2024, we plan to reduce production at Cigar Lake to 13.5 million pounds (100% basis) per year, 25% below its annual licensed capacity. Extending the mine life at Cigar Lake by aligning production with the market opportunities and our contract portfolio is consistent with our tier-one strategy and is expected to allow more time to evaluate the feasibility of extending the mine life beyond the current reserve base while continuing to supply ore to Orano's McClean Lake mill. This will remain our production plan until we see further improvements in the uranium market and contracting progress, once again demonstrating that we are a responsible supplier of uranium fuel.

Managing our costs

Production costs

In order to operate efficiently and cost-effectively, we manage operating costs and improve plant reliability by prudently investing in production infrastructure, new technology, and business process improvements. Like all mining companies, our uranium segment is affected by the cost of inputs such as labour and fuel.



* Production supplies include reagents, fuel and other items. Contracted services include utilities and camp costs, air charters, mining and maintenance contractors and security and ground freight.

In 2022 and 2023, our cash production costs may continue to be affected by the impacts of the COVID-19 pandemic, as well as timing and rate of production at the McArthur River/Key Lake operation. Once we achieve 2024 planned production, the average unit operating costs at Cigar Lake may increase as production declines.

Operating costs in our fuel services segment are mainly fixed. In 2021, labour accounted for about 51% of the total. The largest variable operating cost is for zirconium, followed by anhydrous hydrogen fluoride, and energy (natural gas and electricity).

We are currently undertaking a corporate-wide initiative to accelerate innovation and the adoption of advanced digital and automation technologies to improve efficiency and operational flexibility, and to further reduce cost.

For example, we are implementing energy management information systems to understand where we use energy so we can make changes to become more efficient. We have established a cross-functional working group to further study the transition opportunities and risks to our operations. This working group is analyzing the costs and benefits of various potential projects to achieve transformational reductions in emissions.

Care and maintenance costs and operational readiness costs

In 2022, we expect to incur between $50 million and $60 million in care and maintenance costs related to the suspension of production at our Rabbit Lake mine and mill, and our US operations. These operations are higher-cost, and with plenty of idle tier-one capacity and tier-one expansion capacity globally that can come back online relatively quickly, the restart horizon is less certain. We continue to evaluate our options in order to minimize these costs.

At the McArthur River/Key Lake operation we expect to incur between $15 million and $17 million per month in operational readiness costs which will be expensed directly to cost of sales until we achieve a reasonable production rate.

Purchases and inventory costs

Our costs are also affected by the purchases of uranium and conversion services we make under long-term contracts and on the spot market.

To meet our delivery commitments, we make use of our mined production, inventories, purchases under long-term contracts, purchases we make on the spot market and product loans. In 2022, the price for the majority of our purchases will be quoted at the time of delivery.

The cost of purchased material may be higher or lower than our other sources of supply, depending on market conditions. The cost of purchased material affects our cost of sales, which is determined by calculating the average of all of our sources of supply, including opening inventory, production, and purchases, and adding royalties, selling costs, and care and maintenance costs. If market prices exceed our cost of inventory, we expect the cost of sales may be impacted.

Financial impact

As greater certainty returns to the uranium market, our view is that uranium prices will need to reflect the cost of bringing on new primary production to meet growing demand.

The deliberate and disciplined actions we have taken to reduce supply and streamline operations have come with near-term costs like care and maintenance costs and purchase costs higher than our production costs, but we believe the benefit over the long term will far outweigh those costs.

We believe our actions have helped position the company to self-manage risk and will reward shareholders for their continued patience and support of our strategy to build long-term value.

Supply sources

Uranium supply sources include primary production (production from mines that are currently in commercial operation) and secondary supply sources (excess inventories, uranium made available from defense stockpiles and the decommissioning of nuclear weapons, re-enriched depleted uranium tails, and used reactor fuel that has been reprocessed).

Primary production

While the uranium production industry is international in scope, there are only a small number of companies operating in relatively few countries. In addition, there are barriers to entry and bringing on and ramping up production can take a significant number of years. A number of projects have been cancelled or delayed, and some production has been discontinued due to the low uranium prices that have persisted since 2011. Today's uranium prices are not high enough to encourage investment in necessary new mine development and not high enough to incent some existing mines to continue to produce.

We estimate world mine production in 2021 was about 125 million pounds U_3O_8, up from 123 million pounds in 2020:

- About 82% of estimated world production came from five countries: Kazakhstan (45%), Namibia (12%), Canada (10%), Australia (8%), and Uzbekistan (7%).
- About 70% of estimated world production was attributable to five producers. We accounted for about 9% (11.4 million pounds) of estimated world production in 2021.

Secondary sources

There are a number of secondary sources, but most of these sources are finite and will not meet long-term needs:

- The US government has historically made some of its inventories available to the market, although in smaller and predictable quantities.
- The Russian government also holds substantial volumes of nuclear fuel inventory largely in the form of depleted uranium, but overall, their contribution to secondary supplies has reduced significantly since the end of the HEU Agreement.
- Utilities, mostly in Europe and some in Japan and Russia, use reprocessed uranium and plutonium from used reactor fuel.
- Re-enriched depleted uranium tails and uranium from underfeeding are also generated using excess enrichment capacity.

Uranium from US inventories

We expect a sizeable portion of the US Department of Energy (DOE) inventory will be available to the market over the next two decades, although a significant portion of the inventory requires either further processing or the development of commercial arrangements before it can be brought to market.

DOE Excess Uranium Inventory Management Plan

Historically, the DOE was one of the primary sources of secondary supplies in the uranium market. This role has been significantly reduced since the suspension of the barter program of its natural UF_6 inventory. DOE's current primary contribution to secondary supplies is high-enriched uranium (HEU) downblending. The vast majority of the DOE's inventory is large volumes of depleted uranium (DU).

In 2018, the DOE suspended its practice of bartering its excess uranium through 2019. The barter suspension has since been extended on an annual basis. Considerations for 2022 are ongoing, but the DOE has indicated a commitment to continue the suspension of the UF_6 barter program. There is currently no available timetable to dispose of the remaining natural UF_6 in DOE's excess inventory, estimated at less than 9 million pounds.

Trade restraints and policies

The importation of Russian uranium into the US market is regulated by the amended *USEC Privatization Act* and by the Agreement Suspending the Antidumping Action against Russian Uranium Products (RSA), which together impose annual quotas on imports of Russian uranium. These quotas were set at the equivalent of 20% of annual US reactor demand and expired at the end of 2020. An amendment to the RSA was signed that extends the agreement from January 1, 2021 through December 31, 2040 and provides a clear set of rules around access to the US nuclear energy sector by Russian nuclear fuel suppliers. Since 1992, the importation of Russian uranium products in the US has been subject to a quota under the RSA. The amendment reduces the average overall quota and introduces caps, which will reduce the amount of Russian uranium, conversion and enrichment supplied to the US over the long-term. The amendment also includes important new provisions to ensure that all Russian origin uranium must be counted against the quota even if it is imported after further processing in other countries.

The US restrictions do not affect the sale of Russian uranium to other countries. About 70% of world uranium demand is from utilities in countries that are not affected by the US restrictions. Utilities in some countries, however, adopt policies that limit the amount of Russian uranium they will buy. The Euratom Supply Agency in Europe must approve all uranium related contracts for members of the European Union (EU) and limits the use of certain nuclear fuel supplies from any one source to maintain security of supply, although these limits do not apply to uranium sold separately from enriched uranium product.

The US Congress approved an omnibus spending bill for 2021, providing nearly $1.5 billion (US) in spending for nuclear programs. Notably it includes initial funding of $75 million (US) for the creation of a national uranium reserve. This funding, which was a primary recommendation in a strategy report released in April 2020 by the US Nuclear Fuel Working Group, opens the door for the US government to purchase domestically produced uranium and UF_6 to guard against potential commercial and national security risks as a result of the country's near-total reliance on foreign imports.

With the Russian invasion of Ukraine on February 24, 2022, a number of trade restrictions have been imposed on Russia. The Canadian government has cancelled existing export permits to Russia and will not grant new export permits to Russia. Trade sanctions will impact the flow of nuclear fuel supplies coming in and out of Russia, including supplies shipped through Russian ports. The global nuclear industry currently relies on Russia for approximately 15% of its supply of uranium concentrates, 27% of conversion supply, and 39% of enrichment capacity.

Conversion services

We have about 21% of world UF_6 primary conversion capacity and supply UO_2 for Canadian-made CANDU reactors. For conversion services, we compete with a small number of primary commercial suppliers, in addition to the secondary supplies described above, to meet global demand.

Operations and projects

Uranium

Tier-one operations	
McArthur River mine/Key Lake mill	23
Cigar Lake	39
Inkai	53
Tier-two operations	
Rabbit Lake	68
US ISR Operations	69
Advanced projects	
Millennium	70
Yeelirrie	70
Kintyre	70
Exploration	71

Fuel services

Refining, conversion and fuel manufacturing	
Blind River Refinery	72
Port Hope Conversion Services	73
Cameco Fuel Manufacturing Inc.	74

Uranium production

Cameco's share (million lbs U_3O_8)	**2020**	**2021**	**2022 Plan**
McArthur River/Key Lake	— [1]	— [1]	up to 3.5[4]
Cigar Lake	5.0[2]	6.1[3]	7.5[5]
Rabbit Lake	— [1]	— [1]	— [1]
US ISR Operations	— [1]	— [1]	— [1]
Total	**5.0**	6.1	up to 11.0

1 The McArthur River/Key Lake operations and the Rabbit Lake operation are in a state of care and maintenance, and we are no longer developing new wellfields at US ISR Operations.

2 In April 2020, we withdrew our production outlook for the Cigar Lake mine due to the first precautionary suspension to manage the risks posed by the COVID-19 pandemic. With the restart of the mine in September 2020, a production target of up to 5.3 million pounds (our share) was set. In December 2020, production was again temporarily suspended as a precautionary measure to manage the risks posed by the COVID-19 pandemic.

3 A production target was not set in 2021 until after production at Cigar Lake resumed following the proactive four-month COVID-19-related suspension that started in December 2020. A production target of up to 6.0 million pounds (our share) was provided in our 2021 second quarter MD&A.

4 Over the course of 2022 and 2023, we will undertake all the activities necessary to ramp up to the 2024 planned production of 15 million pounds per year (100% basis) at McArthur River/Key Lake. As a result, in 2022, we could produce up to 5 million pounds (100% basis).

5 At Cigar Lake, we expect production of 15 million pounds (100% basis) in 2022 due to the delays and deferrals to development work experienced in 2021 related to the suspension of production noted above and the ongoing pandemic and supply chain challenges impacting the availability of construction materials, equipment, and labour.

We expect total production from Inkai to be 8.3 million pounds in 2022 on a 100% basis, assuming no production disruptions due to the COVID-19 pandemic, civil unrest, supply chain issues or other causes. Due to equity accounting, our share of production is shown as a purchase. An adjustment to the production purchase entitlement allows us to purchase 4.2 million pounds in 2022.

Uranium – Tier-one operations

McArthur River mine / Key Lake mill



2021 Production (our share)
0.0M lbs
2022 Production Outlook (our share)
up to 3.5M lbs
Estimated Reserves (our share)
275.0M lbs
Estimated Mine Life
2048

McArthur River is the world's largest, high-grade uranium mine, and Key Lake is the world's largest uranium mill. Ore grades at the McArthur River mine are 100 times the world average. We are the operator of both the mine and mill.

In 2018, a decision was made to suspend production and place the mine and mill in care and maintenance. With the improvement in the uranium market and the success we have had in securing new long-term contracts, it is time to proceed with the next phase of our supply discipline decisions. Therefore, continuing to align our production with market conditions and our contract portfolio, our plan is to produce 15 million pounds (100% basis) per year by 2024 at McArthur River/Key Lake, 40% below its licensed capacity. This will remain our production plan until we see further improvements in the uranium market and contracting progress, demonstrating that we continue to be a responsible supplier of uranium fuel.

McArthur River is considered a material uranium property for us. There is a technical report dated March 29, 2019 (effective December 31, 2018) that can be downloaded from SEDAR (sedar.com) or from EDGAR (sec.gov).

Location		Saskatchewan, Canada
Ownership		McArthur River – 69.805%
		Key Lake – 83.33%
Mine type		Underground
Mining methods		Primary: blasthole stoping
		Secondary: raiseboring
End product		Uranium concentrate
Certification		ISO 14001 certified
Estimated reserves		275.0 million pounds (proven and probable), average grade U_3O_8: 6.58%
Estimated resources		6.3 million pounds (measured and indicated), average grade U_3O_8: 2.46%
		1.8 million pounds (inferred), average grade U_3O_8: 2.85%
Licensed capacity		Mine and mill: 25.0 million pounds per year
Licence term		Through October, 2023
Total packaged production:	**2000 to 2021**	325.4 million pounds (McArthur River/Key Lake) (100% basis)
	1983 to 2002	209.8 million pounds (Key Lake) (100% basis)
2021 production		0.0 million pounds (0.0 million pounds on 100% basis)
2022 production outlook		up to 3.5 million pounds (5.0 million pounds on 100% basis)
Estimated decommissioning cost		$42 million – McArthur River (100% basis)
		$223 million – Key Lake (100% basis)

All values shown, including reserves and resources, represent our share only, unless indicated.

Business structure

McArthur River is owned by a joint venture (MRJV) between two companies:

- Cameco – 69.805%
- Orano Canada Inc. (Orano) – 30.195%

Key Lake is owned by a joint venture between the same two companies:

- Cameco – 83.333%
- Orano – 16.667%

History

1976	• Canadian Kelvin Resources Ltd. and Asamera Oil Corporation Ltd. form an exploration joint venture, which includes the lands that the McArthur River mine is situated on
1977	• SMDC, one of our predecessor companies, acquires a 50% interest
1980	• McArthur River joint venture is formed • SMDC becomes the operator • Active surface exploration begins • Between 1980 and 1988 SMDC reduces its interest to 43.991%
1988	• Eldorado Resources Limited merges with SMDC to form Cameco • We become the operator • Deposit discovered by surface drilling
1988-1992	• Surface drilling reveals significant mineralization of potentially economic uranium grades, in a 1,700 metre zone at depths of between 500 to 640 metres
1992	• We increase our interest to 53.991%
1993	• Underground exploration program receives government approval – program consists of shaft sinking (completed in 1994) and underground development and drilling
1995	• We increase our interest to 55.844%
1997-1998	• Federal authorities issue construction licences for McArthur River after reviewing the environmental impact statement, holding public hearings, and receiving approvals from the governments of Canada and Saskatchewan
1998	• We acquire all of the shares of Uranerz Exploration and Mining Ltd. (UEM), increasing our interest to 83.766% • We sell half of the shares of UEM to Orano, reducing our interest to 69.805%, and increasing Orano's to 30.195%
1999	• Federal authorities issue the operating licence and provincial authorities give operating approval, and mining begins in December
2003	• Production is temporarily suspended in April because of a water inflow • Mining resumes in July

2009	• UEM distributes equally to its shareholders:
	  • its 27.922% interest in the McArthur River joint venture, giving us a 69.805% direct interest, and Orano a 30.195% direct interest
	  • its 33.333% interest in the Key Lake joint venture, giving us an 83.33% direct interest, and Orano a 16.667% direct interest

2013	• Federal authorities granted a 10-year renewal of the McArthur River and Key Lake operating licences
2014	• After a two-week labour disruption, we enter into a four-year collective agreement with unionized employees at McArthur River and Key Lake operations
2017	• We announce our plan to temporarily suspend production at McArthur River and Key Lake in 2018
2018	• We announce the suspension of production at McArthur River and Key Lake for an indeterminate duration
2022	• We announce plans to transition McArthur River and Key Lake from care and maintenance to planned production of 15 million pounds per year (100% basis) by 2024

Technical report

This description is based on the project's technical report: McArthur River Operation, Northern Saskatchewan, Canada, dated March 29, 2019 (effective December 31, 2018). The report was prepared for us in accordance with *Canadian National Instrument 43-101 – Standards of Disclosure for Mineral Projects* (NI 43-101), by or under the supervision of Linda Bray, P. Eng., Gregory M. Murdock, P. Eng., and Alain D. Renaud, P. Geo. The following description has been prepared under the supervision of Biman Bharadwaj, P. Eng., Gregory M. Murdock, P. Eng., and Alain D. Renaud, P. Geo. They are all qualified persons within the meaning of NI 43-101 but are not independent of us.

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. You can download a copy from SEDAR (sedar.com) or from EDGAR (sec.gov).

For information about uranium sales see pages 14 to 18, environmental matters see *Our ESG principles and practices* and *The regulatory environment* starting on pages 81 and 86, and taxes see page 93.

For a description of royalties payable to the province of Saskatchewan on the sale of uranium extracted from orebodies within the province, see page 93.

For a description of risks that might affect access, title or the right or ability to perform work on the property, see *Regulatory risks* starting at page 110, *Environmental risks* starting at page 111 and *Legal and other risks* starting at page 113.

About the McArthur River property

Location

The McArthur River mine site is located near Toby Lake, approximately 620 kilometres north of Saskatoon. The mine site is in close proximity to other uranium production operations: the Key Lake mill is 80 kilometres southwest by road and the Cigar Lake mine is 46 kilometres northeast by air.

Access

Access to the property is by an all-weather gravel road and by air. Supplies are transported by truck from Saskatoon and elsewhere. There is a 1.6 kilometre unpaved air strip and an air terminal one kilometre east of the mine site, on the surface lease.

Saskatoon, a major population centre south of the McArthur River property, has highway and air links to the rest of North America.

Leases

Surface lease

The MRJV acquired the right to use and occupy the lands necessary to mine the deposit under a surface lease agreement with the province of Saskatchewan. The lease covers 1,425 hectares and expires in May 2043.

We are required to report annually on the status of the environment, land development and progress on northern employment and business development.

Mineral lease

We have the right to mine the deposit under ML 5516, granted to us by the province of Saskatchewan. The lease covers 1,380 hectares and expires in March 2024. We have the right to renew the lease for further 10-year terms.

Mineral claims

A mineral claim gives us the right to explore for minerals and to apply for a mineral lease. There are 27 mineral claims, totalling 86,350 hectares, adjoining the mineral lease and surrounding the deposit. The mineral claims are in good standing until 2023, or later.

Environment, social and community factors

The climate is typical of the continental sub-arctic region of northern Saskatchewan. Summers are short and cool even though daily temperatures can sometimes reach above 30°C. The mean daily temperature for the coldest month is below -20°C, and winter daily temperatures can reach below -40°C.

The deposit is 40 kilometres inside the eastern margin of the Athabasca Basin in northern Saskatchewan. The topography and environment are typical of the taiga forested lands in the Athabasca Basin.

We are committed to building long-lasting and trusting relationships with the communities in which we operate. For more information, see *Our ESG principles and practices* at page 81.

No communities are in the immediate vicinity of McArthur River. The community of Wollaston Lake is approximately 120 kilometres by air to the east of the mine site. The community of Pinehouse is approximately 300 kilometres south of the mine by road.

Athabasca Basin community resident employees and contractors fly to the mine site from designated pick-up points. Other employees and contractors fly to the mine from Saskatoon with pick-up points in Prince Albert and La Ronge.

Geological setting

The deposit is in the southeastern portion of the Athabasca Basin in northern Saskatchewan, within the southwest part of the Churchill structural province of the Canadian Shield. The deposit is located at or near the unconformity contact between the Athabasca Group sandstones and underlying metasedimentary rocks of the Wollaston Domain.

The deposit is similar to other Athabasca Basin deposits but is distinguished by its very high grade and overall size. Unlike Cigar Lake, there is no development of extensive hydrothermal clay alteration in the sandstone above the uranium mineralization and the deposit is geochemically simple with negligible amounts of other metals.

McArthur River's geological setting is similar to the Cigar Lake deposit in that the sandstone that overlies the deposit and basement rocks contains large volumes of water at significant pressure.

Mineralization

McArthur River's mineralization is structurally controlled by a northeast-southwest trending reverse fault (the P2 fault), which dips 40-65 degrees to the southeast and has thrust a wedge of basement rock into the overlying sandstone with a vertical displacement ranging between 60 and 80 metres.

The deposit consists of nine mineralized zones with delineated mineral resources and/or reserves: Zones 1, 2, 3, 4, 4 South, A, B, McA North 1 and McA North 2. These and three under-explored mineralized showings, known as McA North 3, McA North 4 and McA South 1, as well as other mineralized occurrences have also been identified over a strike length of 2,700 metres.

The main part of the mineralization, generally at the upper part of the basement wedge, averages 12.7 metres in width and has a vertical extent ranging between 50 metres and 120 metres.

The deposit has two distinct styles of mineralization:

- high-grade mineralization at the unconformity near the P2 reverse fault and within both sandstone and basement rocks
- fracture controlled and vein like mineralization that occurs in the sandstone away from the unconformity and within the basement quartzite

The high-grade mineralization along the unconformity constitutes the majority of the mineralization within the McArthur River deposit. Mineralization occurs across a zone of strongly altered basement rocks and sandstone across both the unconformity and the P2 structure. Mineralization is generally within 15 metres of the basement/sandstone contact with the exception of Zone 2.

Uranium oxide in the form of uraninite and pitchblende (+/- coffinite) occurs as disseminated grains in aggregates ranging in size from millimetres to decimetres, and as massive mineralization up to several metres thick.

Geochemically, the deposit does not contain any significant quantities of the elements nickel, copper, cobalt, lead, zinc, molybdenum, and arsenic that are present in other unconformity related Athabasca uranium deposits although locally elevated quantities of these elements have been observed in Zone B.

Deposit type

McArthur River is an unconformity-associated uranium deposit. Deposits of this type are believed to have formed through an oxidation-reduction reaction at a contact where oxygenated fluids meet with reducing fluids. The geological model was confirmed by surface drilling, underground drilling, development and production activities.

About the McArthur River operation

McArthur River is a fully developed property with sufficient surface rights to meet current mining operation needs. Beginning in February 2018, we had a planned production suspension. In response to market conditions, in July 2018 we decided to extend the suspension for an indeterminate duration. In February 2022, we announced plans to transition from care and maintenance to planned production of 15 million pounds per year (100% basis) by 2024.

We began construction and development of the McArthur River mine in 1997 and completed it on schedule. Mining began in December 1999 and commercial production on November 1, 2000. We have successfully extracted over 325 million pounds (100% basis) since we began mining in 1999.

The mineral reserves at McArthur River are contained within seven zones: Zones 1, 2, 3, 4, 4 South, A and B. Prior to care and maintenance, there were two active mining zones and one where development was significantly advanced.

Zone 2 has been actively mined since production began in 1999. The ore zone was initially divided into three freeze panels. As the freeze wall was expanded, the inner connecting freeze walls were decommissioned in order to recover the inaccessible uranium around the active freeze pipes. Mining of Zone 2 is almost complete. About 4.8 million pounds of mineral reserves remain (100% basis) and we expect to recover them using a combination of raisebore and blasthole stope mining.

Zone 4 has been actively mined since 2010. The zone was divided into four freeze panels, and like in Zone 2, as the freeze wall was expanded, the inner connecting freeze walls were decommissioned. Zone 4 has 117.5 million pounds of mineral reserves (100% basis) secured behind freeze walls and it will be the main source of production when mine production restarts. Raisebore mining and blasthole stoping will be used to recover the mineral reserves.

Zone 1 is the next planned mine area to be brought into production. Freezehole drilling was 90% complete and brine distribution construction was approximately 10% complete when work ceased in 2018 as part of the production suspension. Work remaining before production can begin includes completion of the freezehole drilling, brine distribution construction, ground freezing, and drill and extraction chamber development. Once complete, an additional 47.5 million pounds of mineral reserves (100% basis) will be secured behind freeze walls. Blasthole stope mining is currently planned as the main extraction method.

Permits

We need three key permits to operate the McArthur River mine:

- Uranium Mine Operating Licence – renewed in 2013 and expires on October 31, 2023 (from the Canadian Nuclear Safety Commission (CNSC));
- Approval to Operate Pollutant Control Facilities – renewed in 2017 and expires on June 30, 2023 (from the Saskatchewan Ministry of Environment (SMOE)); and
- Water Rights Licence and Approval to Operate Works – amended in 2011 and valid for an undefined term (from the Saskatchewan Watershed Authority).

The CNSC licence conditions handbook allows McArthur River to produce up to 25.0 million pounds (100% basis) per year.

Infrastructure

Surface facilities are 550 metres above sea level. The site includes:

- an underground mine with three shafts: one full surface shaft and two ventilation shafts
- 1.6 kilometre gravel airstrip and air terminal
- waste rock stockpiles
- water containment ponds and treatment plant
- a freshwater pump house
- a powerhouse
- electrical substations
- backup electrical generators
- a warehouse
- freeze plants
- a concrete batch plant
- an administration and maintenance shop building
- a permanent residence and recreation facilities
- an ore slurry load out facility

Water, power and heat

Toby Lake, which is nearby and easy to access, has enough water to satisfy all surface water requirements. Collection of groundwater that naturally enters our shafts is sufficient to meet all underground process water requirements and supplements the surface industrial water supply. The site is connected to the provincial power grid, and it has backup generators in case there is an interruption in grid power.

McArthur River operates throughout the year despite cold winter conditions. During the winter, we heat the fresh air necessary to ventilate the underground workings using propane-fired burners.

Employees

Employees are recruited with preference given to residents of northern Saskatchewan.

We reached a new collective agreement with unionized employees at our McArthur River/Key Lake operations in July 2019. The agreement expires on December 31, 2022.

Mining methods and techniques

The McArthur River deposit presents unique challenges that are not typical of traditional hard or soft rock mines. These challenges are the result of mining in or near high pressure ground water in challenging ground conditions with significant radiation concerns due to the high-grade uranium ore. As such, mine designs and mining methods are selected based on their ability to mitigate hydrological, radiological and geotechnical risks.

There are three approved mining methods at McArthur River: raisebore mining, blasthole stope mining and boxhole mining. However, only raisebore and blasthole stope mining remain in use. These methods all use ground freezing to mine the McArthur River deposit.

Ground freezing

All the mineralized areas discovered to date at McArthur River are in, or partially in, water-bearing ground with significant pressure at mining depths. This high pressure water source is isolated from active development and production areas in order to reduce the inherent risk of an inflow. To date, McArthur River has relied on pressure grouting and ground freezing to successfully mitigate the risks of the high pressure ground water.

Chilled brine is circulated through freeze holes to form an impermeable freeze barrier around the area being mined. This prevents water from entering the mine, and helps stabilize weak rock formations. Ground freezing significantly reduces, but does not fully eliminate, the risk of water inflows.

Blasthole stoping

Blasthole stoping began in 2011 and was the main extraction method prior to our production suspension. It is planned in areas where blastholes can be accurately drilled and small stable stopes excavated without jeopardizing the freeze wall integrity. The use of this method has allowed the site to improve operating costs by increasing overall extraction efficiency by reducing underground development, concrete consumption, mineralized waste generation and improving extraction cycle time.

Raisebore mining

Raisebore mining is an innovative non-entry approach that we adapted to meet the unique challenges at McArthur River, and it has been used since mining began in 1999. This method is favourable for mining the weaker rock mass areas of the deposit, and is suitable for massive high-grade zones where there is access both above and below the ore zone.

Initial processing

McArthur River produces two product streams, high-grade slurry and low-grade mineralized rock. Both product streams are shipped to the Key Lake mill to produce uranium ore concentrate.

The high-grade material is ground and thickened into a slurry paste underground and then pumped to surface. The material is then thickened and blended for grade control and shipped to Key Lake in slurry totes using haul trucks.

The low-grade mineralized material is hoisted to surface and shipped as a dry product to Key Lake using covered haul trucks. Once at Key Lake, the material is ground, thickened and blended with the high-grade slurry to a nominal 5% U_3O_8 mill feed grade. It is then processed into uranium ore concentrate and packaged in drums for further processing offsite.

New mining areas

We must bring on new mining zones to sustain production. Prior to the production shutdown, two new areas were under active development. Zone 1 was in the freeze drilling stage (90% complete) and Zone 4 South was in the initial freeze drift development stage.

In 2018, all development and construction activities for the new mining zones were halted as part of the production suspension.

Tailings

McArthur River does not have a tailings management facility (TMF) as it ships all mineralized material to Key Lake for final milling and processing.

Waste rock

The waste rock piles are confined to a small footprint on the surface lease and managed in contained facilities. These are separated into three categories:

- clean waste (includes mine development waste, crushed waste, and various piles for concrete aggregate and backfill)
- low-grade mineralization temporarily stored on lined pads until trucked to Key Lake
- waste with acid-generating potential – temporarily stored on lined pads – for concrete aggregate

Water inflow incidents

There have been two notable water inflow incidents at the McArthur River mine. These two inflows have strongly influenced our mine design, inflow risk mitigation and inflow preparedness:

Bay 12 Inflow: Production was temporarily suspended on April 6, 2003, as increased water inflow due to a rock fall in a new development area (Bay 12 located just above the 530-metre level) began to flood the lower portions of the mine, including the underground grinding circuit area. Additional dewatering capacity was installed, and the flooded areas were dewatered and repaired. We resumed mining in July 2003 and sealed off the excess water inflow in July 2004.

590-7820N Inflow: In November 2008, there was a small water inflow in the lower Zone 4 development area on the 590-metre level. It did not impact production but did delay local development for approximately one year. In January 2010, the inflow was sealed off and local development was resumed.

Pumping capacity and treatment limits

Our standard for this mine is to secure pumping capacity of at least one and a half times the estimated maximum sustained inflow. We review our dewatering system and requirements at least once a year and before we begin work on any new zone. As our mine plan is advanced, our dewatering system will be expanded to handle water from the new mine areas. We believe we have sufficient pumping, water treatment and surface storage capacity to handle the estimated maximum sustained inflow.

Production

McArthur River Mine

In 2018, 0.5 million pounds of U_3O_8 was mined in early January in order to complete mining that was in progress at the end of December 2017; our share was 0.35 million pounds. No mining took place from 2019 to 2021. In 2022, based on our plan to transition to operational readiness, we could produce up to 5 million pounds; our share up to 3.5 million pounds.

The mine plan is designed to extract all of the current McArthur River mineral reserves. The following is a general summary of the mine plan production schedule parameters on a 100% basis for these mineral reserves:

Total mine production	• 2,266,000 tonnes of ore • 388 million pounds of U_3O_8, based on current unmined mineral reserves • Average grade of 7.77% • 150 to 350 tonnes per day, varying with ore grade

Note: Broken ore inventory (previously mined material) is not included in the mine production plan total. Current broken inventory consists of 4.2 million pounds of high-grade ore stored underground at McArthur River and 1.4 million pounds of low-grade mineralization stored on the surface stockpile pads at McArthur River and Key Lake.

Key Lake Mill

In 2018, 0.2 million pounds of U_3O_8 was produced as part of the Key Lake final clean out prior to shutdown; our share was 0.1 million pounds. No milling took place from 2019 to 2021. In 2022, based on our plan to transition to operational readiness, we could produce up to 5 million pounds; our share up to 3.5 million pounds.

The mill plan is designed to process all the current McArthur River mineral reserves plus Key Lake low-grade mineralization remaining from the Deilmann and Gaertner pits. In addition, a small amount of recycled product from Blind River and Port Hope facilities is planned to be processed. The following is a general summary of the mill plan production schedule parameters on a 100% basis for these mineral reserves, mineralized material, and product:

Total mill production	• 3,466,000 tonnes of mill feed including blend and recycle material • Average feed grade of 5.20% • 394 million pounds of U_3O_8 packaged based on an average recovery of 99.0%

Production Suspension

In 2018, we had a temporary planned production suspension and in July 2018 we extended the suspension for an indeterminate duration. There was nominal production in 2018 and no production from 2019 to 2021. A reduced workforce remained at the McArthur River and Key Lake sites to keep the facilities in a state of safe care and maintenance. Care and maintenance activities included mine dewatering, water treatment, freeze wall maintenance, and environmental monitoring, as well as preservation maintenance and monitoring of critical facilities. These activities were performed to ensure that the McArthur River and Key Lake operations are available to return to production in a timely manner

Production Resumption Plan

Over the course of 2022 and 2023, we will undertake all the activities necessary to ramp up to the planned annual production of 15 million pounds (100% basis) by 2024. As a result, in 2022, we could produce up to 5 million pounds (100% basis). This plan will significantly improve our financial performance by allowing us to source more of our committed sales from lower-cost produced pounds and we will no longer be required to expense care and maintenance costs directly to cost of sales. However, until we achieve a reasonable production rate, we expect to incur between $15 million to $17 million per month in operational readiness costs, which will be expensed directly to cost of sales. There is a potential for the COVID-19 pandemic and related supply chain challenges to impact the availability of materials, reagents, and labour, which could not only impact 2022 production but could also introduce risk to production in 2023.

The main steps in preparing the mine and mill for operational readiness and a resumption of production are:

Detail planning: Detailed planning including identification of critical project and maintenance work required to be completed.

Critical project execution: Completion of all critical project work.

Maintenance readiness check: Completion of equipment and facility readiness checks.

Recruitment: Workers will be mobilized in stages (planning team, maintenance preparation team, and operational team).

Training: Completion of operational training requirements.

Once critical projects, maintenance readiness checks, and sufficient recruitment and training have been completed, we anticipate the mine and mill will be operationally ready to resume production. Initial feed for the Key Lake mill will come from the high-grade broken inventory (4.2 million pounds at a grade of 17% U_3O_8) stored underground at McArthur River.

The operational changes we have made, including the suspension of production in 2018 and the accompanying workforce reduction, carry with them the risks of a delay in achieving operational readiness and resuming production. With the extended period of time the assets were on care and maintenance, there is increased uncertainty regarding the timing of a successful ramp up to planned production and the associated costs.

Licensed annual production capacity

The McArthur River mine and Key Lake mill are both licensed to produce up to 25 million pounds (100% basis) per year. To achieve annual production at the licensed capacity, additional investment will be required.

Optimizing production

The technical report dated March 2019 is based on production of 18 million pounds (100% basis) per year, however, we plan to align production with our contract portfolio and market signals once operations resume. Our current plan is to achieve production of 15 million pounds (100% basis) per year by 2024, 40% below its licenced capacity. We expect that this paced approach will allow us to extract maximum value from the operation. McArthur River currently has sufficient mineral reserves to permit mining to 2048 at a 15 million-pound annual mining rate.

Innovation

In 2020, we began a program to advance the assessment of innovation opportunities at the McArthur River mine and Key Lake mill. We established a team of internal experts who have been tasked with assessing, designing, and implementing opportunities to improve operating efficiency. During the year, the team advanced a portfolio of projects focused on improvement of the mine and mill through application of automation, digitization, and optimization. In 2021, the projects that met our investment criteria were advanced to implementation.

Key Lake mill

Location and access

The Key Lake mill is located in northern Saskatchewan, 570 kilometres north of Saskatoon. The site is 9 kilometres long and 5 kilometres wide and is connected to McArthur River by an 80 kilometre all-weather road. There is a 1.6 kilometre unpaved air strip and an air terminal on the east edge of the site.

Permits

We need two key permits to operate the Key Lake mill:

- *Uranium Mill Operating Licence* – renewed in 2013 and expires on October 31, 2023 (from the CNSC); and
- *Approval to Operate Pollutant Control Facilities* – renewed in 2021 and expires on November 30, 2029 (from the SMOE).

The CNSC licence conditions handbook allows the Key Lake mill to produce up to 25.0 million pounds (100% basis) per year.

Supply

All McArthur River ore, including our share, is milled at Key Lake. We do not have a formal toll milling agreement with the Key Lake joint venture.

In June 1999, the Key Lake joint venture (Cameco and UEM) entered into a toll milling agreement with Orano to process their total share of McArthur River ore. The terms of the agreement (as amended in January 2001) include the following:

- processing is at cost, plus a toll milling fee; and
- the Key Lake joint venture owners are responsible for decommissioning the Key Lake mill and for certain capital costs, including the costs of any tailings management associated with milling Orano's share of McArthur River ore

With the UEM distribution in 2009 (see History on page 24 for more information), we made the following changes to the agreement:

- the fees and expenses related to Orano's pro-rata share of ore produced just before the UEM distribution (16.234% – the first ore stream) have not changed. Orano is not responsible for any capital or decommissioning costs related to the first ore stream.
- the fees and expenses related to Orano's pro-rata share of ore produced as a result of the UEM distribution (an additional 13.961% – the second ore stream) have not changed. Orano's responsibility for capital and decommissioning costs related to the second ore stream are, however, as a Key Lake joint venture owner under the original agreement.

The agreement was amended again in 2011 and now requires:

- milling of the first ore stream at the Key Lake mill until May 31, 2028; and
- milling of the second ore stream at the Key Lake mill for the entire life of the McArthur River project

Processing

McArthur River low-grade mineralization, including legacy low-grade mineralized waste rock stored at Key Lake, is slurried, ground and thickened at Key Lake and then blended with McArthur River high-grade slurry to a nominal 5% U_3O_8 mill feed grade. All remaining uranium processing (leaching through to calcined uranium ore concentrate packaging) and tailings disposal also occur at Key Lake.

The Key Lake mill comprises the following eight plants:

- ore slurry receiving plant
- grinding/blending plant
- reverse osmosis plant
- leaching/counter current decantation plant
- solvent extraction plant
- yellowcake precipitation/dewatering/calcining/packing/ammonium sulphate plant
- bulk neutralization/lime handling/tailings pumping
- powerhouse/utilities/acid plant/oxygen plant complex

Recovery and metallurgical testing

The McArthur River original flowsheet was largely based on the use of conventional mineral processing concepts and equipment. Where necessary, testwork was undertaken to prove design concepts or adapt conventional equipment for unique services. Simulated ore was utilized in much of the testwork because the off-site testing facilities were not licensed to receive radioactive materials. Testwork at the Key Lake metallurgical laboratory also confirmed the suitability of the Key Lake mill circuit for processing McArthur River ore with some Key Lake circuit modifications.

To date, numerous changes have been made to both the McArthur River and Key Lake processing and water treatment circuits to improve their operational reliability and efficiency. From a uranium recovery perspective, the most important was to change the McArthur River grinding circuit classification system from screens to cyclones. This was completed in late 2009 and provided a measurable recovery increase as well as reduced particle segregation issues. From 2012 to 2017 Key Lake achieved an annual mill recovery of 99% and this is assumed to continue.

Testing at Key Lake has shown that use of a silica coagulant was able to alleviate the issues caused by the cement dilution in the ore from McArthur River. This has eliminated the need to operate the gravity concentrator circuit as well as increased the solvent extraction circuit capacity.

Waste rock

There are five rock stockpiles at the Key Lake site:

- three contain non-mineralized waste rock. These will be decommissioned when the site is closed.
- two contain low-grade mineralized material. These are used to lower the grade of McArthur River ore before it enters the milling circuit.

Treatment of effluent

We modified Key Lake's effluent treatment process to satisfy our licence and permit requirements.

Tailings capacity

There are two TMFs at the Key Lake site:

- an above-ground impoundment facility, where tailings are stored within compacted till embankments. We have not deposited tailings here since 1996, and are looking at several options for decommissioning this facility in the future; and
- the Deilmann pit, which was mined out in the 1990s. Tailings from processing McArthur River ore are deposited in the Deilmann TMF.

Beginning in July 2001, periodic sloughing of the pit walls in the western portion of the Deilmann TMF was experienced. We implemented a long-term stabilization plan, with the final phase completed in 2019. We are completing a study to determine if additional work is warranted.

Based upon the current licence conditions, we expect to have sufficient tailings capacity to mill all the known McArthur River mineral reserves and resources, should they be converted to reserves, with additional capacity to toll mill ore from other regional deposits.

Decommissioning and financial assurances

In 2003, we prepared a preliminary decommissioning plan for both McArthur River and Key Lake, which were approved by the CNSC and the SMOE. In 2008, when we renewed our CNSC licence, we revised the accompanying preliminary decommissioning cost estimates. In 2013, when we again renewed our CNSC licence, we revised the accompanying preliminary decommissioning cost estimates. Our Key Lake preliminary decommissioning cost estimate was further revised and we received final approval from the CNSC in 2015. Most recently, we submitted an update for the McArthur River preliminary decommissioning cost estimate ($42 million) and for the Key Lake preliminary decommissioning cost estimate ($223 million), received the required regulatory approvals, and letters of credit have been posted with the Saskatchewan government as financial assurances. These documents include our estimated cost for implementing the decommissioning plan and addressing known environmental liabilities.

Operating and capital costs

The following is a summary of the operating and capital cost estimates for the life of mine, stated in constant 2021 dollars and reflecting a forecast life-of-mine mill production of 394 million pounds U_3O_8 packaged. The summary reflects the announcement made on February 9, 2022, to transition McArthur River and Key Lake from care and maintenance to planned production of 15 million pounds per year (100% basis) by 2024, with life of the operations extended through 2048.

Operating Costs ($Cdn million)	Total (2022 – 2048)
McArthur River Mining	
Site administration	$ 936.3
Mining costs	1,993.2
Process	217.7
Corporate overhead	210.0
Total mining costs	$ 3,357.2
Key Lake Milling	
Administration	$ 1,049.4
Milling costs	1,735.3
Corporate overhead	194.3
Total milling costs	$ 2,979.0
Total operating costs	**$ 6,336.2**
Total operating cost per pound U_3O_8	**$ 16.08**

Note:

1. Presented as total cost to the McArthur River Joint Venture.

Estimated operating costs to the MRJV consist of annual expenditures at McArthur River to mine the mineral reserves, process it underground, including grinding, density control and pumping the resulting slurry to surface for transportation to Key Lake.

Operating costs at Key Lake consist of costs for receipt of the slurry, up to and including precipitation of the uranium into yellowcake, including cost of disposal of tailings to the Deilmann TMF.

There will be increased operating costs while we ramp up to the planned production of 15 million pounds per year (100% basis) by 2024. These include recruitment costs to achieve required operating staff levels, required equipment and process circuits, repair costs, and mine working and processing plants commissioning costs.

Capital Costs ($Cdn million)	Total (2022 – 2048)
McArthur River Mine Development	$ 500.8
McArthur River Mine Capital	
Freeze infrastructure	$ 132.4
Water management and electrical infrastructure	16.0
Other mine capital	180.5
Total mine capital	$ 328.9
Key Lake Mill Sustaining	
Total mill capital	$ 214.5
Total capital costs	**$ 1,044.2**

Notes:

1. Presented as total cost to the McArthur River Joint Venture.
2. Mine development includes delineation drilling, mine development, probe and grout drilling, freeze drilling, and minor support infrastructure.

Estimated capital costs to the MRJV include sustaining costs for both McArthur River and Key Lake, as well as underground development at McArthur River to bring mineral reserves into production. Overall, the largest segment of capital at McArthur River is mine development. Other significant capital includes freeze infrastructure costs.

With the announcement made on February 9, 2022, to restart operations at a reduced annual packaged production rate of 15 million pounds (10.5 million pounds at Cameco's share) by 2024, the life of the operations has been extended through 2048. With the extended mine life and lower annual throughput, the unit operating costs are expected to increase by approximately 9% as compared to the 2020 AIF and 7% as compared to the 2018 technical report. These increases are not expected to have a material effect on the pre-tax IRR of the operations.

The economic analysis, effective as of December 31, 2018, being the effective date of the technical report for McArthur River and Key Lake operations, resulted in an estimated pre-tax net present value (NPV) (at a discount rate of 8%) to Cameco for net cash flows from January 1, 2019 forward of $2.97 billion for its share of the current McArthur River mineral reserves. Using the total capital invested to December 31, 2018, along with the operating and capital estimates for the remainder of the mineral reserves, the pre-tax internal rate of return (IRR) was estimated to be 11.6%.

The analysis was from the point of view of Cameco, which owns 69.805% of the MRJV, and incorporated a projection of Cameco's sales revenue from its proportionate share of the related production, less its share of related operating and capital costs of the MRJV, as well as royalties and surcharges that will be payable on the sale of concentrates.

For the purpose of the economic analysis, the projected impact of income taxes was excluded due to the nature of the required calculations. McArthur River operates as an unincorporated joint venture and is, therefore, not subject to direct income taxation at the joint venture level. It is not practical to allocate a resulting income tax cost to Cameco's portion of the McArthur River operation, as Cameco's tax expense is a function of several variables, most of which are independent of its investment in McArthur River.

Economic Analysis ($ Cdn M)	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Production volume (000's lbs U3O8)	—	2,788	12,508	12,550	12,653	12,591	12,621	12,611	12,550	12,556	12,587	12,553	12,569
Sales revenue	$ —	$ 131.7	$ 572.2	$ 577.5	$ 602.8	$ 618.7	$ 635.0	$ 651.6	$ 662.9	$ 683.3	$ 698.0	$ 709.1	$ 719.4
Operating costs	68.2	137.5	171.1	169.5	169.0	168.9	170.1	172.9	177.5	177.9	179.3	179.9	180.0
Capital costs	3.7	31.1	36.7	31.9	31.0	42.9	36.8	34.7	35.0	42.6	43.6	74.4	32.0
Basic royalty	—	5.6	24.3	24.5	25.6	26.3	27.0	27.7	28.2	29.0	29.7	30.1	30.6
Resource surcharge	—	3.9	17.2	17.3	18.1	18.6	19.0	19.5	19.9	20.5	20.9	21.3	21.6
Profit royalty	—	—	42.6	49.7	53.5	54.1	57.3	59.6	60.4	62.3	64.1	61.1	69.1
Net pre-tax cash flow	$(71.9)	$ (46.5)	$ 280.2	$ 284.6	$ 305.5	$ 307.9	$ 324.8	$ 337.2	$ 341.8	$ 351.0	$ 360.4	$ 342.3	$ 386.2

Economic Analysis ($ Cdn M)	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Total
Production volume (000's lbs U3O8)	12,567	12,630	12,618	12,602	12,591	12,603	12,611	12,649	12,779	11,705	6,060	272,553
Sales revenue	$ 748.7	$ 757.8	$ 772.9	$ 787.6	$ 780.6	$ 787.7	$ 794.5	$ 796.9	$ 805.1	$ 737.4	$ 381.8	$ 15,413.2
Operating costs	182.1	184.7	185.3	184.5	184.0	182.1	181.8	178.8	175.4	171.0	148.6	4,080.3
Capital costs	33.3	23.6	21.7	21.4	21.6	21.9	17.7	11.9	6.4	1.4	—	657.5
Basic royalty	31.8	32.2	32.8	33.5	33.2	33.5	33.8	33.9	34.2	31.3	16.2	655.1
Resource surcharge	22.5	22.7	23.2	23.6	23.4	23.6	23.8	23.9	24.2	22.1	11.5	462.4
Profit royalty	73.1	75.7	78.1	80.5	79.5	80.8	82.5	84.2	86.6	78.5	31.7	1,465.0
Net pre-tax cash flow	$ 405.9	$ 418.9	$ 431.7	$ 444.1	$ 438.9	$ 445.7	$ 454.9	$ 464.3	$ 478.2	$ 433.0	$ 173.8	$ 8,092.9
Pre-tax NPV (8%) to January 1, 2019	$ 2,973.3											
Pre-tax IRR (%)	11.6%											

Notes:

1. For the purposes of performing the economic analysis, Year 0 is assumed to be 2019, and Year 1 is assumed to be 2020.
2. The economic analysis assumes the McArthur River mine and Key Lake mill are both in a state of care and maintenance during Year 0 with a restart occurring in Year 1.
3. In February 2022, Cameco announced its plan to transition McArthur River and Key Lake from care and maintenance to planned production of 15 million pounds (100% basis) by 2024. The economic analysis has not been updated for this announcement.
4. Production volume does not include recycled product received from the Blind River Refinery and the Port Hope Conversion Facility.
5. Operational and capital spending in Year 0 is representative of annual spending while the McArthur River mine and Key Lake mill are both in a state of care and maintenance.

Our expectations and plans regarding McArthur River/Key Lake, including forecasts of operating and capital costs, net cash flow, production and mine life are forward-looking information and are based specifically on the risks and assumptions discussed on pages 2, 3 and 4. We may change our operating or capital spending plans in 2022, depending upon the impact of COVID-19, uranium markets, our financial position, results of operation, or other factors. Estimates of expected future production, and capital and operating costs are inherently uncertain, particularly beyond one year, and may change materially over time.

Exploration, drilling, sampling, data quality and estimates

There are no historical mineral resource estimates within the meaning of NI 43-101 to report. The original McArthur River mineral resource estimates were derived from surface diamond drilling from 1980 to 1992. In 1988 and 1989, this drilling first revealed significant uranium mineralization. By 1992, we had delineated the mineralization over a strike length of 1,700 metres at depths of between 500 to 640 metres. The very high grade found in the drillholes justified the development of an underground exploration project in 1993.

Exploration

Drilling has been carried out extensively from both surface and underground to locate and delineate mineralization. Surface exploration drilling is initially used in areas where underground access is not available and is used to guide the underground exploration programs.

There was no exploration drilling in 2021 during the mine production suspension.

Drilling

Surface drilling

We have carried out surface drilling since 2004, to test the extension of mineralization identified from the historical surface drillholes, to test new targets along the strike, and to evaluate the P2 trend northeast and southwest of the mine. Surface drilling since 2004 has extended the potential strike length to more than 2,700 metres.

We have completed preliminary drill tests of the P2 trend at 300 metre intervals or less over 11.5 kilometres (5.0 kilometres northeast and 6.4 kilometres southwest of the McArthur River deposit) of the total 13.75 kilometres strike length of the P2 trend. Surface exploration drilling in 2015 focused on additional evaluation in the southern part of the P2 trend south of the P2 main mineralization. Starting in 2016, exploration efforts shifted away from the P2 trend to the north part of the property.

Underground drilling

In 1993, regulators approved an underground exploration program, consisting of shaft sinking, lateral development and drilling. We completed the shaft in 1994.

We have drilled more than 1,260 underground drillholes since 1993 to get detailed information along 1,800 metres of strike length. The drilling was primarily completed from the 530 and 640 metre levels.

Other data

In addition to the exploration drilling, geological data has been collected from the underground probe and grout, service, drain, freeze, and geotechnical drill programs.

Recent activity

In 2017, we continued with underground delineation drilling of Zone B and Zone 4 in order to provide the information required for more detailed mining plans. In 2018, all underground delineation drilling was halted as part of the production suspension. Drilling results are reflected in our reported mineral resources and reserves.

Sampling, analysis and data verification

Surface samples

Surface holes were generally drilled on sections spaced between 50 and 200 metres with 12 to 25 metres between holes on a section when necessary. Drilled depths average 670 metres.

The orientation of mineralization is variable but, in general, vertical holes generally intersect mineralization at angles of 25 to 45 degrees, resulting in true widths being 40 to 70% of the intersected width. Angled holes usually intercept mineralization closer to perpendicular, giving intercepts that are closer to true width.

Any stratigraphy exhibiting noteworthy alteration, structures or radiometric anomalies is split and sampled.

Given that the vast majority of the deposit has been delineated from underground, few surface holes are used for mineral resource and reserve estimation purposes.

Underground samples

Underground drilling is generally planned to provide close to true thicknesses results. All underground exploration holes are core drilled and gamma probed whenever possible. McArthur River uses a high-flux gamma probe designed and constructed by alphaNUCLEAR, a member of the Cameco group of companies. This high-flux gamma probe utilizes two Geiger Muller tubes to detect the amount of gamma radiation emanating from the surroundings. The count rate obtained from the high-flux probe is compared against chemical assay results to establish a correlation to convert corrected probe count rates into equivalent % U_3O_8 grades for use when assay results are unavailable. The consistency between probe data and chemical assays demonstrates that secular equilibrium exists within the deposit. A small portion of the data used to estimate mineral resources is obtained from assays, and in these cases, the core depth is validated by comparing the down-hole gamma survey results with a hand-held scintillometer on core before it is logged, photographed, and then sampled for uranium analysis. Attempts are made to avoid having samples cross geological boundaries.

When sampled, the entire core from each sample interval is taken for assay or other measurements are used to characterize the physical and geochemical properties of the deposit. This reduces the sample bias inherent when splitting core. Core

recovery throughout the deposit has generally been very good. However, in areas of poor core recovery uranium grade determination is generally based on radiometric probe results.

The typical sample collection process at our operations includes the following procedures:

- marking the sample intervals on the core boxes, at the nominal 50 cm sample length, by a geoscientist
- collection of the samples in plastic bags, taking the entire core
- documentation of the sample location, including assigning a sample number, and description of the sample, including radiometric values from a hand-held device
- bagging and sealing, with sample tags inside bags and sample numbers on the bags; and
- placement of samples in steel drums for shipping

Sample security

Current sampling protocols dictate that all samples are collected and prepared under the supervision of a qualified geoscientist in a restricted core processing facility. The core samples are collected and transferred from the core boxes to high-strength plastic sample bags, then sealed. The sealed bags are then placed in steel drums and shipped in compliance with the Transport of Dangerous Goods regulations with tamper-proof security seals. Chain of custody documentation is present from inserting samples into steel drums to the final delivery of results by the Saskatchewan Research Council Geoanalytical Laboratories (SRC).

All samples collected are prepared and analysed under the close supervision of qualified personnel at SRC, which is a restricted access laboratory licensed by the CNSC.

Analysis

Drill core assay sample preparation is performed at SRC's main laboratory, which is independent of the participants of the MRJV. It involves jaw crushing to 60% @ 2 mm and splitting out a 100 – 200 g sub-sample using a riffle splitter. The sub-sample is pulverized to 90% @ -106 microns using a puck and ring grinding mill. The pulp is then transferred to a labelled plastic snap top vial. Assaying by SRC involved digesting an aliquot of pulp in a 100 ml volumetric flask in concentrated 3:1 HCI:HNO_3, on a hot plate for approximately one hour. The lost volume is then made up using deionized water prior to analysis by ICP-OES. Instruments used in the analysis are calibrated using certified commercial solutions. This method is ISO/IEC 17025:2017 accredited by the Standards Council of Canada.

Quality control and data verification

The quality assurance and quality control procedures used during early drilling programs were typical for the time. Many of the original signed assay certificates from surface drilling are available and have been reviewed by Cameco geologists.

More recent sample preparation and assaying was completed under the supervision of qualified personnel at SRC and includes preparing and analysing standards, duplicates and blanks. A standard is prepared and analysed for each batch of samples and one out of every 40 samples is analysed in duplicate.

In 2013, McArthur River implemented an SQL server based centralized geological data management system to manage all drillhole and sample related data. All core logging, sample collection, downhole probing and sample dispatching activities are carried out and managed within this system. All assay, geochemical and physical analytical results obtained from the external laboratory are uploaded directly into the centralized database, thereby mitigating the potential for manual data transfer errors. The database used for the current mineral resource and mineral reserve estimates was validated by Cameco qualified geoscientists.

Additional data quality control measures include:

- review of drillhole collar coordinates and downhole deviations in the database against planned location of the holes
- comparison of the information in the database against the original data, including paper logs, assay certificates and original probing data files as required
- validation of core logging information in plan and section views, and review of logs against photographs of the core
- checking for data errors such as overlapping intervals and out of range values
- radiometric probes undergo annual servicing and re-calibration as well as additional checks including control probing to ensure precision and accuracy of the probes; and
- validating uranium grades comparing radiometric probing, core radioactivity measurements and sample assay results

No new measurement data has been collected since the decision was made to suspend production at the mine and mill. No quality control and data verification related issues of note were identified during the minor mineral resource estimation work performed in 2020. There were no mineral resource estimate updates in 2021.

Since the start of commercial production, we have regularly compared information collected from production activities, such as freezeholes, raisebore pilot holes, radiometric scanning of scoop tram buckets and mill feed sampling, to the drillhole data. We also compared the uranium block model with mine production results monthly to ensure an acceptable level of accuracy was maintained.

Our geoscientists, including a qualified person as such term is defined in NI 43-101, have witnessed or reviewed drilling, core handling, radiometric probing, logging and sampling facilities used at the McArthur River operation and consider the methodologies to be satisfactory and the results representative and reliable.

Accuracy

We are satisfied with the quality of data and consider it valid for use in the estimation of mineral resources and reserves for McArthur River. Comparison of actual mine production with past expected production supports this opinion.

Mineral reserve and resource estimates

Please see page 75 for our mineral reserve and resource estimates for McArthur River.

Uranium – Tier-one operations

Cigar Lake



2021 Production (our share)
6.1M lbs

2022 Production Outlook (our share)
7.5M lbs

Estimated Reserves (our share)
76.2M lbs

Estimated Mine Life
2032

Cigar Lake is the world's highest grade uranium mine, with grades that are 100 times the world average. We are a 50% owner and the mine operator. Cigar Lake uranium is milled at Orano's (previously AREVA) McClean Lake mill.

Cigar Lake is considered a material uranium property for us. There is a technical report dated March 29, 2016 (effective December 31, 2015) that can be downloaded from SEDAR (sedar.com) or from EDGAR (sec.gov).

Location	Saskatchewan, Canada
Ownership	50.025%
Mine type	Underground
Mining method	Jet boring system
End product	Uranium concentrate
Certification	ISO 14001 certified
Estimated reserves	76.2 million pounds (proven and probable), average grade U_3O_8: 15.41%
Estimated resources	51.9 million pounds (measured and indicated), average grade U_3O_8: 13.83% 11.5 million pounds (inferred), average grade U_3O_8: 5.58%
Licensed capacity	18.0 million pounds per year (our share 9.0 million pounds per year)
Licence term	Through June, 2031
Total packaged production: 2014 to 2021	105 million pounds (100% basis)
2021 production	6.1 million pounds (12.2 million pounds on 100% basis)
2022 production outlook	7.5 million pounds (15.0 million pounds on 100% basis)
Estimated decommissioning cost	$62 million (100% basis)

All values shown, including reserves and resources, represent our share only, unless otherwise indicated.

Business structure

Cigar Lake is owned by a joint venture of four companies (CLJV):

- Cameco – 50.025% (operator)
- Orano – 37.100%
- Idemitsu Canada Resources Ltd. – 7.875%
- TEPCO Resources Inc. – 5.000%

History

1976	• Canadian Kelvin Resources and Asamera Oil Corporation form an exploration joint venture, which includes the lands that the Cigar Lake mine was built on
1977	• SMDC, one of our predecessor companies, acquires a 50% interest
1980	• Waterbury Lake joint venture formed, includes lands now called Cigar Lake
1981	• Deposit discovered by surface drilling – it was delineated by a surface drilling program between 1982 and 1986
1985	• Reorganization of the Waterbury Lake joint venture – Cigar Lake Mining Corporation becomes the operator of the Cigar Lake lands and a predecessor to Orano becomes the operator of the remaining Waterbury Lake lands
	• SMDC has a 50.75% interest
1987-1992	• Test mining, including sinking shaft 1 to 500 metres and lateral development on 420 metre, 465 metre and 480 metre levels
1988	• Eldorado Resources Limited merges with SMDC to form Cameco
1993-1997	• Canadian and Saskatchewan governments authorize the project to proceed to regulatory licensing stage, based on recommendation of the joint federal-provincial panel after public hearings on the project's environmental impact
2000	• JBS tested in waste and frozen ore
2001	• Joint venture approves a feasibility study and detailed engineering begins in June
2002	• Joint venture is reorganized, new joint venture agreement is signed, Rabbit Lake and JEB toll milling agreements are signed, and we replace Cigar Lake Mining Corporation as Cigar Lake mine operator
2004	• Environmental assessment process is complete
	• CNSC issues a construction licence
2005	• Development begins in January
2006	• Two water inflow incidents delay development:
	• in April, shaft 2 floods
	• in October, underground development areas flood
	• In November, we begin work to remediate the underground development areas
2008	• Remediation interrupted by another inflow in August, preventing the mine from being dewatered
2009	• Remediation of shaft 2 completed in May
	• We seal the 2008 inflow in October
2010	• We finish dewatering the underground development areas in February, establish safe access to the 480 metre level, the main working level of the mine, and backfill the 465 metre level
	• We substantially complete clean-up, inspection, assessment and securing of underground development and resume underground development in the south end of the mine
2011	• We begin to freeze the ground around shaft 2 and restart freezing the orebody from underground and from the surface
	• We resume the sinking of shaft 2 and early in 2012 achieve breakthrough to the 480 metre level, establishing a second means of egress for the mine
	• We receive regulatory approval of our mine plan and begin work on our Seru Bay project
	• Agreements are signed by the Cigar Lake and McClean Lake joint venture participants to mill all Cigar Lake ore at the McClean Lake mill and the Rabbit Lake toll milling agreement is terminated
2012	• We achieve breakthrough to the 500 metre level in shaft 2
	• We assemble the first JBS unit underground and move it to a production tunnel where we commence preliminary commissioning
2013	• CNSC issues an eight-year operating licence
	• We begin jet boring in ore
2014	• First Cigar Lake ore shipped to McClean Lake mill
	• McClean Lake mill starts producing uranium concentrate from Cigar Lake ore

2015	• We declared commercial production in May
2016	• We updated the CNSC on our commissioning activities to satisfy a condition in our federal licence.
2020	• In March, production is temporarily suspended as a precautionary measure due to the COVID-19 pandemic
	• In September, production resumes
	• In December, production is temporarily suspended as a precautionary measure due to the COVID-19 pandemic
2021	• In April, we announce plans to restart production
	• In June, CNSC granted a 10-year renewal of Cigar Lake's uranium operating licence
2022	• In February, we announce plans to reduce production at Cigar Lake in 2024 to 13.5 million pounds per year (100% basis), 25% below its annual licensed capacity

Technical report

This description is based on the project's technical report: Cigar Lake Operation, Northern Saskatchewan, Canada, dated March 29, 2016 (effective December 31, 2015) except for some updates that reflect developments since the technical report was published. The report was prepared for us in accordance with NI 43-101, by or under the supervision of Scott Bishop, P. Eng., Alain G. Mainville, P. Geo., and Leslie D. Yesnik, P. Eng. The following description has been prepared under the supervision of Biman Bharadwaj, P. Eng., Scott Bishop, P. Eng., Alain D. Renaud, P. Geo., and Lloyd Rowson, P. Eng. They are all qualified persons within the meaning of NI 43-101 but are not independent of us.

The conclusions, projections and estimates included in this description are subject to the qualifications, assumptions and exclusions set out in the technical report except as such qualifications, assumptions and exclusions may be modified in this AIF. We recommend you read the technical report in its entirety to fully understand the project. You can download a copy from SEDAR (sedar.com) or from EDGAR (sec.gov).

For information about uranium sales see pages 14 to 18, environmental matters see Our ESG principles and practices and *The regulatory environment* starting on pages 81 and 86, and taxes see page 93.

For a description of royalties payable to the province of Saskatchewan on the sale of uranium extracted from orebodies within the province, see page 93.

For a description of risks that might affect access, title or the right or ability to perform work on the property, see *Regulatory risks* starting at page 110, *Environmental risks* starting at page 111 and *Legal and other risks* starting at page 113.

About the Cigar Lake property

We began developing the Cigar Lake underground mine in 2005, but development was delayed due to water inflows. In October 2014, the McClean Lake mill produced the first uranium concentrate from ore mined at the Cigar Lake operation. Commercial production was declared in May 2015.

Location

The Cigar Lake mine site is located near Waterbury Lake, approximately 660 kilometres north of Saskatoon. The mine site is in close proximity to other uranium production operations: McClean Lake mill is 69 kilometres northeast by road and McArthur River mine is 46 kilometres southwest by air from the mine site.

Access

Access to the property is by an all-weather road and by air. Site activities occur year round, including supply deliveries. There is an unpaved airstrip and air terminal east of the mine site.

Saskatoon, a major population centre south of the Cigar Lake deposit, has highway and air links to the rest of North America.

Leases

Surface lease

The CLJV acquired the right to use and occupy the lands necessary to mine the deposit under a surface lease agreement with the province of Saskatchewan. The lease covers approximately 1,042 hectares and expires in May 2044.

We are required to report annually on the status of the environment, land development and progress on northern employment and business development.

Mineral lease

We have the right to mine the deposit under ML 5521, granted to the CLJV by the province of Saskatchewan. The lease covers 308 hectares and expires in December 2031. The CLJV has the right to renew the lease for further 10-year terms.

Mineral claims

A mineral claim gives us the right to explore for minerals and to apply for a mineral lease. There are 38 mineral claims totalling 95,293 hectares, adjoining the mineral lease and surrounding the site. The mineral claims are in good standing until 2037 or later.

Environment, social and community factors

The climate is typical of the continental sub-arctic region of northern Saskatchewan. Summers are short and cool even though daily temperatures can sometimes reach above 30°C. The mean daily temperature for the coldest month is below -20°C, and winter daily temperatures can reach below -40°C.

The deposit is 40 kilometres west of the eastern margin of the Athabasca Basin in northern Saskatchewan. The topography and environment are typical of the taiga forested lands in the Athabasca Basin. This area is covered with 30 to 50 metres of overburden. Vegetation is dominated by black spruce and jack pine. There is a lake known as “Cigar Lake” which, in part, overlays the deposit.

We are committed to building long-lasting and trusting relationships with the communities in which we operate. For more information, see *Our ESG principles and practices* at page 81.

The closest inhabited site is Points North Landing, 56 kilometres northeast by road. The community of Wollaston Lake is approximately 80 kilometres by air to the east of the mine site.

Athabasca Basin community resident employees and contractors fly to the mine site from designed pick-up points. Other employees and contractors fly to site from Saskatoon with pickup points in Prince Albert and La Ronge.

Geological setting

The deposit is at the unconformity contact separating late Paleoproterozoic to Mesoproterozoic sandstone of the Athabasca Group from middle Paleoproterozoic metasedimentary gneiss and plutonic rocks of the Wollaston Group. The Key Lake, McClean Lake and Collins Bay deposits all have a similar structural setting. While Cigar Lake shares many similarities with these deposits, it is distinguished from other similar deposits by its size, very high grade, and the high degree of clay alteration.

Cigar Lake’s geological setting is similar to McArthur River’s: the permeable sandstone, which overlays the deposit and basement rocks, contains large volumes of water at significant pressure. Unlike McArthur River, however, the deposit is flat lying.

Mineralization

The Cigar Lake deposit has the shape of a flat- to cigar-shaped lens and is approximately 1,950 metres in length, 20 to 100 metres in width, and ranges up to 13.5 metres thick, with an average thickness of about 5.4 metres. It occurs at depths ranging between 410 to 450 metres below the surface. The eastern part of Cigar Lake is approximately 670 metres long by 100 metres wide and the western part is approximately 1,280 metres long by 75 metres wide.

The deposit has two distinct styles of mineralization:

- high-grade mineralization at the unconformity which includes all of the mineral resources and mineral reserves
- fracture controlled, vein-like mineralization which is located either higher up in the sandstone or in the basement rock mass

Most of the uranium metal is in the high-grade mineralization at the unconformity, which has massive clays and high-grade uranium concentrations. This is currently the only economically viable style of mineralization, in the context of the selected mining method and ground conditions.

The uranium oxide in the form of uraninite and pitchblende occurs as disseminated grains in aggregates ranging in size from millimetres to decimetres, and as massive lenses of mineralization up to a few metres thick in a matrix of sandstone and clay. Coffinite (uranium silicate) is estimated to form less than 3% of the total uranium mineralization.

Geochemically, the deposit contains quantities of the elements nickel, copper, cobalt, lead, zinc, molybdenum and arsenic, but in non-economic concentrations. Higher concentrations of these elements are associated with massive pitchblende or massive sections of arseno-sulphides.

Deposit type

Cigar Lake is an unconformity-associated uranium deposit. Deposits of this type are believed to have formed through an oxidation-reduction reaction at a contact where oxygenated fluids meet with reducing fluids.

About the Cigar Lake operation

Cigar Lake is a developed property with sufficient surface rights to meet current mining operation needs. We are currently mining in the eastern part of the ore body.

Permits

Please see page 48 for more information about regulatory approvals for Cigar Lake.

Infrastructure

Surface facilities are 490 metres above sea level. The site includes:

- an underground mine with two shafts
- access road joining the provincial highway and McClean Lake
- site roads and site grading
- airport and terminal
- employee residence and construction camp
- Shaft No. 1 and No. 2 surface facilities
- freeze plants and brine distribution equipment
- surface freeze pads
- water supply, storage and distribution for industrial water, potable water and fire suppression
- propane, diesel and gasoline storage and distribution
- electrical power substation and distribution
- compressed air supply and distribution
- mine water storage ponds and water treatment
- sewage collection and treatment
- surface and underground pumping system installation
- waste rock stockpiles
- garbage disposal landfill
- administration, maintenance and warehousing facilities
- underground tunnels
- ore load out facility
- concrete batch plant
- Seru Bay pipeline
- emergency power generating facilities

The Cigar Lake mine site contains all the necessary services and facilities to operate a remote underground mine, including personnel accommodation, access to water, airport, site roads and other necessary buildings and infrastructure.

Water, power and heat

Waterbury Lake, which is nearby, provides water for the industrial activities and the camp. The site is connected to the provincial electricity grid, and it has standby generators in case there is an interruption in grid power.

Cigar Lake operates throughout the year despite cold winter conditions. During the winter, we use propane-fired burners to heat the fresh air necessary to ventilate the underground workings.

Employees

Employees are recruited with preference given to residents of northern Saskatchewan.

Mining methods

We use the JBS method to mine the Cigar Lake deposit.

Bulk ground freezing

The permeable sandstone that overlays the deposit and basement rocks contains large volumes of water under significant pressure. From surface, we freeze the ore zone and surrounding ground in the area to be mined to prevent water from entering the mine, to help stabilize weak rock formations, and meet our production schedule. This system freezes the deposit and underlying basement rock in two to four years, depending on water content and geological conditions. We have identified greater variation of the freeze rates of different geological formations encountered in the mine, based on information obtained

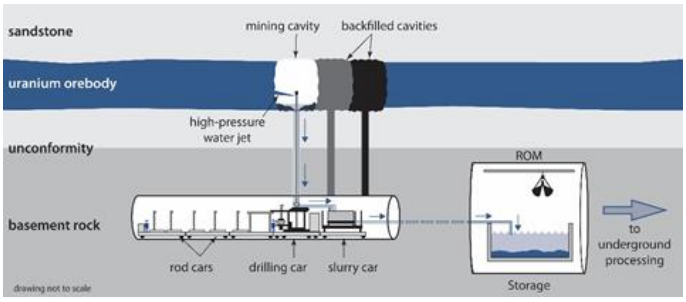
through surface freeze drilling. To manage our risks and to meet our production schedule, the area being mined must meet specific ground freezing requirements before we begin jet boring. Bulk freezing reduces but does not eliminate the risk of water inflows.

Artificial ground freezing is accomplished by drilling a systematic grid of boreholes through the orebody from surface. A network of supply and return pipes on surface convey a calcium chloride brine to and from each hole. The warm brine returning from each hole is chilled to a temperature of approximately -30ºC at the surface freeze plant and recirculated.

JBS mining

After many years of test mining, we selected jet boring, a non-entry mining method, which we have developed and adapted specifically for this deposit. This method involves:

- drilling a pilot hole into the frozen orebody, inserting a high-pressure water jet and cutting a cavity out of the frozen ore;
- collecting the ore and water mixture (slurry) from the cavity and pumping it to storage (sump storage), allowing it to settle;
- using a clamshell, transporting the ore from sump storage to an underground grinding and processing circuit;
- once mining is complete, filling each cavity in the orebody with concrete; and
- starting the process again with the next cavity.



This is a non-entry method, which means mining is carried out from headings in the basement rock below the deposit, so employees are not exposed to the ore. This mining approach is highly effective at managing worker exposure to radiation levels. Combined with ground freezing and the cuttings collection and hydraulic conveyance system, jet boring reduces radiation exposure to acceptable levels that are below regulatory limits.

The mine equipment fleet is currently comprised of three JBS units plus other equipment to support mine development, drilling and other services, and is sufficient to meet production requirements for the remainder of the mine life.

We have divided the orebody into production panels. At least three production panels need to be frozen at one time to achieve the full annual production rate of 18 million pounds. In 2022 planned production is 15 million pounds. One JBS machine will be located below each frozen panel and the three JBS machines required are currently in operation. Two machines actively mine at any given time while the third is moving, setting up, or undergoing maintenance.

Mine development

Mine development for construction and operation uses two basic approaches: drill and blast with conventional ground support is applied in areas with a competent rock mass. Most permanent areas of the mine, which contain the majority of the installed equipment and infrastructure, are hosted in competent rock mass and are excavated and supported conventionally. The production tunnels immediately below the orebody are primarily in poor, weak rock mass and are excavated and supported using the New Austrian Tunnelling Method (NATM). NATM was adopted as the primary method of developing new production cross-cuts, replacing the former Mine Development System (MDS).

NATM, as applied at Cigar Lake, involves a multi-stage sequential mechanical excavation, extensive external ground support and a specialized shotcrete liner. The liner system incorporates yielding elements which permit controlled deformation required to accommodate additive pressure from mining and ground freezing activities. The production tunnels have an inside diameter of five metres and are approximately circular in profile.

We plan our mine development to take place away from known groundwater sources whenever possible. In addition, we assess all planned mine development for relative risk and apply extensive additional technical and operating controls for all higher risk development.

Mine access

There are two main levels in the mine: the 480 and 500 metre levels. Both levels are in the basement rocks below the unconformity. Mining is conducted from the 480-metre level which is located approximately 40 metres below the ore zone. The main underground processing and infrastructure facilities are located on this level. The 500-metre level is accessed via a ramp from the 480-metre level. The 500-metre level provides for the main ventilation exhaust drift for the mine, the mine dewatering sump and additional processing facilities. All construction required for production has been completed.

Processing

Cigar Lake ore slurry is processed in two locations:

Cigar Lake – Ore slurry produced by the JBS is pumped to Cigar Lake's underground crushing, grinding and thickening facility. The resulting finely ground, high density ore slurry is pumped 500 meters to surface to one of the two slurry holding tanks. It is blended and thickened, removing excess water. The final slurry, at about an average grade of 15%, is pumped into transport truck containers like the ones used at McArthur River.

Water from this process, including water from underground operations, is treated on the surface. Any excess treated water is released into the environment.

McClean Lake – Containers of ore slurry are trucked to Orano's McClean Lake mill, 69 kilometres to the northeast for further processing (Leaching to Yellowcake Packaging). See *Toll milling agreement* below for a discussion of this arrangement.

Recovery and metallurgical testing

Extensive metallurgical test work was performed on core samples of Cigar Lake ore over a seven-year period from 1992 to 1999. This work was used to design the McClean Lake mill circuits relevant to Cigar Lake ore and associated modifications. Samples used for metallurgical test work may not be representative of the deposit as a whole. Additional test work, completed in 2012 with drill core samples, verified that a high uranium recovery rate could be achieved regardless of the variability of the ore. Test work also concluded that more hydrogen gas evolution took place than previously anticipated, which resulted in modifications to the leaching circuit. Leaching modifications were completed in 2014.

The 1992 – 1999 work was performed in France at Orano's SEPA test centre. The results of this test work have provided the core process criteria for the design of the additions and modifications required at the McClean Lake mill for processing Cigar Lake ore. To date, a range of monthly average ore grades, as high as 28% U_3O_8, have been processed at the McClean Lake milling facility. Based on the test results and past mill performance, an overall uranium recovery of 98.5% is expected.

There is a risk that elevated arsenic concentration in the mill feed may result in increased leaching circuit solution temperatures. The leach process cooling system was updated in 2016 and testing confirmed solution temperature control. The plan is to continue to monitor leaching temperature.

Tailings

Cigar Lake site does not have a TMF. The ore is processed at the McClean Lake mill. See *Toll milling agreement* below for a discussion of the McClean Lake TMF.

Waste rock

The waste rock piles are separated into three categories:

- clean rock – will remain on the mine site for use as aggregate for roads, concrete backfill and future site reclamation
- mineralized waste (>0.03% U_3O_8) – will be disposed of underground at the Cigar Lake mine; and
- waste with acid-generating potential – temporarily stored on lined pads

The latter two stockpiles are contained on lined pads; however, no significant mineralized waste has been identified during development to date.

Production

The mine plan is designed to extract all of the current Cigar Lake mineral reserves. The following is a general summary of the mine plan production schedule parameters on a 100% basis for these mineral reserves:

Total mill production	• 150 million pounds of U_3O_8, based on current mineral reserves and an overall milling recovery of 98.5%
	• Expected production of 15 million pounds of U_3O_8 in 2022, reduced to 13.5 million pounds in 2024
Total mine production	• 448,000 tonnes of ore
Average annual mine production	• 100 to 200 tonnes per day during peak production, depending on ore grade
Average mill feed grade	• 15.4% U_3O_8

Total packaged production from Cigar Lake in 2021 was 12.2 million pounds U_3O_8 (6.1 million pounds our share) compared to 10 million pounds U_3O_8 (5.0 million pounds our share) in 2020. Production was impacted by suspensions in the second and third quarters of 2020 as a precautionary measure due to COVID-19. In December 2020, we safely suspended production at the Cigar Lake mine a second time as a precaution. The mine remained suspended through the first quarter of 2021 until its restart in mid-April. On July 1, all non-essential personnel from the Cigar Lake mine were evacuated and production was temporarily suspended as a precaution due to the proximity of a forest fire. With the risk subsided and all infrastructure intact, the workforce returned on July 4 and production resumed in the first week of July.

As a result of the suspensions in production, we have also experienced delays and deferrals in project work, including lower capital expenditures, which introduces potential risk to the production rate in 2022. Furthermore, the potential for supply chain impacts on construction materials, equipment and labour remains uncertain and could further exacerbate production risk in 2022 and future years. As a result, we expect production of 15 million pounds (100% basis) in 2022. We will work to minimize the impacts of these disruptions.

Decommissioning and financial assurances

In 2002, our *preliminary decommissioning plan* for Cigar Lake was approved by the CNSC and the SMOE. We revised this plan and the accompanying *preliminary decommissioning cost estimate* when we renewed our federal licence in 2008. We further revised this plan and the accompanying *preliminary decommissioning cost estimate* ($49 million) and received our operating licence in 2013.

We submitted an update for the Cigar Lake preliminary decommissioning cost estimate ($62 million), received the required regulatory approvals, and letters of credit have been posted with the Saskatchewan government as financial assurances.

The reclamation and remediation activities associated with waste rock and tailings at the McClean Lake mill are covered by the plans and cost estimates for this facility.

Water inflow and mine/mill development

Cigar Lake water inflow incidents

From 2006 through 2008, the Cigar Lake project suffered several setbacks because of three water inflow incidents. The first occurred in 2006, resulting in the flooding of the then partially completed Shaft No. 2. The two subsequent incidents involved inflows in the mine workings connected to Shaft No. 1 and resulted in flooding of the mine workings. We executed recovery and remediation plans for all three inflows. Re-entry into the main mine workings was achieved in 2010 and work to secure the mine was completed in 2011.

The mine is fully remediated and entered commercial production in 2015. Lessons learned from the inflows have been applied to the subsequent mine plan and development to reduce the risk of future inflows and improve our ability to manage water inflows.

Increased pumping capacity

In 2012, we increased the installed mine dewatering capacity to 2,500 cubic metres per hour. Mine water treatment capacity has been increased to 2,550 cubic metres per hour, and regulatory approval to discharge routine and non-routine treated

water to Seru Bay is in place. As a result, we believe we have sufficient pumping, water treatment and surface storage capacity to handle the estimated maximum inflow.

Current status of development

Construction of all major permanent underground development and process facilities required for the duration of the mine life is complete. A number of underground access drifts and production cross cuts remain to be driven as part of ongoing mine development to sustain production rates.

On surface, construction of all permanent infrastructure required to achieve nameplate capacity has been completed.

Underground mine development continued in 2021. A new production cross cut was completed in 2021 as well as development work in the western portion of the orebody.

During 2021, we:

- executed planned ten-day annual maintenance activities in September
- executed production activities from three production tunnels in the eastern part of the orebody
- in alignment with our long-term production plans, we substantially completed optimizations of the underground water handling system and header expansions, and expanded our ground freezing program to ensure continued frozen ore inventory

In 2022, we plan to:

- continue production activities focused on bringing one new production panel online and closing out a completed one
- continue surface freeze drilling and complete construction and commissioning of freeze distribution infrastructure expansion in support of future production
- continue underground mine development on two new production tunnels as well as expand ventilation and access drifts in alignment with the long-term mine plan
- continue upgrades to process water handling circuits and the surface backfill batch plant to support ongoing operations

The McClean Lake mill has been expanded to process and package all Cigar Lake ore.

Optimizing production

To align our production with the market conditions and our contract portfolio, starting in 2024, we will target production from Cigar Lake that is 25% below the licensed capacity, or 13.5 million pounds (100% basis) per year. Extending the mine life at Cigar Lake by aligning production with the market opportunities and our contract portfolio is consistent with our tier-one strategy and is expected to allow more time to evaluate the feasibility of extending the mine life beyond the current reserve base while continuing to supply ore to Orano's McClean Lake mill. This will remain our production plan until we see further improvements in the uranium market and contracting progress.

Toll milling agreement

The McClean Lake joint venture agreed to process Cigar Lake's ore slurry at its McClean Lake mill, according to the terms in its agreement with the CLJV: JEB toll milling agreement (effective January 1, 2002 and amended and restated effective November 30, 2011), dedicating the necessary McClean Lake mill capacity to process and package 18 million pounds of Cigar Lake uranium concentrate annually.

The CLJV pays a toll milling fee and its share of milling expenses.

The McClean Lake mill started receiving Cigar Lake ore in March 2014 and produced its first drum of Cigar Lake yellowcake in October 2014. All of Cigar Lake's ore slurry from current mineral reserves will be processed at the McClean Lake mill, operated by Orano. Orano does not expect any new major infrastructure is necessary at McClean Lake mill in order to receive and process Cigar Lake's mineral reserves. Minor upgrades related to throughput optimisation were completed in 2020.

The McClean Lake joint venture commenced work in 2012 to optimize its TMF to accommodate all of Cigar Lake's current mineral reserves. The first stage of the work is complete with additional work involving increasing the required elevation of a liner for the facility is scheduled to take place from 2022 to 2024. With the liner extended, the TMF is expected to have capacity to receive tailings from processing all of Cigar Lake's current mineral reserves.

In January 2022, the McClean Lake joint venture received from the CNSC an amendment to its licence to expand its TMF, which will provide capacity for tailings from processing additional ore.

The McClean Lake joint venture is responsible for all costs of decommissioning the McClean Lake mill. As well, the joint venture is responsible for the liabilities associated with tailings produced from processing Cigar Lake ore at the McClean Lake mill.

Unionized employees at the McClean Lake mill ratified a three-year collective bargaining agreement with Orano in November 2019, which will expire on May 31, 2022.

Regulatory approvals

There are three key permits that are required to operate the mine.

Operating and processing licences

Federally, Cigar Lake holds a “Uranium Mine Licence” from the CNSC with a corresponding Licence Conditions Handbook (LCH). Provincially, Cigar Lake holds an “Approval to Operate Pollutant Control Facilities” from the SMOE and a “Water Rights Licence to Use Surface Water and Approval to Operate Works” from the Saskatchewan Watershed Authority.

The CNSC licence expires on June 30, 2031. The SMOE approval was renewed in 2017 and expires in 2023. The Saskatchewan Watershed Authority water rights licence was obtained in 1988 and was last amended in July 2011. It is valid for an undefined term.

The current Cigar Lake LCH authorizes an annual production rate up to 18 million pounds per year. In 2016, Orano received approval to increase annual production of the McClean Lake mill to 24 million pounds per year.

Water treatment/effluent discharge system

The mine dewatering system was designed and constructed to handle both routine and non-routine water treatment and effluent discharge, and it has been approved and licensed by the CNSC and the SMOE.

We began discharging treated water to Seru Bay in August 2013 following the receipt of regulatory approvals.

The Cigar Lake orebody contains elements of concern with respect to the water quality and the receiving environment. The distribution of elements such as arsenic, molybdenum, selenium and others is non-uniform throughout the orebody, and this can present challenges in attaining and maintaining the required effluent concentrations.

There have been ongoing efforts to optimize the current water treatment process and water handling systems to ensure acceptable environmental performance, which is expected to avoid the need for additional capital upgrades and potential deferral of production.

Operating and capital costs

The following is a summary of the Cigar Lake operating and capital cost estimates for the remaining life of mine, stated in constant 2021 dollars and reflecting a forecast life-of-mine mill production of 150 million pounds. The summary reflects the announcement made on February 9, 2022, that, starting in 2024, we will target production from Cigar Lake that is 25% below the licensed capacity, or 13.5 million pounds (100% basis) per year.

Operating Costs ($Cdn million)	Total (2022 – 2032)
Cigar Lake Mining	
Site administration	$ 415.7
Mining costs	617.4
Process	240.2
Corporate overhead	92.3
Total mining costs	$ 1,365.6
McClean Lake Milling	
Administration	$ 414.2
Milling costs	743.3
Corporate overhead	68.9
Toll milling	156.2
Total milling costs	$ 1,382.6
Total operating costs	**$ 2,748.2**
Total operating cost per pound U_3O_8	**$ 18.28**

Note: presented as total cost to the CLJV (100% basis)

Operating costs consist of annual expenditures at Cigar Lake to mine the ore, treat the ore underground, including crushing, grinding and density control, followed by pumping the resulting slurry to surface for transportation to McClean Lake.

Operating costs at McClean Lake consist of the cost of offloading and leaching the Cigar Lake ore slurry into uranium solution and further processing into calcined U_3O_8 product.

Capital Costs ($Cdn million)	Total (2022 – 2032)
Cigar Lake Mine Development	$ 109.6
Cigar Lake Mine Capital	
Sustaining capital	$ 83.2
Capacity replacement capital	48.4
Growth capital	—
Reclamation	0.1
Total mine capital	$ 131.7
McClean Lake mill sustaining capital	$ 129.0
McClean Lake mill expansion capital	81.7
Total mill capital	$ 210.7
Total capital costs	**$ 452.0**

Note: presented as total cost to the CLJV (100% basis)

Estimated capital costs to the CLJV include sustaining capital for Cigar Lake and McClean Lake mill, as well as underground development at Cigar Lake to bring mineral reserves into production. Overall, the largest capital cost at Cigar Lake is surface freeze drilling and brine distribution infrastructure. Other significant capital includes tunnel outfitting and mine development costs.

With the announcement made on February 9, 2022, to reduce annual packaged production to a rate of 13.5 million pounds (6.8 million pounds at Cameco's share), the life of the operations has been extended through 2032. With the extended mine life and lower annual throughput, the unit operating costs are expected to increase by approximately 14% as compared to the 2020 AIF but are lower by approximately 3% as compared to the 2016 technical report. The effect of reducing production and extending the mine's life is not expected to have a material effect on the pre-tax IRR of the operations.

Our expectations and plans regarding Cigar Lake, including forecasts of operating and capital costs, production and mine life are forward-looking information, and are based specifically on the risks and assumptions discussed on pages 2, 3 and 4. We may change operating or capital spending plans in 2022, depending on the impact of COVID-19, uranium markets, our financial position, results of operation and other factors. Estimates of expected future production and capital and operating costs are inherently uncertain, particularly beyond one year, and may change materially over time.

Exploration, drilling, sampling, data quality and estimates

There are no historical estimates within the meaning of NI 43-101 to report. The Cigar Lake uranium deposit was discovered in 1981 by surface exploration drilling.

We focus most of our exploration activities on mineral lease ML 5521. Orano is responsible for exploration activity on the 38 surrounding mineral claims. The data from the exploration program on the 38 mineral claims is not part of the database used for the estimate of the mineral resources and mineral reserves at Cigar Lake.

Exploration

After the 2006 water inflow events, it was recognized that more detailed geophysical information in the immediate deposit area was required. Since 2006, a number of geophysical surveys over the Cigar Lake deposit provided additional knowledge on geological structures and fault zones. In the fall of 2007, a supplementary geophysical program was conducted over a portion of the eastern area of the deposit to identify major structures within the sandstone column. This information has since been incorporated into our geological models. These are regularly updated as additional information is collected, allowing for better mine planning and mitigation of potential risk.

Drilling

Surface drilling – mineral lease

The last diamond drillhole of the 1981 program was located south of Cigar Lake and was the discovery hole for the Cigar Lake uranium deposit. The deposit was subsequently delineated by surface drilling during the period 1982 to 1986, and followed by several small campaigns of drilling for geotechnical and infill holes to 2007. Additional diamond drilling campaigns over the eastern part of the deposit and the western portion were conducted by us between 2007 and 2012, which targeted a broad range of technical objectives. In 2016, we initiated a surface delineation program on the western portion of the deposit, which ended in 2017.

Average drill depths for surface delineation holes range from approximately 460 m to 500 m, with the majority of surface freezeholes drilled to a depth of approximately 462 m. Delineation drilling in the eastern area has been done at a nominal drillhole fence spacing of 25 to 50 m (east-west), with holes at 20 to 25 m (north-south) spacing on the fences. The approximate surface freezehole spacing is 7 x 7 metres.

The western area was historically drilled at a nominal drillhole fence spacing of 200 m, with holes at 20 m spacing on the fences. An additional 32 infill drillholes were completed in 2011 and 2012 by Cameco for select areas, locally reducing the drillhole spacing down to an approximate 15 x 15 m pattern. A total of 51,080 m, for 124 of holes, were drilled during the 2016 and 2017 drilling programs.

Drilling results have been used to delineate and interpret the 3-dimensional geometry of the mineralized areas, the litho structural settings, the geotechnical conditions, and to estimate the distribution and content of uranium and other elements.

Surface freezehole drilling over the eastern part of the deposit has been ongoing since 2012. Drilling results obtained between September 2020 and September 2021, representing 81 additional freezeholes, are reflected in our reported mineral resources and reserves.

Underground drilling – mineral lease

Diamond drilling from underground is primarily to ascertain rock mass characteristics in advance of development and mining. Cigar Lake Mining Corporation, the previous operator, and Cameco have conducted underground geotechnical drilling since 1989 at Cigar Lake, with the exception of the period from 2007 to 2009 during which time the mine was flooded.

At one time, freezeholes were drilled from underground into the deposit for the purpose of freezing the ground prior to mining. No underground freezeholes have been drilled since 2006. None of them are currently used for freezing or for mineral resource and reserve estimation purposes.

Sampling, analysis and data verification

Sampling

Vertical surface drilling generally represents the true thickness of the zone given the flat-lying mineralization. All holes are core drilled and gamma probed whenever possible. Cigar Lake uses a high-flux gamma probe designed and constructed by alphaNUCLEAR, a member of the Cameco group of companies. This high-flux gamma probe utilizes two Geiger Muller tubes to detect the amount of gamma radiation emanating from the surroundings. The count rate obtained from the high-flux probe is compared against chemical assay results to establish a correlation to convert corrected probe count rates into equivalent % U_3O_8 grades for use when assay results are unavailable. The consistency between probe data and chemical assays demonstrates that secular equilibrium exists within the deposit. Approximately 25% of the data used to estimate mineral resources is obtained from assays, and in these cases, the core depth is validated by comparing the down-hole gamma survey results with a hand-held scintillometer on core before it is logged, photographed, and then sampled for uranium analysis. Attempts are made to avoid having samples cross geological boundaries.

When sampled, the entire core from each sample interval is taken for assay or other measurements that are used to characterize the physical and geochemical properties of the deposit, except for some of the earliest sampling in 1981 and 1982. This reduces the sample bias inherent when splitting core. Core recovery throughout the deposit has generally been very good. However, in areas of poor core recovery uranium grade determination is generally based on radiometric probe results.

The typical sample collection process at our operations included the following procedures:

- marking the sample intervals on the core boxes, at the nominal 50 cm sample length, by a geoscientist
- collection of the samples in plastic bags, taking the entire core
- documentation of the sample location, including assigning a sample number, and description of the sample, including radiometric values from a hand-held device
- bagging and sealing, with sample tags inside bags and sample numbers on the bags; and
- placement of samples in steel drums for shipping

Sample security

Current sampling protocols dictate that all samples are collected and prepared under the close supervision of a qualified geoscientist in a restricted core processing facility. Core samples are collected and transferred from core boxes to high-strength plastic sample bags, then sealed. The sealed bags are then placed in steel drums and shipped in compliance with the Transport of Dangerous Goods regulations with tamper-proof security seals. Chain of custody documentation is present from inserting samples into steel drums to final delivery of results by SRC. All samples collected are prepared and analysed under close supervision of qualified personnel at SRC, which is a restricted access laboratory licensed by the CNSC.

Analysis

Since 2002, assay sample preparation has been done at SRC, which is independent of the participants of CLJV. It involves jaw crushing to 60% @ -2 mm and splitting out a 100 – 200 g sub-sample using a riffle splitter. The sub-sample is pulverized to 90% @ -106 microns using a puck and ring grinding mill. The pulp is then transferred to a labelled plastic snap top vial. Assaying by SRC involved digesting an aliquot of pulp in a 100 ml volumetric flask in concentrated 3:1 HCI:HNO_3, on a hot plate for approximately one hour. The lost volume is then made up using deionized water prior to analysis by ICP-OES. Instruments used in the analysis are calibrated using certified commercial solutions.

Quality control and data verification

The quality assurance and quality control procedures used during the early drilling programs were typical for the time. Majority of uranium assays in the database were obtained from Loring Laboratories Ltd., which is independent of the participants of CLJV. For uranium assays up to 5% U_3O_8, 12 standards and two blanks were run with each batch of samples and for uranium assays over 5% U_3O_8, a minimum of four standards were run with each batch of samples.

More recent sample preparation and assaying is being completed under the close supervision of qualified personnel at SRC and includes preparing and analysing standards, duplicates, and blanks. A standard is prepared and analysed for each batch of samples and one out of every 40 samples is analysed in duplicate. Samples that fail quality controls are re-analyzed.

The original database, which forms part of the database used for the current mineral resource and mineral reserve estimates, was compiled by previous operators. Many of the original signed assay certificates are available and have been reviewed by Cameco geologists.

In 2013, Cigar Lake implemented an SQL server based centralized geological data management system to manage all drillhole and sample related data. All core logging, sample collection, downhole probing and sample dispatching activities are carried out and managed within this system. All assay, geochemical and physical analytical results obtained from the external laboratory are uploaded directly into the centralized database, thereby mitigating potential for manual data transfer errors. The database used for the current mineral resource and mineral reserve estimates was validated by Cameco qualified geoscientists.

Additional data quality control measures include:

- review of drillhole collar coordinates and downhole deviations in the database against planned location of the holes. All results were within acceptable tolerances.
- comparison of the information in the database against the original data, including paper logs, assay certificates and original probing files as required. No assay or density measurements were flagged for further review.
- validation of core logging information in plan and section views, and review of logs against photographs of the core. Core logging information reviewed during geological modelling. No holes were flagged for further review against photographs.
- checking for data errors such as overlapping intervals and out of range values. No issues were observed in 2021.
- radiometric probes undergo annual servicing and re-calibration as well as additional checks including control probing to ensure precision and accuracy of the probes. Control probing results were within acceptable tolerances in 2021.
- validating uranium grades comparing radiometric probing with core radioactivity measurements and sample assay results. Uranium grades were validated during the 2021 mineral resource update, with suspect readings being subjected to a detailed review. The correlation to convert corrected probe count rates into equivalent % U_3O_8 grades was also reviewed and deemed to be valid.

Since the start of commercial production, we have compared the uranium block model with mine production results on a quarterly basis to ensure an acceptable level of accuracy is maintained.

Our geoscientists, including a qualified person as such term is defined in NI 43-101, have witnessed or reviewed drilling, core handling, radiometric probing, logging and sampling facilities used at the Cigar Lake operation and consider the methodologies to be satisfactory and the results representative and reliable.

Accuracy

We are satisfied with the quality of data and consider it valid for use in the estimation of mineral resources and reserves for Cigar Lake. Comparison of actual mine production with expected production supports this opinion.

Mineral reserve and resource estimates

Please see page 75 for our mineral reserve and resource estimates for Cigar Lake.

Uranium – Tier-one operations

Inkai



2021 Production (100% basis)
9.0M lbs
2022 Production Outlook (100% basis)
8.3M lbs
Estimated Reserves (our share)
112.5M lbs
Estimated Mine Life
2045 *(based on licence term)*

Inkai is a very significant uranium deposit, located in Kazakhstan. The operator is JV Inkai limited liability partnership, which we jointly own (40%) with Kazatomprom (60%)[1].

Inkai is considered a material uranium property for us. There is a technical report dated January 25, 2018 (effective January 1, 2018) that can be downloaded from SEDAR (sedar.com) or from EDGAR (sec.gov).

Location	South Kazakhstan
Ownership	40%[1]
Mine type	In situ recovery (ISR)
End product	Uranium concentrate
Certifications	BSI OHSAS 18001
	ISO 14001 certified
Estimated reserves	112.5 million pounds (proven and probable), average grade U_3O_8: 0.04%
Estimated resources	35.6 million pounds (measured and indicated), average grade U_3O_8: 0.03%
	9.6 million pounds (inferred), average grade U_3O_8: 0.03%
Licensed capacity (wellfields)	10.4 million pounds per year (our share 4.2 million pounds per year)[1]
Licence term	Through July 2045
Total packaged production: 2009 to 2021	73 million pounds (100% basis)
2021 production	9.0 million pounds (100% basis)[1]
2022 production outlook	8.3 million pounds (100% basis)[1]
Estimated decommissioning cost (100% basis)	$20 million (US) (100% basis) (this estimate is currently under review)

All values shown, including reserves and resources, represent our share only, unless indicated.

1 Our ownership interest in the joint venture is 40% and we equity account for our investment. As such, our share of production is shown as a purchase.

Business structure

JV Inkai is a Kazakhstan limited liability partnership between two companies:

- Cameco – 40%
- Kazatomprom (KAP) – 60%

History

1976-78	• Deposit is discovered • Exploration drilling continues until 1996
1979	• Regional and local hydrogeology studies begin • Borehole tests characterize the four aquifers within the Inkai deposit (Uvanas, Zhalpak, Inkuduk and Mynkuduk)
1988	• Pilot test in the northeast area of block 1 begins, lasts 495 days and recovers 92,900 pounds of uranium
1993	• First Kazakhstan estimates of uranium resources for block 1
1996	• First Kazakhstan estimates of uranium resources for block 2 • Kazakhstan regulators registers JV Inkai, a joint venture among us, Uranerzbergbau-GmbH and KATEP
1997	• KAP is established
1998	• KATEP transfers all of its interest in JV Inkai to KAP • We acquire all of Uranerzbergbau-GmbH's interest in JV Inkai, increasing our interest to 66 2/3% • We agree to transfer a 6 2/3% interest to KAP, reducing our holdings to a 60% interest
1999	• JV Inkai receives a mining licence for block 1 and an exploration with subsequent mining licence for blocks 2 and 3 from the government of Kazakhstan
2000	• JV Inkai and the government of Kazakhstan sign a subsoil use contract (called the *resource use contract*), which covers the licences issued in 1999 (see above)
2002	• Pilot leach test in the north area of block 2 begins
2005	• Construction of ISR commercial processing facility at block 1 begins
2006	• Complete pilot leach test at block 2 • Exploration-delineation drilling initiated at block 3
2007	• Sign Amendment No.1 to the resource use contract, extending the exploration period at blocks 2 and 3
2008	• Commission front half of the main processing plant in the fourth quarter, and begin processing solution from block 1
2009	• Sign Amendment No. 2 to the resource use contract, which approves the mining licence at block 2, extends the exploration period for block 3 to July 13, 2010, and requires JV Inkai to adopt the new tax code and meet the Kazakhstan content thresholds for human resources, goods, works and services • Commission the main processing plant, and started commissioning the first satellite plant
2010	• Receive regulatory approval for commissioning of the main processing plant • File a notice of potential commercial discovery at block 3 • Receive approval in principle for the extension of block 3 exploration for a five-year appraisal period that expires July 2015, and an increase in annual production from blocks 1 and 2 to 3.9 million pounds (100% basis)
2011	• Receive regulatory approval for commissioning of the first satellite plant • Sign Amendment No. 3 to the resource use contract, which extends the exploration period for block 3 to July 2015 and provides government approval to increase annual production from blocks 1 and 2 to 3.9 million pounds (100% basis) • Sign a memorandum of agreement with KAP to increase annual production from blocks 1 and 2 from 3.9 million pounds to 5.2 million pounds (100% basis)
2012	• Sign a memorandum of agreement with KAP setting out the framework to increase annual production from blocks 1 and 2 to 10.4 million pounds (100% basis), to extend the term of JV Inkai's resource use contract through 2045 and to cooperate on the development of uranium conversion capacity, with the primary focus on uranium refining rather than uranium conversion • Start construction of a test leach facility at block 3
2013	• Sign Amendment No. 4 to the resource use contract, which provides government approval to increase annual production from blocks 1 and 2 to 5.2 million pounds (100% basis)
2015	• At block 3, construction of the test leach facility is completed and the pilot leach test initiated

2016
- Sign an agreement with KAP and JV Inkai to restructure and enhance JV Inkai, subject to closing, increasing KAP's holdings to a 60% interest and reducing our holdings to a 40% interest.
- Sign Amendment No. 5 to the resource use contract, which extends the exploration period for block 3 to July 2018

2017
- In December, close the agreement with KAP and JV Inkai to restructure and enhance JV Inkai. Under the agreement, effective January 1, 2018, our ownership interest dropped to 40% and we will equity account for our investment.
- Sign Amendment No. 6 to the resource use contract, which grants JV Inkai the right to produce up to 10.4 million pounds per year and extends the term of the resource use contract until July 13, 2045.

Technical report

This description is based on the project's technical report: Inkai Operation, South Kazakhstan Oblast, Republic of Kazakhstan, dated January 25, 2018 (effective January 1, 2018) except for some updates that reflect developments since the technical report was published. The report was prepared for us in accordance with NI 43-101, by or under the supervision of Darryl Clark, PhD, FAusIMM, Alain G. Mainville, P. Geo., Stuart B. Soliz, P. Geo., and Robert J. Sumner, PhD, P. Eng. The following description has been prepared under the supervision of Biman Bharadwaj, P. Eng., Scott Bishop, P. Eng., Sergey Ivanov, P. Geo., and Alain D. Renaud, P. Geo. They are all qualified persons within the meaning of NI 43-101 but are not independent of us.

The conclusions, projections and estimates included in this description are subject to the qualifications, assumptions and exclusions set out in the technical report except as such qualifications, assumptions and exclusions may be modified in this AIF. We recommend you read the technical report in its entirety to fully understand the project. You can download a copy from SEDAR (sedar.com) or from EDGAR (sec.gov).

For information about environmental matters, see *Our ESG principles and practices* and *The regulatory environment* starting on pages 81 and 86.

For a description of royalties payable to the government of Kazakhstan on the sale of uranium extracted from orebodies within the country and taxes, see page 94.

For a description of risks that might affect access, title or the right or ability to perform work on the property, see *Political risks* starting at page 107, *Regulatory risks* starting at page 110, *Environmental risks* starting at page 111, and *Legal and other risks* starting at page 113.

About the Inkai property

Location

Inkai is located in the Suzak District of Turkestan Oblast, Kazakhstan near the town of Taikonur, 350 kilometres northwest of the city of Shymkent and 155 kilometres east of the city of Kyzyl-Orda. JV Inkai's corporate office is in Shymkent.

Access

The road to Taikonur is the primary road for transporting people, supplies and uranium product to and from the mine. It is a paved road that crosses the Karatau Mountains. Rail transportation is available from Almaty to Shymkent, then northwest to Shieli, Kyzyl-Orda and beyond. A rail line also runs from the town of Dzhambul to a KAP facility to the south of Taikonur. From Almaty and Astana, commercial airline services are available to Shymkent and Kyzyl-Orda.

Property tenure – MA area and mining allotment

The resource use contract between the Republic of Kazakhstan and JV Inkai (the resource use contract) grants JV Inkai the rights to explore for and to extract uranium from the subsoil contained in the Mining Allotment Area (the MA Area). The MA Area is the 139 square kilometres area in which JV Inkai currently has the right to mine, as covered by the Mining Allotment, which includes block 1 and portions of blocks 2 and 3. The Mining Allotment was the document issued by the Geology Committee of the Republic of Kazakhstan to JV Inkai in July 2017, which graphically and descriptively defines the area in which JV Inkai has the right to mine. As provided for in Amendment No. 6, it is part of the resource use contract. JV Inkai owns uranium extracted from the subsoil contained in the MA Area and has the right to use the surface of the MA Area. JV Inkai has obligations under the resource use contract which it must comply with to maintain these rights.

In addition to complying with its obligations under the resource use contract, JV Inkai, like all subsoil users, is required to abide by the work program appended to its resource use contract, which relates to its mining operations.

Under Kazakhstan law, subsoil and mineral resources belong to the state. Currently, the state provides access to subsoil and mineral resources under a resource use contract (hydrocarbons and uranium only) and a licence (the rest of mineral resources). Minerals extracted from the subsoil by a subsoil user under a resource use contract are the property of the subsoil user unless the subsoil code (as defined below) or a resource use contract provides otherwise.

A resource use contract gives the contractor a right to use the surface of the property while exploring, mining, and reclaiming the land. However, this right must be set forth in a land lease agreement with the applicable local administrative authorities.

On a regular basis, JV Inkai obtains from local authorities the necessary land lease agreements for new buildings and infrastructure. JV Inkai does not hold land leases for the entire MA Area. JV Inkai obtains land leases gradually only for surface area required for exploration, mining, or construction of new infrastructure.

Environment, social and community factors

Inkai lies in the Betpak Dala Desert, which has a semi-arid climate, minimal precipitation, and relatively high evaporation. The average precipitation varies from 130 to 140 millimetres per year, and 22 to 40% of this is snow. The surface elevation within the MA Area ranges from 140 to 300 metres above mean sea level.

The area also has strong winds. The prevailing winds are northeast. Dust storms are common. The major water systems in the area include the Shu, Sarysu and Boktykaryn rivers.

The resource use contract prescribes that a certain level of employees be from Kazakhstan. See *Resource use contract* on page 60 for more information.

JV Inkai must give preference to local businesses. See *Kazakhstan government and legislation – local content* on page 62 for more information.

In accordance with JV Inkai's corporate responsibility strategy and to comply with its obligations under the resource use contract, JV Inkai finances projects and provides goods and services to support the district's social infrastructure.

Geological setting

South-central Kazakhstan geology is comprised of a large relatively flat basin of Cretaceous to Quaternary age continental clastic sedimentary rocks. The Chu-Sarysu basin extends for more than 1,000 kilometres from the foothills of the Tien Shan Mountains located on the south and southeast sides of the basin, and merges into the flats of the Aral Sea depression to the northwest. The basin is up to 250 kilometres wide, bordered by the Karatau Mountains on the southwest and the Kazakh Uplands on the northeast. The basin is composed of gently dipping to nearly flat-lying fluvial-derived unconsolidated sediments composed of inter-bedded sand, silt and local clay horizons.

The Cretaceous and Paleogene sediments contain several stacked and relatively continuous, sinuous "roll-fronts" or oxidation reduction (redox) fronts hosted in the more porous and permeable sand and silt units. Several uranium deposits and active uranium ISR mines are located at these regional oxidation roll-fronts, developed along a regional system of superimposed mineralization fronts. The overall stratigraphic horizon of interest in the basin is approximately 200 to 250 metres in vertical section.

The Inkai deposit is one of these roll-front deposits. It is hosted within the Lower and Middle Inkuduk horizons and Mynkuduk horizon which comprise fine, medium, and coarse-grained sands, gravels and clays. The redox boundary can be readily recognised in core by a distinct colour change from grey and greenish-grey on the reduced side to light-grey with yellowish stains on the oxidized side, stemming from the oxidation of pyrite to limonite.

The sands have high horizontal hydraulic conductivities. Hydrogeological parameters of the deposit play a key role in ISR mining. Studies and mining results indicate Inkai has favourable hydrogeological conditions for ISR mining.

Mineralization

Mineralization in the Middle Inkuduk horizon occurs in the central, western, and northern parts of the MA Area. The overall strike length is approximately 35 kilometres. Width in plan view ranges from 40 to 1,600 metres and averages 350 metres. The depth ranges from 262 to 380 metres, averaging 314 metres.

Mineralization in the Lower Inkuduk horizon occurs in the southern, eastern, and northern parts of the MA Area. The overall strike length is approximately 40 kilometres. Width in plan view ranges from 40 to 600 metres and averages 250 metres. The depth ranges from 317 to 447 metres, averaging 382 metres.

Mineralization in the Mynkuduk horizon stretches from south to north in the eastern part of the MA Area. The overall strike length is approximately 40 kilometres. Width in plan view ranges from 40 to 350 metres and averages 200 metres. The depth ranges from 350 to 528 metres, averaging 390 metres.

Mineralization comprises sooty pitchblende (85%) and coffinite (15%). The pitchblende occurs as micron-sized globules and spherical aggregates, while the coffinite forms tiny crystals. Both uranium minerals occur in pores on interstitial materials such as clay minerals, as films around and in cracks within sand grains, and as replacements of rare organic matter, and are commonly associated with pyrite.

Deposit type

The Inkai uranium deposit is a roll-front type deposit. Roll-front deposits are a common example of stratiform deposits that form within permeable sandstones in localized reduced environments. The Cretaceous and Paleogene sediments contain several stacked and relatively continuous, sinuous “roll-fronts”, or redox fronts hosted in the more porous and permeable sand and silt units. Microcrystalline uraninite and coffinite are deposited during diagenesis by ground water, in a crescent-shaped lens that cuts across bedding and forms at the interface between oxidized and reduced ground. Sandstone host rocks are medium to coarse grained were highly permeable at the time of mineralization. There are several uranium deposits and active ISR uranium mines at these regional oxidation roll-fronts, developed along a regional system of superimposed mineralization fronts.

About the Inkai operation

Inkai is a developed producing property with sufficient surface rights to meet future mining operation needs for the current mineral reserves. It has site facilities and infrastructure. Plans are progressing to expand the operation to give it the capability to produce up to 10.4 million pounds per year.

Licences

The resource use contract grants JV Inkai the rights to explore for and to extract uranium from the subsoil contained in the MA Area until July 13, 2045. Other material licences JV Inkai currently holds relating to its mining activities are:

- “Licence for radioactive substances handling” valid until December 31, 2024
- “Licence for operation of mining production and mineral raw material processing” with an indefinite term
- “Licence for transportation of radioactive substances within the territory of the Republic of Kazakhstan” valid until December 30, 2024
- “Licence for radioactive waste handling” valid until December 30, 2024

JV Inkai’s material environmental permits are described on page 61.

Infrastructure

There are three processing facilities on the MA Area: the Main Processing Plant (MPP) and two satellite plants, Sat1 and Sat2. The existing MPP, Sat1 and Sat2 circuit capacities were estimated using Inkai daily process summaries, which were subsequently demonstrated since 2019 by actual annual production. The MPP has an ion exchange (IX) capacity of 2.7 million pounds U_3O_8 per year and a product drying and packaging capacity of 8.3 million pounds U $_3O_8$ per year. Sat1 and Sat2 have respective IX capacities of 6.0 and 2.3 million pounds U_3O_8 per year.

The following infrastructure currently exists on the MA Area: administrative, engineering and construction offices, a laboratory, shops, garages, holding ponds and reagent storage tanks, enclosures for low-level radioactive waste and domestic waste, an emergency response building, food services facilities, roads and power lines, wellfield pipelines and header houses.

As part of the expansion, the following upgrades are planned:

- expansion of the processing facilities to add processing capacity
- addition of calcining capability at the MPP
- addition of new pumping stations and sand ponds
- expansion of office buildings and the laboratory

At Taikonur, JV Inkai has an employee residence camp with catering and leisure facilities. As part of the expansion, the following upgrades are planned:

- expansion of the camp in a phased approach with construction of two residential blocks for 165 people each and addition of a dining room for 150 people
- construction of a 24-kilometre asphalt paved road connecting the camp to the three processing facilities

Water, power and heat

Groundwater wells provide sufficient water for all planned industrial activities. Potable water for use at the camp and at site facilities is supplied from shallow wells on the site. The site is connected to the national power grid. In case of power outages, there are standby generators. Operations continue throughout the year despite cold winters (lows of -35°C) and hot summers (highs of +40°C).

Employees

Taikonur has a population of about 680 who are mainly employed in uranium development and exploration. Whenever possible, JV Inkai hires personnel from Taikonur and surrounding villages.

Mining

Mining at Inkai is based upon a conventional and well-established ISR process. ISR mining of uranium is defined by the IAEA as:

“The extraction of ore from a host sandstone by chemical solutions and the recovery of uranium at the surface. ISR extraction is conducted by injecting a suitable leach solution into the ore zone below the water table; oxidizing, complexing and mobilizing the uranium; recovering the pregnant solutions through production wells; and finally, pumping the uranium bearing solution to the surface for further processing.”

ISR mining at Inkai is comprised of the following components to produce a uranium-bearing lixiviant (an aqueous solution which includes sulphuric acid), which goes to settling ponds and then to the processing plants for production as yellowcake:

- **Determination of the GT (grade x thickness) cut-off** for the initial design and the operating period. The design sets a lower limit to the pounds per pattern required to warrant installation of a pattern before funds are committed, and the operating cut-off applies to individual producer wells and dictates the lower limit of operation once a well has entered production.
- **Preparation of a production sequence**, which will deliver the uranium-bearing lixiviant to meet production requirements, considering the rate of uranium recovery, lixiviant uranium head grades, and wellfield flow rates.
- **Wellfield development practices**, using an optimal pattern design, distribute barren lixiviant to the wellfield injectors, and then collect lixiviant, which carries the dissolved uranium, back to the MPP, Sat1 or Sat2, as the case may be.

The above factors are used to estimate the number of operating wellfields, wellfield patterns and wellfield houses over the production life. They also determine the unit cost of each of the mining components required to achieve the production schedule, including drilling, wellfield installation and wellfield operation.

There is ongoing wellfield development to support the current production plan. The mining project documents are being updated following the 2021 completion of the resource estimate report as described in *Exploration* on page 66 below.

Processing

As a result of extensive test work and operational experience, a very efficient process of uranium recovery has been established. The process consists of the following major steps:

- uranium in-situ leaching with a lixiviant
- uranium adsorption from solution with IX resin
- elution of uranium from resin with ammonium nitrate
- precipitation of uranium as yellowcake with hydrogen peroxide and ammonia
- yellowcake thickening, dewatering, and drying
- packaging of dry yellowcake product in containers

All plants load and elute uranium from resin while the resulting eluate is converted to yellowcake at the MPP. Inkai is designed to produce a dry uranium product that meets the quality specifications of uranium refining and conversion facilities. Overall recovery in 2021 slightly exceeded our target of 85%.

Production

Total production

Based on current mineral reserves, we expect Inkai to produce a total of 232 million pounds U_3O_8 (100% basis, recovered after processing) over the life of the mine from January 2022 to June 2045 inclusive.

Average annual production

Collectively the MPP, Sat1 and Sat2 have the capacity to produce about 8.3 million pounds U_3O_8 per year (100% basis) depending on the grade of the production solution. Construction work for a process expansion of the Inkai circuit to 10.4 million pounds U_3O_8 per year is in progress. The expansion project includes an upgrade to the yellowcake filtration and packaging units and the addition of a pre-dryer and calciner.

Production increase and restructuring – Implementation Agreement

In 2016, we signed an agreement with KAP and JV Inkai to restructure and enhance JV Inkai (the implementation agreement). The restructuring closed in December 2017 and took effect January 1, 2018. This restructuring was subject to obtaining all required government approvals, including an amendment to the resource use contract, which were obtained. The restructuring consisted of the following:

- JV Inkai has the right to produce 10.4 million pounds of U_3O_8 per year, an increase from the prior licensed annual production of 5.2 million pounds
- JV Inkai has the right to produce until 2045 (previously, the licence terms, based on the boundaries prior to the restructuring, were to 2024 and 2030)
- our ownership interest in JV Inkai is 40% and KAP's ownership interest is 60%. However, during production ramp up to the licensed limit of 10.4 million pounds, we are entitled to purchase 57.5% of the first 5.2 million pounds, and, as annual production increases above 5.2 million pounds, we are entitled to purchase 22.5% of any incremental production, to the maximum annual share of 4.2 million pounds. Once the ramp up to 10.4 million pounds annually is complete, we will be entitled to purchase 40% of such annual production, matching our ownership interest
- a governance framework that provides protection for us as a minority owner
- the boundaries of the MA Area match the agreed production profile for JV Inkai to 2045
- priority payment of the loan that our subsidiary made to JV Inkai to fund exploration and evaluation of the historically defined block 3 area (in 2019, the loan was repaid)

With KAP, we completed and reviewed a feasibility study for the purpose of evaluating the design, construction, and operation of a uranium refinery in Kazakhstan. In accordance with the agreement, a decision was made not to proceed with construction of the uranium refinery as contemplated in the feasibility study. We subsequently signed an agreement to licence our proprietary UF_6 conversion technology to KAP, which will allow KAP to examine the feasibility of constructing and operating its own UF_6 conversion facility in Kazakhstan.

The subsoil code allows producers to deviate within 20% (above or below) from the production parameters (including annual production levels) set out in the state approved project documentation, without triggering a mandatory amendment process.

With the change in ownership interests, we account for JV Inkai on an equity basis.

2021 Production

Total 2021 production from Inkai was 9.0 million pounds (100% basis), an increase of 28% from 2020. The increase in production was mainly due to the impact of the reduction in operational activities introduced to manage the risks posed by the COVID-19 pandemic in 2020. Collectively the MPP, Sat1 and Sat2 have the capacity to produce about 8.3 million pounds U_3O_8 per year (100% basis) depending on the grade of the production solution. 2021 production above that capacity was achieved by toll processing at another plant. Based on an adjustment to the production purchase entitlement under the 2016 implementation agreement, in 2021 we were entitled to purchase 5.3 million pounds, or 59.4% of JV Inkai's 2021 production of 9.0 million pounds.

2022 Production

On July 2, 2021, KAP announced that it plans to maintain 2023 production at a similar level to 2022, which is expected to be 20% lower than the planned volumes under its subsoil use contracts.

Based on an adjustment to the production purchase entitlement under the 2016 implementation agreement described above, we are entitled to purchase 4.2 million pounds, or 50% of JV Inkai's planned 2022 production of 8.3 million pounds, assuming no production disruptions due to the COVID-19 pandemic, supply chain disruptions, civil unrest, or other causes.

Presently, JV Inkai is experiencing wellfield development, procurement, and supply chain issues, including inflationary pressure on production materials and reagents, which are expected to continue and could pose a risk to JV Inkai's 2022 production volume, impacting its costs. In addition, JV Inkai's costs could be impacted by potential changes to the tax code in Kazakhstan and by possible increased financial contributions to social and other state causes, although these risks cannot be quantified or estimated at this time.

Our share of production is purchased at a discount to the spot price and included at this value in inventory. In addition, JV Inkai capital is not included in our outlook for capital expenditures.

Achievement of JV Inkai's 2022 production forecast requires it to successfully manage its operating and other risks including the current uncertain environment resulting from civil unrest and from the COVID-19 pandemic, including the risk of significant disruption to JV Inkai's operations, workforce, required supplies or services, and its ability to produce uranium.

Sales

There are annual uranium sales contracts entered into between JV Inkai and a Cameco subsidiary to purchase Cameco's share of Inkai production for each year, as well as similar contracts between JV Inkai and KAP. JV Inkai currently has no other forward-sales commitments for its uranium production.

In accordance with the Kazakhstan government's resolution on uranium concentrate pricing regulations, product is currently purchased from JV Inkai at a price equal to the uranium spot price, less a 5% discount.

Cash distribution

Excess cash, net of working capital requirements, will be distributed to the partners as dividends. In 2021, we received dividend payments from JV Inkai totalling $40 million (US). Our share of dividends follows our production purchase entitlements as described above.

Resource use contract

The resource use contract was signed by the Republic of Kazakhstan and JV Inkai and then registered on July 13, 2000 based on the licence granted on April 20, 1999. The resource use contract provides for JV Inkai's mining rights to the MA Area, as well as containing obligations with which JV Inkai must comply in order to maintain such rights. There have been six amendments to the resource use contract, the most recent in November 2017, being Amendment No. 6 to:

- define the boundaries of the MA Area to match the agreed production profile for JV Inkai to 2045
- increase the annual production rate from the MA Area to 10.4 million pounds U_3O_8
- extend the extraction term from the MA Area until July 13, 2045.

The other prior significant amendments to the resource use contract are as follows:

- In 2007, Amendment No. 1 to the resource use contract was signed, extending the exploration period of blocks 2 and 3 for two years.
- In 2009, Amendment No. 2 to the resource use contract was signed, adopting the 2009 Tax Code, implementing local content and employment requirements, and extending the exploration period at block 3.
- In 2011, Amendment No 3 to the resource use contract was signed, increasing production and giving JV Inkai government approval to carry out a five-year assessment program on block 3 that included delineation drilling, uranium resource estimation, construction and operation of a processing plant at block 3, and completion of a feasibility study.
- In 2013, Amendment No. 4 to the resource use contract was signed to increase annual production from blocks 1 and 2 to 5.2 million pounds U_3O_8.
- In 2016, Amendment No. 5 to the resource use contract was signed, extending the exploration period at block 3 to July 13, 2018.

In addition to complying with its obligations under the resource use contract, JV Inkai, like all subsoil users, is required to abide by the work program appended to the resource use contract, which relates to its mining operations. The current work program, to increase the annual production rate to 10.4 million pounds U_3O_8, is attached to Amendment No. 6.

Environment

JV Inkai has to comply with environmental requirements during all stages of the operation, and develop an environmental impact assessment for examination by a state environmental expert before making any legal, organizational or economic decisions that could have an effect on the environment and public health.

As required under Kazakhstan law, JV Inkai has a permit for environmental emissions and discharges for the operation that is valid until December 31, 2030. JV Inkai also holds certain water use permits which have various expiry dates.

JV Inkai carries environmental insurance, as required by the resource use contract and environmental law.

Decommissioning

JV Inkai's decommissioning obligations are defined by the resource use contract and the subsoil code. JV Inkai is required to maintain a fund, which is capped at $500,000 (US), as security for meeting its decommissioning obligations. Under the resource use contract, JV Inkai must submit a plan for decommissioning the property to the government six months before mining activities are complete.

JV Inkai has developed a preliminary decommissioning plan to estimate total decommissioning costs, and updates the plan when there is a significant change at the operation that could affect decommissioning estimates. The preliminary decommissioning estimate is $20 million (US) and is subject to ongoing review.

Groundwater is not actively restored post-mining in Kazakhstan. See page 90 for additional details.

Kazakhstan government and legislation

Subsoil law

The principal legislation governing subsoil exploration and mining activity in Kazakhstan is the *Code of the Republic of Kazakhstan on Subsoil and Subsoil Use No. 125-VI dated December 27, 2017* (which became effective on June 28, 2018), as amended (the subsoil code). It replaced *the Law on the Subsoil and Subsoil Use dated June 24, 2010*, as amended.

In general, the rights held by JV Inkai are governed by the old subsoil law that was in effect at the time of the resource use contract registration in July 2000. The subsoil use rights held by JV Inkai came into effect upon the initial issuance of these licences (April 1999) and the execution and the state registration of the resource use contract (July 2000).

The subsoil code defines the framework and procedures connected with the granting, transfer and termination of subsoil rights, and the regulation of the activities of subsoil users. The subsoil, including mineral resources in their underground state, are Kazakhstan state property. Resources brought to the surface belong to the subsoil user, unless otherwise provided by contract or law. The state has priority and approval rights with regards to strategic deposits with some exceptions (for example, for inter-group transfers in certain circumstances), if a subsoil user transfers its subsoil rights or if there is a transfer (direct or indirect) of an ownership interest in a subsoil user.

Subsoil rights go into effect when a contract with the competent authority is finalized and registered. Pursuant to the subsoil code, the subsoil user is given, among other things, the exclusive right to conduct mining operations, to build production facilities, to freely dispose of its share of production and to negotiate extensions of the contract, subject to restrictions and requirements set out in the subsoil code.

Currently, the Ministry of Energy of the Republic of Kazakhstan is the competent authority on hydrocarbons and uranium under the subsoil code.

Stabilization

The subsoil code provides, subject to a number of exceptions, that any licences issued and contracts executed before the enactment of the subsoil code remain valid. Therefore, the resource use contract remains valid. Most of the general provisions of the subsoil code apply to subsoil contracts concluded and licences issued before the subsoil code enactment. At the same time, the subsoil code's special provisions on uranium generally do not have retrospective effect except for certain rules such as obligations in the spheres of education, science and social, regional economic development during production, procurement, and environmental protection, and contract termination rules.

Given that some subsoil use contracts (including the resource use contract) contain the legislation stability guarantee and the latter is also provided for by both the stabilized law and the subsoil code, any retrospective provisions of the subsoil code do

not override such stability guarantee unless an exception applies. For example, environmental regulations of the subsoil code are an exception to the stability guarantee and apply to subsoil users operating under old contracts.

Overall, the Republic of Kazakhstan has gradually weakened the stabilization guarantee, particularly in relation to the new projects, and the national security exception in the subsoil code is applied broadly to encompass security over strategic national resources.

Amendment No. 2 to the resource use contract eliminated the tax stabilization provision that applied to JV Inkai.

Transfer of subsoil rights and priority rights

The subsoil code liberates to some extent the regime of regulatory approvals by requiring the consent for the transfer of an object connected with the subsoil use right only in relation to hydrocarbons, uranium and deposits under a solid minerals licence. In addition, it abolished the requirement to obtain consent in case of a charter capital increase without change in shareholding and a transaction with government, state body, national management holding or national company. As previously, failing to obtain the consent of the competent authority makes the transaction void.

Similar to the old subsoil law, the subsoil code provides the state with the priority right only with respect to a subsoil use right related to a strategic subsoil area and an object connected with the subsoil use right related to the strategic subsoil area. The exemptions from the requirement to obtain the consent of the competent authority discussed above also exempts a transaction from the requirement to obtain a waiver of the priority right of the state.

The subsoil code has introduced a new requirement, which is a change of control notification to be made within 30 calendar days from such change. The subsoil code provides that control means inter alia holding more than 25% shares (participatory interests or securities convertible in shares), having voting rights for more than 25% of all votes in the highest management body.

Dispute resolution

The subsoil code contains provisions on resolution of disputes by a court order (meaning state courts) on a number of specific issues such as disputes regarding revocation of licences or termination of resource use contracts.

At the same time, the subsoil code is silent on the status of arbitration clauses contained in resource use contracts currently in effect. Therefore, strictly speaking, the subsoil code does not disallow international arbitration.

The resource use contract contains a dispute resolution clause referring contractual disputes to international arbitration. We believe the subsoil code does not affect this right.

Contract termination

The subsoil code introduces specific grounds for unilateral termination of subsoil use contracts (hydrocarbons and uranium).

Due to March 2021 amendments to the subsoil code, the provisions on termination of resource use contracts were given retrospective effect. Generally, however, those retrospective provisions should not override the stability guarantee and should not apply to the resource use contract.

The subsoil code applies some general grounds for unilateral repudiation retrospectively. Those are (i) a breach of the requirement to obtain the competent authority's consent for transfer of a subsoil use right or an object connected with subsoil use right for hard minerals containing a major or strategic deposit which lead to a threat to national security; and (ii) actions of subsoil user during subsoil use operations at major deposits of hard minerals leading to a change in the economic interest of the Republic of Kazakhstan which creates a threat to national security. To the extent these grounds for unilateral termination relate to national security which is an area not covered by the stability guarantee, they apply to resource use contracts entered into before the subsoil code came into effect.

Local content

The subsoil code imposes local content requirements for works, services and employees.

The resource use contract imposes local content requirements on JV Inkai with respect to employees, goods, works and services. As such, at least 40% of the costs of the acquired goods and equipment, 90% of contract works and 100%, 70% and 60% of employees, depending on their qualifications (workers, engineers and management, respectively), must be of local

origin. Effective January 1, 2021, under Kazakhstan law this local content requirement ceased to apply to goods procured by JV Inkai.

Strategic deposits

The subsoil code provides that all uranium deposits are strategic deposits. According to a governmental resolution On Determination of the Strategic Subsoil Areas Importance dated June 28, 2018 No. 389, 137 areas are strategic deposits, including Inkai's blocks.

Transfer of subsoil use rights on strategic areas is subject to the priority right and the competent authority's consent, as described above.

Reintroduction of the licensing regime

The subsoil code reintroduces the licensing regime for widespread and solid minerals except uranium. The regime of the resource use contracts only applies to exploration and production rights for hydrocarbons and uranium. As such, the rights to explore and produce uranium will continue to be provided on the basis of a resource use contract.

Decommissioning

The subsoil code modified the general provisions related to decommissioning. Some of them are applied retroactively. One such modification introduces a new requirement to provide financial security for a subsoil user's decommissioning obligations in the form of a guarantee, insurance and/or bank deposit.

The subsoil code also contains special provisions on decommissioning of uranium wellfields. They do not have retroactive effect. However, because they fall within the sphere of environmental protection, they are not covered by the stability guarantee.

Uranium special regulations

The subsoil code differentiates uranium from the rest of solid minerals and provides an additional and distinct set of rules to govern uranium mining specifically.

The subsoil code provides that a uranium deposit is granted for mining only to a uranium national company (a joint stock company created by a decree of the government of Kazakhstan with the controlling stock belonging to the state or the national management fund on the basis of direct negotiations).

The subsoil code further stipulates that a subsoil use right for uranium mining (or a share in such subsoil use right) granted to a uranium national company on the basis of direct negotiations may only be further transferred to its subsidiary entities where the uranium national company holds more than 50% of the shares (participating interests) directly or indirectly. Such a transferee, in turn, may only transfer the subsoil use right (or share in the subsoil use right) to the uranium national company's subsidiary entities where the uranium national company holds more than 50% of the shares (participating interests) directly or indirectly.

The uranium special rules also regulate issues such as termination of the uranium subsoil use right, provision of a uranium deposit and its extension/reduction, conditions, and periods of mining and project and design documents. The subsoil code does not make these special uranium rules retroactive, subject to a few exceptions.

Currency control regulations

Under *the Law of the Republic of Kazakhstan on Currency Regulation and Currency Control No. 167-VI* dated July 2, 2018 (effective from July 1, 2019) (the Currency Law), in the event of an emergency situation presenting a threat to economic security and stability of the financial system of Kazakhstan, the Kazakhstan government based on a joint recommendation from the National Bank of Kazakhstan (the NBK) and other relevant state authorities is entitled to introduce a special currency regime for a period of up to one year. The following terms and requirements may potentially be imposed under such special currency regime:

- the requirement to deposit money on an interest free basis with a Kazakhstan bank or the NBK for a set period
- the requirement to obtain a special permit from the NBK to carry out certain foreign exchange transactions
- the requirement to sell foreign currency received by Kazakhstan residents
- the restriction on use of overseas bank accounts

- the establishment of a term for the return of foreign currency earnings and limits on volumes, amount and currency of settlement under foreign exchange transactions; and
- other temporary currency restrictions

Under the Currency Law, the requirements of the special currency regime may not restrict:

- the performance of obligations by Kazakhstan residents towards non-residents of Kazakhstan arising as a result of such non-residents of Kazakhstan performing their obligations under currency contracts entered into before the introduction of the special currency regime; and
- the transfer by non-residents of Kazakhstan of dividends, interest and other proceeds under deposit, and securities

Since the Currency Law has become effective, the following substantial changes envisaged by the Currency Law are noteworthy:

- amendment to the definition of Kazakhstan residents
- introduction of a requirement for Kazakhstan legal entities to confirm the purpose of the purchase and use of foreign currency in the Kazakhstan market
- cancellation of current currency operations registration and notification regimes and introduction of one regime for currency operations monitoring; and
- new requirements applicable to export/import operations with customs clearance in the territory of Kazakhstan

The resource use contract grants JV Inkai a measure of protection from currency control regulations, granting it the right to freely transfer funds, in state and other currencies, inside and outside of Kazakhstan with the exception that financial transactions within Kazakhstan must be concluded in the national currency.

Operating, capital costs and economic analysis

The following is a summary of the operating and capital cost estimates for the remaining life of mine, stated in constant 2021 dollars and reflecting a forecast life-of-mine production of 232 million pounds U_3O_8 and a 340 Kazakhstan Tenge to 1 Cdn dollar exchange rate assumption.

Operating Costs ($Cdn million)	Total (2022 – 2045)
Site administration	$ 544.8
Processing costs	274.5
Mining costs	658.3
Corporate overhead	460.7
Total operating costs	**$ 1,938.3**
Average cost per pound U_3O_8	**$ 8.35**

Note: presented as total cost to JV Inkai (100% basis).

Estimated operating costs consist of annual expenditures to mine and process the mineral reserves into U_3O_8 as well as site administration and corporate overhead costs.

Capital Costs ($Cdn million)	Total (2022 – 2045)
Total wellfield development	$ 639.7
Construction and maintenance capital	78.0
Sustaining capital	68.4
Total capital costs	**$ 786.1**

Note: presented as total cost to JV Inkai (100% basis).

The economic analysis, effective as of January 1, 2018 being the effective date of the technical report for Inkai, undertaken from the perspective of JV Inkai, based on JV Inkai's share (100%) of Inkai mineral reserves, results in an after tax NPV of $2.2 billion (at a discount rate of 12%), for the net annual cash flows from January 1, 2018 to mid-2045 totalling $8.9 billion. Using the total capital invested, along with the operating and capital cost estimates for the remainder of mineral reserves, the

after tax IRR is estimated to be 27.1%. Payback for JV Inkai, including all actual costs was achieved in 2015, on an undiscounted, after tax basis. All future capital expenditures are forecasted to be covered by operating cash flow.

Annual Cash Flows – 100% JV Inkai basis

Annual cash flows ($Cdn M)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Production volume (000's lbs U_3O_8)	6,896	8,351	10,406[1]	10,399[1]	10,399[1]	10,293[1]	9,305	9,445	8,526	7,979	7,417	5,776	6,134
Sales Revenue	$229.3	$337.2	$ 531.4	$ 642.1	$ 679.2	$ 696.7	$629.8	$639.3	$577.1	$540.1	$502.0	$391.0	$415.2
Operating Costs	67.0	77.5	89.8	86.0	86.6	87.8	82.0	82.3	79.1	77.2	76.2	69.0	70.0
Capital Costs	59.4	81.1	75.3	45.0	49.9	37.6	36.9	37.9	43.0	34.5	32.7	25.2	28.0
Mineral Extraction Tax	14.2	18.3	20.5	19.2	19.6	19.0	16.1	16.4	14.4	14.0	13.3	9.8	10.4
Corporate Income Tax	23.7	39.7	74.9	96.9	103.8	107.9	97.6	99.3	89.0	82.2	75.5	57.1	61.2
Net cash flow	**$ 65.1**	**$120.6**	**$ 271.0**	**$ 395.1**	**$ 419.3**	**$ 444.5**	**$397.2**	**$403.4**	**$351.5**	**$332.2**	**$304.5**	**$230.0**	**$245.7**

2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	Total
6,986	7,908	9,650	8,389	7,522	6,186	6,917	7,321	9,115	9,412	8,876	8,762	8,892	8,421	3,475	229,159
$472.9	$535.3	$653.2	$567.8	$509.1	$418.7	$468.2	$495.5	$617.0	$637.1	$600.8	$593.1	$601.8	$570.0	$235.2	$14,786.1
73.8	75.3	80.7	78.5	74.3	71.8	73.9	75.2	81.3	83.3	81.2	80.0	81.3	82.3	65.3	2,188.5
27.6	30.3	37.7	34.8	29.9	26.0	31.2	29.9	39.5	38.4	36.0	34.9	35.2	34.3	11.5	1,063.5
11.5	12.5	15.3	12.7	10.7	9.4	10.4	10.7	13.4	14.2	13.1	13.0	13.1	13.0	5.5	383.5
71.3	82.5	102.8	88.6	79.0	62.6	71.3	76.3	97.4	100.6	94.5	93.0	96.0	90.2	30.8	2,245.5
$288.7	$334.7	$416.7	$353.2	$315.2	$248.9	$281.5	$303.5	$385.4	$400.6	$376.1	$372.1	$376.2	$350.2	$122.1	$ 8,905.1

Note: Effective January 1, 2018 and presented from the perspective of JV Inkai and based on JV Inkai's share (100%) of the mineral reserves at an 85% recovery.

1 Due to KAP's announced plans to maintain its aggregate production reduction of 20% through 2023, we expect total production from JV Inkai to be 8.3 million pounds in 2022 and 2023. The production reduction of 20% also applied to the 2020 and 2021 production plans for an annual target of 8.3 million pounds; however, due to the impact of COVID-19, actual 2020 production was 7.0 million pounds. Actual 2021 production was 9.0 million pounds.

Estimated capital costs include wellfield development to mine the mineral reserves as well as construction and maintenance capital along with sustaining capital. Construction capital was originally heavily weighted to 2019 to 2020 due to the capital required for the production ramp up to 10.4 million pounds annually as well as upgrades to existing facilities. The spending during those years was somewhat lower than projected as the construction capital will continue through 2023 to coincide with the ramp up of production in 2024.

With the updated reserve estimate in 2021, the current forecast production is now 232 million pounds U_3O_8 for the remaining term of the resource use contract, ending July 2045. Operating costs are expected to increase by approximately 22% as compared to the 2020 AIF and decrease by approximately 13% compared to the 2018 technical report as a result of the valuation of the Kazakhstan Tenge, expected adjustments to remuneration programs, and inflationary factors. There is considerable uncertainty regarding the future political and economic landscape in Kazakhstan, which could impact capital and

operating cost estimates (for additional information see a discussion of financial risks starting on page 101 and political risks starting on page 107).

Our expectations and plans regarding Inkai, including forecasts of operating and capital costs, net annual cash flow, production and mine life are forward-looking information, and are based specifically on the risks and assumptions discussed on pages 2, 3 and 4. Operating or capital spending plans may change in 2022, depending on the impact of COVID-19, uranium markets and other factors. Estimates of expected future production, net annual cash flows, and capital and operating costs are inherently uncertain, particularly beyond one year, and may change materially over time.

Exploration, drilling, sampling, data quality and estimates

Exploration at Inkai began in the 1970s and progressed until 1996. Since 2006, exploration and delineation drilling is conducted by JV Inkai, with the main focus on block 3. From 2013 to 2016, delineation drilling was conducted at block 1 and block 2 to better establish the mineralization distribution and to support further development and wellfield design. In 2018 and 2019 JV Inkai carried out infill drilling program in the central and western parts of the MA Area (referred to as Sat1 area).

We have relied on historical data to estimate mineral reserves and resources for portions of the MA Area that came from block 1. Extensive exploration and delineation work was completed in the portion of the MA Area that came from block 3. It was used to estimate mineral reserves and resources. There are no historical mineral resources and reserves estimates within the meaning of NI 43-101 to report.

Exploration

Exploration drilling

JV Inkai's uranium exploration and delineation drilling programs were conducted by drilling vertical holes from surface. Delineation of the deposit on the MA Area and its geological structural features was carried out by drilling on a grid at prescribed density of 3.2 to 1.6-kilometre line spacing and 200 to 50-metre hole spacing with coring. Increasing level of geological knowledge and confidence is obtained by further drilling at grids of 800 to 400 x 200 to 50 metre with coring and 200 to 100 x 50 to 25 metre grid, usually without core.

Vertical holes are drilled with a triangular drill bit for use in unconsolidated formations down to a certain depth and the rest of the hole is cored. At the Inkai deposit, approximately 50% of all exploration holes are cored through the entire mineralized interval, and 70% core recovery is required for assay sampling. Radiometric probing, hole deviation, geophysical and hole diameter surveys are done by site crews and experienced contractors.

As the mineralized horizons lie practically horizontal and the drill holes are nearly vertical, the mineralized intercepts represent the true thickness of the mineralization.

The total number of exploration holes drilled before 2018 on the MA Area was approximately 4,500.

The drilling results were used for the identification of the horizons and mineralization encountered and served for the geological modelling, the estimation of uranium distribution and content, and the understanding of hydrogeological and metallurgical characteristics.

In 2019, JV Inkai continued the infill drilling program started in 2018 in the Sat1 area aimed at upgrading the inferred and indicated resources and probable reserves to higher categories. From the beginning of the drilling program, a total of 1,208 drillholes (487,638 metres) were drilled, including 482 core holes (196,727 metres) and 716 non-core holes (290,910 metres). Drilling was carried out by progressively tightening from 400 by 100 metres to 200 by 50 metres grids. The infill drilling program was completed in September 2019. Preparation of a resource estimate report was initiated in October 2019 and was completed in 2021, incorporating the infill drilling results from 2018 and 2019. These results have been assessed and went through the local governmental approval process. The report is being used to update the mining project documents. This update also involves updating the work program for mining operations by amendment to the resource use contract and obtaining the required government approvals. This process is ongoing and at this stage JV Inkai has retained a local engineering firm to update the mining project documents.

Sampling analysis and data verification

The sampling, sample preparation, analyses, and geophysical downhole logging during the exploration and delineation programs follow the procedures and manuals which adhere to the requirements set out in the State Reserves Commission guidelines.

Sampling

- Detailed sampling procedures guide the sampling interval within the mineralization. Holes are drilled on progressively tightening grids: 3.2 to 1.6 kilometre x 200-50 metre, 800-400 metre x 200-50 metre and 200-100 metre x 50-25 metre. When core recoveries are higher than 70% and radioactivity greater than a certain threshold, core samples are taken at intervals of 0.2 to 1.2 metres. Sample intervals are also differentiated by barren or low permeability material.
- The drillholes are nearly vertical and the mineralized horizons are almost horizontal, so the mineralized intercepts represent the true thickness of the mineralization
- JV Inkai surveys the drillholes, logging radiometric, electrical (spontaneous potential and resistivity), caliper and deviation data.
- Sampling is done on half of the core. The average core sample length is 0.4 metre.
- The split core is tested for grainsize and carbonate content.
- Core recovery is considered acceptable given the unconsolidated state of the mineralized material.

Sample security

JV Inkai's current sampling process follows the strict regulations imposed by the Kazakhstan government, and includes the highest level of security measures, quality assurance and quality control. We have not been able to locate the documents describing sample security for historical Kazakhstan exploration on the MA Area, but we believe the security measures taken to store and ship samples were of the same high quality.

Analysis

- The core samples for uranium and radium determination are ground down to 1.0 mm grain size and are further subdivided by one or three times quartering until the final representative weight of samples and duplicates is reached (0.2 kg)
- The laboratory tests for uranium and radium were performed by the Central Analytical Laboratory of JSC Volkovgeology, a company related to KAP, the other owner of JV Inkai. The laboratory is certified and licensed by the National Centre for Accreditation of the Republic of Kazakhstan.
- The uranium content was determined by using the X-ray fluorescence spectrum analysis. The radium content was determined from the gamma-X-ray spectrum analysis.

Quality control and data verification

- The sampling reproducibility for the uranium and radium assays was determined by two methods: (1) having the remaining half of the core sampled by another sampler and by (2) by compositing samples consisting of the original sample rejects and samples of the remaining half of the core. Reproducibility of uranium and radium assays were within acceptable tolerances.
- Internal laboratory control of the uranium and the radium grade determination is performed by comparing the results of the sample and its blind duplicate. The mean square error between sample and duplicate was calculated by measuring the deviation to ensure it stayed within the prescribed limits.
- External (inter-laboratory) controls for the uranium and radium assays were carried out at the VIMS laboratory in Moscow, Russia, Nevskoe PGO laboratory in Saint-Petersburg, Russia and Kyzyltepageologiya Laboratory in Navoi, Uzbekistan. The number of control samples was approximately 2% of all samples for uranium and approximately 1% of all samples for radium.
- All of the drillhole information in use at Inkai is regularly provided to Cameco. The current database has been validated a number of times by geologists with JV Inkai, JSC Volkovgeology, the State Reserve Commission, Two Key LLP, and Cameco, and is considered relevant and reliable.
- Our geoscientists, including qualified persons as such term is defined in NI 43-101, have witnessed or reviewed drilling, core handling, radiometric probing, logging and sampling facilities used at the Inkai mine and consider the methodologies to be satisfactory and the results representative and reliable
- We confirmed the correlation between radioactive readings and calculated radium grades
- We carried out data verification processes that validated the mineral resource and reserve estimates

- All drilling, logging, core drilling, and subsequent core splitting and assaying, were completed under the direction of various geological expeditions of the USSR Ministry of Geology and later under the supervision of JSC Volkovgeology
- Based on numerous quality assurance and quality controls applied by JSC Volkovgeology, including internal checks and inter-laboratory checks, the repeatability of the results for uranium and radium confirmed the accuracy required and no significant systematic deviations were found
- Sampling and analysis procedures have been examined by an independent consultant and found to be detailed and thorough
- The findings are supported by results of the leach tests and wellfield drilling results on the MA Area

Accuracy

We are satisfied with the quality of data and consider it valid for use in the estimation of mineral resources and reserves for the MA Area. Comparison of the actual mine production with the expected production supports this opinion.

Mineral reserve and resource estimates

Please see page 75 for our mineral reserve and resource estimates for Inkai.

Uranium – Tier-two operations

Rabbit Lake

Located in Saskatchewan, Canada, our 100% owned Rabbit Lake operation opened in 1975. Due to market conditions, we suspended production at Rabbit Lake during the second quarter of 2016.

Location	Saskatchewan, Canada
Ownership	100%
End product	Uranium concentrates
ISO certification	ISO 14001 certified
Mine type	Underground
Estimated reserves	-
Estimated resources	38.6 million pounds (indicated), average grade U_3O_8: 0.95%
	33.7 million pounds (inferred), average grade U_3O_8: 0.62%
Mining methods	Vertical blasthole stoping
Licensed capacity	Mill: maximum 16.9 million pounds per year; currently 11 million
Licence term	Through October, 2023
Total production: 1975 to 2021	202.2 million pounds
2021 production	0 million pounds
2022 production outlook	0 million pounds
Estimated decommissioning cost	$213 million

Production suspension

The facilities remained in a state of safe and sustainable care and maintenance throughout 2021.

While in standby, we continue to evaluate our options in order to minimize care and maintenance costs. We expect care and maintenance costs to range between $27 million and $32 million annually.

US ISR Operations

Located in Nebraska and Wyoming in the US, the Crow Butte and Smith Ranch-Highland (including the North Butte satellite) operations began production in 1991 and 1975. Each operation has its own processing facility. Due to market conditions, we curtailed production and deferred all wellfield development at these operations during the second quarter of 2016.

Ownership		100%
End product		Uranium concentrates
ISO certification		ISO 14001 certified
Estimated reserves	*Smith Ranch-Highland:*	-
	North Butte-Brown Ranch:	-
	Crow Butte:	-
Estimated resources	*Smith Ranch-Highland:*	24.9 million pounds (measured and indicated), average grade U_3O_8: 0.06% 7.7 million pounds (inferred), average grade U_3O_8: 0.05%
	North Butte-Brown Ranch:	9.5 million pounds (measured and indicated), average grade U_3O_8: 0.07% 0.4 million pounds (inferred), average grade U_3O_8: 0.07%
	Crow Butte:	13.9 million pounds (measured and indicated), average grade U_3O_8: 0.25% 1.8 million pounds (inferred), average grade U_3O_8: 0.16%
Mining methods		In situ recovery (ISR)
Licensed capacity	[1] *Smith Ranch-Highland:*	Wellfields: 3 million pounds per year; processing plants: 5.5 million pounds per year
	Crow Butte:	Processing plants and wellfields: 2 million pounds per year
Licence term	*Smith Ranch-Highland:*	Through September, 2028
	Crow Butte:	Through October, 2024
Total production: 2002 to 2021		33.0 million pounds
2021 production		0 million pounds
2022 production outlook		0 million pounds
Estimated decommissioning cost		Smith Ranch-Highland: $219 million (US), including North Butte Crow Butte: $56 million (US)

[1] Including Highland mill.

Production and curtailment

As a result of our 2016 decision, production at the US operations ceased in 2018.

We expect ongoing cash and non-cash care and maintenance costs to range between $17 million (US) and $19 million (US) for 2022.

Future production

We do not expect any production in 2022.

Uranium – Advanced projects

Work on our advanced projects has been scaled back and will continue at a pace aligned with market signals.

Millennium

Location	Saskatchewan, Canada
Ownership	69.9%
End product	Uranium concentrates
Potential mine type	Underground
Estimated resources (our share)	53.0 million pounds (indicated), average grade U_3O_8: 2.39% 20.2 million pounds (inferred), average grade U_3O_8: 3.19%

Background

The Millennium deposit was discovered in 2000 and was delineated by surface drilling work between 2000 and 2013.

Yeelirrie

Location	Western Australia
Ownership	100%
End product	Uranium concentrates
Potential mine type	Open pit
Estimated resources	128.1 million pounds (measured and indicated), average grade U_3O_8: 0.15%

Background

The Yeelirrie deposit was discovered in 1972 and is a near-surface calcrete-style deposit that is amenable to open pit mining techniques. It is one of Australia's largest undeveloped uranium deposits.

Kintyre

Location	Western Australia
Ownership	100%
End product	Uranium concentrates
Potential mine type	Open pit
Estimated resources (our share)	53.5 million pounds (indicated), average grade U_3O_8: 0.62% 6.0 million pounds (inferred), average grade U_3O_8: 0.53%

Background

The Kintyre deposit was discovered in 1985 and is amenable to open pit mining techniques.

2021 project updates

We believe that we have some of the best undeveloped uranium projects in the world. However, in the current market environment our primary focus is on preserving the value of our tier-one uranium assets. We continue to await a signal from the market that additional production is needed prior to making any new development decisions.

Planning for the future

2022 Planned activity

No work is planned at Millennium, Yeelirrie or Kintyre.

Further progress towards a development decision on any of these projects is not expected until the market fully transitions and supply is incented by prices that reflect production economics.

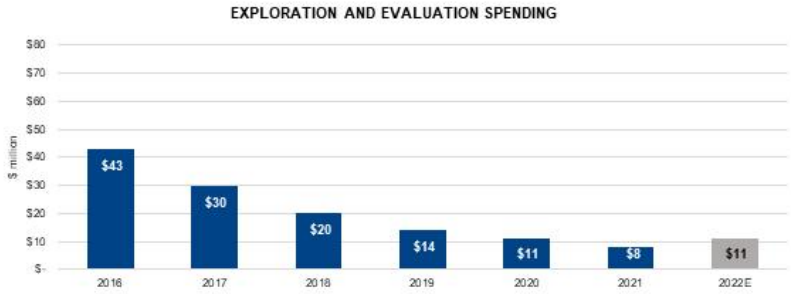
Project approval

The approval received for Kintyre from the prior state government required substantial commencement of the project by March 2020, being within five years of the grant of the approval, and this was not achieved. The current government declined to grant us an extension to achieve it. In the future, we can apply for an extension of time to achieve substantial commencement of the project. If granted by a future government we could commence the Kintyre project, provided we have all other required regulatory approvals.

The approval for the Yeelirrie project, received from the prior state government, required substantial commencement of the project by January 2022, and this was not achieved. The Minister for Environment; Climate Action for the state government has indicated that it will not consider our request for an extension at this time. In the future we can again apply for an extension of time to achieve substantial commencement of the project. If granted by a future government we could commence the Yeelirrie project, provided we have all other required regulatory approvals. Approval for the Yeelirrie project at the federal level was granted in 2019 and extends until 2043.

Uranium – exploration

Our exploration program is directed at replacing mineral reserves as they are depleted by our production and is key to sustaining our business. However, as we are preserving our tier-one assets and have ample idled production capacity, we have reduced our spending to focus only on exploration near our existing operations where we have established infrastructure and capacity to expand. Globally, we have land with exploration and development prospects that are among the best in the world, mainly in Canada, Australia and the US. Our land holdings total about 0.85 million hectares (2.1 million acres). In northern Saskatchewan alone, we have direct interests in about 0.75 million hectares (1.9 million acres) of land covering many of the most prospective exploration areas of the Athabasca Basin.



2021 UPDATE

Brownfield exploration

Brownfield exploration is uranium exploration near our existing operations and includes expenses for advanced exploration on the evaluation of projects where uranium mineralization is being defined.

In 2021, we spent about $3 million on brownfields and advanced uranium projects in Saskatchewan and Australia. At the US operations we spent $1 million.

Regional exploration

We spent about $4 million on regional exploration programs (including support costs), primarily in Saskatchewan's Athabasca Basin.

PLANNING FOR THE FUTURE

We will continue to focus on our core projects in Saskatchewan under our long-term exploration strategy. Long-term, we look for properties that meet our investment criteria. We may partner with other companies through strategic alliances, equity holdings and traditional joint venture arrangements. Our leadership position and industry expertise in both exploration and corporate social responsibility make us a partner of choice.

Fuel services

Refining, conversion and fuel manufacturing

We have about 21% of world UF_6 primary conversion capacity and are a supplier of natural UO_2. Our focus is on cost competitiveness and operational efficiency.

Our fuel services segment is strategically important because it helps support the growth of the uranium segment. Offering a range of products and services to customers helps us broaden our business relationships and expand our uranium market share.

In 2021, fuel services produced 12.1 million kgU, 3% higher than 2020 due to production suspensions in 2020 as a precaution due to the COVID-19 pandemic. Planned production was impacted by hydrogen supply issues in 2021. The hydrogen supply constraint was resolved in the fourth quarter; however, supply chain disruption remains a risk generally.

We plan to produce between 12.5 million and 13.5 million kgU in 2022, assuming no production disruptions due to the COVID-19 pandemic or other causes.

In addition, in conjunction with our initiative intended to provide a greater focus on technology and its applications to improve efficiency and reduce costs across the organization, we will continue to look for opportunities to improve operational effectiveness, including the use of digital and automation technologies.

Blind River Refinery



Licensed Capacity
24.0M kgU as UO_3

Licence renewal in

February, 2032

Blind River is the world's largest commercial uranium refinery, refining uranium concentrates from mines around the world into UO_3.

Location	Ontario, Canada
Ownership	100%
End product	UO_3
ISO certification	ISO 14001 certified
Licensed capacity	18.0 million kgU as UO_3 per year, approved to 24.0 million subject to the completion of certain equipment upgrades (advancement depends on market conditions)
Licence term	Through February, 2032
Estimated decommissioning cost	$58 million

Markets

UO_3 is shipped to Port Hope for conversion into either UF_6 or UO_2.

Capacity

In 2012, the CNSC granted an increase to our annual licensed production capacity from 18 million kgU per year as UO_3 to 24 million kgU as UO_3, subject to the completion of certain equipment upgrades. These upgrades will be advanced based on market conditions.

Licensing

In February 2022, the CNSC granted our Blind River refinery a 10-year operating licence, which will expire in February 2032.

Port Hope Conversion Services



Licensed Capacity

12.5M kgU as UF_6

2.8M kgU as UO_2

Licence renewal in

February, 2027

Port Hope is the only uranium conversion facility in Canada and a supplier of UO_2 for Canadian-made CANDU reactors.

Location	Ontario, Canada
Ownership	100%
End product	UF_6, UO_2
ISO certification	ISO 14001 certified
Licensed capacity	12.5 million kgU as UF_6 per year 2.8 million kgU as UO_2 per year
Licence term	Through February, 2027
Estimated decommissioning cost	$129 million

Conversion services

At our UO_2 plant, we convert UO_3 to UO_2 powder, used to make pellets for Canadian CANDU reactors and CANDU reactors in other countries and blanket fuel for light water nuclear reactors.

At our UF_6 plant, we convert UO_3 to UF_6, and then ship it to enrichment plants primarily in the US and Europe. There, it is processed to become low enriched UF_6, which is subsequently converted to enriched UO_2 and used as reactor fuel for light water nuclear reactors.

Anhydrous hydrofluoric acid (AHF) is a primary feed material for the production of UF_6. We have agreements with more than one supplier of AHF to provide us with diversity of supply.

Port Hope conversion facility clean-up and modernization (Vision in Motion)

Vision in Motion is a unique opportunity that demonstrates our continued commitment to a clean environment. It has been made possible by the opening of a long-term waste management facility by the government of Canada's Port Hope Area Initiative project. There is a limited opportunity during the life of this project to engage in clean-up and renewal activities that address legacy waste at the Port Hope conversion facility inherited from historic operations. While there were some targeted

activities throughout the year, significant progress on the Vision in Motion project was limited due to the COVID-19 pandemic and actions taken by the Ontario government to limit all non-essential construction activity.

Licensing

In February 2017, the CNSC approved a ten-year operating licence for the Port Hope conversion facility.

Labour relations

The current collective bargaining agreement with the unionized employees at our Port Hope conversion facility expires on July 1, 2022. There is a risk to our production if we are unable to reach an agreement and there is a labour disruption.

Cameco Fuel Manufacturing Inc. (CFM)



Licensed Capacity

1.2M kgU as UO_2 fuel pellets

Licence renewal in

February, 2023

CFM produces fuel bundles and reactor components for CANDU reactors.

Location	Ontario, Canada
Ownership	100%
End product	CANDU fuel bundles and components
ISO certification	ISO 9001 certified, ISO 14001 certified
Licensed capacity	1.2 million kgU as UO_2 fuel pellets
Licence term	Through February, 2023
Estimated decommissioning cost	$11 million

Fuel manufacturing

CFM's main business is making fuel bundles for CANDU reactors. CFM presses UO_2 powder into pellets that are loaded into tubes, manufactured by CFM, and then assembled into fuel bundles. These bundles are ready to insert into a CANDU reactor core. CFM also produces many different zirconium-based reactor components for CANDU reactors.

Manufacturing services agreements

A substantial portion of CFM's business is the supply of fuel bundles to the Bruce Power A and B nuclear units in Ontario. We supply the UO_2 for these fuel bundles

Licensing

In February 2012, the CNSC approved a ten-year licence for CFM. In February 2022, the CNSC granted a one-year extension to the licence, We asked for this extension with the intension to separate the timing of this process from the Blind River Refinery relicencing efforts. An application has been submitted for a long term licence renewal which will be decided upon in early 2023. We do not expect any interruption or significant risks from this process.

Labour relations

The current collective bargaining agreement with the unionized employees at CFM expires on June 1, 2024.

Corporate development

Investment program

Currently, with our extensive portfolio of reserves and resources and our belief that we have ample idle production capacity for a market that is transitioning, our focus is on navigating by our investment-grade rating and continuing to preserve the value of our tier-one assets by aligning our tier-one production with our delivery commitments and market opportunities. We expect that these assets will allow us to meet rising uranium demand with increased production from our best margin operations and will help to mitigate risk in the event of prolonged uncertainty.

Additionally, we are exploring other emerging and non-traditional opportunities within the fuel cycle, which align well with our commitment to responsibly and sustainably manage our business and increase our contributions to global climate change solutions, such as our investment in Global Laser Enrichment LLC and the non-binding arrangements we signed to explore several areas of cooperation to advance the commercialization and deployment of small modular reactors in Canada and around the world.

We continually evaluate investment opportunities within the nuclear fuel cycle that could add to our future supply options, support our sales activities, and complement and enhance our business in the nuclear industry. We will make an investment decision when an opportunity is available at the right time and the right price. We strive to pursue corporate development initiatives that will leave us and our shareholders in a fundamentally stronger position. As such, an investment opportunity is never assessed in isolation. Investments must compete for investment capital with our own internal growth opportunities. They are subject to our capital allocation process described in our 2021 MD&A under *Our strategy*.

Mineral reserves and resources

Our mineral reserves and resources are the foundation of our company and fundamental to our success.

We have interests in a number of uranium properties. The tables in this section show the estimates of the proven and probable mineral reserves, and measured, indicated, and inferred mineral resources at those properties. However, only three of the properties listed in those tables are material uranium properties for us: McArthur River/Key Lake, Cigar Lake and Inkai. Mineral reserves and resources are all reported as of December 31, 2021.

We estimate and disclose mineral reserves and resources in five categories, using the definition standards adopted by the Canadian Institute of Mining, Metallurgy and Petroleum Council, and in accordance with NI 43-101. You can find out more about these categories at www.cim.org.

About mineral resources

Mineral resources do not have to demonstrate economic viability but have reasonable prospects for eventual economic extraction. They fall into three categories: measured, indicated and inferred. Our reported mineral resources are exclusive of mineral reserves.

- *Measured and indicated mineral resources* can be estimated with sufficient confidence to allow the appropriate application of technical, economic, marketing, legal, environmental, social, and governmental factors to support evaluation of the economic viability of the deposit.
    - *measured resources*: we can confirm both geological and grade continuity to support detailed mine planning
    - *indicated resources*: we can reasonably assume geological and grade continuity to support mine planning
- *Inferred mineral resources* are estimated using limited geological evidence and sampling information. We do not have enough confidence to evaluate their economic viability in a meaningful way. You should not assume that all or any part of an inferred mineral resource will be upgraded to an indicated or measured mineral resource, but it is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources with continued exploration.

Our share of uranium in the following mineral resource tables is based on our respective ownership interests. Mineral resources that are not mineral reserves have no demonstrated economic viability.

About mineral reserves

Mineral reserves are the economically mineable part of measured and/or indicated mineral resources demonstrated by at least a preliminary feasibility study. The reference point at which mineral reserves are defined is the point where the ore is delivered to the processing plant, except for ISR operations where the reference point is where the mineralization occurs under the existing or planned wellfield patterns. Mineral reserves fall into two categories:

- *proven reserves*: the economically mineable part of a measured resource for which at least a preliminary feasibility study demonstrates that, at the time of reporting, economic extraction could be reasonably justified with a high degree of confidence
- *probable reserves*: the economically mineable part of a measured and/or indicated resource for which at least a preliminary feasibility study demonstrates that, at the time of reporting, economic extraction could be reasonably justified with a degree of confidence lower than that applying to proven reserves

For properties for which we are the operator, we use current geological models, an average uranium price of $50 (US) per pound U_3O_8, and current or projected operating costs and mine plans to estimate our mineral reserves, allowing for dilution and mining losses. We apply our standard data verification process for every estimate. For properties in which we have an interest but are not the operator, we take reasonable steps to ensure that the reserve and resource estimates we report are reliable.

Our share of uranium in the mineral reserves table below is based on our respective ownership interests.

Qualified persons

The technical and scientific information discussed in this AIF, including mineral reserve and resource estimates, for our material properties (McArthur River/Key Lake, Cigar Lake and Inkai) was approved by the following individuals who are qualified persons for the purposes of NI 43-101:

McArthur River/Key Lake

- Greg Murdock, general manager, McArthur River/Key Lake, Cameco
- Alain D. Renaud, chief geologist, technical services, Cameco
- Biman Bharadwaj, principal metallurgist, technical services, Cameco

Cigar Lake

- Lloyd Rowson, general manager, Cigar Lake, Cameco
- Scott Bishop, director, technical services, Cameco
- Alain D. Renaud, chief geologist, technical services, Cameco
- Biman Bharadwaj, principal metallurgist, technical services, Cameco

Inkai

- Alain D. Renaud, chief geologist, technical services, Cameco
- Scott Bishop, director, technical services, Cameco
- Biman Bharadwaj, principal metallurgist, technical services, Cameco
- Sergey Ivanov, deputy director general, technical services, Cameco Kazakhstan LLP

Important information about mineral reserve and resource estimates

Although we have carefully prepared and verified the mineral reserve and resource figures in this document, the figures are estimates, based in part on forward-looking information.

Estimates are based on our knowledge, mining experience, analysis of drilling results, the quality of available data and management's best judgment. They are, however, imprecise by nature, may change over time, and include many variables and assumptions including:

- geological interpretation
- extraction plans

- commodity prices and currency exchange rates
- recovery rates
- operating and capital costs

There is no assurance that the indicated levels of uranium will be produced, and we may have to re-estimate our mineral reserves based on actual production experience. Changes in the price of uranium, production costs or recovery rates could make it unprofitable for us to operate or develop a particular site or sites for a period of time. See page 1 for information about forward-looking information, and page 94 for a discussion of the risks that can affect our business.

Please see pages 79 and 80 for the specific assumptions, parameters and methods used for the McArthur River, Cigar Lake and Inkai mineral reserve and resource estimates.

Our estimate of mineral resources and mineral reserves may be materially affected by the occurrence of one or more of the risks described under the heading *Reserve and resource estimates are not precise* on page 103. In addition to those risks, our estimates of mineral resources and mineral reserves for certain properties may be materially affected by the occurrence of one or more of the following risks or factors:

McArthur River and Cigar Lake mineral resource and reserve estimates

- Water inflows – see *Flooding at McArthur River and Cigar* Lake at page 96
- Technical challenges – see *Technical challenges at Cigar Lake and McArthur River* at page 96

Inkai mineral resource and reserve estimates

- Political risks – see page 107

The extent to which our estimates of mineral resources and mineral reserves may be affected by the foregoing issues could vary from material gains to material losses.

Important information for US investors

We present information about mineralization, mineral reserves and resources as required by NI 43-101 of the Canadian Securities Administrators, in accordance with applicable Canadian securities laws. As a foreign private issuer filing reports with the US Securities and Exchange Commission (SEC) under the Multijurisdictional Disclosure System, we are not required to comply with the SEC's disclosure requirements relating to mining properties. Investors in the US should be aware that the disclosure requirements of NI 43-101 are different from those under applicable SEC rules, and the information that we present concerning mineralization, mineral reserves and resources may not be comparable to information made public by companies that comply with the SEC's reporting and disclosure requirements for mining companies.

Mineral reserves

As of December 31, 2021 (100% – only the shaded column shows our share)

Proven and probable

(tonnes in thousands; pounds in millions)

		PROVEN			PROBABLE			TOTAL MINERAL RESERVES				
PROPERTY	MINING METHOD	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	OUR SHARE RESERVES CONTENT (LBS U_3O_8)	METALLURGICAL RECOVERY (%)
Cigar Lake	UG	271.0	15.90	95.0	177.5	14.67	57.4	448.5	15.41	152.4	**76.2**	98.5
Key Lake	OP	61.1	0.52	0.7	—	—	—	61.1	0.52	0.7	**0.6**	95
McArthur River	UG	2,139.6	6.97	328.9	575.1	5.13	65.1	2,714.7	6.58	393.9	**275.0**	99
Inkai	ISR	264,001.7	0.04	226.9	80,459.5	0.03	54.3	344,461.2	0.04	281.2	**112.5**	85
Total		**266,473.4**	**—**	**651.5**	**81,212.1**	**—**	**176.8**	**347,685.5**	**—**	**828.2**	**464.3**	**—**

(UG – underground, OP – open pit, ISR – in situ recovery)

Note that the estimates in the above table:

- use a constant dollar average uranium price of approximately $50 (US) per pound U_3O_8 except Inkai, where an average uranium price of approximately $35 (US) per pound U_3O_8 was used by JV Inkai
- are based on exchange rates of $1.00 US=$1.25 Cdn and $1.00 US=425 Kazakhstan Tenge

Metallurgical recovery

We report mineral reserves as the quantity of contained ore supporting our mining plans and provide an estimate of the metallurgical recovery for each uranium property. The estimate of the amount of valuable product that can be physically recovered by the metallurgical extraction process is obtained by multiplying the quantity of contained metal (content) by the planned metallurgical recovery percentage. The content and our share of uranium in the table above are before accounting for estimated metallurgical recovery.

Changes this year

Our share of proven and probable mineral reserves increased from 455 million pounds U_3O_8 at the end of 2020, to 464 million pounds at the end of 2021. The change was primarily the result of:

- a mineral resource and reserve estimate update at Inkai which added 19.0 million pounds to proven and probable reserves based on the infill drilling program completed in the Sat1 area in 2018-2019. This update also resulted in increased confidence and consequent upgrading to the underlying mineral resource categories.

partially offset by:

- production at Cigar Lake and Inkai, which removed 10.5 million pounds from our mineral inventory

The remaining changes are attributable to mineral resource and reserve estimate updates at Cigar Lake and McArthur River.

Mineral resources

As of December 31, 2021 (100% – only the shaded columns show our share)

Measured, indicated and inferred

(tonnes in thousands; pounds in millions)

	MEASURED RESOURCES (M)			INDICATED RESOURCES (I)					INFERRED RESOURCES			
PROPERTY	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TOTAL M+I CONTENT (LBS U_3O_8)	OUR SHARE TOTAL M+I CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	OUR SHARE INFERRED CONTENT (LBS U_3O_8)
Cigar Lake	26.8	7.55	4.5	313.3	14.37	99.3	103.7	51.9	186.4	5.58	22.9	11.5
Fox Lake	—	—	—	—	—	—	—	—	386.7	7.99	68.1	53.3
Kintyre	—	—	—	3,897.7	0.62	53.5	53.5	53.5	517.1	0.53	6.0	6.0
McArthur River	91.7	2.63	5.3	74.5	2.26	3.7	9.0	6.3	41.0	2.85	2.6	1.8
Millennium	—	—	—	1,442.6	2.39	75.9	75.9	53.0	412.4	3.19	29.0	20.2
Rabbit Lake	—	—	—	1,836.5	0.95	38.6	38.6	38.6	2,460.9	0.62	33.7	33.7
Tamarack	—	—	—	183.8	4.42	17.9	17.9	10.3	45.6	1.02	1.0	0.6
Yeelirrie	27,172.9	0.16	95.9	12,178.3	0.12	32.2	128.1	128.1	—	—	—	—
Crow Butte	1,558.1	0.19	6.6	939.3	0.35	7.3	13.9	13.9	531.4	0.16	1.8	1.8
Gas Hills—Peach	687.2	0.11	1.7	3,626.1	0.15	11.6	13.3	13.3	3,307.5	0.08	6.0	6.0
Inkai	87,192.7	0.03	56.1	65,236.0	0.02	32.9	89.1	35.6	36,165.2	0.03	23.9	9.6
North Butte—Brown Ranch	621.3	0.08	1.1	5,530.3	0.07	8.4	9.5	9.5	294.5	0.07	0.4	0.4
Ruby Ranch	—	—	—	2,215.3	0.08	4.1	4.1	4.1	56.2	0.14	0.2	0.2
Shirley Basin	89.2	0.16	0.3	1,638.2	0.11	4.1	4.4	4.4	508.0	0.10	1.1	1.1
Smith Ranch—Highland	3,703.5	0.10	7.9	14,372.3	0.05	17.0	24.9	24.9	6,861.0	0.05	7.7	7.7
Total	**121,143.4**	**—**	**179.4**	**113,484.3**	**—**	**406.4**	**585.9**	**447.4**	**51,774.0**	**—**	**204.5**	**153.9**

Note that mineral resources:

- do not include amounts that have been identified as mineral reserves
- do not have demonstrated economic viability
- totals may not add due to rounding

Changes this year

Our share of measured and indicated mineral resources increased from 426 million pounds U_3O_8 at the end of 2020, to 447 million pounds at the end of 2021. Our share of inferred mineral resources is 154 million pounds U_3O_8, a decrease of 20 million pounds from the end of 2020. The variance in mineral resources was primarily the result of the Inkai mineral resource estimate update. The remaining changes are attributable to mineral resource estimate updates at Cigar Lake and McArthur River.

Key assumptions, parameters and methods

McArthur River

Key assumptions

- Mineral reserves assume a 99.4% planned mine recovery and have allowances for expected waste (42% average) and backfill (6.8% average) dilution as part of the normal mining extraction process. Mineral resources do not include such allowances.
- An average uranium price of $50(US) per pound U_3O_8 with a $1.00 (US) = $1.25 (Cdn) fixed exchange rate was used to estimate the mineral reserves, taking into account annual forecast realized prices
- Mining rates assume annual packaged production of 15 million pounds

Key parameters

- Grades of U_3O_8 were obtained from chemical assaying of drill core or from equivalent % U_3O_8 grades obtained from radiometric probing results. In areas of poor core recovery (usually < 75%) or missing samples, the grade was determined from probing.
- When not measured, densities are determined using formulas based on the relation between density measurements of drill core and chemical assay grades
- Mineral resources are estimated at a minimum mineralized thickness of 1.0 metre and at a minimum grade of 0.50% U_3O_8. Reported mineral reserves are based on pounds U_3O_8 recovered per excavation, translating into an average cut-off grade of 0.80% U_3O_8.
- Mineral reserves are estimated based on the use of raisebore and blasthole stope mining methods in conjunction with freeze curtains
- Reasonable expectation for eventual economic extraction of the mineral resources is based on the long-term forecast uranium price, anticipated production costs and the tonnage and grade of the mineralized areas

Key methods

- The models were created from the geological interpretation in section and plan views and in 3-dimensions from surface and underground drillhole information
- Mineral resources and mineral reserves were estimated using 3-dimensional block models. Ordinary kriging and inverse distance squared methods were used to estimate the grade and density.
- Maptek Vulcan and Leapfrog Geo software were used to generate the mineral resource and reserve estimates

Cigar Lake

Key assumptions

- Mineral reserves have been estimated with an average allowance of 34% dilution at 0% U_3O_8.
- Mineral reserves have been estimated based on 86% mining recovery. Mineral resources do not include dilution and mining recovery.
- The mining rate is assumed to vary between 100 and 200 tonnes per day and a full mill production rate of approximately 18 million pounds U_3O_8 per year
- Areas being mined must meet specific ground freezing requirements before jet boring begins
- An average uranium price of $50 (US) per pound U_3O_8 with a $1.00 (US) = $1.25 (Cdn) fixed exchange rate was used to estimate the mineral reserves, taking into account annual forecast realized prices

Key parameters

- Grades of U_3O_8 were obtained from chemical assaying of drill core or from equivalent % U_3O_8 grades obtained from radiometric probing results. In areas of poor core recovery (usually < 75%) or missing samples, the grade was determined from probing.
- When not measured, densities are determined using formulas based on the relation between density measurements of drill core and chemical assay grades
- Mineral resources have been estimated using a minimum mineralization thickness of 1.0 metre and a minimum grade of 1.0% U_3O_8
- Mineral reserves have been estimated on the basis of designed JBS cavities with positive economics from the estimated recovered uranium
- Reasonable expectation for eventual economic extraction of the mineral resources is based on the long-term forecast uranium price, anticipated production costs and the tonnage and grade of the mineralized areas

Key methods

- The geological interpretation of the orebody was done in section and plan views and in 3-dimensions from surface drillhole information
- Mineral resources and mineral reserves were estimated using 3-dimensional block models. Geostatistical conditional simulation (with sequential Gaussian simulation) and inverse distance squared methods were used to estimate the grade and density.
- Maptek Vulcan and Leapfrog Geo software were used to generate the mineral resource and reserve estimates

Inkai

Key assumptions

- Mineral resources have been estimated based on the use of the ISR extraction method
- Average metallurgical recovery of 85%
- Mineral reserves have been reported based on average uranium price of $35 (US) per pound U_3O_8, with exchange rates of $1.00 US = $1.25 Cdn and 425 Kazakhstan Tenge to $1.00 US

Key parameters

- Grades (% U_3O_8) were obtained from gamma radiometric probing of drillholes, checked against assay results and prompt fission neutron logging results to account for disequilibrium
- Average density of approximately 1.7 tonnes per cubic metre was used, based on historical and current sample measurements
- Mineral resources are estimated using a minimum grade of 0.012% U_3O_8 per drillhole interval and minimum Grade x Thickness (GT) of 0.071 m% U_3O_8 for MPP area and 0.047 m% U_3O_8 for Sat1 and Sat2 areas
- Mineral reserves represent the in-situ ore available for production within the term of the resource use contract
- A cut-off for the mineral reserves of 0.13 m% U_3O_8 is applied on the estimated GT value for each block of the model
- Reasonable expectation for eventual economic extraction of the mineral resources is based on the long-term forecast uranium price, anticipated production costs and the tonnage and grade or quality of the mineralized areas

Key methods

- The geological interpretation of the orebody was done in section and plan views derived from surface drillhole information
- Mineral resources were estimated with the GT method, where the estimated variable is the uranium grade multiplied by the thickness of the interval, and using two-dimensional block models
- A resource block must be confined to one aquifer taking into consideration the distribution of local aquitards
- Considerations of the rate of in-situ uranium recovery, lixiviant uranium head grades, wellfield flow rates and production requirements to define the production sequence
- Geological modelling and mining software used were AtomGeo and Micromine

Our ESG principles and practices

A key part of our strategy, reflecting our values

We are committed to delivering our products responsibly. We integrate environmental, social and governance (ESG) principles and practices into every aspect of our business, from our objectives and approach to compensation, to our overall corporate strategy and day-to-day operations. We seek to be transparent with our stakeholders, keeping them updated on the risks and opportunities that we believe may have a significant impact on our ability to add long-term value. We recognize the importance of integrating certain ESG factors, such as safety performance, a clean environment and supportive communities, into our executive compensation strategy as we see success in these areas as critical to the long-term success of the company.

Our 2020 ESG report, published in October 2021, marked an evolution in our sustainability reporting. We adopted the relevant ESG performance indicators issued by the Sustainability Accounting Standards Board (SASB) and have taken the first steps towards addressing the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), which we expect to continue to progress. The report sets out our strategy and the policies and programs we use to govern and manage ESG issues that are important to our stakeholders. In addition to SASB and TCFD, the report provides key ESG performance indicator data based on the Global Reporting Initiative's Sustainability Framework as well as some unique corporate indicators, to measure and report our performance on environmental, social and economic impacts in the areas we believe have a significant impact on our sustainability in the long-term. This is our ESG report card to our stakeholders. You can find our report at cameco.com/about/sustainability.

Environment

We recognize and embrace our responsibility to manage our activities with care for the protection of environmental resources. Protection of the environment is one of our highest corporate priorities during all stages of our activities from exploration through development, operations, and decommissioning. Environmental stewardship is embedded in how we operate.

We are guided by our safety, health, environment and quality policy and associated programs that are designed to minimize our impact on air, land, and water and to conserve the biodiversity of surrounding ecosystems. Across our operations, we comply with strict regulations and have systems in place to monitor and mitigate our impacts. In addition to our own environmental monitoring, we collaborate with local communities around our operations to give confidence to them that traditionally harvested foods remain safe to eat, and water remains safe to drink.

Climate change: Nuclear power is part of the solution

We believe the reduction of carbon and greenhouse gas (GHG) emissions is important and necessary in Canada and around the world, and that nuclear power must be a central part of the solution to the world's shift to a low-carbon, climate-resilient economy. As one of the world's largest producers of the uranium needed to fuel nuclear reactors, we believe there is a significant opportunity for us to be part of the solution to combat climate change. We are a constructive partner in the battle against climate change. We enable vast emissions reductions that can be achieved through nuclear power and are committed to transforming our own low GHG emissions footprint in our ambition to reach net-zero emissions while delivering significant long-term business value.

We recognize that climate change, including shifts in temperature, precipitation and more frequent severe weather events could affect our operations in a range of possible ways. We have established a working group composed of representatives from across the organization to further study the climate-related opportunities and risks for our business. For example, this working group has conducted a preliminary analysis of the increase in operating costs that could occur at our Canadian facilities (in the short-, medium-, and long-term) as a result of increased GHG pricing and regulation. In addition, in 2022, we are undertaking a physical climate risk assessment with a third-party expert.

Social

Our relationships with our workforce, Indigenous Peoples, and local communities are fundamental to our success. The safety and protection of our workforce and the public is our top priority in our assessment of risk and planning for safe operations and product transport. To deliver on our vision, we invest in programs to attract and retain a diverse and skilled workforce that better reflects the communities in which we operate and to increase the participation of underrepresented groups in trades and technical positions. We want to build a workforce that is dedicated to continuous improvement and shares our values.

The importance of our workers and Indigenous Peoples working and living near our operations is exemplified by our ongoing commitment to help manage the impacts of the COVID-19 pandemic on our workforce, their families and their communities.

Our response to the COVID-19 pandemic

We continue to closely monitor and adapt to the developments related to the outbreak of COVID-19. Throughout the pandemic, our priority has been to protect the health and well-being of our workers, including employees and contractors, their families, and their communities. Early in 2020, we activated our Corporate Crisis Management Plan, which includes our Pandemic Plan, and our various Local and Corporate Business Continuity Plans.

Following the precautions and restrictions enacted by all levels of government where we operate, and, considering the unique circumstances at each of our operating sites, we proactively implemented a number of measures and made a number of decisions to ensure a safe working environment for all our workers. In addition to all the safety protocols and measures put in place in 2020, in 2021 we:

- suspended production at Cigar Lake for a second time for about four months starting in December 2020
- introduced a requirement that all employees, contractors and visitors be vaccinated across all our operations and offices
- developed a hybrid work model for employees working from home that balances time in the office and remote working in accordance with business needs

The proactive decisions we have made, and continue to make, to protect our workers and to help slow down the spread of the COVID-19 virus are necessary decisions that are consistent with our values. Even while production was suspended, we kept and continued to pay all our employees. The health and safety of our workers, their families and their communities continues to be the priority in all our plans, which will align with the guidance of the relevant health authorities where we operate.

Governance: Sound governance is the foundation for strong performance

We believe that sound governance is the foundation for strong corporate performance. Our diverse and independent board of directors plays an important role in providing oversight of the management team and providing direction for our strategy and business affairs, including the integration of ESG principles throughout the company. The board guides the company to operate as a sustainable business, to optimize financial returns while effectively managing risk, and to conduct business in a way that is transparent, independent, and ethical.

The board has formal governance guidelines that set out our approach to governance and the board's governance role and practices. The guidelines ensure we comply with all of the applicable governance rules and legislation in Canada and the United States, conduct ourselves in the best interests of our stakeholders, and meet industry best practices. The guidelines are reviewed and updated regularly.

Our corporate governance framework includes an established and recognized management system that describes the policies, processes and procedures we use to help us fulfill all the tasks required to achieve our objectives and strategy. It sets out our vision, values, and measures of success. It speaks to our strategic planning process, leadership alignment and accountability, compliance and assessment, people and culture, process identification and work management, risk management, communications and stakeholder support, knowledge and information management, change management, problem identification and resolution, and continual improvement.

Our vision

Our vision – "Energizing a clean-air world" – recognizes that we have an important role to play in enabling the vast reductions in global greenhouse gas emissions required to achieve a resilient net-zero carbon economy. We support climate action that is consistent with the ambition of the Paris Agreement and the Canadian government's commitment to the agreement to limit global temperature rise to less than 2°C and we know that this means the world needs to reach net-zero emissions by 2050 or sooner. The uranium we produce is used around the world in the generation of safe, carbon-free, affordable, base-load nuclear power. As we seek to achieve our vision, we will do so in a manner that reflects our values. We believe we have the right strategy to achieve our vision and are committed to our efforts to transform our own, already low, greenhouse gas footprint in our ambition to reach net-zero emissions, while identifying and addressing the ESG risks and opportunities that we believe may have a significant impact on our ability to add long-term value for our stakeholders.

Committed to our values

Our values are discussed below and are at the core of everything we do and define who we are as a company. They are:

- safety and environment
- people
- integrity
- excellence

Safety and Environment

The safety of people and protection of the environment are the foundations of our work. All of us share in the responsibility of continually improving the safety of our workplace and the quality of our environment.

We are committed to keeping people safe and conducting our business with respect and care for both the local and global environment.

People

We value the contribution of every employee and we treat people fairly by demonstrating our respect for individual dignity, creativity and cultural diversity. By being open and honest, we achieve the strong relationships we seek.

We are committed to developing and supporting a flexible, skilled, stable and diverse workforce, in an environment that:

- attracts and retains talented people and inspires them to be fully productive and engaged
- encourages relationships that build the trust, credibility and support we need to grow our business

Integrity

Through personal and professional integrity, we lead by example, earn trust, honour our commitments and conduct our business ethically.

We are committed to acting with integrity in every area of our business, wherever we operate.

Excellence

We pursue excellence in all that we do. Through leadership, collaboration and innovation, we strive to achieve our full potential and inspire others to reach theirs.

Risk and Risk Management

Our board of directors oversee management's implementation of appropriate risk management processes and controls. We have a Risk Policy that is supported by our formal Risk Management Program.

Our Risk Management Program involves a broad, systematic approach to identifying, assessing, monitoring, reporting and managing the significant risks we face in our business and operations, including consideration of ESG and climate-related risks that could impact our four measures of success. The program establishes clear accountabilities for employees throughout the company to take ownership of risks specific to their area and to effectively manage those risks. The program is reviewed annually to ensure that it continues to meet our needs.

We use a common risk matrix throughout the company to assess and evaluate risks. Any risk that has the potential to significantly affect our ability to achieve our corporate objectives or strategic plan is considered an enterprise risk and is brought to the attention of senior management and the board.

See *Managing the risks*, starting on page 58 of our 2021 MD&A, for a discussion of the risks, that generally apply to all of our operations and advanced uranium projects, and that could have a material impact on business in the near term. We also recommend you review *Risks that can affect our business* starting at page 94 of this AIF which includes a discussion of other material risks that could have an impact on our business.

Measuring our results

TARGETS AND METRICS: THE LINK BETWEEN ESG FACTORS AND EXECUTIVE PAY

Each year, we set corporate objectives that are aligned with our strategic plan. These objectives fall under our four measures of success: (1) outstanding financial performance, (2) safe, healthy and rewarding workplace, (3) clean environment and (4) supportive communities. Performance against specific targets under these objectives forms the foundation for a portion of annual employee and executive compensation. See our most recent management proxy circular for more information on how executive compensation is determined.

Our targets for 2021 continue to reflect the operational strategic actions that we are taking. As such, we do not believe our financial performance (earnings and cash flow) reflects our long-term run rate performance. Despite the impact on financial results, we believe that the strategic actions we are taking will help to pave the way to stronger financial performance over time, and we will not compromise our commitment to safety, people and our environment. For more information on our compensation targets and our reported performance against those targets, see the *Measuring our results* section in our 2021 MD&A and our most recent management proxy circular.

Nuclear waste management and decommissioning

Once we have permanently stopped mining and processing activities, we are required to decommission the operating sites. This includes reclaiming all waste rock, TMF and other areas of the site affected by our activities to the satisfaction of regulatory authorities.

Estimating decommissioning and reclamation costs

We develop conceptual decommissioning plans for our operating sites and use them to estimate our decommissioning costs. We also submit them to regulators to determine the amount of financial assurance we must provide to secure our decommissioning obligations. Our plans include reclamation techniques that we believe generate reasonable environmental and radiological performance. Regulators give “conceptual approval” to a decommissioning plan if they believe the concept is reasonable.

We started conducting reviews of our conceptual decommissioning plans for all Canadian sites in 1996. We typically review them every five years, or when we amend or renew an operating licence. We review our cost estimates for both accounting purposes and licence applications. For our US sites, they are reviewed annually. A preliminary decommissioning plan has been established for Inkai. The plan is updated every five years or as significant changes take place, which would affect the decommissioning estimate.

As properties approach or go into decommissioning, regulators review the detailed decommissioning plans. This can result in additional regulatory process, requirements, costs and financial assurances.

At the end of 2021, our estimate of total decommissioning and reclamation costs was $1.11 billion. This is the undiscounted value of the obligation and is based on our current operations. We had accounting provisions of $1.14 billion at the end of 2021 (the present value of the $1.11 billion). Regulatory approval is required prior to beginning decommissioning. Since we expect to incur most of these expenditures at the end of the useful lives of the operations they relate to, and none of our assets have approval for decommissioning, our expected costs for decommissioning and reclamation for the next five years are not material.

We provide financial assurances for decommissioning and reclamation such as letters of credit or surety bonds to regulatory authorities, as required. We had a total of about $1.01 billion in financial assurances supporting our reclamation liabilities at the end of 2021. All of our North American operations have financial assurance in place in connection with our preliminary plans for decommissioning of the sites.

Please also see note 15 to our 2021 financial statements for our estimate of decommissioning and reclamation costs and related financial assurances.

Canada

Decommissioning estimates

(100% basis)	
McArthur River	$42 million
Rabbit Lake	$213 million
Key Lake	$223 million
Cigar Lake	$62 million

The most recent preliminary decommissioning plans for all Saskatchewan mining operations were submitted in 2017 and 2018 as part of the regular five-year update schedule. Prior to revising the letters of credit, approval of the updated plans is required from the province and CNSC staff as well as formal approval from the CNSC through a Commission proceeding. All Saskatchewan mining operations have received the necessary approvals.

The reclamation and remediation activities associated with waste rock and tailings from processing Cigar Lake ore and uranium solution are covered in the plans and cost estimates for the facility that will be processing it.

Decommissioning estimates

(100% basis)	
Port Hope	$129 million
Blind River	$58 million
CFM	$11 million

We renewed our licence for Port Hope in 2017. As part of that process, an update to the Port Hope Conversion Facility preliminary decommissioning plan was finalized and accepted in February 2017. The letter of credit was updated in March 2017 and reflects the current decommissioning estimate. We renewed our licence for Blind River in 2022. As part of the process, an update to the Blind River preliminary decommissioning plan was finalized and accepted in February 2022. An update to the CFM preliminary decommissioning plan was also finalized and accepted in February 2022.

Recycling uranium byproducts

We have arrangements with two facilities for processing certain uranium-bearing byproducts from Blind River and Port Hope. An agreement has been in place with the White Mesa mill in Blanding, Utah for a number of years. Recycled byproduct material was being processed at Key Lake until the decision was made in 2018 to suspend production and place the mill and the McArthur River mine in care and maintenance

United States

After mining has been completed, an ISR wellfield has to be restored according to regulatory requirements. This generally involves restoring the groundwater to its pre-mining state or equivalent class of water standard.

For wellfield restoration to be complete, regulatory approval is required. It is difficult for us to estimate the timing for wellfield restoration due to the uncertainty in timing for receiving final regulatory approval.

Crow Butte

Restoration of Crow Butte wellfields is regulated by the Nebraska Department of Environmental Quality and the Nuclear Regulatory Commission (NRC). There are five wellfields being restored at Crow Butte. The groundwater at mine unit #1 has been restored to pre mining quality standards, all wells are plugged, and the piping removed.

Our estimated cost of decommissioning the property is $56 million (US). We have provided the state of Nebraska with $51 million (US) in financial assurances as security for decommissioning the property.

Smith Ranch-Highland

Restoration of Smith Ranch-Highland wellfields is regulated by the Wyoming Department of Environmental Quality (WDEQ). In 2018, the NRC transferred to the state of Wyoming its authority to regulate uranium ISR mining in the state. There are nine

wellfields being restored at Smith Ranch-Highland, one wellfield in stability, and two wellfields (mine unit A and mine unit B) that have been fully restored.

Restoration of mine unit B was approved by the WDEQ in 2008, while NRC approval has not yet been attained. An Alternate Concentration Limit (ACL) request was submitted to the NRC in May 2013. The NRC subsequently requested additional information, and that additional sampling be conducted.

Our estimated cost of decommissioning the property is $219 million (US), including North Butte. We have provided the state of Wyoming with $219 million (US) in financial assurances as security for decommissioning the property.

Kazakhstan

JV Inkai's decommissioning obligations are defined by the resource use contract and the subsoil code. JV Inkai is required to maintain a fund, which is capped at $500,000 (US), as security for meeting its decommissioning obligations. Under the resource use contract, JV Inkai must submit a plan for decommissioning the property to the government six months before mining activities are complete.

JV Inkai has developed a preliminary decommissioning plan to estimate total decommissioning costs and updates the plan when there is a significant change at the operation that could affect decommissioning estimates. The preliminary decommissioning estimate is $20 million (US) and is subject to ongoing review.

Groundwater is not actively restored post-mining in Kazakhstan. See page 90 for additional details.

The regulatory environment

This section discusses some of the more significant government controls and regulations that have a material effect on our business. A significant part of our economic value depends on our ability to comply with the extensive and complex laws and regulations that govern our activities. We are not aware of any proposed legislation or changes to existing legislation that could have a material effect on our business.

International treaty on the non-proliferation of nuclear weapons

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is an international treaty that was established in 1970. It has three objectives:

- to prevent the spread of nuclear weapons and weapons technology
- to foster the peaceful uses of nuclear energy
- to further the goal of achieving general and complete disarmament

The NPT establishes a safeguards system under the responsibility of the IAEA. Almost all countries are signatories to the NPT, including Canada, the US, the United Kingdom and France. We are therefore subject to the NPT and comply with the IAEAs requirements.

Industry regulation and permits

Canada

Our Canadian operations have regulatory obligations to both the federal and provincial governments. There are four main regulatory agencies that issue licences and approvals:

- CNSC (federal)
- Fisheries and Oceans Canada (federal)
- SMOE
- Ontario Ministry of Environment

Environment and Climate Change Canada (federal) is also a major regulatory agency but does not issue licences or approvals.

Uranium industry regulation

The government of Canada recognizes the special importance of the uranium industry to Canada's national interest, and regulates the industry through legislation and regulations, and exerts additional control through government policy.

Federal legislation applies to any work or undertaking in Canada for the development, production, or use of nuclear energy or for the mining, production, refinement, conversion, enrichment, processing, reprocessing, possession, or use of a nuclear substance. Federal policy requires that any property or plant used for any of these purposes must be legally and beneficially owned by a company incorporated in Canada.

Mine ownership restrictions

The federal government has instituted a policy that restricts ownership of Canadian uranium mining properties to:

- a minimum of 51% ownership by residents
- a basic maximum limit of 49% ownership by non-residents of uranium properties at the first stage of production

The government may grant exceptions. For example, resident ownership may be less than 51% if the property is Canadian controlled. Exceptions will only be granted in cases where it is demonstrated that Canadian partners cannot be found, and it must receive Cabinet approval.

The government issued a letter to the Canadian uranium industry on December 23, 1987, outlining the details of this ownership policy. On March 3, 2010, the government announced its intention to liberalize the foreign investment restrictions on Canada's uranium mining sector to "ensure that unnecessary regulation does not inhibit the growth of Canada's uranium mining industry by unduly restricting foreign investment". After striking an expert panel to study the issue and soliciting feedback from various stakeholders, the federal government stated in October 2011 that it would not be changing the policy.

The Canada-EU Trade Agreement (CETA) was provisionally implemented in September 2017. The Non-resident Ownership Policy provisions for CETA countries are now in effect, which removes the requirement to seek a Canadian partner to hold the majority interest in a Canadian uranium mining property before applying for an exemption. An EU company is still required to apply for an exemption to hold a majority interest in a Canadian uranium mining property and the proposal will be evaluated by the government on its merits.

Cameco ownership restriction

We are subject to ownership restrictions under *the Eldorado Nuclear Limited Reorganization and Divestiture Act*, which restricts the issue, transfer, and ownership, including joint ownership, of Cameco shares to prevent both residents and non-residents of Canada from owning or controlling more than a certain percentage of shares. See pages 118 and 119 for more information.

Industry governance

The *Nuclear Safety and Control Act* (NSCA) is the primary federal legislation governing the control of the mining, extraction, processing, use and export of uranium in Canada. It authorizes the CNSC to make regulations governing all aspects of the development and application of nuclear energy, including uranium mining, milling, conversion, fuel fabrication and transportation. It grants the CNSC licensing authority. A person may only possess or dispose of nuclear substances and build, operate, and decommission its nuclear facilities according to the terms and conditions of a CNSC licence. Licensees must satisfy specific conditions of the licence to maintain the right to operate their nuclear facilities.

The NSCA emphasizes the importance of environmental as well as health and safety matters and requires licence applicants and licensees to have adequate provisions for protection.

Regulations made under the NSCA include those dealing with the specific licence requirements of facilities, radiation protection, physical security for all nuclear facilities and the transport of radioactive materials. The CNSC has also issued regulatory documents to assist licensees in complying with regulatory requirements, such as decommissioning, emergency planning, and optimizing radiation protection measures.

All of our Canadian operations are governed primarily by licences granted by the CNSC and are subject to all federal statutes and regulations that apply to us, and all the laws that generally apply in the province where the operation is located, unless there is a conflict with the terms and conditions of the licence or the federal laws that apply to us.

Uranium export

We must secure export licences and export permits from the CNSC and Global Affairs Canada to export our uranium. These arrangements are governed by the bi-lateral and multi-lateral agreements that are in place between governments.

Land tenure

Most of our uranium reserves and resources are in the province of Saskatchewan:

- a *mineral claim* from the province gives us the right to explore for minerals (other government approvals are required to carry out surface exploration)
- a *crown lease* with the province gives us the right to mine the minerals on the property
- a *surface lease* with the province gives us the right to use the land for surface facilities and mine shafts while mining and reclaiming the land

A mineral claim has a term of two years, with the right to renew for successive one-year periods. Generally, the holder must spend a certain amount on exploration to keep the mineral claim in good standing. If we spend more than the amount required, then the extra amount can be applied to future years.

A holder of a mineral claim in good standing has the right to convert it into a crown lease. A crown lease is for 10 years, with a right to renew for additional 10-year terms. The lessee must spend a certain amount on work during each year of the crown lease. The lease cannot be terminated unless the lessee defaults on any terms of the lease, or under any provisions of The Crown Minerals Act (Saskatchewan) or regulations under it, including any prescribed environmental concerns. Crown leases can be amended unilaterally by the lessor by an amendment to *The Crown Minerals Act (Saskatchewan)* or The Mineral Disposition Regulations, 1986 *(Saskatchewan)*.

A surface lease can be for up to 33 years, as necessary for operating the mine and reclaiming the land. The province also uses surface leases to specify other requirements relating to environmental and radiation protection as well as socioeconomic objectives.

United States

Uranium industry regulation

In the US, uranium recovery is regulated primarily by the NRC according to the *Atomic Energy Act of 1954*, as amended. Its primary function is to:

- ensure employees, the public and the environment are protected from radioactive materials
- regulate most aspects of the uranium recovery process

The NRC's regulations for uranium recovery facilities are codified in Title 10 of the Code of Federal Regulations (10 CFR). It issues Domestic Source Material Licences under 10 CFR, Part 40. The National Environmental Policy Act governs the review of licence applications, which is implemented through 10 CFR, Part 51.

At Smith Ranch-Highland and Crow Butte, safety is regulated by the federal Occupational Safety and Health Administration.

Other governmental agencies are also involved in the regulation of the uranium recovery industry.

The NRC also regulates the export of uranium from the US and the transport of nuclear materials within the US. It does not review or approve specific sales contracts. It also grants export licences to ship uranium outside the US.

Wyoming

The uranium recovery industry is also regulated by the WDEQ, the Land Quality Division (LQD) according to the *Wyoming Environmental Quality Act (WEQA) and the Land Quality Division Non Coal Rules and Regulations* under the WEQA. According to the state act, the WDEQ issues a permit to mine. The LQD administers the permit. As of September 30, 2018, the NRC has entered into an agreement with the state of Wyoming, transferring regulatory authority for licensing, rulemaking, inspection, and enforcement activities necessary to regulate uranium ISR mining. The WDEQ LQD Uranium Recovery Program (URP) has assumed this regulatory authority.

The state also administers a number of EPA programs under the *Clean Air Act* and the *Clean Water Act*. Some of the programs, like the Underground Injection Control Regulations, are incorporated in the Land Quality Division Non-Coal Rules and Regulations. Wyoming currently requires wellfield decommissioning to the standard of pre-mining use.

Nebraska

The uranium recovery industry is regulated by the NRC, and the Nebraska Department of Environmental Quality according to the *Nebraska Environmental Protection Act*. The Nebraska Department of Environmental Quality issues a permit to mine. The state requires wellfield groundwater be restored to the class of use water standard.

Land tenure

Our uranium resources in the US are held by subsidiaries that are located in Wyoming and Nebraska. The right to mine or develop minerals is acquired either by leases from the owners (private parties or the state) or mining claims located on property owned by the US federal government. Our subsidiaries acquire surface leases that allow them to conduct operations.

Kazakhstan

See *Kazakhstan government and legislation* starting on page 61.

Complying with environmental regulations

Our business is required to comply with laws and regulations that are designed to protect the environment and control the management of hazardous wastes and materials. Some laws and regulations focus on environmental issues in general, and others are specifically related to mining and the nuclear sector. They change often, with requirements increasing, and existing standards being applied more stringently. While this dynamic promotes continuous improvement, it can increase expenses and capital expenditures, or limit or delay our activities.

Government legislation and regulation in various jurisdictions establish standards for system performance, standards, objectives and guidelines for air and water quality emissions, and other design or operational requirements for the various SHEQ components of our operations and the mines that we plan to develop. In addition, we must complete an environmental assessment before we begin developing a new mine or make any significant change to our operations. Once we have permanently stopped mining and processing activities, we are required to decommission and reclaim the operating site to the satisfaction of the regulators, and we may be required to actively manage former mining properties for many years.

Canada

Not only is there ongoing regulatory oversight by the CNSC, the SMOE, the Ontario Ministry of the Environment, and Environment and Climate Change Canada, but there is also public scrutiny of the impact our operations have on the environment.

The CNSC, an independent regulatory authority established by the federal government under the NSCA, is our main federal regulator in Canada. In 2019, the federal government introduced the *Impact Assessment Act* along with changes to the *Fisheries Act* and introduced the *Canadian Navigable Waters Act.* The new assessment legislation broadens the scope of a federal assessment beyond strictly environment and the *Fisheries Act* introduces changes to the language that will take some time to fully understand and for the government to implement.

Plans to build new mines in Saskatchewan are subject to the provincial environmental assessment process. In certain cases, a review panel may be appointed, and public hearings held.

Over the past few years, CNSC audits of our operations have focused on the following SHEQ programs:

- radiation protection
- environmental monitoring
- fire protection
- operational quality assurance
- organization and management systems effectiveness
- transportation systems
- geotechnical monitoring

- training
- ventilation systems

Improving our environmental performance is challenging and we have focused on maintaining our excellent water quality while maintaining production at our facilities or while they are in care and maintenance.

Efforts like these often require additional environmental studies near the operations, and we will continue to undertake these as required.

It can take a significant amount of time for regulators to make requested changes to a licence or grant a requested approval because the activity may require an approval with an extensive review of supporting technical data, management programs and procedures. We are improving the quality of our proposals and submissions and have introduced a number of programs to ensure we continue to comply with regulatory requirements, but this has also increased our capital expenditures and our operating costs.

As our SHEQ management system matures, regulators continue to review our programs and recommend ways to improve our SHEQ performance. These recommendations are generally procedural and do not involve large capital costs, although systems applications can be significant and result in higher operating costs.

Federal requirements stemming from the *Species at Risk Act* are introducing significant uncertainty into the management of activities in northern Saskatchewan. One specific example includes the amended national recovery strategy for woodland caribou, which contains strategic directions that have the potential to impact economic and social development in northern Saskatchewan. As a requirement of this document, the province of Saskatchewan is responsible for developing range plans that outline population and habitat protection measures for activities conducted in northern Saskatchewan. Mitigation requirements, and other measures, could have an impact on our Saskatchewan operations and advanced projects in northern Saskatchewan.

A number of government or governmental bodies have introduced or are contemplating regulatory changes in response to the potential impacts of climate change. While we have a relatively small carbon footprint, our Canadian facilities could experience higher annual operating costs due to changes in GHG pricing and regulations, such as carbon pricing, the Canadian Clean Fuel Standard, and/or other policy changes.

We believe that regulatory expectations of the CNSC and other federal and provincial regulators will continue to evolve, and lead to changes to both requirements and the regulatory framework. This will likely increase our costs.

United States

Our ISR operations in the US must meet federal, state, and local regulations governing air emissions, water discharges, handling and disposal of hazardous materials and site reclamation, among other things.

Mining activities must meet comprehensive environmental regulations from the NRC, Bureau of Land Management, Environmental Protection Agency (EPA) and state environmental agencies. The process of obtaining mine permits and licences generally takes several years, and involves environmental assessment reports, public hearings, and comments. We have the permits and licences required for our US ISR Operations for 2022.

The ISR mining method at our US ISR Operations involves extracting uranium from underground non-potable aquifers by dissolving the uranium with a carbonate-based water solution and pumping it to a processing facility on the surface. After mining is complete, ISR wellfields must be restored according to regulatory requirements. This generally involves restoring the groundwater to its pre-mining state or equivalent class of use water standard. Restoration of Crow Butte wellfields is regulated by the Nebraska Department of Environmental Quality and the NRC. Restoration of Smith Ranch-Highland wellfields is regulated by the WDEQ.

See pages 85 and 86 for the status of wellfield restoration and regulatory approvals.

Kazakhstan

In its resource use contract with the Kazakhstan government, JV Inkai committed to conducting its operations according to good international mining practices. It must comply with the environmental requirements of Kazakhstan legislation and regulations, and, as an industrial company, it must also reduce, control, or eliminate various kinds of pollution and protect

natural resources. JV Inkai is required to submit annual reports on pollution levels to the Kazakhstan environmental, tax and statistics authorities. The authorities conduct tests to validate JV Inkai's results.

Environmental protection legislation in Kazakhstan has evolved rapidly, especially in recent years. As the subsoil use sector has evolved, there has been a trend towards greater regulation, heightened enforcement, and greater liability for non-compliance. The most significant development was the adoption of *the Ecological Code* in 2007. This code replaced the three main laws related to environmental protection. Kazakhstan enacted a new ecological code, which took effect July 1, 2021 (*2021 Ecological Code*).

JV Inkai is required to comply with environmental requirements during all stages of the project and must develop an environmental impact assessment for examination by a state environmental expert before making any legal, organizational, or economic decisions that could have an effect on the environment and public health.

Under the *2007 Ecological Code*, JV Inkai required an environmental permit to operate. The permit certifies the holder's right to discharge emissions into the environment, provided that it complies with the requirements of the permit and that code. JV Inkai obtained a permit for environmental emissions and discharges for the operation under the *2007 Ecological Code* which was valid until December 31, 2022. This permit is no longer in effect, as JV Inkai obtained a permit under the *2021 Ecological Code*.

Facilities, based on their environmental impact, are divided into 4 categories both under the *2007 Ecological Code* and the *2021 Ecological Code*. In August 2021, JV Inkai was assigned category 1 and obtained an emissions permit under *the 2021 Ecological Code*, valid until the end of 2030. Generally, this new permit is similar to an emissions permit issued under the *2007 Ecological Code.* After expiry of this emissions permit at the end of 2030, JV Inkai will be required to have a comprehensive environmental permit.

A comprehensive environmental permit includes standards for emissions, waste accumulation, and water use. An operator of a category I facility must introduce and invest in best available techniques. The best available techniques are technologies, ways, and methods that are used during an activity and are effective, advanced, and practically applicable. Operators of category I facilities who operate under this permit and invest in best available techniques are exempt from payments for emissions into the environment.

JV Inkai also holds the required permits under *the Water Code*.

Government authorities and the courts enforce compliance with these permits, and violations can result in the imposition of administrative, civil or criminal penalties, the suspension or stopping of operations, orders to pay compensation, orders to remedy the effects of violations and orders to take preventive steps against possible future violations. In certain situations, the issuing authority may suspend or revoke the permits. With the adoption of the *2021 Ecological Code*, the level of administrative penalties has generally been increased.

The ISR mining method at Inkai uses an acid in the mining solution to extract uranium from underground non potable aquifers. The injection and recovery system is engineered to prevent the mining solution from migrating to the aquifer above the orebody, which has water with higher purity.

Kazakhstan does not require active restoration of post-mining groundwater. After a number of decommissioning steps are taken, natural attenuation of the residual acid in the mined-out horizon, as a passive form of groundwater restoration, has been accepted. Attenuation is a combination of neutralization of the groundwater residual acid content by interaction with the host rock minerals and other chemical reactions which immobilize residual groundwater contaminants in the mined-out subsoil horizon. This approach is considered acceptable because it results in water quality similar to the pre-mining baseline status.

JV Inkai has environmental insurance, as required by the *2007 Ecological Code*, the *2021 Ecological Code*, and the resource use contract.

Taxes and Royalties

Transfer pricing dispute

Background

Since 2008, CRA has disputed our marketing and trading structure and the related transfer pricing methodology we used for certain intercompany uranium sale and purchase agreements.

For the years 2003 to 2014, CRA shifted Cameco Europe Ltd.'s income (as recalculated by CRA) back to Canada and applied statutory tax rates, interest, and instalment penalties, and, from 2007 to 2011, transfer pricing penalties. In addition, for 2014 and 2015, CRA has advanced an alternate reassessing position, see *Reassessments, remittance and next steps* below for more information.

In September 2018, the Tax Court ruled that our marketing and trading structure involving foreign subsidiaries, as well as the related transfer pricing methodology used for certain intercompany uranium sales and purchasing agreements, were in full compliance with Canadian law for the tax years in question (2003, 2005 and 2006). On June 26, 2020 the Court of Appeal upheld the Tax Court's decision.

Supreme Court of Canada decision

On February 18, 2021, the Supreme Court dismissed CRA's application for leave to appeal the June 26, 2020 decision of the Court of Appeal. The dismissal means that the dispute for the 2003, 2005 and 2006 tax years is fully and finally resolved in our favour. Although not technically binding, there is nothing in the reasoning of the lower court decisions that should result in a different outcome for the 2007 through 2014 tax years, which were reassessed on the same basis.

Refund and cost award

The total tax reassessed for the three tax years was $11 million, and we remitted 50%. The Minister of National Revenue has issued new reassessments for the 2003 through 2006 tax years in accordance with the decision and in July we received payments totalling $9 million, representing the refund of the $5.5 million we remitted plus interest.

On April 20, 2021, we received $10 million from CRA, which includes payment of the legal fees awarded by the Tax Court as well as the cost awards related to the Court of Appeal and Supreme Court decisions.

In addition to the cost award for legal fees, in 2019, the Tax Court awarded us an amount for disbursements of up to $17 million. The actual amount of the award for disbursements will be determined by an officer of the Tax Court. We expect to recover all, or substantially all, of the $17 million in disbursements.

We anticipate further direction on our award for disbursements from the Tax Court in the first quarter of this year.

Reassessments, remittances and next steps

The Canadian income tax rules include provisions that generally require larger companies like us to remit or otherwise secure 50% of the cash tax plus related interest and penalties at the time of reassessment. While we have received a refund for the amounts remitted for the 2003 through 2006 reassessments as noted above, CRA continues to hold $777 million ($295 million in cash and $482 million in letters of credit) we paid or secured for the years 2007 through 2013. For the 2014 and 2015 reassessments, CRA did not require additional security to secure the tax debts they considered owing.

Following the Supreme Court's dismissal of CRA's application for leave to appeal, we wrote to CRA requesting reversal of CRA's transfer pricing adjustments for 2007 through 2013 and the return of our $777 million in cash and letters of credit. Given the strength of the court decisions received, our request was made on the basis that the Tax Court would reject any attempt by CRA to defend its reassessments for the 2007 through 2013 tax years applying the same or similar positions already denied for previous years. Due to a lack of significant progress in response to our request, in October 2021, we filed a notice of appeal with the Tax Court for the years 2007 through 2013. We are asking the Tax Court to order the reversal of the CRA's transfer pricing adjustment for those years and the return of our cash and letters of credit, with costs.

In 2020, CRA advanced an alternate reassessing position for the 2014 tax year in the event the basis for its original reassessment, noted above, is unsuccessful. In late 2021, we received a reassessment for the 2015 tax year using this alternative reassessing position. The new basis of reassessment is inconsistent with the methodology CRA has pursued for

prior years and we are disputing it separately. Our view is that this alternate methodology will not result in a materially different outcome from our 2014 or 2015 filing positions.

We will not be in a position to determine the definitive outcome of this dispute for any tax year other than 2003 through 2006 until such time as all reassessments have been issued advancing CRA's arguments and final resolution is reached for that tax year. CRA may also advance alternative reassessment methodologies for years other than 2003 through 2006, such as the alternative reassessing position advanced for 2014 and 2015.

Caution about forward-looking information relating to our CRA tax dispute

This discussion of our expectations relating to our tax dispute with CRA and future tax reassessments by CRA is forward-looking information that is based upon the assumptions and subject to the material risks discussed under the heading *Caution about forward-looking information* beginning on page 1 and also on the more specific assumptions and risks listed below. Actual outcomes may vary significantly.

Assumptions

- our entitlement and ability to receive the expected refunds and payments from CRA
- the courts will reach consistent decisions for subsequent tax years that are based on similar positions and arguments
- CRA will not successfully advance different positions and arguments that may lead to a different outcome for other tax years

Material risks that could cause actual results to differ materially

- we will not receive the expected refunds and payments from CRA
- the possibility the courts may accept the same, similar or different positions and arguments advanced by CRA to reach decisions that are adverse to us for other tax years
- the possibility that we will not be successful in eliminating all double taxation
- the possibility that CRA does not agree that the court decisions for the years that have been resolved in Cameco's favour should apply to subsequent tax years
- the possibility CRA will not return all or substantially all of the cash and security that has been paid or otherwise secured by Cameco in a timely manner, or at all
- the possibility of a materially different outcome in disputes for other tax years
- an unfavourable determination of the officer of the Tax Court of the amount of our disbursements award

Canadian royalties

We pay royalties on the sale of all uranium extracted at our mines in the province of Saskatchewan.

Two types of royalties are paid:

- Basic royalty: This royalty is calculated as 5% of gross sales of uranium, less the Saskatchewan resource credit of 0.75%.
- *Profit* royalty: A 10% royalty is charged on profit up to and including $24.38/kg U_3O_8 ($11.06/lb) and a 15% royalty is charged on profit in excess of $24.38/kg U_3O_8. Profit is determined as revenue less certain operating, exploration, reclamation and capital costs. Both exploration and capital costs are deductible at the discretion of the producer.

As a resource corporation in Saskatchewan, we also pay a corporate resource surcharge of 3% of the value of resource sales.

Canadian income taxes

We are subject to federal income tax and provincial taxes in Saskatchewan and Ontario. Current income tax expense for 2021 was $2.26 million.

Our Ontario fuel services operations are eligible for a manufacturing and processing tax credit.

US taxes

Our subsidiaries in Wyoming and Nebraska pay severance taxes, property taxes and Ad Valorem taxes in those states. They incurred $0.92 million (US) in taxes in 2021.

Our US subsidiaries are subject to US federal and state income tax.

Kazakhstan taxes

Stability of the tax regime envisaged by a number of resource use contracts, including the resource use contract, was abolished with the entry into legal force of the *2009 Tax Code* in 2009. Amendment No. 2 to the resource use contract, signed in 2009, by making applicable the *2009 Tax Code*, eliminated the tax stabilization provision of the resource use contract.

A new tax code, effective January 1, 2018 (*the 2018 Tax Code*), provides that subsoil users pay all taxes and payments provided in the tax legislation effective as of the date of occurrence of tax obligations. Although under *the 2018 Tax Code* the main principles of subsoil users' taxation remain the same (for example, the rate of corporate income tax, 20%, and the rate of mineral extraction tax on uranium, 18.5%, have not changed), there were several important changes relevant to special taxes and payments of subsoil users as briefly described below:

- *The 2018 Tax Code* provides for the exemption of dividends payable by a subsoil user to a foreign shareholder from income tax withholding at the source of payment. This exemption was first introduced in 2016 and is maintained in *the 2018 Tax Code.* To obtain this exemption, a number of conditions must be met. We believe the dividends that will be paid to us by JV Inkai will qualify for this exemption.
- *The Excess Profits Tax* has been abolished with respect to several categories of subsoil use contracts, including, "contracts for *exploration* and (or) production of solid minerals, subsoil water and (or) therapeutic muds provided that such contracts do not envisage extraction of other categories of minerals." Based on the subsoil code, we believe that for the purposes of *the 2018 Tax Code*, the term solid minerals includes uranium. However, there is a risk that the tax authorities may hold the opposite view.
- The commercial discovery bonus has been abolished.
- The rates of payment for the use of land by subsoil users is now expressly provided for in *the 2018 Tax Code*.

JV Inkai's costs could be impacted by potential changes to *the 2018 Tax Code* and by possible increased financial contributions to social and other state causes, although these risks cannot be quantified or estimated at this time.

Risks that can affect our business

The nature of our business means we face many kinds of risks and hazards – some that relate to the nuclear energy industry in general, and others that apply to specific properties, operations, or planned operations. These risks could have a significant impact on our business, earnings, cash flows, financial condition, results of operations or prospects, which may result in a significant decrease in the market price of our common shares. In addition to considering the other information in this AIF, you should consider carefully the risks discussed in this section in deciding whether to invest in securities of Cameco.

The following section describes the risks that are most material to our business. This is not, however, a complete list of the potential risks we face – there may be others we are not aware of, or risks we feel are not material today that could become material in the future. Our risk policy and process involves a broad, systematic approach to identifying, assessing, reporting and managing the significant risks we face in our business and operations. However, there is no assurance that we will be successful in preventing the harm that any of these risks could cause.

Please also see the risk discussion in our 2021 MD&A.

Types of risk

- Operational
- Financial
- Political
- Regulatory
- Environmental
- Legal and other
- Industry

1 – Operational risks

General operating risks and hazards

We are subject to a number of operational risks and hazards, many of which are beyond our control.

These risks and hazards include:

- environmental damage (including hazardous emissions from our refinery and conversion facilities, such as a release of UF_6 or a leak of anhydrous hydrogen fluoride used in the UF_6 conversion process)
- industrial and transportation accidents, which may involve radioactive or other hazardous materials
- labour shortages, disputes or strikes
- cost increases for labour, contracted or purchased materials, supplies and services
- shortages of, or interruptions in the supply of, required equipment, materials, and supplies (including anhydrous hydrofluoric acid at our conversion facilities)
- transportation disruptions
- interruptions in the supply of electricity, water, and other utilities
- equipment failures
- cyber-attacks
- a catastrophic accident
- outbreak of illness (such as a pandemic like COVID-19)
- fires
- blockades or other acts of social or political activism
- regulatory constraints and non-compliance with laws and licences
- climate change or natural phenomena, such as inclement weather conditions, floods, forest fires, and earthquakes
- unusual or unexpected geological or hydrological conditions
- underground floods
- ground movement or cave-ins
- tailings pipeline or dam failures
- adverse mining conditions
- technological failure of mining methods.
- unanticipated consequences of our cost reduction strategies
- safety incidents

The operational changes we have made at our uranium properties carry with them an increase in our operational risk.

There is no assurance that any of the above risks will not result in:

- damage to or destruction of our properties and facilities located on these properties
- personal injury or death
- environmental damage
- delays in, or interruptions of, our exploration or development activities or transportation and delivery of our products
- delays in, interruptions of, or decrease in production at our operations
- costs, expenses, or monetary losses
- legal liability
- adverse government action

Any of these events could result in one or more of our operations becoming unprofitable, cause us not to receive an adequate return on invested capital, or have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Insurance coverage

We buy insurance to cover losses or liabilities arising from some of the operating risks and hazards listed above, as well as other business risks. We do not have dedicated cyber insurance coverage and we do not buy property insurance for our Rabbit Lake operation.

We believe we have a reasonable amount of coverage for the risks we choose to insure against. There is no assurance, however, that this coverage will be adequate, that it will continue to be available, that premiums will be economically feasible, or that we will maintain this coverage. Like other nuclear energy and mining companies, we do not have insurance coverage for certain environmental losses or liabilities and other risks, either because it is not available, or because it cannot be purchased at a reasonable cost. Insurance availability at any time is driven by a number of factors and availability may be impacted by the announced intention of certain providers to restrict underwriting of certain industries, assets or projects. We

may also be required to increase the amount of our insurance coverage due to changes in the regulation of the nuclear industry.

We may suffer material losses from uninsurable or uninsured risks or insufficient insurance coverage, which could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Flooding at McArthur River and Cigar Lake

McArthur River and Cigar Lake have had water inflows.

McArthur River

The sandstone that overlays the deposit and metasedimentary basement rock is water-bearing and permeable, which results in significant water pressure at mining depths. Ground freezing at McArthur River generally prevents water from flowing into the area being mined and reduces, but does not fully eliminate, the risk of water inflows. There are technical challenges with the groundwater and rock properties.

We temporarily suspended production at our McArthur River mine in 2003 because increased water inflow from an area of collapsed rock in a new development area began to flood portions of the mine. This caused a major setback in the development of new mining zones. We also had a small water inflow in 2008 that did not impact production but did cause significant development delays.

Cigar Lake

The Cigar Lake deposit has hydro-geological characteristics and technical challenges that are similar to those at McArthur River. We have had three water inflows at Cigar Lake since 2006 (please see page 46 for details).

These water inflows caused:

- a significant delay in development and production at the property
- a significant increase in capital costs
- the need to notify many of our customers of the interruption in planned uranium supply

There is no guarantee that there will not be water inflows at McArthur River or Cigar Lake in the future.

A water inflow could have a material and adverse effect on us, including:

- significant delays or interruptions in production or lower production
- significant delays or interruptions in mine development
- loss of mineral reserves
- a material increase in capital or operating costs
- erosion of stakeholder support, including governments, communities and shareholders

It could also have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects. The degree of impact depends on the magnitude, location and timing of the flood or water inflow. Floods and water inflows are generally not insurable.

Technical challenges at Cigar Lake and McArthur River

The unique nature of the deposits at Cigar Lake and McArthur River pose many technical challenges, including groundwater management, unstable rock properties, mine area transitioning, radiation protection, ore-handling and transport, and other mining-related challenges.

At McArthur River and Cigar Lake there may be some technical challenges which could affect our production plans, including, but not limited to, variable or unanticipated ground conditions, ground movement and cave-ins, water inflows, variable dilution and recovery values, geochemical ore characteristics, performance of the water treatment system, mining productivity, and equipment reliability.

The areas being mined at Cigar Lake must meet specific ground freezing requirements before we begin jet boring. We have identified greater variation of the freeze rates of different geological formations encountered in the mine, based on information obtained through surface freeze drilling.

The Cigar Lake orebody contains elements of concern with respect to the water quality and the receiving environment. The distribution of elements such as arsenic, molybdenum, selenium and others is non-uniform throughout the orebody, and this can present challenges in attaining and maintaining the required effluent concentrations. There have been ongoing efforts to optimize the current water treatment process and water handling systems to ensure acceptable environmental performance, which is expected to avoid the need for additional capital upgrades and potential deferral of production.

Metallurgical test work has been used to design the McClean Lake mill circuits and associated modifications relevant to Cigar Lake ore. Samples used for metallurgical test work may not be representative of the deposit as a whole. There is a risk that elevated arsenic concentration in the mill feed may result in increased leaching circuit solution temperatures, potentially causing an increase in costs and reducing production.

If any of these technical challenges are not resolved, it could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Mine concentration risk

In 2022, Cigar Lake is expected to be the main production source we control, and our share of forecast production is 7.5 million pounds. Cigar Lake production is milled at the McClean Lake mill operated by Orano. There is a risk to our Cigar Lake production plan if McClean Lake is unable to mill Cigar Lake production.

We have announced plans to transition McArthur River from care and maintenance to planned production of 15 million pounds per year (100% basis) by 2024. Our share of production in 2022 could be up to 3.5 million pounds.

We own a 40% interest in JV Inkai and have the right to purchase production from its Inkai mine (in 2022 purchases are expected to be 4.2 million pounds per year due to an adjustment to our purchase entitlement under the implementation agreement (see *2022 Production* on page 59).

Any disruption in or reduction in production from one or more of these mines could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

McArthur River mine and Key Lake mill operational readiness

Once critical projects, maintenance readiness checks, and sufficient recruitment and training have been completed, we anticipate the mine and mill will be operationally ready to resume production.

The operational changes we have made, including the suspension of production in 2018 and the accompanying workforce reduction, carry with them the risks of a delay in achieving operational readiness and resuming production and subsequent production disruption.

With the extended period of time the assets were on care and maintenance, there is increased uncertainty regarding the timing of a successful ramp up to planned production and the associated costs.

Information technology systems

We have become increasingly dependent on the availability and integrity of our electronic information and the reliability of our information technology systems and infrastructure. We rely on our information technology to process, transmit and store electronic information, including information we use to safely operate our assets. Our information technology systems are subject to disruption, damage, or failure from a variety of sources, including without limitation, security breaches, cyber-attacks, computer viruses, malicious software, natural disasters or defects in hardware or software systems.

Cyber attackers may use a range of techniques, from manipulating people to using sophisticated malicious software and hardware on a single or distributed basis. Often, advanced cyber attackers use a combination of techniques in their attempt to evade safeguards and delay discovery of a cyber-attack. We take measures to secure our infrastructure against potential cyber-attacks that may damage our infrastructure, systems, and data. We have implemented a defense in depth security program to secure and protect our information and business operations including formalizing and implementing an information security policy, user awareness training, and introducing system security configuration standards and access control measures. As technologies evolve and cyber-attacks become more sophisticated, we may incur significant costs to upgrade or enhance our security measures to mitigate potential harm.

We do not have dedicated cyber insurance coverage. However, to reduce the risk of successful cyber-attacks and to reduce the impact of any successful cyber-attacks, we have implemented several layers of perimeter and endpoint security defense and response mechanisms, security event logging and monitoring of network activities, and developed a cyber incident response process.

Despite the measures put in place to protect our systems and data, there can be no assurance that these measures will be sufficient to protect against such cyber-attacks or mitigate against such risks, or if such cyber-attacks or risks occur, that they will be adequately addressed in a timely manner.

Such a breach could result in unauthorized access to proprietary, confidential or sensitive information, destruction or corruption of data, disruption or delay in our business activities, remediation costs that may include liability for stolen assets or information, repairing system damage or incentives offered to customers or suppliers in an effort to maintain business relationships after an attack, legal or regulatory consequences, and a negative effect on our reputation and customer confidence. Disruption of critical information technology services or breaches of information security could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Replacement of depleted reserves

Cigar Lake and Inkai mines are currently our main sources of mined uranium concentrates. Prior to the 2018 production suspension at McArthur River, this mine was also one of our main sources of mined uranium concentrates. We must replace mineral reserves depleted by production at these mines to maintain or increase our annual production levels over the long term. Reserves can be replaced by expanding known orebodies, locating new deposits, or making acquisitions. Substantial expenditures are required to establish new mineral reserves. We may not be able to sustain or increase production if:

- we do not identify, discover, or acquire other deposits
- we do not find extensions to existing ore bodies
- we do not convert resources to reserves at our mines or other projects

This could have a material and adverse effect on our ability to maintain production to or beyond currently contemplated mine lives, as well it could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Although we have successfully replenished reserves in the past through ongoing exploration, development and acquisition programs, there is no assurance that we will be successful in our current or future exploration, development, or acquisition efforts.

Tailings management

Our Key Lake mill produces tailings. Managing these tailings is integral to uranium production.

If sloughing, regulatory, or other issues prevent us from maintaining or increasing the existing tailings management capacity at our Key Lake mill, or if these issues prevent Orano from maintaining or increasing tailing capacity at the McClean Lake mill, uranium production could be constrained and this could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Reliance on development and expansion projects to sustain production and fuel growth

Our ability to sustain and increase our uranium production depends in part on successfully developing new mines and/or expanding existing operations.

Several factors affect the economics and success of these projects:

- the attributes of the deposit, including its size and grade
- capital and operating costs
- metallurgical recoveries
- the accuracy of reserve estimates
- government regulations
- availability of appropriate infrastructure, particularly power and water
- future uranium prices
- the accuracy of feasibility studies
- acquiring surface or other land rights
- receiving necessary government permits
- receiving necessary stakeholder support

The effect of these factors, either alone or in combination, cannot be accurately predicted and their impact may result in our inability to extract uranium economically from any identified mineral resource.

Generally, development projects have no operating history that can be used to estimate future cash flows. We must invest a substantial amount of capital and time to develop a project and achieve commercial production. A change in costs or construction schedule can affect the economics of a project. Actual costs could increase significantly, and economic returns could be materially different from our estimates. We could fail to obtain the necessary governmental approvals for construction or operation. In any of these situations, a project might not proceed according to its original timing, or at all.

It is not unusual in the nuclear energy or mining industries for new or expanded operations to experience unexpected problems during start-up or ramp-up, resulting in delays, higher capital expenditures than anticipated and reductions in planned production. Production may be insufficient to recover exploration, development, and production costs. Delays, additional costs or reduced or insufficient production could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

There is no assurance we will be able to complete development of new mines, or expand existing operations, economically or on a timely basis.

Aging facilities

Our Port Hope fuel services facilities and our milling facility in northern Saskatchewan are aging. This exposes us to many risks, including the potential for higher maintenance and operating costs, the need for significant capital expenditures to upgrade and refurbish these facilities, the potential for decreases or delays in, or interruption of, production, and the potential for environmental damage.

These risks could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Labour and employment

People are core to our business. We compete with other nuclear energy and mining companies for talented, quality people, and we may not always be able to fill positions on a timely basis. There is a limited pool of skilled people and competition is intense. We also experience employee turnover because of an aging workforce.

If we cannot attract, train, and retain qualified personnel, including for our executive, senior and operating positions, it could increase our recruiting and training costs, reduce the efficiency of our operations, and have an adverse effect on our earnings, cash flows, financial condition or results of operations.

We have unionized employees and face the risk of strikes. On December 31, 2021, we had 2,095 employees (including employees of our subsidiaries). This includes 524 unionized employees at McArthur River, Key Lake, Port Hope, and at CFM's facilities, who are members of four different locals of the United Steelworkers trade union.

Collective agreements

- A new collective agreement with the bargaining unit employees at our conversion facilities at Port Hope was reached in 2019. The agreement ends on July 1, 2022.
- A new collective agreement with the bargaining unit employees at the McArthur River and Key Lake operations was reached in 2019. The agreement ends on December 31, 2022.
- The collective agreement with the bargaining unit employees at CFM ends on June 1, 2024.
- Orano's collective agreement with bargaining unit employees at the McClean Lake mill ends on May 31, 2022.

We cannot predict whether we or Orano will reach new collective agreements with these and other employees without a work stoppage or work interruptions while negotiations are underway.

From time to time, the mining or nuclear energy industry experiences a shortage of tradespeople and other skilled or experienced personnel globally, regionally, or locally. We have a comprehensive strategy to attract and retain high caliber people, but there is no assurance this strategy will protect us from the effects of a labour shortage.

A lengthy work interruption or labour shortage could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Joint ventures

We participate in McArthur River, Key Lake, Cigar Lake, Inkai, Millennium, and GLE through joint ventures with third parties. Some of these joint ventures are unincorporated and some are incorporated (like JV Inkai and GLE). We have other joint ventures and may enter into more in the future.

There are risks associated with joint ventures, including:

- disagreement with a joint venture participant about how to develop, operate or finance a project
- a joint venture participant not complying with a joint venture agreement
- possible litigation or arbitration between joint venture participants about joint venture matters
- the inability to exert control over decisions related to a joint venture we do not have a controlling interest in

The other owner of JV Inkai is KAP, an entity majority owned by the government of Kazakhstan, so its actions and priorities could be dictated by government policies instead of commercial considerations.

These risks could result in legal liability, affect our ability to develop or operate a project under a joint venture, or have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Supplies and contractors

Supplies

We buy reagents and other production inputs and supplies from suppliers around the world. If there is a shortage of, or disruption in the delivery of, any of these supplies, including parts and equipment, or their costs rise significantly, it could limit or interrupt production or increase production costs. It could also have an adverse effect on our ability to carry out operations or have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations. We examine our entire supply chain as necessary to identify areas to diversify or add inventory where we may be vulnerable, but there is no assurance that we will be able to mitigate the risk. Disruptions to the supply chain worldwide due to the COVID-19 pandemic has increased the risk. 2021 planned production from our fuel services operations was impacted by hydrogen supply issues.

Presently, JV Inkai is experiencing wellfield development, procurement, and supply chain issues, including inflationary pressure on production materials and reagents, which are expected to continue and could pose a risk to JV Inkai's 2022 production volume, impacting its costs and our purchases.

The February 2022 Russian invasion of Ukraine is further increasing the risk.

Contractors

In some cases, we rely on a single contractor to provide us with reagents or other production inputs and supplies. Relying on a single contractor is a security of supply risk because we may not receive quality service, timely service, or service that otherwise meets our needs. These risks could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Transportation

Due to the geographical location of many of our mines and operations, including Inkai, and our customers, we are highly dependent on third parties for the provision of transportation services, including road, air, and port services. We negotiate prices for the provision of these services in circumstances where we may not have viable alternatives to using specific providers. We require regulatory approvals to transport and export our products. Contractual disputes, demurrage charges and

port capacity issues, regulatory issues, availability of transports and vessels, inclement weather or other factors can have a material adverse effect on our ability to transport materials and our products according to schedules and contractual commitments. These risks could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Uranium exploration is highly speculative

Uranium exploration is highly speculative and involves many risks, and few properties that are explored are ultimately developed into producing mines.

Even if mineralization is discovered, it can take several years in the initial phases of drilling until a production decision is possible, and the economic feasibility of developing an exploration property may change over time. We are required to make a substantial investment to establish proven and probable mineral reserves, to determine the optimal metallurgical process to extract minerals from the ore, to construct mining and processing facilities (in the case of new properties) and to extract and process the ore. We might abandon an exploration project because of poor results or because we feel that we cannot economically mine the mineralization.

Given these uncertainties, there is no assurance that our exploration activities will be successful and result in new reserves to expand or replace our current mineral reserves to maintain or increase our production.

Infrastructure

Mining, processing, development, and exploration can only be successful with adequate infrastructure. Reliable roads, bridges, power sources and water supply are important factors that affect capital and operating costs and the ability to produce and deliver products on a timely basis.

Our activities could be negatively affected if climate change, unusual weather, interference from communities, government or others, aging, sabotage, or other causes affect the quality or reliability of the infrastructure.

A lack of adequate infrastructure could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

2 – Financial risks

Volatility and sensitivity to prices

We are concentrated in the nuclear fuel business, with our primary focus on uranium mining. As such, our earnings and cash flow are closely related to, and sensitive to, fluctuations in the spot and long-term market prices of U_3O_8 and uranium conversion services.

Many factors beyond our control affect these prices, including the following, among others:

- demand for nuclear power and the rate of construction of nuclear power plants
- timing and volume of demand for uranium and conversion services
- forward contracts of U_3O_8 supplies for nuclear power plants
- accidents in any part of the world affecting the nuclear industry in a specific region or in general, such as the March 11, 2011 accident at Fukushima Dai-ichi Nuclear Power Plant in Japan
- terrorist attacks on uranium mining, transport, or production or on nuclear power plants
- war and civil disturbances (including the ongoing conflict between Russia and Ukraine)
- uncertain legal, political, and economic environments
- political and economic conditions in countries producing and buying uranium
- government laws, policies, and decisions, including trade restrictions and sanctions
- reprocessing of used reactor fuel and the re-enrichment of depleted uranium tails
- uranium from underfeeding generated using excess enrichment capacity
- sales of excess civilian and military inventories of uranium by governments and industry participants
- levels of uranium production and production costs
- significant production interruptions or delays in expansion plans or new mines going into production
- actions of investment and hedge funds in the uranium market

- transactions by speculators and producers
- prices of alternate sources to nuclear power, including oil, natural gas, coal, hydroelectric, solar and wind

We cannot predict the effect that any one or all of these factors will have on the prices of U_3O_8 and uranium conversion services.

Prices have fluctuated widely in the last several years, and while there has been some recovery in 2021, long term U_3O_8 prices remain below levels before the March 11, 2011 accident at Fukushima. We have experienced difficult uranium markets, which have adversely impacted our financial condition and prospects.

The table below shows the range in spot prices over the last five years.

Range of spot uranium prices
$US/lb of U_3O_8

	2017	2018	2019	2020	2021
High	$24.50	$29.10	$28.90	$33.93	$45.75
Low	19.62	21.00	24.05	24.63	27.98

Spot UF_6 conversion values
$US/kg U

High	$5.93	$13.50	$22.13	$22.50	$21.75
Low	4.50	6.13	13.75	21.50	16.10

The next table shows the range in term prices over the last five years.

Range of long term uranium prices
$US/lb of U_3O_8

	2017	2018	2019	2020	2021
High	$33.00	$32.00	$32.50	$36.00	$43.00
Low	30.00	29.00	31.00	32.50	33.50

Term UF_6 conversion values
$US/kg U

High	$14.50	$16.00	$18.13	$19.00	$19.00
Low	13.00	12.25	15.50	18.00	18.00

Notes:

- Spot and long term uranium prices are the average of prices published monthly by UxC, LLC (UxC) and from The Nuexco Exchange Value, published by TradeTech.
- Spot and term UF_6 conversion values are the average of the North American prices published monthly by UxC and from The Nuexco Conversion Value, published by TradeTech.

If prices for U_3O_8 or uranium conversion services fall below our own production costs for a sustained period, continued production or conversion at our sites may cease to be profitable. This would have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects. We have been impacted by low U_3O_8 prices in the past. In 2016, we suspended production at Rabbit Lake and curtailed production at our US mines and in 2018 we suspended production at our McArthur River and Key Lake operations.

Future declines in U_3O_8 prices could also delay or deter a decision to build a new mine or begin commercial production once constructed, or adversely affect our ability to finance our operations, as well necessitate a decision to cut production volumes further for an extended period. Any of these events could have an adverse effect on our future earnings, cash flows, financial condition, results of operations, or prospects.

A sustained decline in U_3O_8 prices may require us to write down our mineral reserves and mineral resources, and any significant write downs may lead to material write downs of our investment in the mining properties affected, and an increase in charges for amortization, reclamation, and closures.

In our uranium segment, we use a uranium contracting strategy to reduce volatility in our future earnings and cash flow from exposure to fluctuations in uranium prices. It involves building a portfolio that consists of base-escalated contracts and

market-related contracts with terms of 5 to 10 years (on average). This strategy can create opportunity losses because we may not benefit fully if there is a significant increase in U_3O_8 prices. This strategy also creates currency risk since we receive payment under the majority of our sales contracts in US dollars. In addition, this strategy has provided us with a measure of protection for our business from the low uranium prices experienced since 2011. At year end, the annual average sales commitments in our contract portfolio over the next five years in our uranium segment is 18 million pounds, with commitment levels in 2022, 2023 and 2024 higher than average and in 2025 and 2026 lower than average. As a result, we may become more exposed to fluctuations in uranium prices and this could have an adverse effect on our future earnings, cash flows, financial condition, results of operations or prospects. There is no assurance that our contracting strategy will be successful.

We make purchases on the spot market and under long-term agreements to supplement our production and supply our contracts. There are, however, risks associated with these purchases, including the risk of losses, which could have an adverse effect on our earnings, cash flows, financial condition, or results of operations.

Reserve, resource, production, capital and operating cost estimates

Reserve and resource estimates are not precise

Our mineral reserves and resources are the foundation of our uranium mining operations and are fundamental to our success. They dictate how much uranium concentrate we can produce.

The uranium mineral reserves and resources reported in this AIF are estimates and are therefore subjective and subject to numerous inherent uncertainties. There is no assurance that the indicated tonnages or grades of uranium will be mined or milled or that we will receive the uranium price we used in estimating these reserves.

While we believe that the mineral reserve and resource estimates included in this AIF are well established and reflect management's best estimates, reserve and resource estimates, by their nature, are imprecise, do not reflect exact quantities and depend to a certain extent on statistical inferences that may ultimately prove unreliable. The tonnage and grade of reserves we actually recover, and rates of production from our current mineral reserves, may be less than our estimates. Fluctuations in the market price of uranium and changing exchange rates and operating and capital costs can make reserves uneconomic to mine in the future and ultimately cause us to reduce our reserves.

Short-term operating factors relating to mineral reserves, like the need for orderly development of orebodies or the processing of different ore grades, can also prompt us to modify reserve estimates or make reserves uneconomic to mine in the future, and can ultimately cause us to reduce our reserves. Reserves also may have to be re-estimated based on actual production experience.

Mineral resources may be upgraded to proven or probable mineral reserves if they demonstrate profitable recovery. Estimating reserves or resources is always affected by economic and technological factors, which can change over time, and experience in using a particular mining method. There is no assurance that any resource estimate will ultimately be upgraded to proven or probable reserves. If we do not obtain or maintain the necessary permits or government approvals, or there are changes to applicable legislation, it could cause us to reduce our reserves.

Mineral resource and reserve estimates can be uncertain because they are based on data from limited sampling and drilling and not from the entire orebody. As we gain more knowledge and understanding of an orebody, the resource and reserve estimate may change significantly, either positively or negatively.

The validity of resource and reserve estimates is highly dependent upon the accuracy of the assumptions upon which they are based and the quality of information available. These assumptions may prove to be inaccurate.

If our mineral reserve or resource estimates for our uranium properties are inaccurate or are reduced in the future, it could:

- require us to write down the value of a property
- result in lower uranium concentrate production than previously estimated
- result in lower revenue than previously estimated
- require us to incur increased capital or operating costs, or
- require us to operate mines or facilities unprofitably

This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Production, capital and operating cost estimates may be inaccurate

We prepare estimates of future production, capital costs and operating costs for particular operations, but there is no assurance we will achieve these estimates. Estimates of expected future production, capital costs and operating costs are inherently uncertain, particularly beyond one year, and could change materially over time.

Production, capital cost and operating cost estimates for:

- McArthur River/Key Lake assume that development, mining, milling, and production plans proceed as expected
- Cigar Lake assume that development, mining, milling, and production plans proceed as expected
- Inkai assume that development, mining, and production plans proceed as expected

Production estimates for uranium refining, conversion and fuel manufacturing assume there is no disruption or reduction in supply from us or third-party sources, and that estimated rates and costs of processing are accurate, among other things.

Our actual production and costs may vary from estimates for a variety of reasons, including, among others:

- actual ore mined varying from estimated grade, tonnage, dilution, metallurgical and other characteristics
- mining and milling losses greater than planned
- short-term operating factors relating to the ore, such as the need for sequential development of orebodies and the processing of new or different ore grades
- risk and hazards associated with mining, milling, uranium refining, conversion and fuel manufacturing
- failure of mining methods and plans
- failure to obtain and maintain the necessary regulatory and participant approvals
- climate change or natural phenomena, such as inclement weather conditions, forest fires, or floods
- labour shortages or strikes
- development, mining, or production plans for McArthur River are delayed or fail for any reason
- difficulties in milling McArthur River ore at Key Lake
- development, mining, or production plans for Cigar Lake are delayed or fail for any reason
- difficulties in milling Cigar Lake ore at McClean Lake
- development, mining, or production plans for Inkai are delayed or fail for any reason
- delays, interruption or reduction in production or construction activities due to fires, failure or unavailability of critical equipment, shortage of supplies, underground floods, earthquakes, tailings dam failures, lack of tailings capacity, ground movements and cave-ins, outbreak of illness (such as a pandemic like COVID-19), cyber-attacks, unanticipated consequences of our cost reduction strategies, or other difficulties

Operating costs may also be affected by a variety of factors including changing waste to ore ratios, ore grade metallurgy, mine and mill recoveries, labour costs, costs of supplies and services (for example, fuel and power), general inflationary pressures, and currency exchange rates.

Failure to achieve production or cost estimates or a material increase in costs could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Market price volatility

The company's common shares are listed on the TSX and the NYSE. The price of our common shares may be significantly affected by factors unrelated to our performance, including the following:

- market risk and sentiment
- legal, political, and economic environments factors
- energy prices
- a reduction in analytical coverage of us by investment banks with research capabilities
- a drop in trading volume and general market interest in our securities may adversely affect an investor's ability to liquidate an investment and consequently an investor's interest in acquiring a significant stake in us
- our failure to meet the reporting and other obligations under Canadian and US securities laws or imposed by the exchanges could result in a delisting of our common shares from the TSX or NYSE

As a result of any of these factors, the market price of our common shares may increase or decline even if our operating results, underlying asset values or prospects have not changed. This may cause decreases in asset values that are deemed to be non-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, our operations could be adversely impacted, and the trading price of our common shares may be materially adversely affected.

Currency fluctuations

Our earnings and cash flow may also be affected by fluctuations in the exchange rate between the Canadian and US dollar. Our sales of uranium and conversion services are mostly denominated in US dollars, while the production costs of both are denominated primarily in Canadian dollars. In addition, our purchases of uranium are primarily denominated in US dollars. Our consolidated financial statements are expressed in Canadian dollars.

Any fluctuations in the exchange rate between the US dollar and Canadian dollar can result in favourable or unfavourable foreign currency exposure, which can have a material effect on our future earnings, cash flows, financial condition or results of operations, as has been the case in the past. While we use a hedging program to limit any adverse effects of fluctuations in foreign exchange rates, there is no assurance that these hedges will eliminate any potential material negative impact of fluctuating exchange rates.

Interest Rate Changes

Our exposure to changes in interest rates results from investing and borrowing activities undertaken to manage our liquidity and capital requirements. While we use a hedging program to limit any adverse effects of fluctuations in interest rates, there is no assurance that these hedges will eliminate any potential material negative impact of fluctuating interest rates.

Customers

Our main business relates to the production and sale of uranium concentrates (our uranium segment) and providing uranium conversion services (our fuel services segment). We rely heavily on a small number of customers to purchase a significant portion of our uranium concentrates and conversion services. At December 31, 2021:

- in our uranium segment, our five largest customers account for 59% of our contracted supply of U_3O_8
- in our fuel services segment, our five largest UF_6 conversion customers account for 52% of our contracted supply of UF_6 conversion services

We are a supplier of UO_2 used by Canadian CANDU heavy water reactors. Our sales to our largest customer accounted for 35% of our UO_2 sales in 2021. In addition, revenues in 2021 from two customers of our uranium and conversion segments represented $166 million (2020 - $458 million) approximately 11% (2020 - 25%) of our total revenues from those segments.

Sales for the Bruce A and B reactors represent a substantial portion of our fuel manufacturing business.

If we lose any of our largest customers, if any of them curtails their purchases, or if we are unable to transport our products to them, it could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

Counterparty and credit risk

Our business operations expose us to the risk of counterparties not meeting their contractual obligations, including:

- customers
- suppliers
- financial institutions and other counterparties to our derivative financial instruments and hedging arrangements relating to foreign currency exchange rates and interest rates
- financial institutions which hold our cash on deposit and through which we make short-term investments
- insurance providers

Credit risk is the risk that counterparties will not be able to pay for services provided under the terms of the contract. If a counterparty to any of our significant contracts defaults on a payment or other obligation or becomes insolvent, it could have a material and adverse effect on our cash flows, earnings, financial condition, or results of operations.

Uranium products, conversion and fuel services

In our uranium and fuel services segments, we manage the credit risk of our customers for uranium products, conversion, and fuel services by:

- monitoring their creditworthiness
- asking for pre-payment or another form of security if they pose an unacceptable level of credit risk

As of December 31, 2021, 93% of our forecast revenue under contract for the period 2022 to 2024 is with customers whose creditworthiness meets our standards for unsecured payment terms.

Other

We manage the credit risk on our derivative and hedging arrangements, cash deposits and insurance policies by dealing with financial institutions and insurers that meet our credit rating standards and by limiting our exposure to individual counterparties.

We diversify or increase inventory in our supply chain to limit our reliance on a single contractor, or limited number of contractors. We also monitor the creditworthiness of our suppliers to manage the risk of suppliers defaulting on delivery commitments.

There is no assurance, however, that we will be successful in our efforts to manage the risk of default or credit risk.

Liquidity and financing

Liquidity, or access to funds, is essential to our business.

Nuclear energy and mining are extremely capital-intensive businesses, and companies need significant ongoing capital to maintain and improve existing operations, invest in large scale capital projects with long lead times, and manage uncertain development and permitting timelines and the volatility associated with fluctuating uranium and input prices.

We believe our current financial resources are sufficient to support projects planned for 2022. We have a number of alternatives to fund future capital requirements, including using our operating cash flow, drawing on our cash balances, drawing on existing credit facilities, entering new credit facilities, and raising additional capital through debt or equity financings.

There is no assurance that we will obtain the financing we need when needed. Volatile uranium markets, a claim against us, an adverse court or arbitration decision, a significant event disrupting our business or operations, or other factors, may make it difficult or impossible for us to obtain debt or equity financing on favourable terms, or at all.

A lack of liquidity could result in a delay or postponement of any or all of our exploration, development or other growth initiatives, or could otherwise have a material adverse impact on our financial condition.

Operating and capital plans

We establish our operating and capital plans based on the information we have at the time, including expert opinions. There is no assurance, however, that these plans will not change as new information is available or there is a change in expert opinion.

Studies we use may contain estimated capital and operating costs, production and economic returns and other estimates that may be significantly different than actual results.

Internal controls

We use internal controls over financial reporting to provide reasonable assurance that we authorize transactions, safeguard assets against improper or unauthorized use, and record and report transactions properly. This gives us reasonable assurance that our financial reporting is reliable and prepared in accordance with IFRS.

It is impossible for any system to provide absolute assurance or guarantee reliability, regardless of how well it is designed or operated. We continue to evaluate our internal controls to identify areas for improvement and provide as much assurance as reasonably possible. We conduct an annual assessment of our internal controls over financial reporting and produce an attestation report of their effectiveness by our independent auditors to meet the requirement of Section 404 of the *Sarbanes-Oxley Act* of 2002.

If we do not satisfy the requirements for internal controls on an ongoing, timely basis, it could negatively affect investor confidence in our financial reporting, which could have an impact on our business and the trading price of our common shares. If a deficiency is identified and we do not introduce new or better controls, or have difficulty implementing them, it could harm our financial results or our ability to meet reporting obligations.

Carrying values of assets

We evaluate the carrying value of our assets to decide whether current events and circumstances indicate if we can recover the carrying amount. This involves comparing the estimated fair value of our reporting units to their carrying values.

We base our fair value estimates on various assumptions, however, the actual fair values can be significantly different than the estimates. If we do not have any mitigating valuation factors or experience a decline in the fair value of our reporting units, it could ultimately result in an impairment charge.

Dilution of common shares

We are authorized to issue an unlimited number of common shares, of which 398,059,265 were issued and outstanding as of December 31, 2021. Future issuances for financings, acquisitions, reorganizations, amalgamations, and other transactions, may result in significant dilution to our common shares, and these issuances may be at prices substantially below the price paid for our common shares by our existing shareholders. Significant dilution would reduce the proportionate ownership and voting power held by our existing shareholders and may result in a decrease in the market price of our common shares.

3 – Political risks

Foreign investments and operations

We do business in countries and jurisdictions outside of Canada and the US, including the developing world. Doing business in these countries poses risks because they have different economic, cultural, regulatory, and political environments. Future economic and political conditions could also cause governments of these countries to change their policies on foreign investments, development and ownership of resources, or impose other restrictions, limitations or requirements that we may not foresee today.

Risks related to doing business in a foreign country can include:

- uncertain legal, political, and economic environments
- strong governmental control and regulation
- lack of an independent judiciary
- war, terrorism, and civil disturbances (including the ongoing conflict between Russia and Ukraine)
- crime, corruption, making improper payments or providing benefits that may violate Canadian or US law or laws relating to foreign corrupt practices
- unexpected changes in governments and regulatory officials
- uncertainty or disputes as to the authority of regulatory officials
- changes in a country's laws or policies, including those related to mineral tenure, mining, imports, exports, tax, duties, and currency
- cancellation or renegotiation of permits or contracts
- exposure to global public health issues (for example, an outbreak of illness like COVID-19)
- disruption in transportation between jurisdictions
- royalty and tax increases or other claims by government entities, including retroactive claims
- expropriation and nationalization
- delays in obtaining necessary permits or inability to obtain or maintain them
- currency fluctuations
- high inflation
- joint venture participants falling out of political favour
- restrictions on local operating companies selling their production offshore
- exchange or capital controls, including restrictions on local operating companies holding US dollars or other foreign currencies in offshore bank accounts
- import and export regulations, including restrictions on the export of uranium
- limitations on the repatriation of earnings
- exposure to different employment practices and labour laws
- increased financing costs

If one or more of these risks occur, it could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

We also risk being at a competitive disadvantage to companies from countries that are not subject to Canadian or US law or laws relating to foreign corrupt practices.

We enter joint venture arrangements with local participants from time to time to mitigate political risk. There is no assurance that these joint ventures will mitigate our political risk in a foreign jurisdiction.

We do not have political risk insurance for our foreign investments, including our investment in JV Inkai.

Kazakhstan

Kazakhstan declared itself independent in 1991 after the dissolution of the Soviet Union. Our investment in JV Inkai is subject to the greater risks associated with doing business in developing countries, which have significant potential for social, economic, political, legal, and fiscal instability. Kazakhstan laws and regulations are complex and still developing and their application can be difficult to predict. The other owner of JV Inkai is KAP, an entity majority owned by the government of Kazakhstan. We have entered into agreements with JV Inkai and KAP intended to mitigate political risk. Among other things, this risk includes the imposition of governmental laws or policies that could restrict or hinder JV Inkai paying us dividends, or selling us our share of JV Inkai production, or that impose discriminatory taxes or currency controls on these transactions. The restructuring of JV Inkai, which took effect January 1, 2018, was undertaken with the objective to better align the interests of Cameco and KAP and includes a governance framework that provides for protection for us as a minority owner of JV Inkai. There can be no assurance we will be successful in managing this risk.

Complex legal regime

JV Inkai has a contract with the Kazakhstan government and was granted licences to conduct mining and exploration activities at Inkai. The licensing regime has long been abolished but licences issued before such abolishment remain valid. JV Inkai's ability to conduct these activities, however, depends on the regulator's view on whether its licences are still valid and other government approvals being granted.

To maintain and increase production at Inkai, JV Inkai needs ongoing support, agreement, and co-operation from KAP and from the Kazakhstan government. Kazakhstan foreign investment, environmental and mining laws and regulations are complex and still developing, so it can be difficult to predict how they will be applied. JV Inkai's best efforts may therefore not always reflect full compliance with the law, and non-compliance can lead to an outcome that is disproportionate to the nature of the breach.

Subsoil law

Amendments to the old subsoil law in 2007 allow the government to reopen resource use contracts in certain circumstances, and in 2009, the Kazakhstan government passed a resolution that classified 231 blocks, including Inkai's blocks, as strategic deposits. The Kazakhstan government re-approved this list in 2011 and in 2018 and Inkai's blocks remain on it. These actions may increase the government's ability to expropriate JV Inkai's properties in certain situations. In 2009, at the request of the Kazakhstan government, JV Inkai amended the resource use contract to adopt a new tax code, even though the government had agreed to tax stabilization provisions in the original contract.

The previous subsoil use law which went into effect in 2010 weakened the stabilization guarantee of the prior law and the current subsoil code contains a significant number of provisions which apply retrospectively. These developments reflect increased political risk in Kazakhstan.

Nationalization

Industries like mineral production are regarded as nationally or strategically important, but there is no assurance they will not be expropriated or nationalized. Government policy can change to discourage foreign investment and nationalize mineral production, or the government can implement new limitations, restrictions, or requirements.

There is no assurance that our investment in Kazakhstan will not be nationalized, taken over or confiscated by any authority or body, whether the action is legitimate or not. While there are provisions for compensation and reimbursement of losses to investors under these circumstances, there is no assurance that these provisions would restore the value of our original investment or fully compensate us for the investment loss. This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Government regulations

Our investment in Kazakhstan may be affected in varying degrees by government regulations restricting production, price controls, export controls, currency controls, taxes and royalties, expropriation of property, environmental, mining and safety legislation, and annual fees to maintain mineral properties in good standing. Kazakhstan regulatory authorities exercise considerable discretion in the interpretation and enforcement of local laws and regulations. At times, authorities use this discretion to enforce rights in a manner that is inconsistent with relevant legislation, particularly with respect to licence issuance, renewal, and compliance. Requirements imposed by regulatory authorities may be costly and time-consuming and may result in delays in the commencement, continuation, or expansion of production operations. Regulatory authorities may impose more onerous requirements and obligations than those currently in effect.

There is no assurance that the laws in Kazakhstan which provide protection to investments, including foreign investments, will not be amended, or abolished, or that these existing laws will be enforced or interpreted to provide adequate protection against any or all of the risks described above. There is also no assurance that the resource use contract can be enforced or will provide adequate protection against any or all the risks described above.

See pages 61 to 64 for a more detailed discussion of the regulatory and political environment in Kazakhstan.

Presidential succession and recent instability

The President of Kazakhstan, Nursultan Nazarbayev, was in office since Kazakhstan became an independent republic in 1991 until he resigned on March 20, 2019. He was succeeded by Kassym-Jomart Tokayev. Subsequently Kazakhstan began to experience some instability.

In early January 2022, Kazakhstan saw the most significant instability since it became independent in 1991. The events resulted in a state of emergency being declared across the country. With the assistance of the Collective Security Treaty Organization (CSTO), the government restored order and in the second half of January, the state of emergency was gradually lifted and withdrawal of CSTO forces from Kazakhstan was completed. The early outcome of those events was a number of political and economic reforms declared by the government. While the exact impact of those reforms is unclear, they could potentially impact JV Inkai's operations and costs.

There is considerable uncertainty regarding the future political and economic landscape in Kazakhstan, which could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Australia

Western Australian Government's uranium policy

State governments in Australia have prohibited uranium mining or uranium exploration from time to time. From 2002 to 2008, uranium mining was banned in Western Australia, where our Kintyre and Yeelirrie projects are located. In 2017, the Western Australian state government announced a ban on the grant of future uranium mining leases and that it would not prevent the progress of four uranium projects that had received approval from the previous government, two of the approved projects being Kintyre and Yeelirrie.

The approval received for Kintyre from the prior state government required substantial commencement of the project by March 2020, being within five years of the grant of the approval, and this was not achieved. The current government declined to grant us an extension to achieve it. In the future, we can apply for an extension of time to achieve substantial commencement of the project. If granted by a future government we could commence the Kintyre project, provided we have all other required regulatory approvals.

The approval for the Yeelirrie project, received from the prior state government, required substantial commencement of the project by January 2022, and this was not achieved. The Minister for Environment; Climate Action for the state government has indicated that it will not consider our request for an extension at this time. In the future we can again apply for an extension of time to achieve substantial commencement of the project. If granted by a future government we could commence the Yeelirrie project, provided we have all other required regulatory approvals. Approval for the Yeelirrie project at the federal level was granted in 2019 and extends until 2043.

A prohibition or restriction on uranium exploration or mining in the future that interferes with the development of Kintyre or Yeelirrie could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Conflict in Ukraine

On February 24, 2022, Russia commenced a military invasion of Ukraine. In response, many jurisdictions have imposed strict economic sanctions against Russia, including Canada, the United States, the European Union, the United Kingdom, and others. Currently, the global nuclear industry relies on Russia for approximately 15% of its supply of uranium concentrates, 27% of conversion supply and 39% of enrichment capacity. With continued conflict, there is growing uncertainty about the ability to continue to rely on nuclear fuel supplies coming out of Russia or that ship through Russian ports. While we do not have any operations in Ukraine or Russia, our business may be impacted by the ongoing conflict between Russia and Ukraine and the related economic sanctions.

As we have from time to time purchased uranium enrichment services from a Russia-based entity in order to sell enriched uranium directly to customers, we may be required to purchase such enrichment services from other suppliers. Cameco infrequently purchases these services, as the majority of our customers work directly with their own enrichment services providers. In addition, our customer contracts may require deliveries of uranium to areas that are directly affected by the conflict and the related economic sanctions. These deliveries may need to be adjusted in consideration of the conflict and/or to comply with applicable sanctions.

The conflict and economic sanctions may also give rise to additional indirect impacts, including increased fuel prices, supply chain challenges, logistics and transport disruptions and heightened cybersecurity disruptions and threats. Increased fuel prices and ongoing volatility of such prices may have adverse impacts on our costs of doing business.

We have not yet been materially affected by the current conflict and economic sanctions, but there remains significant uncertainty surrounding the outcome of the conflict and future economic sanctions. We will continue to monitor the potential impacts on our business as the situation develops.

4 – Regulatory risks

Government laws and regulation

Our business activities are subject to extensive and complex laws and regulations.

There are laws and regulations for uranium exploration, development, mining, milling, refining, conversion, fuel manufacturing, transport, exports, imports, taxes and royalties, labour standards, occupational health, waste disposal, protection, and remediation of the environment, decommissioning and reclamation, safety, hazardous substances, emergency response, land use, water use and other matters.

Significant financial and management resources are required to comply with these laws and regulations, and this will likely continue as laws and government regulations become more and more strict. We are unable to predict the ultimate cost of compliance or its effect on our business because legal requirements change frequently, are subject to interpretation, and may be enforced to varying degrees.

Some of our operations are regulated by government agencies that exercise discretionary powers conferred by statute. If these agencies do not apply their discretionary authority consistently, then we may not be able to predict the ultimate cost of complying with these requirements or their effect on operations.

Existing, new, or changing laws, regulations and standards of regulatory enforcement could disrupt transportation of our products, increase costs, lower, delay or interrupt production, or affect decisions about whether to continue with existing operations or development projects. This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

If we do not comply with the laws and regulations that apply to our business, or it is alleged we do not comply, then regulatory or judicial authorities could take any number of enforcement actions, including:

- corrective measures that require us to increase capital or operating expenditures or install additional equipment
- remedial actions that result in temporary or permanent shut-down or reduction of our operations

- requirements that we compensate communities that suffer loss or damage because of our activities
- civil or criminal fines or penalties

Legal and political circumstances are different outside North America, which can change the nature of regulatory risks in foreign jurisdictions when compared with regulatory risks associated with operations in North America.

Permitting and licensing

All mining projects and processing facilities around the world require government approvals, licences, or permits, and operations and development projects in Canada, the US, Kazakhstan, and Australia are no exception. Depending on the location of the project, this can be a complex and time-consuming process involving multiple government agencies. We also require governmental permits to export and transport our products.

Many approvals, licences and permits must be obtained from regulatory authorities and maintained, but there is no assurance that they will grant or renew them, approve any additional licences or permits for potential changes to operations in the future or in response to new legislation, or that they will process any of the applications on a timely basis. Stakeholders, like environmental groups, non-government organizations (NGOs) and Indigenous groups claiming rights to traditional lands, can raise legal challenges. A significant delay in obtaining or renewing the necessary approvals, licences or permits, or failure to receive the necessary approvals, licences or permits, could interrupt operations, or prevent them from operating, or disrupt the transportation and sale of our products, which could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

5 – Environmental risks

Complex legislation and environmental, health and safety risk

Our activities have an impact on the environment, so our operations are subject to extensive and complex laws and regulations relating to the protection of the environment, employee health and safety, and waste management. We also face risks that are unique to uranium mining, processing, and fuel manufacturing. Laws to protect the environment as well as employee health and safety are becoming more stringent for members of the nuclear energy industry.

Our facilities operate under various operating and environmental approvals, licences, and permits that have conditions that we must meet as part of our regular business activities. In a number of instances, our right to continue operating these facilities depends on our compliance with these conditions.

Our ability to obtain approvals, licences, and permits, maintain them, and successfully develop and operate our facilities may be adversely affected by the real or perceived impact of our activities on the environment and human health and safety at our development projects and operations and in surrounding communities. The real or perceived impact of activities of other nuclear energy or mining companies can also have an adverse effect on our ability to secure and maintain approvals, licences and permits.

Our compliance with laws and regulations relating to the protection of the environment, employee health and safety, and waste management requires significant expenditures, and can cause delays in production or project development. This has been the case in the past and may be so in the future. Failing to comply can lead to fines and penalties, temporary or permanent suspension of development and operational activities, clean-up costs, damages, and the loss of, or the inability to obtain, key approvals, permits, and licences. We are exposed to these potential liabilities for our current development projects and operations as well as our closed operations. There is no assurance that we have been or will be in full compliance with all these laws and regulations, or with all the necessary approvals, permits, and licences.

Laws and regulations on the environment, employee health and safety, and waste management continue to evolve, and this can create significant uncertainty around the environmental, employee health and safety, and waste management costs we incur. If new legislation and regulations are introduced in the future, then they could lead to additional capital and operating costs, restrictions and delays at existing operations or development projects, and the extent of any of these possible changes cannot be predicted in a meaningful way.

Environmental and regulatory review is a long and complex process that can delay the opening, modification or expansion of a mine, conversion facility or refining facility, or extend decommissioning activities at a closed mine or other facility.

Our ability to foster and maintain the support of local communities and governments for our development projects and operations is critical to the conduct and growth of our business, and we do this by engaging in dialogue and consulting with them about our activities and the social and economic benefits they will generate. There is no assurance, however, that this support can be fostered or maintained. There is an increasing level of public concern relating to the perceived effect that nuclear energy and mining activities have on the environment and communities affected by the activities. Some NGOs are vocal critics of the nuclear energy and mining industries, and oppose globalization, nuclear energy, and resource development. Adverse publicity generated by these NGOs or others, related to the nuclear energy industry or the extractive industry in general, or our operations in particular, could have an adverse effect on our reputation or financial condition and may affect our relationship with the communities we operate in. While we are committed to operating in a socially responsible way, there is no guarantee that our efforts will mitigate this risk.

These risks could delay or interrupt our operations or project development activities, delay, interrupt or lower our production, and could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Changes in climate conditions and regulatory regime could adversely affect our business and operations

There is significant evidence of the effects of climate change on our planet and an intensifying focus on addressing these issues. We recognize that climate change is a global challenge that may have both favorable and adverse affects on our business in a range of possible ways. Mining and uranium processing operations are energy intensive and result in a carbon footprint either directly or through the purchase of fossil-fuel based electricity. As such, we are impacted by current and emerging policy and regulation relating to green house gas emission levels, energy efficiency, and reporting of climate-change related risks. While some of the costs associated with reducing emissions may be offset by increased energy efficiency, technological innovation, or the increased demand for our uranium and conversion services, the current regulatory trend may result in additional transition costs at some of our operations. A number of government or governmental bodies have introduced or are contemplating regulatory changes in response to the potential impacts of climate change. Where legislation already exists, regulations relating to emissions levels and energy efficiency are becoming more stringent. Changes in legislation and regulation will likely increase our compliance costs.

In addition, the physical risks of climate change may also have an adverse effect at our operations. These may include extreme weather events such as floods, droughts, forest and bush fires, and extreme storms. These physical impacts could require us to suspend or reduce production or close operations and could prevent us from pursuing expansion opportunities. These effects may adversely impact the cost, production, and financial performance of our operations.

We can provide no assurance that efforts to mitigate the risks of climate change will be effective and that physical risks of climate change will not have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Decommissioning and reclamation obligations

Environmental regulators are demanding more and more financial assurances so that the parties involved, and not the government, bear the cost of decommissioning and reclaiming sites. Our North American operations have financial assurances in place in connection with our preliminary plans for decommissioning of the sites.

We have filed conceptual decommissioning plans for some of our properties with the regulators. We review these plans for Canadian facilities every five years, or at the time of an amendment or renewal of an operating licence. Plans for our US sites are reviewed every year. Regulators review our conceptual plans on a regular basis. As the sites approach or go into decommissioning, regulators review the detailed decommissioning plans, and this can lead to additional requirements, costs, and financial assurances. It is not possible to predict what level of decommissioning and reclamation and financial assurances regulators may require in the future.

If we must comply with additional regulations, or the actual cost of decommissioning and reclamation in the future is significantly higher than our current estimates, this could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

6 – Legal and other risks

Litigation

We are currently subject to litigation or threats of litigation and may be involved in disputes with other parties in the future that result in litigation. This litigation may involve joint venture participants, suppliers, customers, governments, regulators, tax authorities, or other persons.

We cannot accurately predict the outcome of any litigation. The costs of defending or settling litigation can be significant. If a dispute cannot be resolved favourably, it may have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects. See *Legal proceedings* on page 117 for more information.

We are currently involved in a tax dispute with CRA and in 2017 settled a dispute with the IRS. See *Transfer pricing dispute* at pages 92 and 93. In addition, we are subject to the risk that CRA, the IRS or other tax authorities in other countries may seek to challenge or reassess our income tax returns on the same or a different basis for the same periods or other previously reported periods. Substantial success for CRA in the tax dispute would be material, and other unfavourable outcomes of challenges or reassessments initiated by the IRS or tax authorities in other countries could be material to our cash flows, financial condition, results of operations or prospects.

Public health issues and disease outbreaks

Our business and results of operations are subject to uncertainties arising out of public health issues. A local, regional, national, or international outbreak of an illness or contagious disease, such as a pandemic like COVID-19, could result in a general or acute decline in economic activity in the regions where our customers reside, where we operate in or hold assets in, production and transport delays, and general business interruptions. In addition, these risks could result in an increase in the cost of supplies and equipment, delays from difficulties in obtaining export or import licenses, tariffs and other barriers and restrictions, a decrease in the willingness of the general population to travel, staff shortages, mobility restrictions and other quarantine measures, supply shortages, increased government regulation, and the quarantine or contamination of one or more of our operating sites or buildings. Any such events could have a material and adverse impact on our business, financial condition, and results of operations.

We may be unable to manage the current uncertain environment resulting from COVID-19 and its related operational, safety, marketing, or financial risks successfully, including the risk of significant disruption to our operations, workforce, required supplies or services, and our ability to produce, transport, and deliver uranium.

In 2021, our operations continued to be impacted because of precautionary production suspensions due to the COVID-19 pandemic. Production at Cigar Lake was initially suspended between March and September 2020, and we temporarily suspended production for a subsequent period between December 2020 and April 2021. As a result of the suspensions, we experienced delays and deferrals in project work, which introduces potential risk to the production rate in 2022. In 2022, at Cigar Lake we expect production of 15 million pounds (100% basis).

There were disruptions to the supply chain worldwide due to the COVID-19 pandemic. 2021 planned production from our fuel services operations was impacted by hydrogen supply issues.

Legal rights

If a dispute arises at our foreign operations, it may be under the exclusive jurisdiction of foreign courts, or we may not be successful in subjecting foreign persons to the jurisdiction of courts in Canada. We could also be hindered or prevented from enforcing our rights relating to a government entity or instrumentality because of the doctrine of sovereign immunity.

The dispute resolution provision of JV Inkai's resource use contract stipulates that any dispute between the parties is to be submitted to international arbitration and the other owner of JV Inkai is KAP, an entity majority owned by the government of Kazakhstan. There is no assurance, however, that a particular government entity or instrumentality will either comply with the provisions of this or any other agreements, or voluntarily submit a dispute to arbitration. If we are unable to enforce our rights under these agreements, this could have a material and adverse effect on our earnings, cash flows, financial condition, or results of operations.

Defects in title

We have investigated our rights to explore and mine our material properties, and those rights are in good standing to our knowledge. There is no assurance, however, that these rights will not be revoked or significantly altered to our detriment, or that our rights will not be challenged by third parties, including local governments and by Indigenous groups, such as First Nations and Métis in Canada.

Indigenous rights, title claims and consultation

Managing Indigenous rights, title claims, and consultation is an integral part of our exploration, development, and mining activities, and we are committed to managing them effectively. We have signed agreements with the communities closest to our Canadian mining operations to help mitigate the risks associated with potential Indigenous land or consultation claims that could impact our Canadian mining operations. These agreements provide substantial socioeconomic opportunities to these communities and provide us with support for these operations from those communities. There is no assurance, however, that we will not face material adverse consequences because of the legal and factual uncertainties inherent with Indigenous rights, title claims and consultation.

Exploration, development, mining, milling and decommissioning activities at our various properties in Saskatchewan may be affected by claims by Indigenous groups, and related consultation issues. We also face similar issues with our activities in other provinces and countries.

It is generally acknowledged that under historical treaties, First Nations in northern Saskatchewan ceded title to most traditional lands in the region in exchange for treaty benefits and reserve lands. Some First Nations in Saskatchewan, however, assert that their treaties are not an accurate record of their agreement with the Canadian government and that they did not cede title to the minerals when they ceded title to their traditional lands.

Anti-bribery and anti-corruption laws

We are 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*. Failure to comply with these laws could subject us to, among other things, reputational damage, civil or criminal penalties, other remedial measures and legal expenses which could adversely affect our business, results from operations, and financial condition. It may not be possible for us to ensure compliance with anti-bribery and anti-corruption laws in every jurisdiction in which our employees, agents, sub-contractors or joint venture partners are located or may be located in the future.

Reputational risks

Damage to our reputation can occur from actual or perceived actions or inactions and a variety of events and circumstances, many of which are out of our control. The growing use of social media to generate, publish and discuss community news and issues and to connect with others has made it significantly easier for individuals and groups to share their opinions of us and our activities, whether accurate or not. We do not control how we are perceived by others. Loss of reputation could result in, among other things, a decrease to the price of our common shares, decreased investor confidence, challenges in maintaining positive relationships with the communities in which we operate and other important stakeholders, and increased risks in obtaining permits or financing for our operations, any of which could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Fuel fabrication defects and product liability

We fabricate nuclear fuel bundles, other reactor components, and monitoring equipment. These products are complex and may have defects that can be detected at any point in their product life cycle. Flaws in the products could materially and adversely affect our reputation, which could result in a significant cost to us and have a negative effect on our ability to sell our products in the future. We could also incur substantial costs to correct any product errors, which could have an adverse effect on our operating margins. While we have introduced significant automation to limit the potential for quality issues, there is no guarantee that we will detect all defects or errors in our products.

It is possible that some customers may demand compensation if we deliver defective products. If there are a significant number of product defects, it could have a significant impact on our operating results.

Agreements with some customers may include specific terms limiting our liability to customers. Even if there are limited liability provisions in place, existing or future laws, or unfavourable judicial decisions may make them ineffective. We have not experienced any material product liability claims to date, however, they could occur in the future because of the nature of nuclear fuel products. A successful product liability claim could result in significant monetary liability and could seriously disrupt our fuel manufacturing business and the company overall.

7 – Industry risks

Major nuclear incident risk

Due to their inherent materiality, major accidents in the nuclear industry, and most notably at nuclear power plants, such as the Chernobyl Nuclear Power Plant accident of 1986 in the Soviet Union and the accident in 2011 at the Fukushima-Daiichi nuclear power plant in Japan, garner significant worldwide attention and spawn global public sentiment favouring more significant regulation for nuclear power generation. For example, following the accident at Fukushima, certain countries, including Germany, Switzerland, and Belgium, announced their intention to phase out nuclear power. As of December 31, 2021, Germany had shut down 14 of its 17 nuclear reactors and is implementing measures to close the remaining three reactors by the end of 2022. Prior to the accident in 2011 at Fukushima, Japan had 54 nuclear reactors, which represented 12% of global nuclear generating capacity. As of December 31, 2021, Japan has restarted 10 reactors. The effect of the 2011 accident at the Fukushima-Daiichi nuclear power plant on the uranium market has had a material and adverse effect on our earnings, cash flows, financial condition, results of operations, and prospects.

Any new major accident at a nuclear power plant, or a similar disaster related to the nuclear industry, could, at a minimum, lead to more countries adopting increasingly stringent safety regulations in the nuclear industry, strengthen the public sentiment for phasing-out nuclear power, and reverse or halt the recent positive trend towards nuclear power. It may not be ruled out that the reaction to any such major accident would be significantly more severe, resulting in a rapid global abandonment of nuclear power generation, restrained principally by the actual local ability to migrate to a non-nuclear power source. Any such event may result in, among other things, a significant reduction in the demand for uranium and the resulting decline in the price of uranium.

Any new major accident at a nuclear power plant, or a similar disaster related to the nuclear industry, would have a material and adverse effect on our earnings, cash flows, financial condition, results of operations, and prospects.

Public acceptance of nuclear energy is uncertain

Maintaining the demand for uranium at current levels and achieving any growth in demand in the future will depend on society's acceptance of nuclear technology as a means of generating electricity and pursuing carbon reduction. Because of unique political, technological, and environmental factors affecting the nuclear industry, including reinvigorated public attention following the 2011 accident at Fukushima in Japan, the industry is subject to public opinion risks that could have a material adverse impact on the demand for nuclear power and increase the regulation of the nuclear power industry.

A major shift in public opinion, whether due to an accident at a nuclear power plant, changing views regarding the pursuit of carbon reduction strategies, or other causes, could impact the continuing acceptance of nuclear energy and the future prospects for nuclear power generation, which could have a material adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

In addition, we may be impacted by changes in regulation and public perception of the safety of nuclear power plants, which could adversely affect the construction of new plants, the re-licensing of existing plants, the demand for uranium and the future prospects for nuclear generation. These events could have a material adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Industry concentration risk

We are concentrated in the nuclear fuel business, with our primary focus on uranium mining. As such, we are sensitive to changes in, and our performance and future prospects, will depend to a greater extent on, the overall condition of the nuclear energy industry and the public acceptance of nuclear energy. We may be susceptible to increased risks, compared to diversified metals trading companies or diversified mining companies, as a result of the fact that our operations are concentrated in the nuclear fuel business.

Because we derive the majority of our revenues from sales of nuclear fuel, our results of operations and cash flows will fluctuate as the price of nuclear fuel increases or decreases. See "*Financial risks – Volatility and sensitivity to prices* ." A sustained period of declining nuclear fuel prices would materially and adversely affect our results of operations and cash flows. Additionally, if the market price for nuclear fuel declines or remains at relatively low levels for a sustained period, we may have to revise our operating plans, including reducing operating costs and capital expenditures, terminating, or suspending mining operations at one or more of our properties, and discontinuing certain exploration and development plans. We have been impacted by the sustained period of low prices, implementing cost reduction measures, in 2016 suspending production at Rabbit Lake and curtailing production from our US ISR Operations, and in 2018 suspending production from our McArthur River and Key Lake operations, and reducing our dividend. In a sustained period of low prices, we may be unable to decrease our costs in an amount sufficient to offset reductions in revenues and may incur losses.

Alternate sources of energy

Nuclear energy competes with other sources of energy like oil, natural gas, coal, hydroelectric, solar and wind. These sources are somewhat interchangeable with nuclear energy, particularly over the longer term and sustained lower prices for these energy sources may result in lower demand for nuclear energy and consequently reduction in demand for uranium and uranium prices.

A major shift in the power generation industry towards non-nuclear power or non-uranium based sources of nuclear energy, whether due to lower cost of power generation associated with such sources, government policy decisions, or otherwise, could have a material adverse effect on our earnings, cash flows, financial condition, results of operations, or prospects.

Industry competition and international trade restrictions

The international uranium industry, which includes supplying uranium concentrates and uranium conversion services, is highly competitive. We directly compete with a relatively small number of uranium mining and enrichment companies in the world. Their supply may come from mining uranium, excess inventories, including inventories made available from decommissioning of nuclear weapons, reprocessed uranium and plutonium derived from used reactor fuel, and from using excess enrichment capacity to re-enrich depleted uranium tails and generate uranium from underfeeding. The number of potential end customers for our uranium products, being utility companies, is relatively scarce.

The supply of uranium is affected by a number of international trade agreements and government legislation and policies. These and any similar future agreements, governmental legislation, policies, or trade restrictions are beyond our control and may affect the supply of uranium available in the US, Europe and Asia, the world's largest markets for uranium.

For conversion services, we compete with a small number of primary commercial suppliers. In addition, we compete with the availability of additional supplies from excess inventories, including those from decommissioning nuclear weapons and using excess enrichment capacity to re-enrich depleted uranium tails.

Any political decisions about the uranium market can affect our future prospects. There is no assurance that the US or other governments will not enact legislation or take other actions that restricts who can buy or supply uranium or facilitates a new supply of uranium.

Competition for sources of uranium

There is competition for mineral acquisition opportunities throughout the world, so we may not be able to acquire rights to explore additional attractive uranium mining properties on terms that we consider acceptable.

There is no assurance that we will acquire any interest in additional uranium properties or buy additional uranium concentrates from the decommissioning of nuclear weapons or the release of excess government inventory, that will result in additional uranium concentrates we can sell. If we are not able to acquire these interests or rights, it could have a material and adverse effect on our future earnings, cash flows, financial condition, or results of operations. Even if we do acquire these interests or rights, the resulting business arrangements may ultimately prove not to be beneficial.

Technical innovation and obsolescence

Requirements for our products may be affected by technological changes and innovation in nuclear reactors and other uses of uranium. These technological changes could reduce the demand for uranium, which could have a material adverse impact on our future earnings, cash flows, financial condition or results of operations.

Deregulation of the electrical utility industry

A significant part of our future prospects is directly linked to developments in the global electrical utility industry.

Deregulation of the utility industry, particularly in the US, Japan, and Europe, could affect the market for nuclear and other fuels and could lead to the premature shutdown of some nuclear reactors.

Deregulation has resulted in utilities improving the performance of their reactors to record capacity, but there is no assurance this trend will continue.

Deregulation can have a material and adverse effect on our future earnings, cash flows, financial condition or results of operations.

Legal proceedings

We discuss any legal proceedings that we or our subsidiaries are a party, as at December 31, 2021, in note 21 to the 2021 financial statements.

We are currently involved in a dispute with CRA. See *Transfer pricing dispute* at page 92 for more details about this dispute.

Investor information

Share capital

Our authorized share capital consists of:

- first preferred shares
- second preferred shares
- common shares
- one class B share

Preferred shares

We do not currently have any preferred shares outstanding, but we can issue an unlimited number of first preferred or second preferred shares with no nominal or par value, in one or more series. The board must approve the number of shares, and the designation, rights, privileges, restrictions and conditions attached to each series of first or second preferred shares.

Preferred shares can carry voting rights, and they rank ahead of common shares and the class B share for receiving dividends and distributing assets if the company is liquidated, dissolved or wound up.

First preferred shares

Each series of first preferred shares ranks equally with the shares of other series of first preferred shares. First preferred shares rank ahead of second preferred shares, common shares and the class B share.

Second preferred shares

Each series of second preferred shares ranks equally with the shares of other series of second preferred shares. Second preferred shares rank after first preferred shares and ahead of common shares and the class B share.

Common shares

We can issue an unlimited number of common shares with no nominal or par value. Only holders of common shares have full voting rights in Cameco.

If you hold our common shares, you are entitled to vote on all matters that are to be voted on at any shareholder meeting, other than meetings that are only for holders of another class or series of shares. Each Cameco share you own represents one vote, except where noted below. As a holder of common shares, you are also entitled to receive any dividends that are declared by our board of directors.

Common shares rank after preferred shares with respect to the payment of dividends and the distribution of assets if the company is liquidated, dissolved or wound up, or any other distribution of our assets among our shareholders if we were to wind up our affairs.

Holders of our common shares have no pre-emptive, redemption, purchase or conversion rights for these shares. Except as described under *Ownership and voting restrictions*, non-residents of Canada who hold common shares have the same rights as shareholders who are residents of Canada.

On December 31, 2021, we had 398,059,265 common shares outstanding. These were fully paid and non-assessable.

On February 28, 2022, there were 3,199,756 stock options outstanding to acquire common shares of Cameco under the company's stock option plan with exercise prices ranging from $11.32 to $26.81.

In 2021 and 2022, no stock options were granted.

Our articles of incorporation have provisions that restrict the issue, transfer, and ownership of voting securities of Cameco (see *Ownership and voting restrictions* below).

Class B shares

The province of Saskatchewan holds our one class B share outstanding. It is fully paid and non-assessable.

The one class B share entitles the province to receive notices of and attend all meetings of shareholders, for any class or series.

The class B shareholder can only vote at a meeting of class B shareholders, and only as a class if there is a proposal to:

- amend Part 1 of Schedule B of the articles, which states that:
    - Cameco's registered office and head office operations must be in Saskatchewan
    - the vice-chair of the board, chief executive officer (CEO), president, chief financial officer (CFO) and generally all of the senior officers (vice-presidents and above) must live in Saskatchewan
    - all annual meetings of shareholders must be held in Saskatchewan
    - amalgamation, if it would require an amendment to Part 1 of Schedule B of the articles, or
    - an amendment to the articles in a way that would change the rights of class B shareholders

The class B shareholder can request and receive information from us to determine whether or not we are complying with Part 1 of Schedule B of the articles.

The class B shareholder does not have the right to receive any dividends declared by Cameco. The class B share ranks after first and second preferred shares, but equally with common shareholders, with respect to the distribution of assets if the company is liquidated, dissolved or wound up. The class B shareholder has no pre-emptive, redemption, purchase or conversion rights with its class B share, and the share cannot be transferred.

Ownership and voting restrictions

The federal government established ownership restrictions when Cameco was formed so we would remain Canadian controlled. There are restrictions on issuing, transferring, and owning Cameco common shares whether you own the shares as a registered shareholder, hold them beneficially or control your investment interest in Cameco directly or indirectly. These are described in the *Eldorado Nuclear Limited Reorganization and Divestiture Act (Canada*) (ENL Reorganization Act) and our company articles.

The following is a summary of the restrictions listed in our company articles.

Residents

A Canadian resident, either individually or together with associates, cannot hold, beneficially own or control shares or other Cameco securities, directly or indirectly, representing more than 25% of the votes that can be cast to elect directors.

Non-residents

A non-resident of Canada, either individually or together with associates, cannot hold, beneficially own or control shares or other Cameco securities, directly or indirectly, representing more than 15% of the total votes that can be cast to elect directors.

Voting restrictions

All votes cast at the meeting by non-residents, either beneficially or controlled directly or indirectly, will be counted and pro-rated collectively to limit the proportion of votes cast by non-residents to no more than 25% of the total shareholder votes cast at the meeting.

We limit the counting of votes by non-residents of Canada at our annual meeting of shareholders to abide by this restriction. This has resulted in non-residents receiving less than one vote per share.

Enforcement

The company articles allow us to enforce the ownership and voting restrictions by:

- suspending voting rights
- forfeiting dividends and other distributions
- prohibiting the issue and transfer of Cameco shares
- requiring the sale or disposition of Cameco shares
- suspending all other shareholder rights.

To verify compliance with restrictions on ownership and voting of Cameco shares, we require existing shareholders, proposed transferees or other subscribers for voting shares to declare their residency, ownership of Cameco shares and other things relating to the restrictions. Nominees such as banks, trust companies, securities brokers or other financial institutions who hold the shares on behalf of beneficial shareholders need to make the declaration on their behalf.

We cannot issue or register a transfer of any voting shares if it would result in a contravention of the resident or non-resident ownership restrictions.

If we believe there is a contravention of our ownership restrictions based on any shareholder declarations filed with us, or our books and records or those of our registrar and transfer agent or otherwise, we can suspend all shareholder rights for the securities they hold, other than the right to transfer them. We can only do this after giving the shareholder 30 days' notice, unless he or she has disposed of the holdings, and we have been advised of this.

Understanding the terms

Please see our articles for the exact definitions of associate, resident, non-resident, control, and beneficial ownership which are used for the restrictions described above.

Other restrictions

The *ENL Reorganization Act* imposes some additional restrictions on Cameco. We must maintain our registered office and our head office operations in Saskatchewan. We are also prohibited from:

- creating restricted shares (these are generally defined as a participating share with restrictive voting rights)
- applying for continuance in another jurisdiction
- enacting articles of incorporation or bylaws that have provisions that are inconsistent with the ENL Reorganization Act

We must maintain our registered office and head office operations in Saskatchewan under the Saskatchewan Mining Development Corporation Reorganization Act. This generally includes all executive, corporate planning, senior management, administrative and general management functions.

Credit ratings

Credit ratings provide an independent, professional assessment of a corporation's credit risk. They are not a comment on the market price of a security or suitability for an individual investor and are, therefore, not recommendations to buy, hold or sell our securities.

We provide rating agencies DBRS Limited (DBRS) and Standard & Poor's (S&P) with confidential information to support the credit rating process.

The credit ratings assigned to our securities by external ratings agencies are important to our ability to raise capital at competitive pricing to support our business operations and execute our strategy.

We have three series of senior unsecured debentures outstanding:

- $100 million of debentures issued on November 14, 2012, that have an interest rate of 5.09% per year and mature on November 14, 2042
- $500 million of debentures issued on June 24, 2014, that have an interest rate of 4.19% per year and mature on June 24, 2024
- $400 million of debentures issued on October 21, 2020, that have an interest rate of 2.95% per year and mature on October 21, 2027

We have a commercial paper program which is supported by a $1 billion unsecured revolving credit facility that matures October 1, 2025. As of December 31, 2021, there were no amounts outstanding under the commercial paper facility.

The table below shows the current DBRS and S&P ratings and the rating trends/outlooks of our commercial paper and senior unsecured debentures:

Rating Agency	Rating	Rating Trend/Outlook
Commercial paper		
DBRS	**R-2 (middle)**	**Stable**
S&P	**A-3**	**Stable**
Senior Unsecured Debentures		
DBRS	**BBB**	**Stable**
S&P	**BBB-**	**Stable**

The rating agencies may revise or withdraw these ratings at any time if they believe circumstances warrant. The rating trend/outlook represents the ratings agency's assessment of the likelihood and direction that the rating could change in the future.

A change in our credit ratings could affect our cost of funding and our access to capital through the capital markets.

On May 28, 2020, DBRS changed Cameco's rating outlook to stable from negative. The change was based on the improving outlook for the uranium industry, including the uranium price increases in 2020. On June 3, 2021, DBRS confirmed the rating and the outlook.

On February 16, 2022, S&P changed their outlook for Cameco to stable from negative and affirmed the BBB- rating. The outlook reflects the estimated improvement in profitability and credit measures based on McArthur River/Key Lake commencing and ramping-up production by 2024.

Commercial paper

Rating scales for commercial paper are meant to indicate the risk that a borrower will not fulfill its near-term debt obligations in a timely manner.

The table below explains the credit ratings of our commercial paper in more detail:

	Rating	Ranking
DBRS **rates commercial paper by categories ranging from a high of *R-1* to a low of *D***	**R-2 (Middle)**	• middle of the R-2 category • represents "adequate credit quality" • fifth highest of 10 available credit rating categories
S&P **rates commercial paper by categories ranging from a high of *A-1 (high)* to a low of *D***	**A-3**	• represents "adequate protection parameters" • third highest of six available credit rating categories

Senior unsecured debentures

Long-term debt rating scales are meant to indicate the risk that a borrower will not fulfill its full obligations, with respect to interest and principal, in a timely manner.

The table below explains the credit ratings of our senior unsecured debentures in more detail:

	Rating	Ranking
DBRS **rates senior unsecured debentures by categories ranging from a high of *AAA* to a low of *D***	**BBB**	• middle of the BBB category • represents “adequate credit quality” • fourth highest of eight available credit rating categories • capacity for the payment of financial obligations is considered acceptable • may be vulnerable to future events
S&P **rates senior unsecured debentures by categories ranging from a high of *AAA* to a low of *D***	**BBB-**	• the lower end of the BBB category • exhibits “adequate protection parameters” • fourth highest of 10 available credit rating categories • adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity to meet financial commitments

Payments to credit rating agencies

Over the last two years, we paid $917,000 in connection with the credit ratings disclosed above.

Material contracts

Below is a list of material contracts entered into and still in effect, which have been filed on SEDAR in accordance with *National Instrument 51-102* Continuous Disclosure requirements:

Supplemental indentures

We entered into the Sixth supplemental indenture with CIBC Mellon on November 14, 2012, relating to the issue of $100 million in unsecured debentures at an interest rate of 5.09% per year and due in 2042.

We entered into the Seventh supplemental indenture with CIBC Mellon on June 24, 2014, relating to the issue of $500 million in unsecured debentures at an interest rate of 4.19% per year and due in 2024.

We entered into the *Eigh*th supplemental indenture with CIBC Mellon on October 21, 2020, relating to the issue of $400 million in unsecured debentures at an interest rate of 2.95% per year and due in 2027.

We entered into the *Resignation and Appointment Agreement* with CIBC Mellon and BNY Trust Company of Canada on February 22, 2021, relating to resignation of CIBC Mellon as trustee and appointment of BNY as trustee under the above supplemental indentures.

See Senior unsecured debentures, above for more information about these debentures.

US trust indenture

We entered into an indenture with The Bank of New York Mellon on May 22, 2012, to set forth the general terms and provisions of debt securities. The terms of this indenture were fully described in our final short form base shelf prospectus dated December 9, 2014. We have not issued any debt securities under this indenture. The specific terms of any offering of debt securities under this indenture would be set forth in a shelf prospectus supplement.

Resource use contract

See page 60 at *Resource use contract* for information about this contract.

Market for our securities

Our common shares are listed and traded on the Toronto Stock Exchange (TSX) (under the symbol CCO) and the New York Stock Exchange (under the symbol CCJ).

We have a registrar and transfer agent in Canada and the US for our common shares:

Canada TSX Trust Company
1 Toronto Street, Suite 1200
Toronto, ON M5C 2V6

US American Stock Transfer & Trust Company, LLC
6201 15th Avenue
Brooklyn, New York
United States of America 11219

Trading activity

The table below shows the high and low closing prices and trading volume for our common shares on the TSX in 2021.

2021	High ($)	Low ($)	Volume
January	18.61	15.70	30,027,253
February	21.39	17.24	39,857,759
March	23.90	19.58	39,121,531
April	22.95	20.14	22,363,969
May	24.88	22.09	28,942,884
June	26.17	23.27	27,025,400
July	23.91	20.98	19,859,257
August	23.31	20.04	18,164,394
September	31.22	24.17	49,251,303
October	33.22	26.59	30,950,373
November	34.97	29.79	35,526,117
December	29.61	26.89	29,648,660

Dividend

Starting in 2018, our board of directors reduced the planned dividend to $0.08 per common share to be paid annually. Our 2021 dividend was paid on December 15, 2021. For 2022, an annual dividend of $0.12 per common share has been declared payable on December 15, 2022, to shareholders of record on November 30, 2022. The decision to declare an annual dividend by our board will be based on our cash flow, financial position, strategy, and other relevant factors including appropriate alignment with the cyclical nature of our earnings.

The table below shows the dividends per common share for the last three fiscal years.

	2021	2020	2019
Cash dividends	$0.08	$0.08	$0.08
Total dividends paid (millions)	$ 32	$ 32	$ 32

Governance

Directors

Director	Board committees	Principal occupation or employment
Ian Bruce Calgary, Alberta, Canada Director since 2012	A member of all board committees	Corporate director as of 2010
Leontine Atkins Calgary, Alberta, Canada Director since 2020	Nominating, corporate governance and risk Audit and finance Technical	Corporate director as of 2019 2006 to early 2019 – Partner at KPMG Canada

Director	Board committees	Principal occupation or employment
Daniel Camus Westmount, Québec, Canada Director since 2011	Audit and finance (Chair) Human resources and compensation	Corporate director as of 2011
Donald Deranger Prince Albert, Saskatchewan, Canada Director since 2009	Nominating, corporate governance and risk Safety, health and environment Technical	May 2013 to present – non-executive chair of the board of Points Athabasca Contracting LP, a civil, earthworks and industrial contracting company 1997 to present – Advisor to First Nations Communities
Catherine Gignac Mississauga, Ontario, Canada Director since 2014	Nominating, corporate governance and risk (Chair) Audit and finance Technical	Corporate director as of 2011
Tim Gitzel Saskatoon, Saskatchewan, Canada Director since 2011	None	July 2011 to present – President and Chief Executive Officer
Jim Gowans Surrey, British Columbia, Canada Director since 2009	Safety, health and environment (Chair) Audit and finance Technical	Corporate director as of 2018 August 2019 to May 2020 – Interim president, CEO and a director of Trilogy Metals Inc. January 2016 to 2018 – President and CEO of Arizona Mining Inc., an exploration and development company
Kathryn Jackson Pittsburgh, Pennsylvania, USA Director since 2017	Human resources and compensation Nominating, corporate governance and risk Safety, health and environment Technical (Chair)	Corporate director as of 2008
Don Kayne Delta, British Columbia, Canada Director since 2016	Human resources and compensation (Chair) Safety, health and environment	September 2012 to present – Chief Executive Officer of Canfor Pulp Products Incorporated, an integrated forest products company May 2011 to present – President and CEO of Canfor Corporation

Each director is elected for a term of one year, and holds office until the next annual meeting unless he or she steps down, as required by corporate law.

Officers

Officer	Principal occupation or employment for past five years
Ian Bruce Chair of the Board Calgary, Alberta, Canada	Corporate director as of 2010
Tim Gitzel President and Chief Executive Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2011
Grant Isaac Senior Vice-President and Chief Financial Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2011

Officer	Principal occupation or employment for past five years
Sean Quinn Senior Vice-President, Chief Legal Officer and Corporate Secretary Saskatoon, Saskatchewan, Canada	Assumed current position April 2014
Brian Reilly Senior Vice-President and Chief Operating Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2017 March to June 2017 – Vice-President, Mining, Projects and Technology 2011 to February 2017 – Managing Director, Cameco Australia Pty. Ltd., a wholly-owned subsidiary
Alice Wong Senior Vice-President and Chief Corporate Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2011

To our knowledge, the total number of common shares that the directors and executive officers as a group either: (i) beneficially owned; or (ii) exercised direction or control over, directly or indirectly, was 719,840 as at March 15, 2022. This represents less than 1% of our outstanding common shares.

To the best of our knowledge, none of the directors, executive officers or shareholders that either: (i) beneficially owned; or (ii) exercised direction or control of, directly or indirectly, over 10% of any class of our outstanding securities, nor their associates or affiliates, have or have had within the three most recently completed financial years, any material interests in material transactions which have affected, or will materially affect, the company.

Other information about our directors and officers

None of our directors or officers, or a shareholder with significant holdings that could materially affect control of us, is or was a director or executive officer of another company in the past 10 years that:

- was the subject of a cease trade or similar order, or an order denying that company any exemption under securities legislation, for more than 30 consecutive days while the director or executive officer held that role with the company
- was involved in an event that resulted in the company being subject to one of the above orders after the director or executive officer no longer held that role with the company
- while acting in that capacity, or within a year of acting in that capacity, 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 the assets of that company, except for:
    - Ian Bruce was a director of Laricina Energy Limited (Laricina), a junior oilsands private company, from 2013 to December 2017. Laricina was under a *Companies' Creditors Arrangement Act (Canada)* (CCAA) protection order from March 26, 2015 to February 1, 2016; and
    - Jim Gowans was a director of Gedex Technologies Inc. (Gedex), an Ontario-based developer of airborne geological imaging technology, from 2015 to November 2019. Gedex was under a CCAA protection from August 12 to December 5, 2019.

None of them in the past 10 years:

- became bankrupt
- made a proposal under any legislation relating to bankruptcy or insolvency
- has been subject to or launched any proceedings, arrangement or compromise with any creditors, or
- had a receiver, receiver manager or trustee appointed to hold any of their assets

None of them has ever been subject to:

- penalties or sanctions 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
- any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision

About the audit and finance committee

Audit and finance committee charter

See appendix A for a copy of the audit and finance committee charter. You can also find a copy on our website (cameco.com/about/governance/board committees).

Composition of the audit and finance committee

The committee is made up of five members: Daniel Camus (chair), Leontine Atkins, Ian Bruce, Catherine Gignac and Jim Gowans. Each member is independent and financially literate using criteria that meet the standards of the Canadian Securities Administrators as set out in *National Instrument 52-110*.

Relevant education and experience

Leontine Atkins, a corporate director, is a former Partner with KPMG Canada, and served as a board member of KPMG Canada's National Board of Directors until 2019. Ms. Atkins is the newest member of the committee. She serves on the board of two other publicly-traded companies and one private company and is an audit committee member of all three companies. She holds CPA and CA designations as well as the ICD.D designation from the Institute of Corporate Directors. She has over 30 years of experience in the global mining, power, utility and oil and gas industries, with a focus on corporate strategy. She received her bachelor of business administration degree in finance from Acadia University and a master of business administration degree from Dalhousie University.

Ian Bruce, a corporate director, is the former President and CEO of Peters & Co. Limited, an independent investment dealer. He was a past member of the Expert Panel on Securities Regulation for the Minister of Finance of Canada. He currently serves on the board of one other publicly-traded company and one private company and has served as a director and audit committee member of several public companies since 1997. Mr. Bruce was a board member and chair of the Investment Industry Association of Canada. Mr. Bruce is a Fellow of the Chartered Professional Accountants (CPA) of Alberta, a recognized Specialist in Valuation under Canadian CPA rules and is a Chartered Business Valuator.

Daniel Camus is the former group chief financial officer and former head of strategy and international activities of Electricité de France SA (EDF), a France-based integrated energy operator active in the generation, distribution, transmission, supply and trading of electrical energy with international subsidiaries. He currently serves on the board of one other publicly-traded company, and serves as a member of its audit committee. He is the former Chief Financial Officer of the humanitarian finance organization, The Global Fund to Fight AIDS, Tuberculosis and Malaria. Mr. Camus received his PhD in Economics from Sorbonne University and an MBA in finance and economics from the Institute d'Études Politiques de Paris.

Catherine Gignac, a corporate director, is a former mining equity research analyst with leading global brokerage firms. She currently serves on the board of one other publicly-traded company and served on the board of the publicly-traded company, Corvus Gold Inc., for six years and as chair of its board for five years. She has more than 30 years' experience as a mining equity research analyst and geologist. She held senior positions with leading firms, including Merrill Lynch Canada, RBC Capital Markets, UBS Investment Bank and Dundee Capital Markets Inc. and Loewen Ondaatje McCutcheon Limited. Ms. Gignac was the principal of Catherine Gignac & Associates from 2011 to 2015.

Jim Gowans, a corporate director, is a former mining executive. He served as interim President and CEO of Trilogy Metals Inc. from 2019 to 2020, as the president and CEO of Arizona Mining Inc. from 2016 to 2018, and at Barrick Gold Corporation in various senior executive positions throughout 2014 and 2015. He has over 30 years of experience as a senior mining executive and is the past chair of the Mining Association of Canada. Mr. Gowans currently serves on the board of three other publicly-traded companies. He received his applied science degree in mineral engineering from the University of British Columbia and attended the Banff School of Advanced Management.

Auditors' fees

The table below shows the fees billed by the external auditors for services in 2021 and 2020:

	2021 ($)	% of total fees	2020 ($)	% of total fees
Audit fees				
Cameco[1]	1,863,000	83.8	1,845,700	75.7
Subsidiaries[2]	146,600	6.6	335,300	13.8
Total audit fees	2,009,600	90.4	2,181,000	89.5
Audit-related fees				
Pensions	30,000	1.3	27,300	1.1
Total audit-related fees	30,000	1.3	27,300	1.1
Tax fees				
Compliance	15,300	0.7	32,400	1.3
Planning and advice[3]	168,600	7.6	157,400	6.5
Total tax fees	183,900	8.3	189,800	7.8
All other fees				
Other non-audit fees[4]	—	—	39,000	1.6
Total other non-audit fees	—	—	39,000	1.6
Total fees	2,223,500	100.0	2,437,100	100.0

1 Includes amounts billed for the audit of Cameco's annual consolidated financial statements and the review of interim financial statements.
2 Includes amounts billed for the audit of Cameco's subsidiary financial statements.
3 Includes amounts billed for transfer pricing advisory.
4 Includes amounts billed for Cameco's I-4 Membership.

Approving services

The audit and finance committee must pre-approve all services the external auditors will provide to make sure they remain independent. This is according to our audit and finance committee charter and consistent with our corporate governance practices. The audit and finance committee pre-approves services up to a specific limit. If we expect the fees to exceed the limit, or the external auditors to provide new audit or non-audit services that have not been pre-approved in the past, then this must be pre-approved separately.

Any service that is not generally pre-approved must be approved by the audit and finance committee before the work is carried out, or by the committee chair, or board chair in his or her absence, as long as the proposed service is presented to the full audit and finance committee at its next meeting.

The committee has adopted a written policy that describes the procedures for implementing these principles.

Interest of experts

Our auditor is KPMG LLP, independent chartered accountants, who have audited our 2021 financial statements.

KPMG LLP are the auditors of Cameco and have confirmed with respect to Cameco that they are independent 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 that they are independent accountants with respect to Cameco under all relevant US professional and regulatory standards.

The individuals who are qualified persons for the purposes of NI 43-101 are listed under *Mineral reserves and resources* on page 76 and under *Technical report* on pages 25, 41 and 55. As a group, they beneficially own, directly or indirectly, less than 1% of any class of the outstanding securities of Cameco and our associates and affiliates.

Appendix A

Audit and finance committee of the Board of Directors

Mandate

Purpose

The primary purpose of the audit and finance committee (the “committee”) is to assist the board of directors (the “board”) in fulfilling its oversight responsibilities for (a) the accounting and financial reporting processes, (b) the internal controls, (c) the external auditors, including performance, qualifications, independence, and their audit of the corporation’s financial statements, (d) the performance of the corporation’s internal audit function, (e) financial matters and risk management of financial risks, (f) the corporation’s process for monitoring compliance with laws and regulations (other than environmental and safety laws) and its code of conduct and ethics, and (g) prevention and detection of fraudulent activities. The committee shall also prepare such reports as required to be prepared by it by applicable securities laws.

In addition, the committee provides an avenue for communication between each of the internal auditor, the external auditors, management, and the board. The committee shall have a clear understanding with the external auditors that they must maintain an open and transparent relationship with the committee and that the ultimate accountability of the external auditors is to the board and the committee, as representatives of the shareholders. The committee, in its capacity as a committee of the board, subject to the requirements of applicable law, is directly responsible for the appointment, compensation, retention, and oversight of the external auditors.

The committee has the authority to communicate directly with the external auditors and internal auditor.

The committee shall make regular reports to the board concerning its activities and in particular shall review with the board any issues that arise with respect to the quality or integrity of the corporation’s financial statements, the performance and independence of the external auditors, the performance of the corporation’s internal audit function, or the corporation’s process for monitoring compliance with laws and regulations other than environmental and safety laws.

Composition

The board shall appoint annually, from among its members, a committee and its chair. The committee shall consist of at least three members and shall not include any director employed by the corporation.

Each committee member will be independent pursuant to the standards for independence adopted by the board.

Each committee member shall be financially literate with at least one member having accounting or related financial expertise, using the terms defined as follows:

“Financially literate” means 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 issues that can reasonably be expected to be raised by the corporation’s financial statements; and

“Accounting or related financial expertise” means the ability to analyse and interpret a full set of financial statements, including the notes attached thereto, in accordance with Canadian generally accepted accounting principles.

In addition, where possible, at least one member of the committee shall qualify as an “audit committee financial expert” within the meaning of applicable securities law.

Members of the committee may not serve on the audit and finance committees of more than three public companies (including Cameco’s) without the approval of the board.

Meetings

The committee will meet at least four times annually and as many additional times as the committee considers necessary to carry out its duties effectively. The committee will hold separate closed sessions with the external auditors, the internal auditor, the chief financial officer and other members of management at each regularly scheduled meeting.

A majority of the members of the committee shall constitute a quorum. No business may be transacted by the committee except at a meeting of its members at which a quorum of the committee is present.

The committee may invite such officers, directors and employees of the corporation as it may see fit from time to time to attend at meetings of the committee and assist thereat in the discussion and consideration of any matter.

A meeting of the committee may be convened by the chair of the committee, a member of the committee, the external auditors, the internal auditor, the chief executive officer or the chief financial officer. The secretary, who shall be appointed by the committee, shall, upon direction of any of the foregoing, arrange a meeting of the committee. The committee shall report to the board in a timely manner with respect to each of its meetings.

Duties and responsibilities

To carry out its oversight responsibilities, the committee shall:

Financial reporting process

1. Review with management and the external auditors any items of concern, any proposed changes in the selection or application of major accounting policies and the reasons for the change, any identified risks and uncertainties, and any issues requiring management judgement, to the extent that the foregoing may be material to financial reporting.
2. Consider any matter required to be communicated to the committee by the external auditors under applicable generally accepted auditing standards, applicable law and listing standards, including the external auditors' report to the committee (and management's response thereto) on: (a) all critical accounting policies and practices used by the corporation; (b) all material alternative accounting treatments of financial information within generally accepted accounting principles that have been discussed with management, including the ramifications of the use of such alternative treatments and disclosures and the treatment preferred by the external auditors; and (c) any other material written communications between the external auditors and management.
3. Require the external auditors to present and discuss with the committee their views about the quality, not just the acceptability, of the implementation of generally accepted accounting principles with particular focus on accounting estimates and judgements made by management and their selection of accounting principles.
4. Discuss with management and the external auditors (a) any accounting adjustments that were noted or proposed (i.e. immaterial or otherwise) by the external auditors but were not reflected in the financial statements, (b) any material correcting adjustments that were identified by the external auditors in accordance with generally accepted accounting principles or applicable law, (c) any communication reflecting a difference of opinion between the audit team and the external auditors' national office on material auditing or accounting issues raised by the engagement, and (d) any "management" or "internal control" letter issued, or proposed to be issued, by the external auditors to the corporation.
5. Discuss with management and the external auditors any significant financial reporting issues considered during the fiscal period and the method of resolution. Resolve disagreements between management and the external auditors regarding financial reporting.
6. Review with management and the external auditors (a) any off-balance sheet financing mechanisms being used by the corporation and their effect on the corporation's financial statements and (b) the effect of regulatory and accounting initiatives on the corporation's financial statements, including the potential impact of proposed initiatives.
7. Review with management and the external auditors and legal counsel, if necessary, any litigation, claim or other contingency, including tax assessments, that could have a material effect on the financial position or operating results of the corporation, and the manner in which these matters have been disclosed or reflected in the financial statements.
8. Review with the external auditors any audit problems or difficulties experienced by the external auditors in performing the audit, including any restrictions or limitations imposed by management, and management's response. Resolve any disagreements between management and the external auditors regarding these matters.
9. Review the results of the external auditors' audit work including findings and recommendations, management's response, and any resulting changes in accounting practices or policies and the impact such changes may have on the financial statements.

10. Review and discuss with management and the external auditors the audited annual financial statements and related management discussion and analysis, make recommendations to the board with respect to approval thereof, before being released to the public, and obtain an explanation from management of all significant variances between comparable reporting periods.

11. Review and discuss with management and the external auditors all interim unaudited financial statements and related interim management discussion and analysis and make recommendations to the board with respect to the approval thereof, before being released to the public.

12. Obtain confirmation from the chief executive officer and the chief financial officer (and considering the external auditors' comments, if any, thereon) to their knowledge:

    (a) that the audited financial statements, together with any financial information included in the annual MD&A and annual information form, fairly present in all material respects the corporation's financial condition, cash flow and results of operation, as of the date and for the periods presented in such filings; and

    (b) that the interim financial statements, together with any financial information included in the interim MD&A, fairly present in all material respects the corporation's financial condition, cash flow and results of operation, as of the date and for the periods presented in such filings.

13. Review news releases to be issued in connection with the audited annual financial statements and related management discussion and analysis and the interim unaudited financial statements and related interim management discussion and analysis, before being released to the public. Discuss the type and presentation of information to be included in news releases (paying particular attention to any use of "pro-forma" or "adjusted" non-GAAP, information).

14. Review any news release, before being released to the public, containing earnings guidance or financial information based upon the corporation's financial statements prior to the release of such statements.

15. Review the appointment of the chief financial officer and have the chief financial officer report to the committee on the qualifications of new key financial executives involved in the financial reporting process.

16. Consult with the human resources and compensation committee on the succession plan for the chief financial officer and controller. Review the succession plans in respect of the chief financial officer and controller.

Internal controls

1. Receive from management a statement of the corporation's system of internal controls over accounting and financial reporting.

2. Consider and review with management, the internal auditor and the external auditors, the adequacy and effectiveness of internal controls over accounting and financial reporting within the corporation and any proposed significant changes in them.

3. Consider and discuss the scope of the internal auditors' and external auditors' review of the corporation's internal controls, and obtain reports on significant findings and recommendations, together with management responses.

4. Discuss, as appropriate, with management, the external auditors and the internal auditor, any major issues as to the adequacy of the corporation's internal controls and any special audit steps in light of material internal control deficiencies.

5. Review annually the disclosure controls and procedures, including (a) the certification timetable and related process and (b) the procedures that are in place for the review of the corporation's disclosure of financial information extracted from the corporation's financial statements and the adequacy of such procedures. Receive confirmation from the chief executive officer and the chief financial officer of the effectiveness of disclosure controls and procedures, and whether there are any significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the corporation's ability to record, process, summarize and report financial information or any fraud, whether or not material, that involves management or other employees who have a significant role in the corporation's internal control over financial reporting. In addition, receive confirmation from

the chief executive officer and the chief financial officer that they are prepared to sign the annual and quarterly certificates required by applicable securities law.

6. Review management's annual report and the external auditors' report on the assessment of the effectiveness of the corporation's internal control over financial reporting.

7. Receive a report, at least annually, from the technical committee of the board on the corporation's mineral reserves.

External auditors

(i) External Auditors' Qualifications and Selection

1. Subject to the requirements of applicable law, be solely responsible to select, retain, compensate, oversee, evaluate and, where appropriate, replace the external auditors, who must be registered with agencies mandated by applicable law. The committee shall be entitled to adequate funding from the corporation for the purpose of compensating the external auditors for completing an audit and audit report.

2. Instruct the external auditors that:

   (a) they are ultimately accountable to the board and the committee, as representatives of shareholders; and

   (b) they must report directly to the committee.

3. Ensure that the external auditors have direct and open communication with the committee and that the external auditors meet regularly with the committee without the presence of management to discuss any matters that the committee or the external auditors believe should be discussed privately.

4. Evaluate the external auditors' qualifications, performance, and independence. As part of that evaluation:

   (a) at least annually, request and review a formal report by the external auditors describing: the firm's internal quality-control procedures; any material issues raised by the most recent internal quality-control review, or peer review, of the firm, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, respecting one or more independent audits carried out by the firm, and any steps taken to deal with any such issues; and (to assess the auditors' independence) all relationships between the external auditors and the corporation, including the amount of fees received by the external auditors for the audit services and for various types of non-audit services for the periods prescribed by applicable law; and

   (b) annually review and confirm with management and the external auditors the independence of the external auditors, including the extent of non-audit services and fees, the extent to which the compensation of the audit partners of the external auditors is based upon selling non-audit services, the timing and process for implementing the rotation of the lead audit partner, reviewing partner and other partners providing audit services for the corporation, whether there should be a regular rotation of the audit firm itself, and whether there has been a "cooling off" period of one year for any former employees of the external auditors who are now employees with a financial oversight role, in order to assure compliance with applicable law on such matters; and

   (c) annually review and evaluate senior members of the external audit team, including their expertise and qualifications. In making this evaluation, the audit and finance committee should consider the opinions of management and the internal auditor.

Conclusions on the independence of the external auditors should be reported to the board.

5. Review and approve the corporation's policies for the corporation's hiring of employees and former employees of the external auditors. Such policies shall include, at minimum, a one-year hiring "cooling off" period.

(ii) Other Matters

6. Meet with the external auditors to review and approve the annual audit plan of the corporation's financial statements prior to the annual audit being undertaken by the external auditors, including reviewing the year-to-year co-ordination of the audit plan and the planning, staffing and extent of the scope of the annual audit. This review should include an explanation from the external auditors of the factors considered by the external auditors in determining their audit scope,

including major risk factors. The external auditors shall report to the committee all significant changes to the approved audit plan.

7. Review and approve the basis and amount of the external auditors' fees with respect to the annual audit in light of all relevant matters.

8. Review and pre-approve all audit and non-audit service engagement fees and terms in accordance with applicable law, including those provided to the subsidiaries of the corporation by the external auditors or any other person in its capacity as external auditors of such subsidiary. Between scheduled committee meetings, the chair of the committee, on behalf of the committee, is authorised to pre-approve any audit or non-audit service engagement fees and terms. At the next committee meeting, the chair shall report to the committee any such pre-approval given. Establish and adopt procedures for such matters.

Internal auditor

1. Review and approve the appointment or removal of the internal auditor.

2. Review and discuss with the external auditors, management, and internal auditor the responsibilities, budget and staffing of the corporation's internal audit function.

3. Review and approve the mandate for the internal auditor and the scope of annual work planned by the internal auditor, receive summary reports of internal audit findings, management's response thereto, and reports on any subsequent follow-up to any identified weakness.

4. Ensure that the internal auditor has direct and open communication with the committee and that the internal auditor meets regularly with the committee without the presence of management to discuss any matters that the committee or the internal auditor believe should be discussed privately, such as problems or difficulties which were encountered in the course of internal audit work, including restrictions on the scope of activities or access to required information, and any disagreements with management.

5. Review and discuss with the internal auditor and management the internal auditor's ongoing assessments of the corporation's business processes and system of internal controls.

6. Review the effectiveness of the internal audit function, including staffing, organizational structure and qualifications of the internal auditor and staff.

Compliance

1. Monitor compliance by the corporation with all payments and remittances required to be made in accordance with applicable law, where the failure to make such payments could render the directors of the corporation personally liable.

2. The receipt of regular updates from management regarding compliance with laws and regulations and the process in place to monitor such compliance, excluding, however, legal compliance matters subject to the oversight of the safety, health and environment committee of the board. Review the findings of any examination by regulatory authorities and any external auditors' observations relating to such matters.

3. Establish and oversee the procedures in the code of conduct and ethics policy to address:

   (a) the receipt, retention and treatment of complaints received by the corporation regarding accounting, internal accounting or auditing matters; and

   (b) confidential, anonymous submissions by employees of concerns regarding questionable accounting and auditing matters.

   Receive periodically a summary report from the senior vice-president, chief legal officer and corporate secretary on such matters as required by the code of conduct and ethics.

4. Review and recommend to the board for approval a code of conduct and ethics for employees, officers and directors of the corporation. Monitor management's implementation of the code of conduct and ethics and the global anti-corruption program and review compliance therewith by, among other things, obtaining an annual report summarizing statements of compliance by employees pursuant to such policies and reviewing the findings of any investigations of non-compliance.

Periodically review the adequacy and appropriateness of such policies and programs and make recommendations to the board thereon.

5. Monitor management's implementation of the anti-fraud policy; and review compliance therewith by, among other things, receiving reports from management on:

   (a) any investigations of fraudulent activity;

   (b) monitoring activities in relation to fraud risks and controls; and

   (c) assessments of fraud risk.

   Periodically review the adequacy and appropriateness of the anti-fraud policy and make recommendations to the board thereon.

6. Review all proposed related party transactions and situations involving a director's, senior officer's or an affiliate's potential or actual conflict of interest that are not required to be dealt with by an "independent committee" pursuant to securities law rules, other than routine transactions and situations arising in the ordinary course of business, consistent with past practice. Between scheduled committee meetings, the chair of the committee, on behalf of the committee, is authorized to review all such transactions and situations. At the next committee meeting, the chair shall report the results of such review.

7. Monitor management of hedging, debt and credit, make recommendations to the board respecting policies for management of such risks, and review the corporation's compliance therewith.

8. Approve the review and approval process for the expenses submitted for reimbursement by the chief executive officer.

9. Oversee management's mitigation of material risks within the committee's mandate and as otherwise assigned.

10. Undertake such other tasks as may be directed to it from time to time by the board.

Financial oversight

1. Assist the board in its consideration and ongoing oversight of matters pertaining to:

   (a) capital structure and funding including finance and cash flow planning;

   (b) capital management planning and initiatives;

   (c) property and corporate acquisitions and divestitures including proposals which may have a material impact on the corporation's capital position;

   (d) the corporation's annual budget and business plan;

   (e) the corporation's insurance program;

   (f) directors' and officers' liability insurance and indemnity agreements;

   (g) the annual approval to elect the end-user exception under Dodd Frank; and

   (h) matters the board may refer to the committee from time to time in connection with the corporation's capital position.

Organizational matters

1. The procedures governing the committee shall, except as otherwise provided for herein, be those applicable to the board committees as set forth in Part 7 of the General Bylaws of the corporation.

2. The members and the chair of the committee shall be entitled to receive remuneration for acting in such capacity as the board may from time to time determine.

3. The committee shall have the resources and authority appropriate to discharge its duties and responsibilities, including the authority to:

   (a) select, retain, terminate, set and approve the fees and other retention terms of special or independent counsel, accountants or other experts, as it considers appropriate; and

(b) obtain appropriate funding to pay, or approve the payment of, such approved fees;

without seeking approval of the board or management.

4. Any member of the committee may be removed or replaced at any time by the board and shall cease to be a member of the committee upon ceasing to be a director. The board may fill vacancies on the committee by appointment from among its members. If and whenever a vacancy shall exist on the committee, the remaining members may exercise all its powers so long as a quorum remains in office. Subject to the foregoing, each member of the committee shall remain as such until the next annual meeting of shareholders after that member's election.

5. The committee shall annually review and assess the adequacy of its mandate and recommend any proposed changes to the nominating, corporate governance and risk committee for recommendation to the board for approval.

6. The committee shall participate in an annual performance evaluation, the results of which will be reviewed by the board.

7. The committee shall perform any other activities consistent with this mandate, the corporation's governing laws and the regulations of stock exchanges, as the committee or the board considers necessary or appropriate.

8. A standing invitation will be issued to all non-executive directors to attend the financial oversight portion of each committee meeting.



Cameco Corporation
2021 consolidated financial statements

February 8, 2022

Report of management’s accountability

The accompanying consolidated financial statements have been prepared by management in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board. Management is responsible for ensuring that these statements, which include amounts based upon estimates and judgments, are consistent with other information and operating data contained in the annual financial review and reflect the corporation's business transactions and financial position.

Management is also responsible for the information disclosed in the management’s discussion and analysis including responsibility for the existence of appropriate information systems, procedures and controls to ensure that the information used internally by management and disclosed externally is complete and reliable in all material respects.

In addition, management is responsible for establishing and maintaining an adequate system of internal control over financial reporting. The internal control system includes an internal audit function and a code of conduct and ethics, which is communicated to all levels in the organization and requires all employees to maintain high standards in their conduct of the Company's affairs. Such systems are designed to provide reasonable assurance that the financial information is relevant reliable and accurate and that the Company’s assets are appropriately accounted for and adequately safeguarded.

Management conducted an evaluation of the effectiveness of the system of internal control over financial reporting based on the criteria established in “Internal Control – Integrated Framework (2013)” issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that the Company’s system of internal control over financial reporting was effective as at December 31, 2021.

KPMG LLP has audited the consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States).

The board of directors annually appoints an audit and finance committee comprised of directors who are not employees of the corporation. This committee meets regularly with management, the internal auditor and the shareholders' auditors to review significant accounting, reporting and internal control matters. Both the internal and shareholders' auditors have unrestricted access to the audit and finance committee. The audit and finance committee reviews the consolidated financial statements, the report of the shareholders' auditors, and management’s discussion and analysis and submits its report to the board of directors for formal approval.

Original signed by Tim S. Gitzel
President and Chief Executive Officer
February 8, 2022

Original signed by Grant E. Isaac
Senior Vice-President and Chief Financial Officer
February 8, 2022

Report of independent registered public accounting firm

To the Shareholders and Board of Directors of Cameco Corporation

Opinion on the consolidated financial statements

We have audited the accompanying consolidated statements of financial position of Cameco Corporation (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of earnings, comprehensive income, changes in equity and cash flows for the years then ended, and the related notes (collectively, the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and its financial performance and its cash flows for the years then ended, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 8, 2022 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical audit matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit and finance committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Assessment of recoverability of deferred tax assets

As discussed in note 21 to the consolidated financial statements, as of December 31, 2021 the Company has recorded a deferred tax asset of $937,579,000. The realization of this deferred tax asset is dependent on the generation of future taxable income in certain jurisdictions during the periods in which the Company's deferred tax assets are available. Based on projections of future taxable income over the periods in which the deferred tax assets are available, realization of these deferred tax assets is probable. As discussed in note 5D, the calculation of income taxes requires the use of judgment and estimates. The determination of the recoverability of deferred tax assets is dependent on assumptions and judgments regarding future market conditions, production rates and intercompany sales, which can materially impact estimated future taxable income.

We identified the assessment of the recoverability of the deferred tax asset as a critical audit matter due to the high degree of judgment required in assessing the significant assumptions and judgments that are reflected in the projections of future taxable income.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's assessment of the recoverability of the deferred tax asset, including controls related to the assumptions and judgments used in the projections of future taxable income. To assess the Company's ability to estimate future taxable income, we compared the Company's previous forecasts to actual results. To assess the Company's estimate of future taxable income, we evaluated certain significant assumptions in the model. We compared future market conditions of forecast uranium sales prices to published views of independent market participants. We compared forecast sales, including intercompany sales, to historical trends, board approved budgets and committed sales volumes, including to a selection of committed sales contracts. We compared forecast production rates to historical data, board approved budgets and life of mine plans. We involved income tax professionals with specialized skills and knowledge to assist in assessing the Company's application of the tax regulations in relevant jurisdictions.

Original signed by KPMG LLP

Chartered Professional Accountants

We have served as the Company's auditor since 1988.

Saskatoon, Canada
February 8, 2022

Report of independent registered public accounting firm

To the Shareholders and Board of Directors of Cameco Corporation

Opinion on internal control over financial reporting

We have audited Cameco Corporation's (the "Company") internal control over financial reporting as of December 31, 2021 based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated statements of financial position of the Company as of December 31, 2021 and 2020, the related consolidated statements of earnings, comprehensive income, changes in equity and cash flows for the years then ended, and the related notes (collectively, the "consolidated financial statements") and our report dated February 8, 2022 expressed an unqualified opinion on those consolidated financial statements.

Basis for opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of management's accountability. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and limitations of internal control over financial reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Original signed by KPMG LLP

Chartered Professional Accountants

Saskatoon, Canada
February 8, 2022

Consolidated statements of earnings

For the years ended December 31 (in Cdn thousands, except per share amounts)	Note	2021	2020
Revenue from products and services	17	$ 1,474,984	$ 1,800,073
Cost of products and services sold		1,282,635	1,484,962
Depreciation and amortization		190,415	208,662
Cost of sales	28	1,473,050	1,693,624
Gross profit		1,934	106,449
Administration		127,566	145,344
Exploration		8,016	10,873
Research and development		7,168	3,965
Other operating expense (income)	15	(8,407)	23,921
Loss on disposal of assets		3,803	1,072
Loss from operations		(136,212)	(78,726)
Finance costs	19	(76,612)	(96,133)
Gain on derivatives	26	12,529	36,577
Finance income		6,804	10,835
Share of earnings from equity-accounted investee	11	68,283	36,476
Other income	20	21,353	51,440
Loss before income taxes		(103,855)	(39,531)
Income tax expense (recovery)	21	(1,201)	13,666
Net loss		**$ (102,654)**	**$ (53,197)**
Net loss attributable to:			
Equity holders		(102,577)	(53,169)
Non-controlling interest		(77)	(28)
Net loss		**$ (102,654)**	**$ (53,197)**
Loss per common share attributable to equity holders:			
Basic	22	**$ (0.26)**	**$ (0.13)**
Diluted	22	**$ (0.26)**	**$ (0.13)**

See accompanying notes to consolidated financial statements.

Consolidated statements of comprehensive income

For the years ended December 31 (in thousands of Cdn $)	Note	2021	2020
Net loss		**$ (102,654)**	**$ (53,197)**
Other comprehensive income (loss), net of taxes:			
Items that will not be reclassified to net earnings:		-	-
Remeasurements of defined benefit liability	[1] 25	3,897	(4,959)
Equity investments at FVOCI - net change in fair value	[2]	22,059	16,986
Equity investments at FVOCI - net change in fair value - equity-accounted investee		-	(39)
Items that are or may be reclassified to net earnings:		-	
Exchange differences on translation of foreign operations		(30,384)	26,807
Other comprehensive income (loss), net of taxes		**(4,428)**	**38,795**
Total comprehensive loss		**$ (107,082)**	**$ (14,402)**
Other comprehensive income (loss) attributable to:			
Equity holders		$ (4,426)	$ 38,799
Non-controlling interest		(2)	(4)
Other comprehensive income (loss) for the year		**$ (4,428)**	**$ 38,795**
Total comprehensive loss attributable to:			
Equity holders		$ (107,003)	$ (14,370)
Non-controlling interest		(79)	(32)
Total comprehensive loss for the year		**$ (107,082)**	**$ (14,402)**

[1] Net of tax (2021 - $(1,274); 2020 - $1,463)

[2] Net of tax (2021 - $(3,267); 2020 - $(2,469))

See accompanying notes to consolidated financial statements.

Consolidated statements of financial position

As at December 31 ($Cdn thousands)	Note	2021	2020
Assets			
Current assets			
Cash and cash equivalents		$ 1,247,447	$ 918,382
Short-term investments		84,906	24,985
Accounts receivable	6	276,139	204,980
Current tax assets		4,966	8,184
Inventories	7	409,521	680,369
Supplies and prepaid expenses		95,341	89,428
Current portion of long-term receivables, investments and other	10	23,232	18,716
Total current assets		2,141,552	1,945,044
Property, plant and equipment	8	3,576,599	3,771,557
Intangible assets	9	51,247	55,822
Long-term receivables, investments and other	10	577,527	652,042
Investment in equity-accounted investee	11	233,240	219,688
Deferred tax assets	21	937,579	936,678
Total non-current assets		5,376,192	5,635,787
Total assets		**$ 7,517,744**	**$ 7,580,831**
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable and accrued liabilities	12	$ 340,458	$ 233,649
Current tax liabilities		4,129	1,480
Current portion of other liabilities	14	22,791	26,119
Current portion of provisions	15	46,365	42,535
Total current liabilities		413,743	303,783
Long-term debt	13	996,250	995,541
Other liabilities	14	171,774	166,559
Provisions	15	1,090,009	1,156,387
Total non-current liabilities		2,258,033	2,318,487
Shareholders' equity			
Share capital		1,903,357	1,869,710
Contributed surplus		230,039	237,358
Retained earnings		2,639,650	2,735,830
Other components of equity		72,795	115,457
Total shareholders' equity attributable to equity holders		4,845,841	4,958,355
Non-controlling interest		127	206
Total shareholders' equity		4,845,968	4,958,561
Total liabilities and shareholders' equity		**$ 7,517,744**	**$ 7,580,831**

Commitments and contingencies [notes 8, 15, 21]

See accompanying notes to consolidated financial statements.

Consolidated statements of changes in equity

($Cdn thousands)	Attributable to equity holders						Non-controlling interest	Total equity
	Share capital	Contributed surplus	Retained earnings	Foreign currency translation	Equity investments at FVOCI	Total		
Balance at January 1, 2021	$ 1,869,710	$ 237,358	$ 2,735,830	$ 103,925	$ 11,532	$ 4,958,355	$ 206	$ 4,958,561
Net loss	-	-	(102,577)	-	-	(102,577)	(77)	(102,654)
Other comprehensive income (loss)	-	-	3,897	(30,382)	22,059	(4,426)	(2)	(4,428)
Total comprehensive income (loss)	-	-	(98,680)	(30,382)	22,059	(107,003)	(79)	(107,082)
Share-based compensation	-	4,536	-	-	-	4,536	-	4,536
Stock options exercised	33,647	(6,876)	-	-	-	26,771	-	26,771
Restricted share units released	-	(4,979)	-	-	-	(4,979)	-	(4,979)
Dividends	-	-	(31,839)	-	-	(31,839)	-	(31,839)
Transfer to retained earnings [note 26]	-	-	34,339	-	(34,339)	-	-	-
Balance at December 31, 2021	$ 1,903,357	$ 230,039	$ 2,639,650	$ 73,543	$ (748)	$ 4,845,841	$ 127	$ 4,845,968
Balance at January 1, 2020	$ 1,862,749	$ 234,681	$ 2,825,596	$ 77,114	$ (5,415)	$ 4,994,725	$ 238	$ 4,994,963
Net loss	-	-	(53,169)	-	-	(53,169)	(28)	(53,197)
Other comprehensive income (loss)	-	-	(4,959)	26,811	16,947	38,799	(4)	38,795
Total comprehensive income (loss)	-	-	(58,128)	26,811	16,947	(14,370)	(32)	(14,402)
Share-based compensation	-	6,564	-	-	-	6,564	-	6,564
Stock options exercised	6,961	(1,586)	-	-	-	5,375	-	5,375
Restricted share units released	-	(2,301)	-	-	-	(2,301)	-	(2,301)
Dividends	-	-	(31,638)	-	-	(31,638)	-	(31,638)
Balance at December 31, 2020	$ 1,869,710	$ 237,358	$ 2,735,830	$ 103,925	$ 11,532	$ 4,958,355	$ 206	$ 4,958,561

See accompanying notes to consolidated financial statements.

Consolidated statements of cash flows

For the years ended December 31 (in Cdn thousands)	Note	2021	2020
Operating activities			
Net loss		$ (102,654)	$ (53,197)
Adjustments for:			
Depreciation and amortization		190,415	208,662
Deferred charges		608	(2,945)
Unrealized loss (gain) on derivatives		13,771	(42,892)
Share-based compensation	24	4,536	6,564
Loss on disposal of assets		3,803	1,072
Finance costs	19	76,612	96,133
Finance income		(6,804)	(10,835)
Share of earnings from equity-accounted investee	11	(68,283)	(36,476)
Other income	20	(446)	(13,891)
Other operating expense (income)	15	(8,407)	23,921
Income tax expense (recovery)	21	(1,201)	13,666
Interest received		9,374	9,994
Income taxes received (paid)		9,583	(4,374)
Dividends from equity-accounted investee	31	50,128	54,404
Other operating items	23	287,253	(192,917)
Net cash provided by operations		**458,288**	**56,889**
Investing activities			
Additions to property, plant and equipment		(98,784)	(77,462)
Increase in short-term investments		(59,921)	(24,985)
Decrease in long-term receivables, investments and other		73,050	907
Proceeds from sale of property, plant and equipment		5,357	511
Net cash used in investing activities		**(80,298)**	**(101,029)**
Financing activities			
Increase in long-term debt		-	397,539
Decrease in long-term debt		-	(400,000)
Interest paid		(38,977)	(65,547)
Proceeds from issuance of shares, stock option plan		26,771	5,375
Lease principal payments		(2,727)	(3,716)
Dividends paid		(31,839)	(31,638)
Net cash used in financing		**(46,772)**	**(97,987)**
Increase (decrease) in cash and cash equivalents, during the year		331,218	(142,127)
Exchange rate changes on foreign currency cash balances		(2,153)	(1,922)
Cash and cash equivalents, beginning of year		918,382	1,062,431
Cash and cash equivalents, end of year		**$ 1,247,447**	**$ 918,382**
Cash and cash equivalents is comprised of:			
Cash		$ 604,557	$ 503,496
Cash equivalents		642,890	414,886
Cash and cash equivalents		**$ 1,247,447**	**$ 918,382**

See accompanying notes to consolidated financial statements.

Notes to consolidated financial statements

For the years ended December 31, 2021 and 2020

1. Cameco Corporation

Cameco Corporation is incorporated under the Canada Business Corporations Act. The address of its registered office is 2121 11th Street West, Saskatoon, Saskatchewan, S7M 1J3. The consolidated financial statements as at and for the year ended December 31, 2021 comprise Cameco Corporation and its subsidiaries (collectively, the Company or Cameco) and the Company's interests in associates and joint arrangements.

Cameco is one of the world's largest providers of the uranium needed to generate clean, reliable baseload electricity around the globe. The Company has mines in northern Saskatchewan and the United States, as well as a 40% interest in Joint Venture Inkai LLP (JV Inkai), a joint arrangement with Joint Stock Company National Atomic Company Kazatomprom (Kazatomprom), located in Kazakhstan. JV Inkai is accounted for on an equity basis (see note 11).

Cameco's Cigar Lake mine was placed in a temporary state of care and maintenance in March of 2020 due to the global COVID-19 pandemic. While production resumed in September, the mine returned to a temporary state of care and maintenance in January 2021 as a result of the pandemic. Production once again resumed in April 2021. Cameco also has two other operations in northern Saskatchewan which are in care and maintenance. Rabbit Lake was placed in care and maintenance in the second quarter of 2016 while operations at McArthur River/Key Lake were suspended indefinitely in the third quarter of 2018. Cameco's operations in the United States, Crow Butte and Smith Ranch-Highland, are also not currently producing as the decision was made in 2016 to curtail production and defer all wellfield development. See note 28 for the financial statement impact.

The Company is also a leading provider of nuclear fuel processing services, supplying much of the world's reactor fleet with the fuel to generate one of the cleanest sources of electricity available today. It operates the world's largest commercial UF_6 refinery in Blind River, Ontario, controls a significant portion of the world UF_6 conversion capacity in Port Hope, Ontario and is a leading manufacturer of fuel assemblies and reactor components for CANDU reactors at facilities in Port Hope and Cobourg, Ontario. Also a result of the COVID-19 pandemic, production was temporarily suspended at the Port Hope UF_6 conversion plant and at the Blind River refinery for approximately four weeks in the second quarter of 2020. See note 28 for the financial statement impact.

2. Significant accounting policies

A. Statement of compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

These consolidated financial statements were authorized for issuance by the Company's board of directors on February 8, 2022.

B. Basis of presentation

These consolidated financial statements are presented in Canadian dollars, which is the Company's functional currency. All financial information is presented in Canadian dollars, unless otherwise noted. Amounts presented in tabular format have been rounded to the nearest thousand except per share amounts and where otherwise noted.

The consolidated financial statements have been prepared on the historical cost basis except for the following material items which are measured on an alternative basis at each reporting date:

Derivative financial instruments	Fair value through profit or loss (FVTPL)
Equity investments	Fair value through other comprehensive income (FVOCI)
Liabilities for cash-settled share-based payment arrangements	FVTPL
Net defined benefit liability	Fair value of plan assets less the present value of the defined benefit obligation

The preparation of the consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenue and expenses. Actual results may vary from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in note 5.

This summary of significant accounting policies is a description of the accounting methods and practices that have been used in the preparation of these consolidated financial statements and is presented to assist the reader in interpreting the statements contained herein. These accounting policies have been applied consistently to all entities within the consolidated group.

C. Consolidation principles

i. Business combinations

The acquisition method of accounting is used to account for the acquisition of subsidiaries by the Company. The Company measures goodwill at the acquisition date as the fair value of the consideration transferred, including the recognized amount of any non-controlling interests in the acquiree, less the net recognized amount (generally fair value) of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. When the excess is negative, a bargain purchase gain is recognized immediately in earnings. In a business combination achieved in stages, the acquisition date fair value of the Company's previously held equity interest in the acquiree is also considered in computing goodwill.

Consideration transferred includes the fair values of the assets transferred, liabilities incurred and equity interests issued by the Company. Consideration also includes the fair value of any contingent consideration and share-based compensation awards that are replaced mandatorily in a business combination.

The Company elects on a transaction-by-transaction basis whether to measure any non-controlling interest at fair value, or at their proportionate share of the recognized amount of the identifiable net assets of the acquiree, at the acquisition date.

Acquisition-related costs are expensed as incurred, except for those costs related to the issue of debt or equity instruments.

ii. Subsidiaries

The consolidated financial statements include the accounts of Cameco and its subsidiaries. Subsidiaries are entities over which the Company has control. Subsidiaries are fully consolidated from the date on which control is acquired by the Company and are deconsolidated from the date that control ceases.

iii. Investments in equity-accounted investees

Cameco's investments in equity-accounted investees include investments in associates.

Associates are those entities over which the Company has significant influence, but not control or joint control, over the financial and operating policies. Significant influence is presumed to exist when the Company holds between 20% and 50% of the voting power of another entity, but can also arise where the Company holds less than 20% if it has the power to be actively involved and influential in policy decisions affecting the entity.

Investments in associates are accounted for using the equity method. The equity method involves the recording of the initial investment at cost and the subsequent adjusting of the carrying value of the investment for Cameco's proportionate share of the earnings or loss and any other changes in the associates' net assets, such as dividends. The cost of the investment includes transaction costs.

Adjustments are made to align the accounting policies of the associate with those of the Company before applying the equity method. When the Company's share of losses exceeds its interest in an equity-accounted investee, the carrying amount of that interest is reduced to zero, and the recognition of further losses is discontinued except to the extent that the Company has incurred legal or constructive obligations or made payments on behalf of the associate. If the associate subsequently reports profits, Cameco resumes recognizing its share of those profits only after its share of the profits equals the share of losses not recognized.

iv. Joint arrangements

A joint arrangement can take the form of a joint operation or joint venture. All joint arrangements involve a contractual arrangement that establishes joint control.

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. A joint operation may or may not be structured through a separate vehicle. These arrangements involve joint control of one or more of the assets acquired or contributed for the purpose of the joint operation. The consolidated financial statements of the Company include its share of the assets in such joint operations, together with its share of the liabilities, revenues and expenses arising jointly or otherwise from those operations. All such amounts are measured in accordance with the terms of each arrangement.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. A joint venture is always structured through a separate vehicle. It operates in the same way as other entities, controlling the assets of the joint venture, earning its own revenue and incurring its own liabilities and expenses. Interests in joint ventures are accounted for using the equity method of accounting, whereby the Company's proportionate interest in the assets, liabilities, revenues and expenses of jointly controlled entities are recognized on a single line in the consolidated statements of financial position and consolidated statements of earnings. The share of joint ventures results is recognized in the Company's consolidated financial statements from the date that joint control commences until the date at which it ceases.

v. Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealized gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Company's interest in the investee. Unrealized losses are eliminated in the same manner as unrealized gains, but only to the extent that there is no evidence of impairment.

D. Foreign currency translation

Items included in the financial statements of each of Cameco's subsidiaries, associates and joint arrangements are measured using their functional currency, which is the currency of the primary economic environment in which the entity operates. The consolidated financial statements are presented in Canadian dollars, which is Cameco's functional and presentation currency.

i. Foreign currency transactions

Foreign currency transactions are translated into the respective functional currency of the Company and its entities using the exchange rates prevailing at the dates of the transactions. At the reporting date, monetary assets and liabilities denominated in foreign currencies are translated to the functional currency at the exchange rate at that date. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. The applicable exchange gains and losses arising on these transactions are reflected in earnings with the exception of foreign exchange gains or losses on provisions for decommissioning and reclamation activities that are in a foreign currency, which are capitalized in property, plant and equipment.

ii. Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to Canadian dollars at exchange rates at the reporting dates. The revenues and expenses of foreign operations are translated to Canadian dollars at exchange rates at the dates of the transactions.

Foreign currency differences are recognized in other comprehensive income. When a foreign operation is disposed of, in whole, the relevant amount in the foreign currency translation account is transferred to earnings as part of the gain or loss on disposal.

When the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely in the foreseeable future, foreign exchange gains and losses arising from such a monetary item are considered to form part of the net investment in a foreign operation, and are recognized in other comprehensive income and presented within equity in the foreign currency translation account.

E. Cash and cash equivalents

Cash and cash equivalents consists of balances with financial institutions and investments in money market instruments which have a term to maturity of three months or less at the time of purchase and are measured at amortized cost.

F. Short-term investments

Short-term investments are comprised of money market instruments with terms to maturity between three and 12 months and are measured at amortized cost.

G. Inventories

Inventories of broken ore, uranium concentrates, and refined and converted products are measured at the lower of cost and net realizable value.

Cost includes direct materials, direct labour, operational overhead expenses and depreciation. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

Consumable supplies and spares are valued at the lower of cost or replacement value.

H. Property, plant and equipment

i. Buildings, plant and equipment and other

Items of property, plant and equipment are measured at cost less accumulated depreciation and impairment charges. The cost of self-constructed assets includes the cost of materials and direct labour, borrowing costs and any other costs directly attributable to bringing the assets to the location and condition necessary for them to be capable of operating in the manner intended by management, including the initial estimate of the cost of dismantling and removing the items and restoring the site on which they are located.

When components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items of property, plant and equipment and depreciated separately.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognized in earnings.

ii. Mineral properties and mine development costs

The decision to develop a mine property within a project area is based on an assessment of the commercial viability of the property, the availability of financing and the existence of markets for the product. Once the decision to proceed to development is made, development and other expenditures relating to the project area are deferred as part of assets under construction and disclosed as a component of property, plant and equipment with the intention that these will be depreciated by charges against earnings from future mining operations. No depreciation is charged against the property until the production stage commences. After a mine property has been brought into the production stage, costs of any additional work on that property are expensed as incurred, except for large development programs, which will be deferred and depreciated over the remaining life of the related assets.

The production stage is reached when a mine property is in the condition necessary for it to be capable of operating in the manner intended by management. The criteria used to assess the start date of the production stage are determined based on the nature of each mine construction project, including the complexity of a mine site. A range of factors is considered when determining whether the production stage has been reached, which includes, but is not limited to, the demonstration of sustainable production at or near the level intended (such as the demonstration of continuous throughput levels at or above a target percentage of the design capacity).

iii. Depreciation

Depreciation is calculated over the depreciable amount, which is the cost of the asset less its residual value. Assets which are unrelated to production are depreciated according to the straight-line method based on estimated useful lives as follows:

Land	Not depreciated
Buildings	15 - 25 years
Plant and equipment	3 - 15 years
Furniture and fixtures	3 - 10 years
Other	3 - 5 years

Mining properties and certain mining and conversion assets for which the economic benefits from the asset are consumed in a pattern which is linked to the production level are depreciated according to the unit-of-production method. For conversion assets, the amount of depreciation is measured by the portion of the facilities' total estimated lifetime production that is produced in that period. For mining assets and properties, the amount of depreciation or depletion is measured by the portion of the mines' proven and probable mineral reserves recovered during the period.

Depreciation methods, useful lives and residual values are reviewed at each reporting period and are adjusted if appropriate.

iv. Borrowing costs

Borrowing costs on funds directly attributable to finance the acquisition, production or construction of a qualifying asset are capitalized until such time as substantially all the activities necessary to prepare the qualifying asset for its intended use are complete. A qualifying asset is one that takes a substantial period of time to prepare for its intended use. Capitalization is discontinued when the asset enters the production stage or development ceases. Where the funds used to finance a project form part of general borrowings, interest is capitalized based on the weighted average interest rate applicable to the general borrowings outstanding during the period of construction.

v. Repairs and maintenance

The cost of replacing a component of property, plant and equipment is capitalized if it is probable that future economic benefits embodied within the component will flow to the Company. The carrying amount of the replaced component is derecognized. Costs of routine maintenance and repair are charged to products and services sold.

I. Goodwill and intangible assets

Goodwill arising from the acquisition of subsidiaries is initially recognized at cost, measured as the excess of the fair value of the consideration paid over the fair value of the identifiable net assets acquired. At the date of acquisition, goodwill is allocated to the cash generating unit (CGU), or group of CGUs that is expected to receive the economic benefits of the business combination. Goodwill is subsequently measured at cost, less accumulated impairment losses.

Intangible assets acquired individually or as part of a group of assets are initially recognized at cost and measured subsequently at cost less accumulated amortization and impairment losses. Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. The cost of a group of intangible assets acquired in a transaction, including those acquired in a business combination that meet the specified criteria for recognition apart from goodwill, is allocated to the individual assets acquired based on their relative fair values.

Intangible assets that have finite useful lives are amortized over their estimated remaining useful lives. Amortization methods and useful lives are reviewed at each reporting period and are adjusted if appropriate.

J. Leases

Cameco recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which is the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred, less any lease incentives received, and subsequently at cost less any accumulated depreciation and impairment losses. The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the cost of the right-of-use asset reflects that the Company will exercise a purchase option, in which case the right-of-use asset will be depreciated on the same basis as that of property, plant and equipment.

The lease liability is measured at amortized cost using the effective interest method. It is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease, or, if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, Cameco uses its incremental borrowing rate as the discount rate. Current borrowing rates available for classes of leased assets are compared with the rates of Cameco's existing debt facilities to ensure that use of the Company's incremental borrowing rate is reasonable.

The lease liability is subsequently increased by the interest cost on the lease liability and decreased by lease payments made. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, a change in the estimate of the amount expected to be payable under a residual value guarantee, or as appropriate, changes in the assessment of whether a purchase or extension option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised.

Cameco uses judgement in determining the lease term for some lease contracts that include renewal options. The assessment of whether the Company is reasonably certain to exercise such options impacts the lease term, which affects the amount of lease liabilities and right-of-use assets recognized.

The Company has elected not to recognize right-of-use assets and lease liabilities for leases of low-value assets and short-term leases that have a lease term of 12 months or less. The lease payments associated with these leases are recognized as an expense on a straight-line basis over the lease term.

K. Finance income and finance costs

Finance income comprises interest income on funds invested. Interest income and interest expense are recognized in earnings as they accrue, using the effective interest method. Finance costs comprise interest and fees on borrowings, unwinding of the discount on provisions and costs incurred on redemption of debentures.

Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are expensed in the period incurred.

L. Research and development costs

Expenditures on research are charged against earnings when incurred. Development costs are recognized as assets when the Company can demonstrate technical feasibility and that the asset will generate probable future economic benefits.

M. Impairment

i. Non-derivative financial assets

Cameco recognizes loss allowances for expected credit losses (ECLs) on financial assets measured at amortized cost, debt investments measured at FVOCI, and contract assets. It measures loss allowances at an amount equal to lifetime ECLs except for debt securities that are determined to have low credit risk at the reporting date and other debt securities, loans advanced and bank balances for which credit risk has not increased significantly since initial recognition. For these, loss allowances are measured equal to 12-month ECLs.

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument while 12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 months after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months). The maximum period considered when estimating ECLs is the maximum contractual period over which the Company is exposed to credit risk.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Company expects to receive. ECLs are discounted at the effective interest rate of the financial asset.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Company considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Company's historical experience and informed credit assessment and including forward-looking information.

The Company considers a financial asset to be in default when the borrower is unlikely to pay its credit obligations in full without recourse by Cameco to actions such as realizing security (if any is held).

The Company considers a debt security to have low credit risk when it is at least an A (low) DBRS or A- S&P rating.

Financial assets carried at amortized cost and debt securities at FVOCI are assessed at each reporting date to determine whether they are 'credit-impaired'. A financial asset is 'credit-impaired' when one or more events that have a detrimental effect on the estimated future cash flows of the financial asset have occurred. Evidence can include significant financial difficulty of the borrower or issuer, a breach of contract, restructuring of an amount due to the Company on terms that the Company would not consider otherwise, indications that a debtor or issuer will enter bankruptcy or other financial reorganization, or the disappearance of an active market for a security.

Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets. For debt securities at FVOCI, the loss allowance is charged to earnings and is recognized in OCI. The gross carrying amount of a financial asset is written off when the Company has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof.

ii. Non-financial assets

The carrying amounts of Cameco's non-financial assets are reviewed throughout the year to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill is tested annually for impairment.

For impairment testing, assets are grouped together into CGUs which are the smallest group of assets that generate cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs. Goodwill arising from a business combination is allocated to CGUs or groups of CGUs that are expected to benefit from the synergies of the combination.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU. Fair value is determined as the amount that would be obtained from the sale of the asset or CGU in an arm's-length transaction between knowledgeable and willing parties. For exploration properties, fair value is based on the implied fair value of the resources in place using comparable market transaction metrics.

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its recoverable amount. Impairment losses are recognized in earnings. Impairment losses recognized in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the CGU, and then to reduce the carrying amounts of the other assets in the CGU on a pro rata basis.

Impairment losses recognized in prior periods are assessed throughout the year, whenever events or changes in circumstances indicate that the impairment may have reversed. If the impairment has reversed, the carrying amount of the asset is increased to its recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized. A reversal of an impairment loss is recognized immediately in earnings. An impairment loss in respect of goodwill is not reversed.

N. Exploration and evaluation expenditures

Exploration and evaluation expenditures are those expenditures incurred by the Company in connection with the exploration for and evaluation of mineral resources before the technical feasibility and commercial viability of extracting a mineral resource are demonstrable. These expenditures include researching and analyzing existing exploration data, conducting geological studies, exploratory drilling and sampling, and compiling prefeasibility and feasibility studies. Exploration and evaluation expenditures are charged against earnings as incurred, except when there is a high degree of confidence in the viability of the project and it is probable that these costs will be recovered through future development and exploitation.

The technical feasibility and commercial viability of extracting a resource is considered to be determinable based on several factors, including the existence of proven and probable reserves and the demonstration that future economic benefits are probable. When an area is determined to be technically feasible and commercially viable, the exploration and evaluation assets attributable to that area are first tested for impairment and then transferred to property, plant and equipment.

Exploration and evaluation costs that have been acquired in a business combination or asset acquisition are capitalized under the scope of IFRS 6, Exploration for and Evaluation of Mineral Resources, and are reported as part of property, plant and equipment.

O. Provisions

A provision is recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the risk-adjusted expected future cash flows at a pre-tax risk-free rate that reflects current market assessments of the time value of money. The unwinding of the discount is recognized as a finance cost.

i. Environmental restoration

The mining, extraction and processing activities of the Company normally give rise to obligations for site closure and environmental restoration. Closure and restoration can include facility decommissioning and dismantling, removal or treatment of waste materials, as well as site and land restoration. The Company provides for the closure, reclamation and decommissioning of its operating sites in the financial period when the related environmental disturbance occurs, based on the estimated future costs using information available at the reporting date. Costs included in the provision comprise all closure and restoration activity expected to occur gradually over the life of the operation and at the time of closure. Routine operating costs that may impact the ultimate closure and restoration activities, such as waste material handling conducted as a normal part of a mining or production process, are not included in the provision.

The timing of the actual closure and restoration expenditure is dependent upon a number of factors such as the life and nature of the asset, the operating licence conditions and the environment in which the mine operates. Closure and restoration provisions are measured at the expected value of future cash flows, discounted to their present value using a current pre-tax risk-free rate. Significant judgments and estimates are involved in deriving the expectations of future activities and the amount and timing of the associated cash flows.

At the time a provision is initially recognized, to the extent that it is probable that future economic benefits associated with the reclamation, decommissioning and restoration expenditure will flow to the Company, the corresponding cost is capitalized as an asset. The capitalized cost of closure and restoration activities is recognized in property, plant and equipment and depreciated on a unit-of-production basis. The value of the provision is gradually increased over time as the effect of discounting unwinds. The unwinding of the discount is an expense recognized in finance costs.

Closure and rehabilitation provisions are also adjusted for changes in estimates. The provision is reviewed at each reporting date for changes to obligations, legislation or discount rates that effect change in cost estimates or life of operations. The cost of the related asset is adjusted for changes in the provision resulting from changes in estimated cash flows or discount rates and the adjusted cost of the asset is depreciated prospectively.

ii. Waste disposal

The refining, conversion and manufacturing processes generate certain uranium-contaminated waste. The Company has established strict procedures to ensure this waste is disposed of safely. A provision for waste disposal costs in respect of these materials is recognized when they are generated. Costs associated with the disposal, the timing of cash flows and discount rates are estimated both at initial recognition and subsequent measurement.

P. Employee future benefits

i. Pension obligations

The Company accrues its obligations under employee benefit plans. The Company has both defined benefit and defined contribution plans. A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate entity. The Company has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. A defined benefit plan is a pension plan other than a defined contribution plan. Typically, defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation.

The liability recognized in the consolidated statements of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the reporting date less the fair value of plan assets. The defined benefit obligation is calculated annually, by qualified independent actuaries using the projected unit credit method prorated on service and management's best estimate of expected plan investment performance, salary escalation, retirement ages of employees and expected health care costs. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension liability.

The Company recognizes all actuarial gains and losses arising from defined benefit plans in other comprehensive income, and reports them in retained earnings. When the benefits of a plan are improved, the portion of the increased benefit relating to past service by employees is recognized immediately in earnings.

For defined contribution plans, the contributions are recognized as employee benefit expense in earnings in the periods during which services are rendered by employees. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

ii. Other post-retirement benefit plans

The Company provides certain post-retirement health care benefits to its retirees. The entitlement to these benefits is usually conditional on the employee remaining in service up to retirement age and the completion of a minimum service period. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used in for defined benefit pension plans. Actuarial gains and losses are recognized in other comprehensive income in the period in which they arise. These obligations are valued annually by independent qualified actuaries.

iii. Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognized for the amount expected to be paid under short-term cash bonus plans if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be measured reliably.

iv. Termination benefits

Termination benefits are payable when employment is terminated by the Company before the normal retirement date, or whenever an employee accepts an entity's offer of benefits in exchange for termination of employment. Cameco recognizes termination benefits as an expense at the earlier of when the Company can no longer withdraw the offer of those benefits and when the Company recognizes costs for a restructuring. If benefits are payable more than 12 months after the reporting period, they are discounted to their present value.

v. Share-based compensation

For equity-settled plans, the grant date fair value of share-based compensation awards granted to employees is recognized as an employee benefit expense, with a corresponding increase in equity, over the period that the employees unconditionally become entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and vesting conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that meet the related service and non-market performance conditions at the vesting date.

For cash-settled plans, the fair value of the amount payable to employees is recognized as an expense, with a corresponding increase in liabilities, over the period that the employees unconditionally become entitled to payment. The liability is re-measured at each reporting date and at settlement date. Any changes in the fair value of the liability are recognized as employee benefit expense in earnings.

When the terms and conditions of equity-settled plans at the time they were granted are subsequently modified, the fair value of the share-based payment under the original terms and conditions and under the modified terms and conditions are both determined at the date of the modification. Any excess of the modified fair value over the original fair value is recognised over the remaining vesting period in addition to the grant date fair value of the original share-based payment. The share-based payment expense is not adjusted if the modified fair value is less than the original fair value.

Cameco's contributions under the employee share ownership plan are expensed during the year of contribution. Shares purchased with Company contributions and with dividends paid on such shares become unrestricted on January 1 of the second plan year following the date on which such shares were purchased.

Q. Revenue recognition

Cameco supplies uranium concentrates, uranium conversion services, fabrication services and other services. Revenue is measured based on the consideration specified in a contract with a customer. The Company recognizes revenue when it transfers control, as described below, over a good or service to a customer. Customers do not have the right to return products.

Cameco's sales arrangements with its customers are pursuant to enforceable contracts that indicate the nature and timing of satisfaction of performance obligations, including significant payment terms, where payment is usually due in 30 days. Each delivery is considered a separate performance obligation under the contract.

Uranium supply

In a uranium supply arrangement, Cameco is contractually obligated to provide uranium concentrates to its customers. Cameco-owned uranium may be physically delivered to either the customer or to conversion facilities (Converters). For deliveries to customers, terms in the sales contract specify the location of delivery. Revenue is recognized when the uranium has been delivered and accepted by the customer at that location.

When uranium is delivered to Converters, the Converter will credit Cameco's account for the volume of accepted uranium. Based on delivery terms in the sales contract with its customer, Cameco instructs the Converter to transfer title of a contractually specified quantity of uranium to the customer's account at the Converter's facility. At this point, control has been transferred and Cameco recognizes revenue for the uranium supply.

Toll conversion services

In a toll conversion arrangement, Cameco is contractually obligated to convert customer-owned uranium to a chemical state suitable for enrichment. Based on delivery terms in a sales contract with its customer, Cameco either (i) physically delivers converted uranium to enrichment facilities (Enrichers) where it instructs the Enricher to transfer title of a contractually specified quantity of converted uranium to the customer's account at the Enricher's facility, or (ii) transfers title of a contractually specified quantity of converted uranium to either an Enricher's account or the customer's account at Cameco's Port Hope conversion facility. At this point, the customer obtains control and Cameco recognizes revenue for the toll conversion services.

Conversion supply

A conversion supply arrangement is a combination of uranium supply and toll conversion services. Cameco is contractually obligated to provide converted uranium to its customers. Based on delivery terms in the sales contract, Cameco either (i) physically delivers converted uranium to the Enricher where it instructs the Enricher to transfer title of a contractually specified quantity of converted uranium to the customer's account at the Enricher's facility, or (ii) transfers title of a contractually specified quantity of converted uranium to either an Enricher's account or a customer's account at Cameco's Port Hope conversion facility. At this point, the customer obtains control and Cameco recognizes revenue for both the uranium supplied and the conversion service provided.

Fabrication services

In a fabrication services arrangement, Cameco is contractually obligated to provide fuel bundles or reactor components to its customers. In a contract for fuel bundles, the bundles are inspected and accepted by the customer at Cameco's Port Hope fabrication facility or another location based on delivery terms in the sales contract. At this point, the customer obtains control and Cameco recognizes revenue for the fabrication services.

In some contracts for reactor components, the components are made to a customer's specification and if a contract is terminated by the customer, Cameco is entitled to reimbursement of the costs incurred to date, including a reasonable margin. Since the customer controls all of the work in progress as the products are being manufactured, revenue and associated costs are recognized over time, before the goods are delivered to the customer's premises. Revenue is recognized on the basis of units produced as the contracts reflect a per unit basis. Revenue from these contracts represents an insignificant portion of Cameco's total revenue. In other contracts where the reactor components are not made to a specific customer's specification, when the components are delivered to the location specified in the contract, the customer obtains control and Cameco recognizes revenue for the services.

Other services

Uranium concentrates and converted uranium are regulated products and can only be stored at regulated facilities. In a storage arrangement, Cameco is contractually obligated to store uranium products at its facilities on behalf of the customer. Cameco invoices the customer in accordance with the contract terms and recognizes revenue on a monthly basis.

Cameco also provides customers with transportation of its uranium products. In the contractual arrangements where Cameco is acting as the principal, revenue is recognized as the product is delivered.

R. Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another.

Trade receivables and debt securities are initially recognized when they are originated. All other financial assets and liabilities are initially recognized when the company becomes a party to the contractual provisions of the instrument. A financial asset (unless it is a trade receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at fair value through profit or loss, transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

i. Financial assets

On initial recognition, financial assets are classified as measured at: amortized cost, fair value through other comprehensive income, or fair value through profit or loss based on the Company's business model for managing its financial assets and their cash flow characteristics. Classifications are not changed subsequent to initial recognition unless the Company changes its business model for managing its financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in business model.

Amortized cost

A financial asset is measured at amortized cost if it is not designated as at fair value through profit or loss, is held within a business model whose objective is to hold assets to collect contractual cash flows and its contractual terms give rise to cash flows on specified dates that are solely payments of principal and interest on the principal amount outstanding. Assets in this category are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss, as is any gain or loss on derecognition.

Fair value through other comprehensive income (FVOCI)

A debt investment is measured at FVOCI if it is not designated as at fair value through profit or loss, is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and its contractual terms give rise to cash flows on specified dates that are solely payments of principal and interest on the principal amount outstanding. These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in other comprehensive income (OCI). On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.

On initial recognition of an equity investment that is not held for trading, Cameco may irrevocably elect to present subsequent changes in the investments fair value in OCI. This election is made on an investment by investment basis. These assets are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in OCI and are never reclassified to profit or loss.

Fair value through profit or loss (FVTPL)

All financial assets not classified as measured at amortized cost or FVOCI are measured at FVTPL. This includes all derivative financial assets. On initial recognition, the Company may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise. These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.

Derecognition of financial assets

Cameco derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which it neither transfers or retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

If the Company enters into a transaction whereby it transfers assets recognized in its statement of financial position, but retains either all or substantially all of the risks and rewards of the transferred assets, the transferred assets would not be derecognized.

ii. Financial liabilities

On initial recognition, financial liabilities are classified as measured at amortized cost or FVTPL. A financial liability is classified as FVTPL if it is classified as held-for-trading, is a derivative or is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognized in profit or loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognized in profit or loss as is any gain or loss on derecognition.

A financial liability is derecognized when its contractual obligations are discharged or cancelled, or expire. The Company also derecognizes a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognized at fair value. On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

iii. Derivative financial instruments

The Company holds derivative financial instruments to reduce exposure to fluctuations in foreign currency exchange rates and interest rates. Embedded derivatives are separated from the host contract and accounted for separately if the host contract is not a financial asset and certain criteria are met.

Derivative financial instruments are initially measured at fair value in the consolidated statements of financial position, with any directly attributable transaction costs recognized in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes in fair value are recognized in profit or loss.

The purpose of hedging transactions is to modify the Company's exposure to one or more risks by creating an offset between changes in the fair value of, or the cash flows attributable to, the hedged item and the hedging item. When hedge accounting is appropriate, the hedging relationship is designated as a fair value hedge, a cash flow hedge, or a foreign currency risk hedge related to a net investment in a foreign operation. The Company does not have any instruments that have been designated as hedge transactions at December 31, 2021 and 2020.

S. Income tax

Income tax expense is comprised of current and deferred taxes. Current tax and deferred tax are recognized in earnings except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantially enacted at the reporting date, and any adjustments to tax payable in respect of previous years. Current tax assets and liabilities are measured at the amount expected to be paid or recovered from the taxation authorities.

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. In addition, deferred tax is not recognized for taxable temporary differences arising on the initial recognition of goodwill. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable income will be available against which they can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

The Company's exposure to uncertain tax positions is evaluated and a provision is made where it is probable that this exposure will materialize.

T. Share capital

Common shares are classified as equity. Incremental costs directly attributable to the issue of common shares are recognized as a reduction of equity, net of any tax effects.

U. Earnings per share

The Company presents basic and diluted earnings per share data for its common shares. Earnings per share is calculated by dividing the net earnings attributable to equity holders of the Company by the weighted average number of common shares outstanding.

Diluted earnings per share is determined by adjusting the net earnings attributable to equity holders of the Company and the weighted average number of common shares outstanding, for the effects of all dilutive potential common shares. The calculation of diluted earnings per share assumes that outstanding options which are dilutive to earnings per share are exercised and the proceeds are used to repurchase shares of the Company at the average market price of the shares for the period. The effect is to increase the number of shares used to calculate diluted earnings per share.

V. Segment reporting

An operating segment is a component of the Company that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Company's other segments. To be classified as a segment, discrete financial information must be available and operating results must be regularly reviewed by the Company's executive team.

Segment capital expenditure is the total cost incurred during the period to acquire property, plant and equipment, and intangible assets other than goodwill.

W. Government assistance

Government grants are recognized when there is reasonable assurance that the Company has complied with the relevant conditions of the grant and that the grant will be received. Grants that compensate the Company for expenses incurred are recognized in profit or loss as other income on a systematic basis in the periods in which the expenses have been recognized.

3. Accounting standards

A. Changes in accounting policy

A number of amendments to existing standards became effective January 1, 2021 but they did not have an effect on the Company's financial statements.

B. New standards and interpretations not yet adopted

A new amendment to an existing standard is not yet effective for the year ended December 31, 2021 and has not been applied in preparing these consolidated financial statements. Cameco does not intend to early adopt the following amendment.

i. Income tax

In May 2021, the International Accounting Standards Board issued Deferred Tax related to Assets and Liabilities arising from a Single Transaction, which amended IAS 12, Income Taxes (IAS 12). The amendments are effective for periods beginning on or after January 1, 2023, with early adoption permitted. The amendments narrowed the scope of the recognition exemption in paragraphs 15 and 24 of IAS 12 (recognition exemption) so that it no longer applies to transactions that, on initial recognition, give rise to equal taxable and deductible temporary differences, such as leases and decommissioning liabilities. Cameco does not expect adoption of the standard to have a material impact on the financial statements.

4. Determination of fair values

A number of the Company's accounting policies and disclosures require the measurement of fair value, for both financial and non-financial assets and liabilities.

The fair value of an asset or liability is generally estimated as the amount that would be received on sale of an asset, or paid to transfer a liability in an orderly transaction between market participants at the reporting date. Fair values of assets and liabilities traded in an active market are determined by reference to last quoted prices, in the principal market for the asset or liability. In the absence of an active market for an asset or liability,fair values are determined based on market quotes for assets or liabilities with similar characteristics and risk profiles, or through other valuation techniques. Fair values determined using valuation techniques require the use of inputs, which are obtained from external, readily observable market data when available. In some circumstances, inputs that are not based on observable data must be used. In these cases, the estimated fair values may be adjusted in order to account for valuation uncertainty, or to reflect the assumptions that market participants would use in pricing the asset or liability.

All fair value measurements are categorized into one of three hierarchy levels, described below, for disclosure purposes. Each level is based on the transparency of the inputs used to measure the fair values of assets and liabilities:

Level 1 – Values based on unadjusted quoted prices in active markets that are accessible at the reporting date for identical assets or liabilities.

Level 2 – Values based on quoted prices in markets that are not active or model inputs that are observable either directly or indirectly for substantially the full term of the asset or liability.

Level 3 – Values based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement.

When the inputs used to measure fair value fall within more than one level of the hierarchy, the level within which the fair value measurement is categorized is based on the lowest level input that is significant to the fair value measurement in its entirety.

Transfers between levels of the fair value hierarchy are recognized at the end of the reporting period during which the transfer occurred. There were no transfers between level 1, level 2, or level 3 during the period. Cameco does not have any recurring fair value measurements that are categorized as level 3 as of the reporting date.

Further information about the techniques and assumptions used to measure fair values is included in the following notes:

Note 24 - Share-based compensation plans

Note 26 - Financial instruments and risk management

5. Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenues and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future period affected.

Information about critical judgments in applying the accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements is discussed below. Further details of the nature of these judgments, estimates and assumptions may be found in the relevant notes to the consolidated financial statements.

A. Recoverability of long-lived and intangible assets

Cameco assesses the carrying values of property, plant and equipment, and intangible assets when there is an indication of possible impairment. If it is determined that carrying values of assets or goodwill cannot be recovered, the unrecoverable amounts are charged against current earnings. Recoverability is dependent upon assumptions and judgments regarding market conditions, costs of production, sustaining capital requirements and mineral reserves. Other assumptions used in the calculation of recoverable amounts are discount rates, future cash flows and profit margins. A material change in assumptions may significantly impact the potential impairment of these assets.

B. Cash generating units

In performing impairment assessments of long-lived assets, assets that cannot be assessed individually are grouped together into the smallest group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Management is required to exercise judgment in identifying these CGUs.

C. Provisions for decommissioning and reclamation of assets

Significant decommissioning and reclamation activities are often not undertaken until near the end of the useful lives of the productive assets. Regulatory requirements and alternatives with respect to these activities are subject to change over time. A significant change to either the estimated costs, timing of the cash flows or mineral reserves may result in a material change in the amount charged to earnings.

D. Income taxes

Cameco operates in a number of tax jurisdictions and is, therefore, required to estimate its income taxes in each of these tax jurisdictions in preparing its consolidated financial statements. In calculating income taxes, consideration is given to such factors as tax rates in the different jurisdictions, non-deductible expenses, changes in tax law and management's expectations of future operating results. Cameco estimates deferred income taxes based on temporary differences between the income and losses reported in its consolidated financial statements and its taxable income and losses as determined under the applicable tax laws. The tax effect of these temporary differences is recorded as deferred tax assets or liabilities in the consolidated financial statements. The calculation of income taxes requires the use of judgment and estimates. The determination of the recoverability of deferred tax assets is dependent on assumptions and judgments regarding future market conditions, production rates and intercompany sales, which can materially impact estimated future taxable income. If these judgments and estimates prove to be inaccurate, future earnings may be materially impacted.

E. Mineral reserves

Depreciation on property, plant and equipment is primarily calculated using the unit-of-production method. This method allocates the cost of an asset to each period based on current period production as a portion of total lifetime production or a portion of estimated mineral reserves. Estimates of life-of-mine and amounts of mineral reserves are updated annually and are subject to judgment and significant change over time. If actual mineral reserves prove to be significantly different than the estimates, there could be a material impact on the amounts of depreciation charged to earnings.

6. Accounts receivable

	2021	2020
Trade receivables	**$ 271,015**	$ 166,054
GST/VAT receivables	**3,919**	38,192
Other receivables	**1,205**	734
Total	**$ 276,139**	$ 204,980

The Company's exposure to credit and currency risks as well as credit losses related to trade and other receivables, excluding goods and services tax (GST)/value added tax (VAT) receivables, is disclosed in note 26.

7. Inventories

	2021	2020
Uranium		
Concentrate	**$ 319,257**	$ 579,653
Broken ore	**46,324**	45,387
	365,581	625,040
Fuel services	**43,549**	52,273
Other	**391**	3,056
Total	**$ 409,521**	$ 680,369

Cameco expensed $1,218,000,000 of inventory as cost of sales during 2021 (2020 - $ 1,435,000,000).

8. Property, plant and equipment

At December 31, 2021

	Land and buildings	Plant and equipment	Furniture and fixtures	Under construction	Exploration and evaluation	Total
Cost						
Beginning of year	$ 5,224,333	$ 2,699,844	$ 78,911	$ 139,051	$ 1,125,483	$ 9,267,622
Additions	1,520	8,807	700	87,637	120	98,784
Transfers	17,145	31,243	5,130	(52,797)	-	721
Change in reclamation provision [note 15]	(62,427)	-	-	-	-	(62,427)
Disposals	(23,075)	(6,019)	(345)	(6,691)	-	(36,130)
Effect of movements in exchange rates	(5,287)	(1,314)	(30)	-	(52,364)	(58,995)
End of year	**5,152,209**	**2,732,561**	**84,366**	**167,200**	**1,073,239**	**9,209,575**
Accumulated depreciation and impairment						
Beginning of year	3,031,292	1,876,336	74,246	36,798	483,663	5,502,335
Depreciation charge	104,641	92,670	4,246	-	-	201,557
Change in reclamation provision [note 15]	(8,407)	-	-	-	-	(8,407)
Disposals	(20,999)	(5,623)	(345)	-	-	(26,967)
Effect of movements in exchange rates	(4,787)	(1,155)	(28)	-	(25,416)	(31,386)
End of year	**3,101,740**	**1,962,228**	**78,119**	**36,798**	**458,247**	**5,637,132**
Right-of-use assets						
Beginning of year	1,806	2,322	2,142	-	-	6,270
Additions	-	477	-	-	-	477
Depreciation charge	(875)	(494)	(501)	-	-	(1,870)
Transfers	-	(721)	-	-	-	(721)
End of year	**931**	**1,584**	**1,641**	**-**	**-**	**4,156**
Net book value at December 31, 2021	**$ 2,051,400**	**$ 771,917**	**$ 7,888**	**$ 130,402**	**$ 614,992**	**$ 3,576,599**

At December 31, 2020

	Land and buildings	Plant and equipment	Furniture and fixtures	Under construction	Exploration and evaluation	Total
Cost						
Beginning of year	$ 5,050,115	$ 2,678,165	$ 80,869	$ 132,457	$ 1,071,840	$ 9,013,446
Additions	2,030	7,097	855	67,477	3	77,462
Transfers	37,971	21,405	2,554	(60,391)	-	1,539
Change in reclamation provision	151,558	-	-	-	-	151,558
Disposals	(1,678)	(3,385)	(5,299)	(492)	(99)	(10,953)
Effect of movements in exchange rates	(15,663)	(3,438)	(68)	-	53,739	34,570
End of year	**5,224,333**	**2,699,844**	**78,911**	**139,051**	**1,125,483**	**9,267,622**
Accumulated depreciation and impairment						
Beginning of year	2,936,088	1,793,049	76,601	36,799	458,386	5,300,923
Depreciation charge	84,261	89,550	3,010	-	-	176,821
Change in reclamation provision[a]	23,921	-	-	-	-	23,921
Disposals	(903)	(2,997)	(5,299)	(1)	(150)	(9,350)
Effect of movements in exchange rates	(12,075)	(3,266)	(66)	-	25,427	10,020
End of year	**3,031,292**	**1,876,336**	**74,246**	**36,798**	**483,663**	**5,502,335**
Right-of-use assets						
Beginning of year	2,646	5,084	419	-	-	8,149
Additions	75	22	2,124	-	-	2,221
Disposals	(40)	(747)	-	-	-	(787)
Depreciation charge	(875)	(498)	(401)	-	-	(1,774)
Transfers	-	(1,539)	-	-	-	(1,539)
End of year	**1,806**	**2,322**	**2,142**	**-**	**-**	**6,270**
Net book value at December 31, 2020	**$ 2,194,847**	**$ 825,830**	**$ 6,807**	**$ 102,253**	**$ 641,820**	**$ 3,771,557**

Cameco has contractual capital commitments of approximately $53,000,000 at December 31, 2021. Certain of the contractual commitments may contain cancellation clauses, however the Company discloses the commitments based on management's intent to fulfill the contract. The majority of this amount is expected to be incurred in 2022.

(a) Asset retirement obligation assets are adjusted when the Company updates its reclamation provisions due to new cash flow estimates or changes in discount and inflation rates. When the assets of an operation have been written off due to an impairment, as is the case with our Rabbit Lake operation and some of our operations in the United States, the adjustment is recorded directly to the statement of earnings as other operating expense or income.

9. Intangible assets

A. Reconciliation of carrying amount

At December 31, 2021

	Contracts	Intellectual property	Total
Cost			
Beginning of year	$ 111,388	$ 118,819	$ 230,207
Effect of movements in exchange rates	(770)	-	(770)
End of year	**110,618**	**118,819**	**229,437**
Accumulated amortization and impairment			
Beginning of year	109,663	64,722	174,385
Amortization charge	975	3,582	4,557
Effect of movements in exchange rates	(752)	-	(752)
End of year	**109,886**	**68,304**	**178,190**
Net book value at December 31, 2021	**$ 732**	**$ 50,515**	**$ 51,247**

At December 31, 2020

	Contracts	Intellectual property	Total
Cost			
Beginning of year	$ 113,707	$ 118,819	$ 232,526
Effect of movements in exchange rates	(2,319)	-	(2,319)
End of year	**111,388**	**118,819**	**230,207**
Accumulated amortization and impairment			
Beginning of year	111,094	61,022	172,116
Amortization charge	1,008	3,700	4,708
Effect of movements in exchange rates	(2,439)	-	(2,439)
End of year	**109,663**	**64,722**	**174,385**
Net book value at December 31, 2020	**$ 1,725**	**$ 54,097**	**$ 55,822**

B. Amortization

The intangible asset values relate to intellectual property acquired with Cameco Fuel Manufacturing Inc. (CFM) and purchase and sales contracts acquired with NUKEM. The CFM intellectual property is being amortized on a unit-of-production basis over its remaining life. Amortization is allocated to the cost of inventory and is recognized in cost of products and services sold as inventory is sold. The purchase and sales contracts will be amortized to earnings over the remaining terms of the underlying contracts, which extend to 2022. Amortization of the purchase contracts is allocated to the cost of inventory and is included in cost of products and services sold as inventory is sold. Sales contracts are amortized to revenue.

10. Long-term receivables, investments and other

	2021	2020
Investments in equity securities [note 26] [a]	$ -	$ 43,873
Derivatives [note 26]	32,098	45,605
Investment tax credits	95,722	95,642
Amounts receivable related to tax dispute [note 21] [b]	295,221	303,222
Product loan [c]	176,904	176,904
Other	814	5,512
	600,759	670,758
Less current portion	(23,232)	(18,716)
Net	$ 577,527	$ 652,042

(a) Cameco designated the investments shown below as equity securities at FVOCI because these equity securities represented investments that the Company intended to hold for the long term for strategic purposes. During the year, Cameco divested of these securities since holding them no longer added value in terms of its strategic plan. There were no dividends recognized on any of these investments during the year.

	2021	2020
Investment in Denison Mines Corp.	$ -	$ 20,677
Investment in UEX Corporation	-	13,005
Investment in ISO Energy Ltd.	-	6,923
Investment in CanEx	-	2,875
Other	-	393
	$ -	$ 43,873

(b) Cameco was required to remit or otherwise secure 50% of the cash taxes and transfer pricing penalties, plus related interest and instalment penalties assessed, in relation to its dispute with Canada Revenue Agency (CRA) (see note 21). In light of our view of the likely outcome of the case, Cameco expects to recover the amounts remitted to CRA, including cash taxes, interest and penalties totalling $303,222,000) (note 21). 295,221,000 already paid as at December 31, 2021 (December 31, 2020 -

(c) During 2018, as a result of the decision to temporarily suspend production at the McArthur River mine, Cameco loaned us 5,400,000 pounds of uranium concentrate to its joint venture partner, Orano Canada Inc., (Orano). Orano is obligated to repay us in kind with uranium concentrate no later than December 31, 2023. The loan was recorded at Cameco's weighted average cost of inventory.

11. Equity-accounted investee

JV Inkai is the operator of the Inkai uranium deposit located in Kazakhstan. Cameco holds a 40% interest and holds a 60% interest in JV Inkai. Cameco does not have joint control over the joint venture and as a result, Cameco accounts for JV Inkai on an equity basis.

JV Inkai is a uranium mining and milling operation that utilizes in-situ recovery (ISR) technology to extract uranium. The participants in JV Inkai purchase uranium from Inkai and, in turn, derive revenue directly from the sale of such product to third-party customers.

Kazatomprom

The following tables summarize the financial information of JV Inkai (100%):

	2021	2020
Cash and cash equivalents	**$ 12,893**	$ 47,539
Other current assets	**301,589**	115,647
Non-current assets	**328,469**	343,767
Current liabilities	**(32,774)**	(26,397)
Non-current liabilities	**(38,635)**	(39,991)
Net assets	**$ 571,542**	$ 440,565

	2021	2020
Revenue from products and services	**$ 387,319**	$ 252,764
Cost of products and services sold	**(55,397)**	(57,358)
Depreciation and amortization	**(25,300)**	(24,081)
Finance income	**349**	367
Finance costs	**(796)**	(825)
Other expense	**(16,636)**	(12,305)
Income tax expense	**(60,357)**	(44,804)
Net earnings	**229,182**	113,758
Other comprehensive loss	**-**	(97)
Total comprehensive income	**$ 229,182**	$ 113,661

The following table reconciles the summarized financial information to the carrying amount of Cameco's interest in JV Inkai.

	2021	2020
Opening net assets	**$ 440,565**	$ 442,074
Total comprehensive income	**229,182**	113,661
Dividends declared	**(85,198)**	(64,456)
Impact of foreign exchange	**(13,007)**	(50,714)
Closing net assets	**571,542**	440,565
Cameco's share of net assets	**228,617**	176,226
Consolidating adjustments[(a)]	**(60,348)**	(38,975)
Fair value increment[(b)]	**85,976**	89,184
Dividends in excess of ownership percentage [(c)]	**(22,085)**	(9,669)
Impact of foreign exchange	**1,080**	2,922
Carrying amount in the statement of financial position	**$ 233,240**	$ 219,688

(a) Cameco records certain consolidating adjustments to eliminate unrealized profit and amortize historical differences in accounting policies. This amount is amortized to earnings over units of production.

(b) Upon restructuring, Cameco assigned fair values to the assets and liabilities of JV Inkai. This increment is amortized to earnings over units of production.

(c) Cameco's share of dividends follows its production purchase entitlements which is currently higher than its ownership interest.

12. Accounts payable and accrued liabilities

	2021	2020
Trade payables	**$ 213,377**	$ 137,190
Non-trade payables	**66,048**	58,105
Payables due to related parties [note 24]	**61,033**	38,354
Total	**$ 340,458**	$ 233,649

The Company's exposure to currency and liquidity risk related to trade and other payables is disclosed in note 26.

13. Long-term debt

	2021	2020
Unsecured debentures		
Series F 5.09% debentures due November 14, 2042	**99,336**	99,319
Series G 4.19% debentures due June 24, 2024	**499,010**	498,630
Series H - 2.95% debentures due October 21, 2027	**397,904**	397,592
Total	**$ 996,250**	$ 995,541

On October 21, 2020, Cameco issued $400,000,000 of Series H debentures which bear interest at a rate of 2.95% per annum. The net proceeds of the issue after deducting expenses were approximately $397,500,000. The debentures mature on October 21, 2027 and are being amortized at an effective interest rate of 3.05%. In conjunction with the issuance of the Series H debentures, on November 20, 2020, the $400,000,000 principal amount of the Series E debentures was redeemed. Cameco recognized $24,439,000 of finance costs in relation to the early redemption of these debentures (note 19).

Cameco has a $1,000,000,000 unsecured revolving credit facility that is available until October 1, 2025. Upon mutual agreement, the facility can be extended for an additional year on the anniversary date. In addition to direct borrowings under the facility, up to $100,000,000 can be used for the issuance of letters of credit and, to the extent necessary, it may be used to provide liquidity support for the Company's commercial paper program. The agreement also provides the ability to increase the revolving credit facility above $1,000,000,000 by increments no less than $50,000,000, to a total of $1,250,000,000. The facility ranks equally with all of Cameco's other senior debt. As of December 31, 2021 and 2020, there were no amounts outstanding under this facility.

Cameco has $1,696,041,000 (2020 - $1,698,340,000) in letter of credit facilities. Outstanding and committed letters of credit at December 31, 2021 amounted to $1,573,873,000 (2020 - $1,596,488,000), the majority of which relate to future decommissioning and reclamation liabilities (note 15).

Cameco is bound by a covenant in its revolving credit facility. The covenant requires a funded debt to tangible net worth ratio equal to or less than 1:1. Non-compliance with this covenant could result in accelerated payment and termination of the revolving credit facility. At December 31, 2021, Cameco was in compliance with the covenant and does not expect its operating and investing activities in 2022 to be constrained by it.

The table below represents currently scheduled maturities of long-term debt:

2022	2023	2024	2025	2026	Thereafter	Total
$ -	-	499,010	-	-	497,240	**$ 996,250**

14. Other liabilities

	2021	2020
Deferred sales [note 17]	**$ 23,316**	$ 14,382
Derivatives [note 26]	**4,997**	4,733
Accrued pension and post-retirement benefit liability [note 25]	**89,002**	91,729
Lease obligation	**4,872**	7,951
Product loan[(a)]	**15,763**	6,045
Other	**56,615**	67,838
	194,565	192,678
Less: current portion	**(22,791)**	(26,119)
Net	**$ 171,774**	$ 166,559

Expenses related to short-term leases and leases of low-value assets were insignificant during 2021.

(a) The Company has standby product loan facilities with various counterparties. The arrangements allow it to borrow up to 1,977,000 kgU of UF_6 conversion services and 2,606,000 pounds of U_3O_8 over the period 2020 to 2023 with repayment in kind up to December 31, 2023. Under the facilities, standby fees of up to 1% are payable based on the market value of the facilities, and interest is payable on the market value of any amounts drawn at rates ranging from 0.5% to 1.6%. At December 31, 2021, we have 1,103,000 kgU of UF_6 conversion services drawn on the loans with repayment no later than December 31, 2022. The loan is recorded at Cameco's weighted average cost of inventory.

15. Provisions

	Reclamation	Waste disposal	Total
Beginning of year	$ 1,189,600	$ 9,322	$ 1,198,922
Changes in estimates and discount rates [note 8]	(54,020)	-	(54,020)
Capitalized in property, plant and equipment	(8,407)	503	(7,904)
Recognized in earnings [note 8]	(19,024)	(518)	(19,542)
Provisions used during the period	21,347	98	21,445
Unwinding of discount [note 19]	(2,527)	-	(2,527)
Effect of movements in exchange rates	**$ 1,126,969**	**$ 9,405**	**$ 1,136,374**
End of period			
Current	$ 45,013	$ 1,352	$ 46,365
Non-current	1,081,956	8,053	1,090,009
	$ 1,126,969	**$ 9,405**	**$ 1,136,374**

A. Reclamation provision

Cameco's estimates of future decommissioning obligations are based on reclamation standards that satisfy regulatory requirements. Elements of uncertainty in estimating these amounts include potential changes in regulatory requirements, decommissioning and reclamation alternatives and amounts to be recovered from other parties.

Cameco estimates total undiscounted future decommissioning and reclamation costs for its existing operating assets to be $1,100,378,000 (2020 - $1,130,495,000). The expected timing of these outflows is based on life-of-mine plans with majority of expenditures expected to occur after the 2027. These estimates are reviewed by Cameco technical personnel and as required by regulatory agencies or more frequently as circumstances warrant. In connection with future decommissioning reclamation costs, Cameco has provided financial assurances of $ 1,007,009,000 (2020 - $1,021,142,000) in the form of letters of credit to satisfy current regulatory requirements.

The reclamation provision relates to the following segments:

	2021	2020
Uranium	**$ 900,482**	$ 937,992
Fuel services	**226,487**	251,608
Total	**$ 1,126,969**	$ 1,189,600

B. Waste disposal

The fuel services segment consists of the Blind River refinery, Port Hope conversion facility and Cameco Fuel Manufacturing Inc.. The refining, conversion and manufacturing processes generate certain uranium contaminated waste. These include contaminated combustible material (paper, rags, gloves, etc.) and contaminated non-combustible material (metal parts, soil from excavations, building and roofing materials, spent uranium concentrate drums, etc.). These materials can in some instances be recycled or reprocessed. A provision for waste disposal costs in respect of these materials is recognized when they are generated.

Cameco estimates total undiscounted future costs related to existing waste disposal to be $ 8,169,000 (2020 - $8,044,000). The majority of these expenditures are expected to occur within the next four years.

16. Share capital

Authorized share capital:

- Unlimited number of first preferred shares
- Unlimited number of second preferred shares
- Unlimited number of voting common shares no stated par value, not convertible or redeemable, and
- One Class B share

A. Common Shares

Number issued (number of shares)	2021	2020
Beginning of year	**396,262,741**	395,797,732
Issued:		
Stock option plan [note 24]	**1,796,524**	465,009
End of year	**398,059,265**	396,262,741

All issued shares are fully paid. Holders of the common shares are entitled to exercise one vote per share at meetings of shareholders, are entitled to receive dividends if, as and when declared by our Board of Directors and are entitled to participate in any distribution of remaining assets following a liquidation.

The shares of Cameco are widely held and no shareholder, resident in Canada, is allowed to own more than 25% of the Company's outstanding common shares, either individually or together with associates. A non-resident of Canada is not allowed to own more than 15%. In addition, no more than 25% of total shareholder votes cast may be cast by non-resident shareholders.

B. Class B share

One Class B share issued during 1988 and assigned $1 of share capital entitles the shareholder to vote separately as a class in respect of any proposal to locate the head office of Cameco to a place not in the province of Saskatchewan.

C. Dividends

Dividends on Cameco Corporation common shares are declared in Canadian dollars. For the year ended December 31, 2021, the dividend declared per share was $0.08 (December 31, 2020 - $0.08).

17. Revenue

Cameco's sales contracts with customers contain both fixed and market-related pricing. Fixed-price contracts are typically based on a term-price indicator at the time the contract is accepted and escalated over the term of the contract. Market-related contracts are based on either the spot price or long-term price, and the price is quoted at the time of delivery rather than at the time the contract is accepted. These contracts often include a floor and/or ceiling prices, which are usually escalated over the term of the contract. Escalation is generally based on a consumer price index. The Company's contracts contain either one of these pricing mechanisms or a combination of the two. There is no variable consideration in the contracts and therefore no revenue is considered constrained at the time of delivery. Cameco expenses the incremental costs of obtaining a contract as incurred as the amortization period is less than a year.

The following table summarizes Cameco's sales disaggregated by geographical region and contract type and includes a reconciliation to the Company's reportable segments (note 28):

For the year ended December 31, 2021

	Uranium	Fuel services	Other	Total
Customer geographical region				
Americas	$ 547,257	$ 287,802	$ 12,769	$ 847,828
Europe	218,879	77,110	2,945	298,934
Asia	288,857	39,365	-	328,222
	$ 1,054,993	**$ 404,277**	**$ 15,714**	**$ 1,474,984**
Contract type				
Fixed-price	$ 307,858	$ 384,065	$ 11,421	$ 703,344
Market-related	747,135	20,212	4,293	771,640
	$ 1,054,993	**$ 404,277**	**$ 15,714**	**$ 1,474,984**

For the year ended December 31, 2020

	Uranium	Fuel services	Other	Total
Customer geographical region				
Americas	$ 593,182	$ 206,011	$ 3,321	$ 802,514
Europe	323,565	123,864	3,331	450,760
Asia	499,378	47,421	-	546,799
	$ 1,416,125	**$ 377,296**	**$ 6,652**	**$ 1,800,073**
Contract type				
Fixed-price	$ 410,376	$ 355,552	$ 3,331	$ 769,259
Market-related	1,005,749	21,744	3,321	1,030,814
	$ 1,416,125	**$ 377,296**	**$ 6,652**	**$ 1,800,073**

Deferred sales

The following table provides information about contract liabilities (note 14) from contracts with customers:

	2021	2020
Beginning of year	$ **14,382**	$ 17,418
Additions	**16,531**	6,994
Recognized in revenue	**(7,596)**	(10,026)
Effect of movements in exchange rates	**(1)**	(4)
End of year	**$ 23,316**	$ 14,382

Deferred sales primarily relates to advance consideration received from customers for future conversion deliveries and fuel fabrication services as well as revenue related to the storage of uranium and converted uranium held at Cameco fuel facilities. The revenue related to the fuel fabrication services and storage is recognized over time while the revenue related to future conversion deliveries is expected to be recognized between 2024 and 2030.

Cameco recognized an increase of revenue of $ 383,000 ($ 268,000 from) during 2021 (2020 - reduction of revenue of) from performance obligations satisfied (or partially satisfied) in previous periods. This is due to the difference between actual pricing indices and the estimates at the time of invoicing.

Future sales commitments

Cameco's sales portfolio consists of short and long-term sales commitments. The contracts can be executed well in advance of a delivery and include both fixed and market-related pricing. The following table summarizes the expected future revenue, by segment, related to only fixed-price contracts with remaining future deliveries as follows:

	2022	2023	2024	2025	2026	Thereafter	Total
Uranium	$ 298,355	$ 273,739	$ 332,247	$ 219,546	$ 108,004	$ 527,366	**$ 1,759,257**
Fuel services	298,232	248,395	269,227	241,940	181,707	560,458	**1,799,959**
Total	**$ 596,587**	**$ 522,134**	**$ 601,474**	**$ 461,486**	**$ 289,711**	**$ 1,087,824**	**$ 3,559,216**

The sales contracts are denominated largely in US dollars and converted from US to Canadian dollars at a rate of $ 1.27.

The amounts in the table represent the consideration the Company will be entitled to receive when it satisfies the remaining performance obligations in the contracts. The amounts include assumptions about volumes for contracts that have volume flexibility. Cameco's total revenue that will be earned will also include revenue from contracts with market-related pricing. The Company has elected to exclude these amounts from the table as the transaction price will not be known until the time of delivery. Contracts with an original duration of one year or less have been included in the table.

18. Employee benefit expense

The following employee benefit expenses are included in cost of products and services sold, administration, exploration, research and development and property, plant and equipment:

	2021	2020
Wages and salaries	$ **236,181**	$ 226,725
Statutory and company benefits	**43,870**	41,299
Expenses related to defined benefit plans [note 25]	**5,350**	5,256
Expenses related to defined contribution plans [note 25]	**12,939**	12,410
Equity-settled share-based compensation [note 24]	**7,837**	9,738
Cash-settled share-based compensation [note 24]	**41,839**	27,241
Total	**$ 348,016**	$ 322,669

19. Finance costs

	2021	2020
Interest on long-term debt	**$ 39,266**	$ 43,340
Unwinding of discount on provisions [note 25]	**21,445**	14,403
Redemption of Series E debentures [note 13]	**-**	24,439
Other charges	**15,901**	13,951
Total	**$ 76,612**	$ 96,133

No borrowing costs were determined to be eligible for capitalization during the year.

20. Other income (expense)

	2021	2020
Foreign exchange gains	**446**	13,891
Government assistance[(a)]	**21,209**	37,347
Other	**(302)**	202
Total	**$ 21,353**	$ 51,440

(a) In response to the negative economic impact of COVID-19, the Government of Canada announced the Canada Emergency Wage Subsidy program (CEWS). CEWS provides a subsidy on eligible remuneration based on certain criteria. In 2020, the Company qualified for the subsidy for the periods April through December and in 2021, for the periods January through June. There are no unfulfilled conditions and other contingencies attached to this government assistance. Given the current eligibility criteria, Cameco has determined that it will not apply for the CEWS in subsequent application periods.

21. Income taxes

A. Significant components of deferred tax assets and liabilities

	Recognized in earnings		As at December 31	
	2021	2020	2021	2020
Assets				
Property, plant and equipment	**$ 82,677**	$ (38,389)	**$ 363,468**	$ 280,798
Provision for reclamation	**(14,509)**	28,628	**207,633**	222,142
Inventories	**2,489**	4,071	**6,559**	4,071
Foreign exploration and development	**(812)**	2	**4,457**	5,269
Income tax losses (gains)	**(80,802)**	(7,629)	**301,910**	382,712
Defined benefit plan actuarial losses	**-**	-	**8,126**	9,410
Long-term investments and other	**16,405**	(5,678)	**45,426**	32,276
Deferred tax assets	**5,448**	(18,995)	**937,579**	936,678
Liabilities				
Inventories	**-**	(301)	**-**	-
Deferred tax liabilities	**-**	(301)	**-**	-
Net deferred tax asset (liability)	**$ 5,448**	$ (18,694)	**$ 937,579**	$ 936,678

Deferred tax allocated as	2021	2020
Deferred tax assets	**$ 937,579**	$ 936,678
Deferred tax liabilities	**-**	-
Net deferred tax asset	**$ 937,579**	$ 936,678

Cameco has recorded a deferred tax asset of $ 937,579,000 (2020 - $936,678,000). The realization of this deferred tax asset is dependent upon the generation of future taxable income in certain jurisdictions during the periods in which the Company's deferred tax assets are available. The Company considers whether it is probable that all or a portion of the deferred tax assets will not be realized. In making this assessment, management considers all available evidence, including recent financial operations, projected future taxable income and tax planning strategies. Based on projections of future taxable income over the periods in which the deferred tax assets are available, realization of these deferred tax assets is probable and consequently the deferred tax assets have been recorded.

B. Movement in net deferred tax assets and liabilities

	2021	2020
Deferred tax asset at beginning of year	**$ 936,678**	$ 956,376
Recovery (expense) for the year in net earnings	**5,448**	(18,694)
Expense for the year in other comprehensive income	**(4,541)**	(1,006)
Effect of movements in exchange rates	**(6)**	2
End of year	**$ 937,579**	$ 936,678

C. Significant components of unrecognized deferred tax assets

	2021	2020
Income tax losses	**$ 288,637**	$ 271,163
Property, plant and equipment	**2,209**	2,204
Provision for reclamation	**66,573**	75,219
Long-term investments and other	**58,330**	60,223
Total	**$ 415,749**	$ 408,809

D. Tax rate reconciliation

The provision for income taxes differs from the amount computed by applying the combined expected federal and provincial income tax rate to earnings before income taxes. The reasons for these differences are as follows:

	2021	2020
Loss before income taxes and non-controlling interest	**$ (103,855)**	$ (39,531)
Combined federal and provincial tax rate	**26.9%**	26.9%
Computed income tax recovery	**(27,937)**	(10,634)
Increase (decrease) in taxes resulting from:		
Difference between Canadian rates and rates applicable to subsidiaries in other countries	**28,690**	42,028
Change in unrecognized deferred tax assets	**22,068**	(7,766)
Share-based compensation plans	**-**	398
Change in legislation	**-**	(1,978)
Income in equity-accounted investee	**(24,481)**	(12,155)
Change in uncertain tax positions	**1,099**	2,455
Other permanent differences	**(640)**	1,318
Income tax expense (recovery)	**$ (1,201)**	$ 13,666

E. Earnings and income taxes by jurisdiction

	2021	2020
Earnings (loss) before income taxes		
Canada	**$ 58,624**	$ 72,809
Foreign	**(162,479)**	(112,340)
	$ (103,855)	$ (39,531)
Current income taxes (recovery)		
Canada	**$ 2,257**	$ (394)
Foreign	**1,990**	(4,634)
	$ 4,247	$ (5,028)
Deferred income taxes (recovery)		
Canada	**$ (3,937)**	$ 9,122
Foreign	**(1,511)**	9,572
	$ (5,448)	$ 18,694
Income tax expense (recovery)	**$ (1,201)**	$ 13,666

F. Reassessments

Canada

On February 18, 2021, the Supreme Court of Canada (Supreme Court) dismissed Canada Revenue Agency's (CRA) application for leave to appeal the June 26, 2020 decision of the Federal Court of Appeal (Court of Appeal). The dismissal means that the dispute for the 2003, 2005 and 2006 tax years is fully and finally resolved in the Company's favour.

In September 2018, the Tax Court of Canada (Tax Court) ruled that the marketing and trading structure involving foreign subsidiaries, as well as the related transfer pricing methodology used for certain intercompany uranium sales and purchasing agreements, were in full compliance with Canadian law for the tax years in question. Management believes the principles in the decision apply to all subsequent tax years, and that the ultimate resolution of those years will not be material to Cameco's financial position, results of operations or liquidity in the year(s) of resolution.

The total tax reassessed for the three tax years was $11,000,000, and Cameco remitted 50%. Cameco has received refunds totaling about $5,500,000 plus interest.

In addition, on April 30, 2019, the Tax Court awarded Cameco $10,300,000 for legal fees incurred, plus an amount for disbursements of up to $16,700,000. The amount of the award was recognized as a reduction of administration expense in the first quarter of 2021.

If CRA continues to pursue reassessments for tax years subsequent to 2006, Cameco will continue to utilize its appeal rights under Canadian federal and provincial tax rules.

G. Income tax losses

At December 31, 2021, income tax losses carried forward of $ 2,177,025,000 (2020 - $2,399,647,000) are available to reduce taxable income. These losses expire as follows:

Date of expiry	Canada	US	Other	Total
2026	$ -	$ -	$ 13,724	$ 13,724
2027	-	-	228	228
2028	-	-	59	59
2030	47	-	-	47
2031	-	20,295	-	20,295
2032	272	21,858	-	22,130
2033	-	33,595	-	33,595
2034	169,934	15,593	4,484	190,011
2035	372,376	7,106	7,167	386,649
2036	210,591	43,466	5,646	259,703
2037	27	32,558	2,958	35,543
2038	2,813	35,112	320	38,245
2039	6,424	27,159	-	33,583
2040	3,110	52,001	-	55,111
2041	31	38,666	-	38,697
No expiry	-	-	1,049,405	1,049,405
	$ 765,625	**$ 327,409**	**$ 1,083,991**	**$ 2,177,025**

Included in the table above is $ 1,083,848,000 (2020 - $1,013,730,000) of temporary differences related to loss carry forwards where no future benefit has been recognized.

22. Per share amounts

Per share amounts have been calculated based on the weighted average number of common shares outstanding during the period. The weighted average number of paid shares outstanding in 2021 was 397,630,947 (2020 - 395,829,380).

	2021	2020
Basic loss per share computation		
Net loss attributable to equity holders	**$ (102,577)**	$ (53,169)
Weighted average common shares outstanding	**397,631**	395,829
Basic loss per common share	**$ (0.26)**	$ (0.13)
Diluted loss per share computation		
Net loss attributable to equity holders	**$ (102,577)**	$ (53,169)
Weighted average common shares outstanding	**397,631**	395,829
Dilutive effect of stock options	**-**	-
Weighted average common shares outstanding, assuming dilution	**397,631**	395,829
Diluted loss per common share	**$ (0.26)**	$ (0.13)

23. Supplemental cash flow information

Other operating items included in the statements of cash flows are as follows:

	2021	2020
Changes in non-cash working capital:		
Accounts receivable	**$ (75,678)**	$ 143,717
Inventories	**300,307**	(376,908)
Supplies and prepaid expenses	**(5,908)**	(3,999)
Accounts payable and accrued liabilities	**91,757**	36,514
Reclamation payments	**(19,542)**	(17,640)
Other	**(3,683)**	25,399
Total	**$ 287,253**	$ (192,917)

The changes arising from financing activities were as follows:

	Long-term debt	Interest payable	Lease obligation	Dividends payable	Share capital	Total
Balance at January 1, 2021	$ 995,541	$ 3,978	$ 7,951	$ -	$ 1,869,710	$ 2,877,180
Changes from financing cash flows:						
Dividends paid	-	-	-	(31,839)	-	(31,839)
Interest paid	-	(38,789)	(188)	-	-	(38,977)
Lease principal payments	-	-	(2,727)	-	-	(2,727)
Shares issued, stock option plan	-	-	-	-	26,771	26,771
Total cash changes	**-**	**(38,789)**	**(2,915)**	**(31,839)**	**26,771**	**(46,772)**
Non-cash changes:						
Amortization of issue costs	709	-	-	-	-	709
Dividends declared	-	-	-	31,839	-	31,839
Interest expense	-	38,369	188	-	-	38,557
Right-of-use asset additions	-	-	477	-	-	477
Other	-	-	(783)	-	-	(783)
Shares issued, stock option plan	-	-	-	-	6,876	6,876
Foreign exchange	-	-	(46)	-	-	(46)
Total non-cash changes	**709**	**38,369**	**(164)**	**31,839**	**6,876**	**77,629**
Balance at December 31, 2021	**$ 996,250**	**$ 3,558**	**$ 4,872**	**$ -**	**$ 1,903,357**	**$ 2,908,037**

24. Share-based compensation plans

The Company has the following plans:

A. Stock option plan

The Company has established a stock option plan under which options to purchase common shares may be granted to employees of Cameco. Options granted under the stock option plan have an exercise price of not less than the closing price quoted on the Toronto Stock Exchange (TSX) for the common shares of Cameco on the trading day prior to the date on which the option is granted. The options carry vesting periods of one to three years, and expire eight years from the date granted.

The aggregate number of common shares that may be issued pursuant to the Cameco stock option plan shall not exceed 43,017,198 of which 30,136,822 shares have been issued.

Stock option transactions for the respective years were as follows:

(Number of options)	2021	2020
Beginning of year	**6,158,539**	8,617,097
Options granted	**-**	-
Options forfeited	**(18,005)**	(81,991)
Options expired	**(886,009)**	(1,911,558)
Options exercised [note 16]	**(1,796,524)**	(465,009)
End of year	**3,458,001**	6,158,539
Exercisable	**3,162,415**	5,076,226

Weighted average share prices were as follows:

	2021	2020
Beginning of year	**$16.98**	$17.44
Options granted	**-**	-
Options forfeited	**26.08**	22.22
Options expired	**22.05**	20.14
Options exercised	**14.90**	11.56
End of year	**$16.72**	$16.98
Exercisable	**$16.85**	$17.73

The weighted average share price at the dates of exercise during 2021 was $22.09 per share (2020 - $14.58).

Total options outstanding and exercisable at December 31, 2021 were as follows:

	Options outstanding			Options exercisable	
Option price per share	**Number**	**Weighted average remaining life**	**Weighted average exercisable price**	**Number**	**Weighted average exercisable price**
$11.32 - 15.83	1,833,572	4.2	$14.56	1,537,986	$14.43
$15.84 - 26.81	1,624,429	1.5	$19.15	1,624,429	$19.15
	3,458,001			**3,162,415**	

The foregoing options have expiry dates ranging from March 2, 2022 to February 28, 2027.

B. Executive performance share unit (PSU)

The Company has established a PSU plan whereby it provides each plan participant an annual grant of PSUs in an amount determined by the board. Each PSU represents one phantom common share that entitles the participant to a payment of one Cameco common share purchased on the open market, or cash with an equivalent market value, at the participant's discretion (prior to the fourth quarter of 2019 it was at the board's discretion) provided they have met their ownership requirements, at the end of each three-year period if certain performance and vesting criteria have been met. The final value of the PSUs will be based on the value of Cameco common shares at the end of the three-year period and the number of PSUs that ultimately vest. During the vesting period, dividend equivalents accrue to the participants in the form of additional share units as of each normal cash dividend payment date of Cameco's common shares. Vesting of PSUs at the end of the three-year period is based on Cameco's ability to meet its annual operating targets and whether the participating executive remains employed by Cameco at the end of the three-year vesting period. Prior to 2020, total shareholder return over three years was also a vesting condition. If the participant elects a cash payout, the redemption amount will be based on the volume-weighted average trading price of Cameco's common shares on March 1 or, if March 1 is not a trading day, on the first trading day following March 1. As of December 31, 2021, the total number of PSUs held by the participants, after adjusting for forfeitures on retirement, was 1,495,709 (2020 - 1,720,636).

C. Restricted share unit (RSU)

The Company has established an RSU plan whereby it provides each plan participant an annual grant of RSUs in an amount determined by the board. Each RSU represents one phantom common share that entitles the participant to a payment of one Cameco common share purchased on the open market, or cash with an equivalent market value, at the board's discretion. The RSUs carry vesting periods of one to three years, and the final value of the units will be based on the value of Cameco common shares at the end of the vesting periods. In addition, certain eligible participants have a single vesting date on the third anniversary of the date of the grant. These same participants, if they have met or are not subject to share ownership requirements, may elect to have their award paid as a lump sum cash amount. During the vesting period, dividend equivalents accrue to the participants in the form of additional share units as of each normal cash dividend payment date of Cameco's common shares. As of December 31, 2021, the total number of RSUs held by the participants was 1,081,783 (2020 - 927,462).

D. Phantom stock option

The Company has established a phantom stock option plan for eligible non-North American employees. Employees receive the equivalent value of shares in cash when exercised. Options granted under the phantom stock option plan have an award value equal to the closing price quoted on the TSX for the common shares of Cameco on the trading day prior to the date on which the option is granted. The options vest over three years and expire eight years from the date granted. As of December 31, 2021, the number of options held by participating employees was 173,835 (2020 - 422,291) with exercise prices ranging from $11.32 to $26.81 per share (2020 - $11.32 to $26.81) and a weighted average exercise price of $ 13.88 (2020 - $15.66).

E. Phantom restricted share unit (PRSU)

During the year, the Company established a PRSU plan whereby it provides non-North American employees an annual grant of PRSUs in an amount determined by the board. Each PRSU represents one phantom common share that entitles the participant to a payment of cash with an equivalent market value. The PRSUs carry vesting periods of one to three years, and the final value of the units will be based on the value of Cameco common shares at the end of the vesting periods. In addition, certain eligible participants have a single vesting date on the third anniversary of the date of the grant. During the vesting period, dividend equivalents accrue to the participants in the form of additional share units as of each normal cash dividend payment date of Cameco's common shares. As of December 31, 2021, the total number of PRSUs held by the participants was 16,027.

F. Employee share ownership plan

Cameco also has an employee share ownership plan, whereby both employee and Company contributions are used to purchase shares on the open market for employees. The Company's contributions are expensed during the year of contribution. Under the plan, employees have the opportunity to participate in the program to a maximum of 6% of eligible earnings each year with Cameco matching the first 3% of employee-paid shares by 50%. Cameco contributes $1,000 shares annually to each employee that is enrolled in the plan. Shares purchased with Company contributions and dividends paid on such shares become unrestricted 12 months from the date on which such shares were purchased. At December 31, 2021, there were 2,301 participants in the plan (2020 - 2,257). The total number of shares purchased in 2021 with Company contributions was 149,822 (2020 - 248,837). In 2021, the Company's contributions totaled $3,301,000 (2020 - $3,174,000).

G. Deferred share unit (DSU)

Cameco offers a DSU plan to non-employee directors. A DSU is a notional unit that reflects the market value of a single common share of Cameco. 60% of each director's annual retainer is paid in DSUs. In addition, on an annual basis, directors can elect to receive 25%, 50%, 75% or 100% of the remaining 40% of their annual retainer and any additional fees in the form of DSUs. If a director meets their ownership requirements, the director may elect to take 25%, 50%, 75% or 100% of their annual retainer and any fees in cash, with the balance, if any, to be paid in DSUs. Each DSU fully vests upon award. Dividend equivalents accrue to the participants in the form of additional share units as of each normal cash dividend payment date of Cameco's common shares. The DSUs will be redeemed for cash upon a director leaving the board. The redemption amount will be based upon the weighted average of the closing prices of the common shares of Cameco on the TSX for the last 20 trading days prior to the redemption date multiplied by the number of DSUs held by the director. As of December 31, 2021, the total number of DSUs held by participating directors was 579,362 (2020 - 541,827).

Equity-settled plans

Cameco records compensation expense under its equity-settled plans with an offsetting credit to contributed surplus, to reflect the estimated fair value of units granted to employees. During the year, the Company recognized the following expenses under these plans:

	2021	2020
Employee share ownership plan	**$ 3,301**	$ 3,174
Restricted share unit plan	**2,933**	2,903
Performance share unit plan	**1,237**	2,650
Stock option plan	**366**	1,011
Total	**$ 7,837**	$ 9,738

Fair value measurement of equity-settled plans

The fair value of RSUs granted was determined based on their intrinsic value on the date of grant. Expected volatility was estimated by considering historic average share price volatility.

The inputs used in the measurement of the fair values at grant date of the equity-settled RSU plan were as follows:

	Grant date Mar 1/21
Number of options granted	168,496
Average strike price	$20.25
Expected forfeitures	11%
Weighted average grant date fair values	$20.25

Cash-settled plans

Cameco has recognized the following expenses under its cash-settled plans:

	2021	2020
Performance share unit plan	**$ 25,784**	$ 20,287
Restricted share unit plan	**6,890**	1,849
Deferred share unit plan	**6,741**	3,765
Phantom stock option plan	**2,261**	1,340
Phantom restricted share unit plan	**163**	-
Total	**$ 41,839**	$ 27,241

At December 31, 2021, a liability of $61,030,000 (2020 - $38,354,000) was included in the consolidated statement of financial position to recognize accrued but unpaid expenses for cash-settled plans.

Fair value measurement of cash-settled plans

The fair value of the units granted through the PSU plan was determined based on Monte Carlo simulation and projections of the non-market criteria. The fair value of RSUs and PRSUs granted was determined based on their intrinsic value on the date of grant. The phantom stock option plan was measured based on the Black-Scholes option-pricing model. Expected volatility is estimated by considering historic average share price volatility.

The inputs used in the measurement of the fair values of the cash-settled share-based payment plans at the March 1, 2021 grant date were as follows:

	PSU	RSU	Phantom RSU
Number of units	369,110	245,530	15,980
Expected vesting	72%	-	-
Expected dividend	-	-	$0.08
Expected life of options	3 years	3 years	3 years
Expected forfeitures	10%	10%	7%
Weighted average measurement date fair values	$14.56	$20.25	$20.25

The inputs used in the measurement of the fair values of the cash-settled share-based payment plans at the reporting date were as follows:

	Phantom stock options	PSU	RSU	Phantom RSU
Number of units	173,835	1,495,709	672,675	16,027
Expected vesting	-	114%	-	-
Average strike price	$13.88	-	-	-
Expected dividend	$0.08	-	-	$0.08
Expected volatility	50%	-	-	-
Risk-free interest	1.0%	-	-	-
Expected life of options	2 years	0.9 years	1.5 years	2.2 years
Expected forfeitures	7%	3%	10%	7%
Weighted average measurement date fair values	$15.14	$31.44	$27.58	$27.58

In addition to these inputs, other features of the PSU grant were incorporated into the measurement of fair value. The non-market criteria relating to realized selling prices and operating targets have been incorporated into the valuation at both grant and reporting date by reviewing prior history and corporate budgets.

25. Pension and other post-retirement benefits

Cameco maintains both defined benefit and defined contribution plans providing pension benefits to substantially all of its employees. All regular and temporary employees participate in a registered defined contribution plan. This plan is registered under the Pension Benefits Standard Act, 1985. In addition, all Canadian-based executives participate in a non-registered supplemental executive pension plan which is a defined benefit plan.

Under the supplemental executive pension plan (SEPP), Cameco provides a lump sum benefit equal to the present value of a lifetime pension benefit based on the executive's length of service and final average earnings. The plan provides for unreduced benefits to be paid at the normal retirement age of 65, however unreduced benefits could be paid if the executive was at least 60 years of age and had 20 years of service at retirement. This program provides for a benefit determined by a formula based on earnings and service, reduced by the benefits payable under the registered base plan. Security is provided for the SEPP benefits through a letter of credit held by the plan's trustee. The face amount of the letter of credit is determined each year based on the wind-up liabilities of the supplemental plan, less any plan assets currently held with the trustee. A valuation is required annually to determine the letter of credit amount. Benefits will continue to be paid from plan assets until the fund is exhausted, at which time Cameco will begin paying benefits from corporate assets.

Cameco also maintains non-pension post-retirement plans (“other benefit plans”) which are defined benefit plans that cover such benefits as group life insurance and supplemental health and dental coverage to eligible employees and their dependents. The costs related to these plans are charged to earnings in the period during which the employment services are rendered. These plans are funded by Cameco as benefit claims are made.

The board of directors of Cameco has final responsibility and accountability for the Cameco retirement programs. The board is ultimately responsible for managing the programs to comply with applicable legislation, providing oversight over the general functions and setting certain policies.

Cameco expects to pay $ 1,505,000 in contributions and letter of credit fees to its defined benefit plans in 2022.

The post-retirement plans expose Cameco to actuarial risks, such as longevity risk, market risk, interest rate risk, liquidity risk and foreign currency risk. The other benefit plans expose Cameco to risks of higher supplemental health and dental utilization than expected. However, the other benefit plans have limits on Cameco’s annual benefits payable.

The effective date of the most recent valuation for funding purposes on the registered defined benefit pension plans is January 1, 2021. The next planned effective date for valuations is January 1, 2024.

Cameco has more than one defined benefit plan and has generally provided aggregated disclosures in respect of these plans on the basis that these plans are not exposed to materially different risks. Information relating to Cameco's defined benefit plans is shown in the following table:

	Pension benefit plans		Other benefit plans	
	2021	**2020**	**2021**	**2020**
Fair value of plan assets, beginning of year	**$ 6,217**	$ 6,806	**$ -**	$ -
Interest income on plan assets	**144**	197	**-**	-
Return on assets excluding interest income	**172**	130	**-**	-
Employer contributions	**67**	-	**-**	-
Benefits paid	**(903)**	(915)	**-**	-
Administrative costs paid	**(4)**	(1)	**-**	-
Fair value of plan assets, end of year	**$ 5,693**	$ 6,217	**$ -**	$ -
Defined benefit obligation, beginning of year	**$ 72,119**	$ 62,588	**$ 25,827**	$ 24,955
Current service cost	**2,332**	1,977	**956**	1,010
Interest cost	**1,550**	1,673	**652**	792
Actuarial loss (gain) arising from:				
demographic assumptions	**-**	-	**-**	102
financial assumptions	**(1,996)**	6,323	**(1,403)**	2,013
experience adjustment	**(903)**	350	**(697)**	(2,236)
Benefits paid	**(1,741)**	(1,765)	**(638)**	(809)
Foreign exchange	**(1,363)**	973	**-**	-
Defined benefit obligation, end of year	**$ 69,998**	$ 72,119	**$ 24,697**	$ 25,827
Defined benefit liability [note 14]	**$ (64,305)**	$ (65,902)	**$ (24,697)**	$ (25,827)

The percentages of the total fair value of assets in the pension plans for each asset category at December 31 were as follows:

	Pension benefit plans	
	2021	**2020**
Asset category[(a)]		
Canadian equity securities	**13%**	8%
U.S. equity securities	**21%**	12%
Global equity securities	**12%**	8%
Canadian fixed income	**50%**	31%
Other[(b)]	**4%**	41%
Total	**100%**	100%

(a) The defined benefit plan assets contain no material amounts of related party assets at December 31, 2021 and 2020 respectively.

(b) Relates mainly to the value of the refundable tax account held by the Canada Revenue Agency. The refundable total is approximately equal to half of the sum of the realized investment income plus employer contributions less half of the benefits paid by the plan.

The following represents the components of net pension and other benefit expense included primarily as part of administration

	Pension benefit plans 2021	2020	Other benefit plans 2021	2020
Current service cost	**$ 2,332**	$ 1,977	**$ 956**	$ 1,010
Net interest cost	**1,406**	1,476	**652**	792
Administration cost	**4**	1	**-**	-
Defined benefit expense [note 18]	**3,742**	3,454	**1,608**	1,802
Defined contribution pension expense [note 18]	**12,939**	12,410	**-**	-
Net pension and other benefit expense	**$ 16,681**	$ 15,864	**$ 1,608**	$ 1,802

The total amount of actuarial losses (gains) recognized in other comprehensive income is:

	Pension benefit plans 2021	2020	Other benefit plans 2021	2020
Actuarial loss (gain)	**$ (2,899)**	$ 6,673	**$ (2,100)**	$ (121)
Return on plan assets excluding interest income	**(172)**	(130)	**-**	-
	$ (3,071)	$ 6,543	**$ (2,100)**	$ (121)

The assumptions used to determine the Company's defined benefit obligation and net pension and other benefit expense were as follows at December 31 (expressed as weighted averages):

	Pension benefit plans 2021	2020	Other benefit plans 2021	2020
Discount rate - obligation	**2.3%**	2.4%	**2.9%**	2.5%
Discount rate - expense	**2.4%**	3.0%	**2.5%**	3.1%
Rate of compensation increase	**3.0%**	2.9%	**-**	-
Health care cost trend rate	**-**	-	**5.0%**	5.0%
Dental care cost trend rate	**-**	-	**4.5%**	4.5%

At December 31, 2021, the weighted average duration of the defined benefit obligation for the pension plans was 20.0 years (2020 - 20.5 years) and for the other benefit plans was 13.6 years (2020 - 14.2 years).

A 1% change at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the following:

	Pension benefit plans Increase	Decrease	Other benefit plans Increase	Decrease
Discount rate	**$ (9,593)**	$ 12,380	**$ (3,003)**	$ 3,769
Rate of compensation increase	**1,024**	(984)	**n/a**	n/a

A 1% change in any of the other assumptions would not have a significant impact on the defined benefit obligation.

The methods and assumptions used in preparing the sensitivity analyses are the same as the methods and assumptions used in determining the financial position of Cameco's plans as at December 31, 2021. The sensitivity analyses are determined by varying the sensitivity assumption and leaving all other assumptions unchanged. Therefore, the sensitivity analyses do not recognize any interdependence in the assumptions. The methods and assumptions used in determining the above sensitivity are consistent with the methods and assumptions used in the previous year.

In addition, an increase of one year in the expected lifetime of plan participants in the pension benefit plans would increase the defined benefit obligation by $ 2,032,000.

To measure the longevity risk for these plans, the mortality rates were reduced such that the average life expectancy for all members increased by one year. The reduced mortality rates were subsequently used to re-measure the defined benefit obligation of the entire plan.

26. Financial instruments and related risk management

Cameco is exposed in varying degrees to a variety of risks from its use of financial instruments. Management and the board of directors, both separately and together, discuss the principal risks of our businesses. The board sets policies for the implementation of systems to manage, monitor and mitigate identifiable risks. Cameco's risk management objective in relation to these instruments is to protect and minimize volatility in cash flow. The types of risks Cameco is exposed to, the source of risk exposure and how each is managed is outlined below.

Market risk

Market risk is the risk that changes in market prices, such as commodity prices, foreign currency exchange rates and interest rates, will affect the Company's earnings or the fair value of its financial instruments. Cameco engages in various business activities which expose the Company to market risk. As part of its overall risk management strategy, Cameco uses derivatives to manage some of its exposures to market risk that result from these activities.

Derivative instruments may include financial and physical forward contracts. Such contracts may be used to establish a fixed price for a commodity, an interest-bearing obligation or a cash flow denominated in a foreign currency. Market risks are monitored regularly against defined risk limits and tolerances.

Cameco's actual exposure to these market risks is constantly changing as the Company's portfolios of foreign currency, interest rate and commodity contracts change.

The types of market risk exposure and the way in which such exposure is managed are as follows:

A. Commodity price risk

As a significant producer and supplier of uranium and nuclear fuel processing services, Cameco bears significant exposure to changes in prices for these products. A substantial change in prices will affect the Company's net earnings and operating cash flows. Prices for Cameco's products are volatile and are influenced by numerous factors beyond the Company's control, such as supply and demand fundamentals and geopolitical events.

Cameco's sales contracting strategy focuses on reducing the volatility in future earnings and cash flow, while providing both protection against decreases in market price and retention of exposure to future market price increases. To mitigate the risks associated with the fluctuations in the market price for uranium products, Cameco seeks to maintain a portfolio of uranium product sales contracts with a variety of delivery dates and pricing mechanisms that provide a degree of protection from pricing volatility.

B. Foreign exchange risk

The relationship between the Canadian and US dollar affects financial results of the uranium business as well as the fuel services business. Sales of uranium product, conversion and fuel manufacturing services are routinely denominated in US dollars while production costs are largely denominated in Canadian dollars.

Cameco attempts to provide some protection against exchange rate fluctuations by planned hedging activity designed to smooth volatility. To mitigate risks associated with foreign currency, Cameco enters into forward sales and option contracts to establish a price for future delivery of the foreign currency. These foreign currency contracts are not designated as hedges and are recorded at fair value with changes in fair value recognized in earnings. Cameco also has a natural hedge against US currency fluctuations because a portion of its annual cash outlays, including purchases of uranium and conversion services, is denominated in US dollars.

Cameco holds a number of financial instruments denominated in foreign currencies that expose the Company to foreign exchange risk. Cameco measures its exposure to foreign exchange risk on financial instruments as the change in carrying values that would occur as a result of reasonably possible changes in foreign exchange rates, holding all other variables constant. As of the reporting date, the Company has determined its pre-tax exposure to foreign currency exchange risk on financial instruments to be as follows based on a 5% weakening of the Canadian dollar:

	Currency	Carrying value (Cdn)	Gain (loss)
Cash and cash equivalents	USD	$ 28,006	$ 1,400
Accounts receivable	USD	226,153	11,308
Accounts payable and accrued liabilities	USD	(152,412)	(7,620)
Net foreign currency derivatives	USD	27,774	(45,177)

A 5% strengthening of the Canadian dollar against the currencies above at December 31, 2021 would have had an equal but opposite effect on the amounts shown above, assuming all other variables remained constant.

C. Interest rate risk

The Company has a strategy of minimizing its exposure to interest rate risk by maintaining target levels of fixed and variable rate borrowings. The proportions of outstanding debt carrying fixed and variable interest rates are reviewed by senior management to ensure that these levels are within approved policy limits. At December 31, 2021, the proportion of Cameco's outstanding debt that carries fixed interest rates is 92% (2020 - 100%).

Cameco was exposed to interest rate risk during the year through its interest rate swap contracts whereby fixed rate payments on a notional amount of $75,000,000 of the Series H senior unsecured debentures were swapped for variable rate payments. Under the terms of the swap, Cameco makes interest payments based on the three-month Canada Dealer Offered Rate plus an average margin of 1.3% and receives fixed interest payments of 2.95%.

In addition, the Series E senior unsecured debentures that were retired on November 16, 2020 were also subject to interest rate swap contracts. A notional amount of $150,000,000 of the Series E senior unsecured debentures had been swapped for variable rate payments. Under the terms of these swaps, Cameco made interest payments based on the three-month Canada Dealer Offered Rate plus an average margin of 1.2% and received fixed interest payments of 3.75%. At the time of termination of the Series E swaps, the fair value of the interest rate swap net asset was $7,330,000. At December 31, 2021, the fair value of Cameco's interest rate swap net asset was $673,000 (2020 - $nil).

Counterparty credit risk

Counterparty credit risk is associated with the ability of counterparties to satisfy their contractual obligations to Cameco, including both payment and performance. The maximum exposure to credit risk, as represented by the carrying amount of the financial assets, at December 31 was:

	2021	2020
Cash and cash equivalents	**$ 1,247,447**	$ 918,382
Short-term investments	**84,906**	24,985
Accounts receivable [note 6]	**272,220**	166,788
Derivative assets [note 10]	**32,098**	45,605

Cash and cash equivalents

Cameco held cash and cash equivalents of $ 1,247,000,000 at December 31, 2021 (2020 - $ 918,000,000). Cameco mitigates its credit risk by ensuring that balances are held with counterparties with high credit ratings. The Company monitors the credit rating of its counterparties on a monthly basis and has controls in place to ensure prescribed exposure limits with each counterparty are adhered to.

Impairment on cash and cash equivalents has been measured on a 12-month ECL basis and reflects the short maturities of the exposures. The Company considers that its cash and cash equivalents have low credit risk based on the external credit ratings of the counterparties. Cameco has assessed its counterparty credit risk on cash and cash equivalents by applying historic global default rates to outstanding cash balances based on S&P rating. The conclusion of this assessment is that the loss allowance is insignificant.

Accounts receivable

Cameco's sales of uranium product, conversion and fuel manufacturing services expose the Company to the risk of non-payment. Cameco manages the risk of non-payment by monitoring the credit-worthiness of its customers and seeking pre-payment or other forms of payment security from customers with an unacceptable level of credit risk.

A summary of the Company's exposure to credit risk for trade receivables is as follows:

	Carrying value
Investment grade credit rating	$ 259,683
Non-investment grade credit rating	11,332
Total gross carrying amount	**$ 271,015**
Loss allowance	-
Net	**$ 271,015**

At December 31, 2021, there were no significant concentrations of credit risk and no amounts were held as collateral. Historically, Cameco has experienced minimal customer defaults and, as a result, considers the credit quality of its accounts receivable to be high.

Cameco uses customer credit rating data, historic default rates and aged receivable analysis to measure the ECLs of trade receivables from corporate customers, which comprise a small number of large balances. Since the Company has not experienced customer defaults in the past, applying historic default rates in calculating ECLs, as well as considering forward-looking information, resulted in an insignificant allowance for losses.

The following table provides information about Cameco's aged trade receivables as at December 31, 2021:

	Corporate customers	Other customers	Total
Current (not past due)	$ 269,474	$ 423	**269,897**
1-30 days past due	334	62	**396**
More than 30 days past due	58	664	**722**
Total	$ 269,866	$ 1,149	**271,015**

Liquidity risk

Financial liquidity represents Cameco's ability to fund future operating activities and investments. Cameco ensures that there is sufficient capital in order to meet short-term business requirements, after taking into account cash flows from operations and the Company's holdings of cash and cash equivalents. The Company believes that these sources will be sufficient to cover the likely short-term and long-term cash requirements.

The table below outlines the Company's available debt facilities at December 31, 2021:

	Total amount	Outstanding and committed	Amount available
Unsecured revolving credit facility [note 13]	$ 1,000,000	$ -	$ 1,000,000
Letter of credit facilities [note 13]	1,696,041	1,573,873	122,168

The tables below present a maturity analysis of Cameco's financial liabilities, including principal and interest, based on expected cash flows from the reporting date to the contractual maturity date:

	Carrying amount	Contractual cash flows	Due in less than 1 year	Due in 1-3 years	Due in 3-5 years	Due after 5 years
Accounts payable and accrued liabilities	$ 340,458	$ 340,458	$ 340,458	$ -	$ -	$ -
Long-term debt	996,250	1,000,000	-	500,000	-	500,000
Foreign currency contracts	3,760	3,760	378	3,382	-	-
Interest rate contracts	1,237	1,237	-	585	490	162
Lease obligation [note 14]	4,872	5,174	2,736	2,381	57	-
Total contractual repayments	**$ 1,346,577**	**$ 1,350,629**	**$ 343,572**	**$ 506,348**	**$ 547**	**$ 500,162**

	Total	Due in less than 1 year	Due in 1-3 years	Due in 3-5 years	Due after 5 years
Total interest payments on long-term debt	**$ 230,065**	**$** 37,840	$ 65,205	$ 33,780	$ 93,240

Measurement of fair values

A. Accounting classifications and fair values

The following tables summarize the carrying amounts and accounting classifications of Cameco's financial instruments at the reporting date:

At December 31, 2021

	FVTPL	Amortized cost	FVOCI - designated	Total
Financial assets				
Cash and cash equivalents	$ -	$ 1,247,447	$ -	$ 1,247,447
Short-term investments	-	84,906	-	84,906
Accounts receivable [note 6]	-	276,139	-	276,139
Derivative assets [note 10]				
Foreign currency contracts	31,534	-	-	31,534
Interest rate contracts	564	-	-	564
	$ 32,098	**$ 1,608,492**	**$ -**	**$ 1,640,590**
Financial liabilities				
Accounts payable and accrued liabilities [note 12]	$ -	$ 340,458	$ -	$ 340,458
Lease obligation [note 14]	-	4,872	-	4,872
Derivative liabilities [note 14]				
Foreign currency contracts	3,760	-	-	3,760
Interest rate contracts	1,237	-	-	1,237
Long-term debt [note 13]	-	996,250	-	996,250
	4,997	**1,341,580**	**-**	**1,346,577**
Net	**$ 27,101**	**$ 266,912**	**$ -**	**$ 294,013**

At December 31, 2020

	FVTPL	Amortized cost	FVOCI - designated	Total
Financial assets				
Cash and cash equivalents	$ -	$ 918,382	$ -	$ 918,382
Short-term investments	-	24,985	-	24,985
Accounts receivable [note 6]	-	204,980	-	204,980
Derivative assets [note 10]				
Foreign currency contracts	45,605	-	-	45,605
Investments in equity securities [note 10]	-	-	43,873	43,873
	$ 45,605	**$ 1,148,347**	**$ 43,873**	**$ 1,237,825**
Financial liabilities				
Accounts payable and accrued liabilities [note 12]	$ -	$ 233,649	$ -	$ 233,649
Lease obligation [note 14]	-	7,951	-	7,951
Derivative liabilities [note 14]				
Foreign currency contracts	4,733	-	-	4,733
Long-term debt [note 13]	-	995,541	-	995,541
	4,733	**1,237,141**	**-**	**1,241,874**
Net	**$ 40,872**	**$ (88,794)**	**$ 43,873**	**$ (4,049)**

Cameco has pledged $ 233,257,000 of cash as security against certain of its letter of credit facilities. This cash is being used as collateral for an interest rate reduction on the letter of credit facilities. The collateral account has a term of five years effective July 1, 2018. Cameco retains full access to this cash.

During the year, Cameco divested of its investments in equity securities. The fair value at the date of derecognition and the cumulative gain or loss on disposal for the year ended December 31, 2021 were as follows:

	Fair Value	Gain (loss)
Investment in Denison Mines Corp.	**$ 34,827**	$ 15,257
Investment in UEX Corporation	**19,605**	8,758
Investment in ISO Energy Ltd.	**10,756**	8,078
Investment in GoviEx	**3,558**	2,996
Other	**265**	(750)
	$ 69,011	$ 34,339

The gains are presented net of tax. Cameco has elected to transfer these cumulative net gains from equity investments at FVOCI to retained earnings in the statement of changes in equity.

Cameco has not irrevocably designated a financial asset that would otherwise meet the requirements to be measured at amortized cost at FVOCI or FVTPL to eliminate or significantly reduce an accounting mismatch that would otherwise arise.

The following tables summarize the carrying amounts and fair values of Cameco's financial instruments, including their levels in the fair value hierarchy:

As at December 31, 2021

		Fair value		
	Carrying value	Level 1	Level 2	Total
Derivative assets [note 10]				
Foreign currency contracts	**$ 31,534**	$ -	$ 31,534	$ 31,534
Interest rate contracts	**564**	-	564	564
Derivative liabilities [note 14]				
Foreign currency contracts	**(3,760)**	-	(3,760)	(3,760)
Interest rate contracts	**(1,237)**	-	(1,237)	(1,237)
Long-term debt [note 13]	**(996,250)**	-	(1,103,978)	(1,103,978)
Net	**$ (969,149)**	**$ -**	**$ (1,076,877)**	**$ (1,076,877)**

As at December 31, 2020

		Fair value		
	Carrying value	Level 1	Level 2	Total
Derivative assets [note 10]				
Foreign currency contracts	**$ 45,605**	$ -	$ 45,605	$ 45,605
Investments in equity securities [note 10]	**43,873**	43,873	-	43,873
Derivative liabilities [note 14]				
Foreign currency contracts	**(4,733)**	-	(4,733)	(4,733)
Long-term debt [note 13]	**(995,541)**	-	(1,173,280)	(1,173,280)
Net	**$ (910,796)**	**$ 43,873**	**$ (1,132,408)**	**$ (1,088,535)**

The preceding tables exclude fair value information for financial instruments whose carrying amounts are a reasonable approximation of fair value. The carrying values of Cameco's cash and cash equivalents, short-term investments, accounts receivable, and accounts payable and accrued liabilities approximate their fair values as a result of the short-term nature of the instruments.

There were no transfers between level 1 and level 2 during the period. Cameco does not have any financial instruments that are classified as level 3 as of the reporting date.

B. Financial instruments measured at fair value

Cameco measures its derivative financial instruments, material investments in equity securities and long-term debt at fair value. Investments in publicly held equity securities are classified as a recurring level 1 fair value measurement while derivative financial instruments and long-term debt are classified as a recurring level 2 fair value measurement.

The fair value of investments in equity securities is determined using quoted share prices observed in the principal market for the securities as of the reporting date. The fair value of Cameco's long-term debt is determined using quoted market yields as of the reporting date, which ranged from 1.1% to 1.7% (2020 - 0.3% to 1.1%).

Foreign currency derivatives consist of foreign currency forward contracts, options and swaps. The fair value of foreign currency options is measured based on the Black Scholes option-pricing model. The fair value of foreign currency forward contracts and swaps is measured using a market approach, based on the difference between contracted foreign exchange rates and quoted forward exchange rates as of the reporting date.

Interest rate derivatives consist of interest rate swap contracts. The fair value of interest rate swaps is determined by discounting expected future cash flows from the contracts. The future cash flows are determined by measuring the difference between fixed interest payments to be received and floating interest payments to be made to the counterparty based on Canada Dealer Offer Rate forward interest rate curves.

Where applicable, the fair value of the derivatives reflects the credit risk of the instrument and includes adjustments to take into account the credit risk of the Company and counterparty. These adjustments are based on credit ratings and yield curves observed in active markets at the reporting date.

Derivatives

The following table summarizes the fair value of derivatives and classification on the consolidated statements of financial position.

	2021	2020
Non-hedge derivatives:		
Foreign currency contracts	**$ 27,774**	$ 40,872
Interest rate contracts	**(673)**	-
Net	**$ 27,101**	$ 40,872
Classification:		
Current portion of long-term receivables, investments and other [note 10]	**$ 22,652**	$ 16,466
Long-term receivables, investments and other [note 10]	**9,446**	29,139
Current portion of other liabilities [note 14]	**(378)**	(1,658)
Other liabilities [note 14]	**(4,619)**	(3,075)
Net	**$ 27,101**	$ 40,872

The following table summarizes the different components of the gains (losses) on derivatives included in net earnings:

	2021	2020
Non-hedge derivatives:		
Foreign currency contracts	$ **13,202**	$ 30,600
Interest rate contracts	**(673)**	5,977
Net	**$ 12,529**	**$ 36,577**

27. Capital management

Cameco's management considers its capital structure to consist of bank overdrafts, long-term debt, short-term debt (net of cash and cash equivalents and short-term investments), non-controlling interest and shareholders' equity.

Despite the impacts of COVID-19 on the global economy, Cameco's approach to capital management has remained consistent. Cameco's capital structure reflects its strategy and the environment in which it operates. Delivering returns to long-term shareholders is a top priority. The Company's objective is to maximize cash flow while maintaining its investment grade rating through close capital management of our balance sheet metrics. Capital resources are managed to allow it to support achievement of its goals while managing financial risks such as the continued weakness in the market, litigation risk and refinancing risk. The overall objectives for managing capital in 2021 reflect the environment that the Company is operating in, similar to the prior comparative period.

The capital structure at December 31 was as follows:

	2021	2020
Long-term debt [note 13]	**996,250**	995,541
Cash and cash equivalents	**(1,247,447)**	(918,382)
Short-term investments	**(84,906)**	(24,985)
Net debt	**(336,103)**	52,174
Non-controlling interest	**127**	206
Shareholders' equity	**4,845,841**	4,958,355
Total equity	**4,845,968**	4,958,561
Total capital	**$ 4,509,865**	$ 5,010,735

Cameco is bound by certain covenants in its general credit facilities. These covenants place restrictions on total debt, including guarantees and set minimum levels for net worth. As of December 31, 2021, Cameco met these requirements.

28. Segmented information

Cameco has two reportable segments: uranium and fuel services. Cameco's reportable segments are strategic business units with different products, processes and marketing strategies. The uranium segment involves the exploration for, mining, milling, purchase and sale of uranium concentrate. The fuel services segment involves the refining, conversion and fabrication of uranium concentrate and the purchase and sale of conversion services.

During the year, Cameco determined that NUKEM no longer meets the criteria for being considered a segment and concluded that it was appropriate to include NUKEM's results with its uranium and fuel services segments. NUKEM's purchase and sale of uranium concentrate and conversion services are now being reported internally as part of its uranium and fuel services businesses and should therefore be included with those businesses for segment reporting. The purchase and sale of enriched uranium product and separative work units will continue to be reported in "other". Comparative information has been adjusted.

Cost of sales in the uranium segment includes care and maintenance costs for our operations that have had production suspensions. Cameco expensed $209,556,000 (2020 - $195,972,000) of care and maintenance costs during the year. Included in this amount in 2021 is $ 40,359,000 (2020 - $45,988,000) relating to care and maintenance costs for operations suspended as a result of COVID-19. Also included in cost of sales, because of the Cigar Lake production suspension, is the impact of increased purchasing activity at a higher cost than produced pounds.

Cost of sales in the fuel services segment also includes care and maintenance costs for our operations that had production suspensions as a result of COVID-19. Cameco expensed $ 8,992,000 in 2020 due to the suspension.

Accounting policies used in each segment are consistent with the policies outlined in the summary of significant accounting policies. Segment revenues, expenses and results include transactions between segments incurred in the ordinary course of business. These transactions are priced on an arm's length basis, are eliminated on consolidation and are reflected in the "other" column.

A. Business segments - 2021

For the year ended December 31, 2021

	Uranium	Fuel services	Other	Total
Revenue	$ 1,054,993	$ 404,277	$ 15,714	$ 1,474,984
Expenses				
Cost of products and services sold	1,028,816	242,574	11,245	1,282,635
Depreciation and amortization	134,629	43,344	12,442	190,415
Cost of sales	1,163,445	285,918	23,687	1,473,050
Gross profit (loss)	**(108,452)**	**118,359**	**(7,973)**	**1,934**
Administration	-	-	127,566	127,566
Exploration	8,016	-	-	8,016
Research and development	-	-	7,168	7,168
Other operating income	(8,407)	-	-	(8,407)
(Gain) loss on disposal of assets	(2,886)	6,689	-	3,803
Finance costs	-	-	76,612	76,612
Gain on derivatives	-	-	(12,529)	(12,529)
Finance income	-	-	(6,804)	(6,804)
Share of earnings from equity-accounted investee	(68,283)	-	-	(68,283)
Other expense (income)	-	301	(21,654)	(21,353)
Earnings (loss) before income taxes	**(36,892)**	**111,369**	**(178,332)**	**(103,855)**
Income tax recovery				(1,201)
Net loss				**(102,654)**
Capital expenditures for the year	**$ 72,786**	**$ 22,792**	**$ 3,206**	**$ 98,784**

For the year ended December 31, 2020

	Uranium	Fuel services	Other	Total
Revenue	$ 1,416,125	$ 377,296	$ 6,652	$ 1,800,073
Expenses				
Cost of products and services sold	1,243,311	237,656	3,995	1,484,962
Depreciation and amortization	154,560	43,190	10,912	208,662
Cost of sales	**1,397,871**	**280,846**	**14,907**	**1,693,624**
Gross profit (loss)	**18,254**	**96,450**	**(8,255)**	**106,449**
Administration	-	-	145,344	145,344
Exploration	10,873	-	-	10,873
Research and development	-	-	3,965	3,965
Other operating expense	23,921	-	-	23,921
Loss on disposal of assets	667	405	-	1,072
Finance costs	-	-	96,133	96,133
Gain on derivatives	-	-	(36,577)	(36,577)
Finance income	-	-	(10,835)	(10,835)
Share of earnings from equity-accounted investee	(36,476)	-	-	(36,476)
Other income	(202)	-	(51,238)	(51,440)
Earnings (loss) before income taxes	**19,471**	**96,045**	**(155,047)**	**(39,531)**
Income tax expense				13,666
Net loss				**(53,197)**
Capital expenditures for the year	**$ 46,697**	**$ 30,760**	**$ 5**	**$ 77,462**

B. Geographic segments

Revenue is attributed to the geographic location based on the location of the entity providing the services. The Company's revenue from external customers is as follows:

	2021	2020
United States	**$ 770,265**	$ 1,177,756
Canada	**704,719**	622,317
	$ 1,474,984	$ 1,800,073

The Company's non-current assets, excluding deferred tax assets and financial instruments, by geographic location are as follows:

	2021	2020
Canada	**$ 3,100,285**	$ 3,260,144
Australia	**395,223**	421,836
United States	**131,683**	145,328
Kazakhstan	**46**	55
Germany	**11**	16
	$ 3,627,248	$ 3,827,379

C. Major customers

Cameco relies on a small number of customers to purchase a significant portion of its uranium concentrates and uranium conversion services. During 2021, revenues from two customers of Cameco's uranium and fuel services segments represented approximately $166,068,000 (2020 - $457,560,000), approximately 11% (2020 - 25%) of Cameco's total revenues from these segments. As customers are relatively few in number, accounts receivable from any individual customer may periodically exceed 10% of accounts receivable depending on delivery schedule.

29. Group entities

The following are the principal subsidiaries and associates of the Company:

	Principal place of business	Ownership interest 2021	Ownership interest 2020
Subsidiaries:			
Cameco Fuel Manufacturing Inc.	Canada	100%	100%
Cameco Marketing Inc.	Canada	100%	100%
Cameco Inc.	US	100%	100%
Power Resources, Inc.	US	100%	100%
Crow Butte Resources, Inc.	US	100%	100%
Cameco Australia Pty. Ltd.	Australia	100%	100%
Cameco Europe Ltd.	Switzerland	100%	100%
Associates:			
JV Inkai	Kazakhstan	40%	40%

30. Joint operations

Cameco conducts a portion of its exploration, development, mining and milling activities through joint operations located around the world. Operations are governed by agreements that provide for joint control of the strategic operating, investing and financing activities among the partners. These agreements were considered in the determination of joint control. Cameco's significant Canadian uranium joint operation interests are McArthur River, Key Lake and Cigar Lake. The Canadian uranium joint operations allocate uranium production to each joint operation participant and the joint operation participant derives revenue directly from the sale of such product. Mining and milling expenses incurred by joint operations are included in the cost of inventory.

Cameco reflects its proportionate interest in these assets and liabilities as follows:

	Principal place of business	Ownership	2021	2020
Total assets				
McArthur River	Canada	69.81%	**$ 1,010,956**	$ 1,027,617
Key Lake	Canada	83.33%	**549,051**	560,845
Cigar Lake	Canada	50.03%	**1,294,333**	1,327,956
			$ 2,854,340	$ 2,916,418
Total liabilities				
McArthur River		69.81%	**$ 36,697**	$ 34,597
Key Lake		83.33%	**267,579**	278,331
Cigar Lake		50.03%	**45,503**	46,604
			$ 349,779	$ 359,532

31. Related parties

A. Transactions with key management personnel

Key management personnel are those persons that have the authority and responsibility for planning, directing and controlling the activities of the Company, directly or indirectly. Key management personnel of the Company include executive officers, vice-presidents and members of the board of directors.

In addition to their salaries, Cameco also provides non-cash benefits to executive officers and vice-presidents and contributes to pension plans on their behalf (note 25). Senior management and directors also participate in the Company's share-based compensation plans (note 24).

Executive officers are subject to terms of notice ranging from three to six months. Upon resignation at the Company's request, they are entitled to termination benefits of up to the lesser of 18 to 24 months or the period remaining until age 65. The termination benefits include gross salary plus the target short-term incentive bonus for the year in which termination occurs.

Compensation for key management personnel was comprised of:

	2021	2020
Short-term employee benefits	**$ 20,663**	$ 21,676
Share-based compensation[(a)]	**34,639**	26,230
Post-employment benefits	**6,188**	6,041
Termination benefits	**161**	430
Total	**$ 61,651**	$ 54,377

(a) Excludes deferred share units held by directors (see note 24).

B. Other related party transactions

Cameco purchases uranium concentrates from JV Inkai. For the year ended December 31, 2021, Cameco had purchases of $233,621,000 ($185,763,000 (US)) (2020 - $148,169,000 ($111,886,000 (US))). Cameco received a cash dividend from JV Inkai of $50,128,000 ($40,286,000 (US)) (2020 - $54,404,000 ($40,621,000 (US))).

32. Comparative Figures

Certain prior year balances have been reclassified to conform to the current financial statement presentation.

EXHIBIT 99.3

Cameco Corporation

2021 Management's Discussion and Analysis

February 9, 2022

Management's discussion and analysis

February 9, 2022

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This management's discussion and analysis (MD&A) includes information that will help you understand management's perspective of our audited consolidated financial statements (financial statements) and notes for the year ended December 31, 2021. The information is based on what we knew as of February 8, 2022.

We encourage you to read our audited consolidated financial statements and notes as you review this MD&A. You can find more information about Cameco, including our financial statements and our most recent annual information form, on our website at cameco.com, on SEDAR at sedar.com or on EDGAR at sec.gov. You should also read our annual information form before making an investment decision about our securities.

The financial information in this MD&A and in our financial statements and notes are prepared according to International Financial Reporting Standards (IFRS), unless otherwise indicated.

Unless we have specified otherwise, all dollar amounts are in Canadian dollars.

Throughout this document, the terms we, us, our, the Company and Cameco mean Cameco Corporation and its subsidiaries, unless otherwise indicated.

Caution about forward-looking information

Our MD&A includes statements and information about our expectations for the future. When we discuss our strategy, plans, future financial and operating performance, or other things that have not yet taken place, we are making statements considered to be *forward-looking information* or *forward-looking statements* under Canadian and United States (US) securities laws. We refer to them in this MD&A as *forward-looking information*.

Key things to understand about the forward-looking information in this MD&A:

- It typically includes words and phrases about the future, such as: anticipate, believe, estimate, expect, plan, will, intend, goal, target, forecast, project, strategy and outlook (see examples below).
- It represents our current views and can change significantly.
- It is based on a number of material assumptions, including those we have listed on page 4, which may prove to be incorrect.
- Actual results and events may be significantly different from what we currently expect, due to the risks associated with our business. We list a number of these *material risks* on page 3. We recommend you also review our most recent annual information form, which includes a discussion of other *material risks* that could cause actual results to differ significantly from our current expectations.
- Forward-looking information is designed to help you understand management's current views of our near- and longer-term prospects, and it may not be appropriate for other purposes. We will not necessarily update this information unless we are required to by securities laws.

Examples of forward-looking information in this MD&A

- our view that we have the strengths to take advantage of the world's rising demand for safe, reliable, affordable and carbon-free energy
- we will continue to focus on delivering our products responsibly and addressing the environmental, social and governance (ESG) risks and opportunities that we believe will make our business sustainable and will build long-term value
- our expectations about 2022 and future global uranium supply, consumption, contracting, demand and the market including the discussion under the heading *Market overview and developments*
- our expectations for the future of the nuclear industry, including that nuclear power must be a central part of the solution to the world's shift to a low-carbon climate-resilient economy
- our efforts to participate in the commercialization and deployment of small modular reactors (SMRs) and increase our contributions to global climate change solutions by exploring SMRs and other emerging opportunities within the fuel cycle
- our views on our ability to self-manage risk
- the discussion under the heading *Our strategy*
- the discussion under the heading *Our response to the COVID-19 pandemic*, including the priority of employee health and safety in our plans
- our expectations regarding the operation of, and production levels for, the Cigar Lake mine and McArthur River/Key Lake operation
- the discussion under the heading *Our ESG principles and practices: A key part of our strategy, reflecting our values*, including our belief there is a significant opportunity for us to be part of the solution to combat climate change and that we are well positioned to deliver significant long-term business value
- our expectations for uranium purchases, sales and deliveries
- our intentions regarding our 2022 annual dividend payment
- the discussion of our expectations relating to our Canada Revenue Agency (CRA) transfer pricing dispute, including our expectations regarding receiving refunds and payment of disbursements from CRA, our confidence that the courts would reject any attempt by CRA to utilize the same or similar positions for other tax years currently in dispute, and our belief that CRA should return the full amount of cash and security that has been paid or otherwise secured by us
- the discussion under the heading *Outlook for 2022*, including expected business resiliency, expectations for 2022 average unit cost of sales, average purchase price per pound, deliveries and production, 2022 financial outlook, our revenue, expectations for 2022 cash balances, adjusted net earnings and cash flow sensitivity, and our price sensitivity analysis for our uranium segment
- the discussion under the heading *Liquidity and capital resources*, including expected liquidity to meet our 2022 obligations and our expectations for our uranium contract portfolio to provide a solid revenue stream
- the outlook for our uranium and fuel services segments for 2022
- our expectation that the uranium contract portfolio we have built will continue to provide a solid revenue stream
- our expectation that our cash balances and operating cash flows will meet our anticipated 2022 capital requirements
- our expectations for future capital expenditures
- our expectation that in 2022 we will be able to comply with all the covenants in our unsecured revolving credit facility
- life of mine operating cost estimates for the Cigar Lake and Inkai operations
- future plans and expectations for uranium properties, advanced uranium projects, and fuel services operating sites, including production levels and suspension of production at certain properties
- our expectations related to care and maintenance costs and operational readiness costs
- our mineral reserve and resource estimates
- our decommissioning estimates

Material risks

- actual sales volumes or market prices for any of our products or services are lower than we expect for any reason, including changes in market prices, loss of market share to a competitor, trade restrictions or the impact of the COVID-19 pandemic
- we are adversely affected by changes in currency exchange rates, interest rates, royalty rates, or tax rates
- our production costs are higher than planned, or our cost reduction strategies are unsuccessful, or necessary supplies are not available, or not available on commercially reasonable terms
- our strategies may change, be unsuccessful or have unanticipated consequences
- changing views of governments regarding the pursuit of carbon reduction strategies or our view may prove to be inaccurate on the role of nuclear power in pursuit of those strategies
- our estimates and forecasts prove to be inaccurate, including production, purchases, deliveries, cash flow, revenue, costs, decommissioning, reclamation expenses, or receipt of future dividends from JV Inkai
- we are unable to enforce our legal rights under our existing agreements, permits or licences
- we are subject to litigation or arbitration that has an adverse outcome
- that we may not receive expected refunds and payments from CRA
- that the courts may accept the same, similar or different positions and arguments advanced by CRA to reach decisions that are adverse to us for other tax years
- the possibility of a materially different outcome in disputes with CRA for other tax years
- that CRA does not agree that the court rules for the years that have been resolved in Cameco's favour should apply to subsequent tax years
- that CRA will not return all or substantially all of the cash and security that has been paid or otherwise secured in a timely manner, or at all
- there are defects in, or challenges to, title to our properties
- our mineral reserve and resource estimates are not reliable, or there are unexpected or challenging geological, hydrological or mining conditions
- we are affected by environmental, safety and regulatory risks, including workforce health and safety or increased regulatory burdens or delays resulting from the COVID-19 pandemic or other causes
- necessary permits or approvals from government authorities cannot be obtained or maintained
- we are affected by political risks, including the recent and any potential future unrest in Kazakhstan
- operations are disrupted due to problems with our own or our suppliers' or customers' facilities, the unavailability of reagents, equipment, operating parts and supplies critical to production, equipment failure, lack of tailings capacity, labour shortages, labour relations issues, strikes or lockouts, underground floods, cave-ins, ground movements, tailings dam failures, transportation disruptions or accidents, unanticipated consequences of our cost reduction strategies, or other development and operating risks
- we are affected by terrorism, sabotage, blockades, civil unrest, social or political activism, outbreak of illness (such as a pandemic like COVID-19), accident or a deterioration in political support for, or demand for, nuclear energy
- we may be unable to successfully manage the current environment resulting from the COVID-19 pandemic and its related operational, safety, marketing, or financial risks successfully, including the risk of significant disruptions to our operations, workforce, required supply or services, and ability to produce, transport, and deliver uranium
- a major accident at a nuclear power plant
- we are impacted by changes in the regulation or public perception of the safety of nuclear power plants, which adversely affect the construction of new plants, the relicensing of existing plants and the demand for uranium
- government laws, regulations, policies or decisions that adversely affect us, including tax and trade laws and sanctions on nuclear fuel imports
- our uranium suppliers or purchasers fail to fulfil their commitments
- our McArthur River development, mining or production plans are delayed or do not succeed for any reason
- our Cigar Lake development, mining or production plans are delayed or do not succeed for any reason
- the McClean Lake's mill production plan is delayed or does not succeed for any reason
- water quality and environmental concerns could result in a potential deferral of production and additional capital and operating expenses required for the Cigar Lake operation
- JV Inkai's development, mining or production plans are delayed or do not succeed for any reason
- we may be unsuccessful in pursuing innovation or implementing advanced technologies, including the risk that the commercialization and deployment of SMRs may incur unanticipated delays or expenses, or ultimately prove to be unsuccessful
- our expectations relating to care and maintenance costs or operational readiness costs prove to be inaccurate
- the risk that we may become unable to pay our 2022 annual dividend at the expected rate
- we are affected by natural phenomena, including inclement weather, fire, flood and earthquakes

- the regulatory, environmental and operational risks that generally apply to all our operations and advanced uranium projects that are discussed under the heading *Managing the risks* beginning on page 58
- the risks relating to our tier-one uranium operations discussed under the heading *McArthur River mine/Key Lake mill – Managing Our Risks* beginning on page 65, under the heading *Cigar Lake – Managing Our Risks* beginning on page 69, and under the heading *Inkai – Managing Our Risks* beginning on page 72

Material assumptions

- our expectations regarding sales and purchase volumes and prices for uranium and fuel services, trade restrictions, and that counterparties to our sales and purchase agreements will honour their commitments
- our expectations for the nuclear industry, including its growth profile, market conditions and the demand for and supply of uranium
- the continuing pursuit of carbon reduction strategies by governments and the role of nuclear in the pursuit of those strategies
- the assumptions discussed under the heading *2022 Financial Outlook*
- our expectations regarding spot prices and realized prices for uranium, and other factors discussed under the heading *Price sensitivity analysis: uranium segment*
- that the construction of new nuclear power plants and the relicensing of existing nuclear power plants will not be more adversely affected than expected by changes in regulation or in the public perception of the safety of nuclear power plants
- our ability to continue to supply our products and services in the expected quantities and at the expected times
- our expected production levels for Cigar Lake, McArthur River/Key Lake, JV Inkai and our fuel services operating sites
- our cost expectations, including production costs, operating costs, operational readiness costs, capital costs, and the success of our cost reduction strategies
- our expectations regarding tax payments, royalty rates, currency exchange rates and interest rates
- our entitlement to and ability to receive expected refunds and payments from CRA
- in our dispute with CRA, that courts will reach consistent decisions for other tax years that are based upon similar positions and arguments
- that CRA will not successfully advance different positions and arguments that may lead to different outcomes for other tax years
- our expectation that we will recover all or substantially all of the amounts paid or secured in respect of the CRA dispute to date
- our decommissioning and reclamation estimates, including the assumptions upon which they are based, are reliable
- our mineral reserve and resource estimates, and the assumptions upon which they are based, are reliable
- our understanding of the geological, hydrological and other conditions at our uranium properties
- our Cigar Lake development, mining and production plans succeed
- the McClean Lake mill is able to process Cigar Lake ore as expected
- JV Inkai's development, mining and production plans succeed
- the ability of JV Inkai to pay dividends
- that care and maintenance costs and operational readiness costs will be as expected
- 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, blockades, civil unrest, breakdown, natural disasters, outbreak of illness (such as a pandemic like COVID-19), governmental or political actions, litigation or arbitration proceedings, the unavailability of reagents, equipment, operating parts and supplies critical to production, labour shortages, labour relations issues, strikes or lockouts, underground floods, cave-ins, ground movements, tailings dam failure, lack of tailings capacity, transportation disruptions or accidents, unanticipated consequences of our cost reduction strategies, or other development or operating risks

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Our business

Our vision is to energize a clean-air world. We are a pure-play nuclear fuel investment with a proven track record and the strengths to take advantage of the world's rising demand for safe, reliable, affordable and carbon-free energy. Nuclear energy plants around the world use our uranium products to generate one of the cleanest sources of electricity available today.

Our operations and investments span the nuclear fuel cycle, from exploration to enrichment and fuel manufacturing. Our head office is in Saskatoon, Saskatchewan.



URANIUM

Operations

Our uranium production capacity is among the world's largest. However, in 2021, with many of our operations in care and maintenance, we accounted for 9% of world production. We have controlling ownership of the world's largest high-grade reserves. Our operating and idle tier-one assets are licensed, permitted, long-lived, and are proven reliable and have expansion capacity. Those tier-one assets are backed up by idle tier-two assets and what we think is the best exploration portfolio that leverages existing infrastructure.

Advanced Uranium Projects

We use a stage gate process to evaluate our uranium projects and will advance them at a pace aligned with market opportunities, in order to respond when the market signals a need for more uranium.

Uranium Exploration (grey shaded)

Our exploration program is directed at replacing mineral reserves as they are depleted by our production. Our land holdings total about 0.85 million hectares (2.1 million acres). In northern Saskatchewan alone, we have direct interests in about 0.75 million hectares (1.9 million acres) of land covering many of the most prospective exploration areas of the Athabasca Basin. Our active exploration programs are focused on Canada.

FUEL SERVICES

We are an integrated uranium fuel supplier, offering refining, conversion and fuel manufacturing services. We have about 21% of world primary conversion capacity.

MARKETING

We sell uranium and fuel services to nuclear utilities in 13 countries, with sales commitments to supply over 160 million pounds of U_3O_8 and over 48 million kilograms of UF_6 conversion services.

OTHER FUEL CYCLE INVESTMENTS

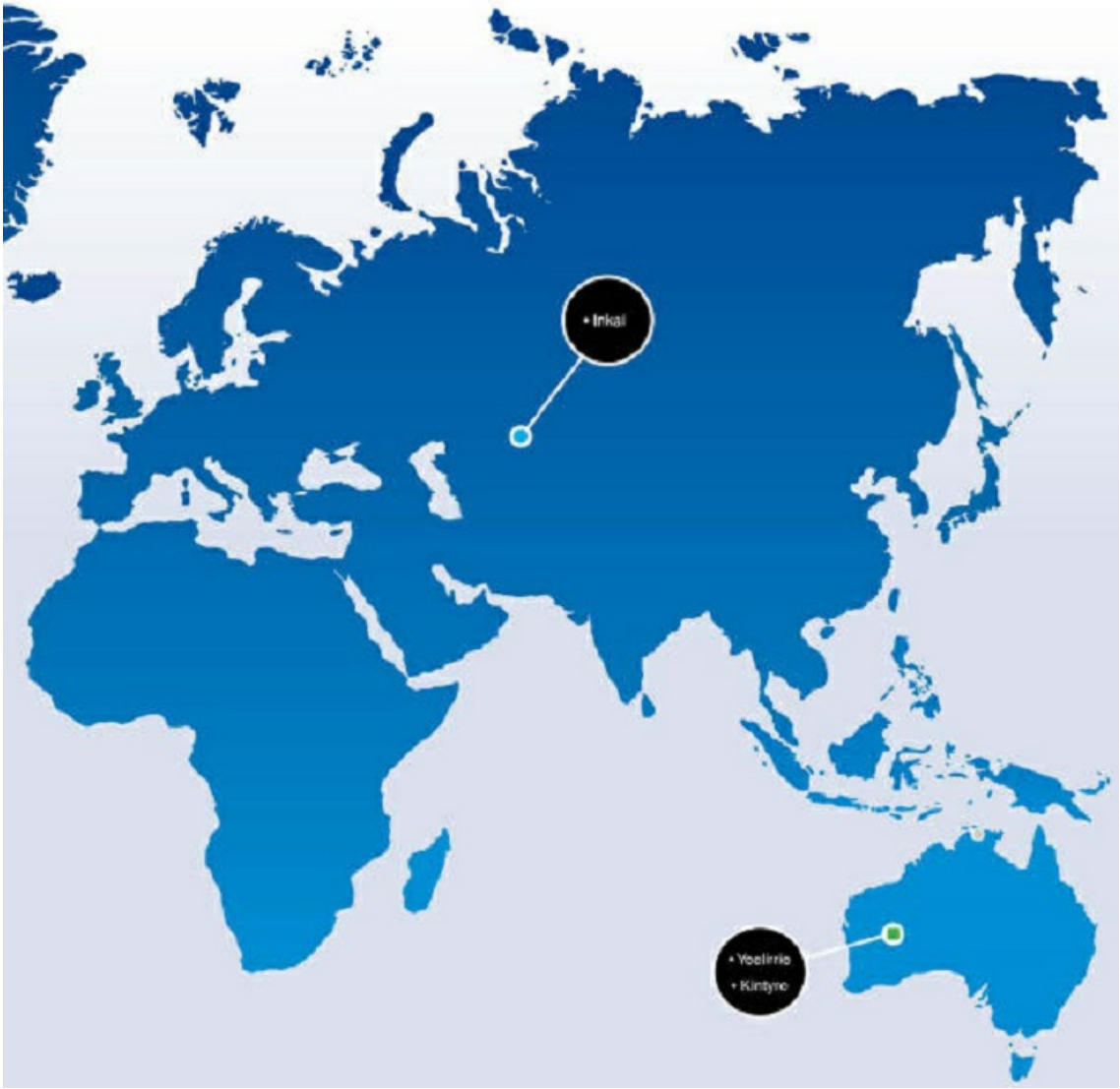
ENRICHMENT

We have a 49% interest in Global Laser Enrichment (GLE) which is testing a third-generation enrichment technology that, if successful, will use lasers to commercially enrich uranium. GLE is the exclusive licensee of the proprietary SILEX laser enrichment technology, third-generation uranium enrichment technology that is in the development phase.

* Operations subject to supply decisions aligned with market conditions and our contract portfolio.

Advantages

With our extraordinary assets, long-term contract portfolio, strong ESG commitment, employee expertise, comprehensive industry knowledge and strong balance sheet, we are confident in our ability to increase long-term value.



2021 performance highlights

Despite additional disruptions to our business in 2021, we continued to do what we said we would do, protecting the health and safety of our employees and executing on all strategic fronts; operational, marketing and financial. In our uranium segment, since the beginning of 2021, and including the volumes reported in our third quarter MD&A, we have been successful in adding 70 million pounds to our portfolio of long-term uranium contracts, bringing the total volumes added since 2016 to about 185 million pounds. Nevertheless, we maintain leverage to higher prices with significant unencumbered future productive capacity and a large and growing pipeline of uranium business under discussion. We are being strategically patient in our discussions to capture as much value as possible in our contract portfolio. In addition to the off-market contracting interest, there has been a re-emergence of on-market requests for proposals from utilities looking to secure their future requirements.

In 2021, we were operating at about 75% below the productive capacity (100% basis) due to our planned supply discipline in our uranium segment and the unplanned production suspension at Cigar Lake. Productive capacity includes licensed capacity at Cigar Lake and McArthur River/Key Lake, and it includes planned production volumes at Rabbit Lake and our US operations prior to curtailment in 2016. We proactively suspended production at Cigar Lake for a second time for about four months starting in December 2020 due to the increased risks posed by the Coronavirus (COVID-19) pandemic at the time. As well, through our investment in Inkai, we were impacted by the 20% supply reduction enacted by Kazatomprom (KAP) across all uranium mines in Kazakhstan.

In addition to the proactive suspension of production at Cigar Lake, the COVID-19 safety protocols and measures we put in place in 2020, and following the precautions and restrictions enacted by all levels of government where we operate we proactively implemented additional measures and made a number of decisions to ensure a continued safe working environment for all our workers, in 2021, we:

- introduced a requirement that all employees, contractors and visitors be vaccinated across all our operations and offices
- developed a hybrid work model for employees working from home that balances time in the office and remote working in accordance with business needs

The proactive decisions we have made, and continue to make, to protect our workers and to help slow down the spread of the COVID-19 virus are consistent with our values. Even while production was suspended, we kept and continued to pay all our employees. The health and safety of our workers, their families and their communities continues to be the priority in all our plans, which will align with the guidance of the relevant health authorities where we operate.

We delivered over 24 million pounds of uranium to our customers in alignment with our contract portfolio and profitable opportunities in the market. We generated $458 million in cash from operations, with higher average realized prices in our fuel services segment than in 2020. However, as a result of the unplanned precautionary production suspension at Cigar Lake due to the COVID-19 pandemic, we incurred $40 million in care and maintenance costs for the operation and produced only 6.1 million pounds in our uranium segment, well below our committed sales. To manage risk we purchased 11.1 million pounds at a unit cost significantly higher than the average production costs at Cigar Lake for 2021 and 2020. See *2021 financial results by segment – Uranium* starting on page 49 for more information. Partially offsetting these additional costs was the receipt of about $21 million under the Canada Emergency Wage Subsidy program and volatility in foreign exchange rates that resulted in foreign exchange gains.

Thanks to the disciplined execution of our strategy, our balance sheet is strong, and we expect it will enable us to see out our strategy as well as self-manage risk, including from global macro-economic uncertainty and volatility. As of December 31, 2021, we had $1.3 billion in cash and cash equivalents and short-term investments with only $996 million in long-term debt. In addition, we have a $1.0 billion undrawn credit facility.

In our transfer pricing dispute with Canada Revenue Agency (CRA), the Supreme Court of Canada (Supreme Court) dismissed CRA's application for leave to appeal the decision of the Federal Court of Appeal (Court of Appeal). As a result, the dispute for the 2003 through 2006 tax years is fully and finally resolved in our favour. Furthermore, we are confident the courts would reject any attempt by CRA to utilize the same or similar positions and arguments for the other tax years currently in dispute (2007 through 2014) and believe CRA should return the $777 million in cash and letters of credit we have been required to pay or otherwise secure for those years. As such, we have filed a notice of appeal with the Tax Court of Canada (Tax Court), however timing of any further payments is uncertain. See *Transfer pricing dispute* on page 37 for more information.

In 2021, the benefits of nuclear energy came clearly into focus with a durability that we believe has not previously been seen. This durability is being driven by the accountability for achieving the net-zero carbon targets being set by countries and companies around the world. There is increasing recognition that nuclear power, with its clean emissions profile, reliable and secure baseload characteristics and low, levelized cost has a key role to play in achieving decarbonization goals. This is leading to both traditional and non-traditional demand growth for nuclear power and resulting in increased demand for uranium.

This increase in demand is occurring at a time when there is increasing uncertainty about uranium supply. The COVID-19 pandemic continued to disrupt global uranium production and introduced new risks including disruptions to global supply chains and rising costs for some products and services, adding to the supply curtailments that have occurred in the uranium industry for many years. The duration and extent of these disruptions are still not fully known. And, with the entrance of the Sprott Asset Management LP (Sprott) Physical Uranium Trust additional significant demand for spot material has impacted uranium prices. The uranium spot price increased significantly following the initial purchase activity in August, reaching a nine-year high of about $50 (US) per pound. The average uranium spot price ended the year at $42.05 per pound (US) nearly 40% higher than the average uranium spot price at the end of 2020. The thinning of material available in the spot market and the resulting higher spot prices have also pressured long-term prices with an increase in on-market requests for proposals (RFPs) and off-market negotiations. The long-term price was up 22% this year, ending the year at $42.75 per pound (US).

In the current environment, we believe the risk to uranium supply is greater than the risk to uranium demand and expect it will create a renewed focus on ensuring availability of long-term supply to fuel nuclear reactors. With the improvements in the market and the new long-term contracts we have put in place, it is time for us to proceed with the next phase of our supply discipline strategy, which also includes a planned supply reduction at Cigar Lake. Starting in 2024, we plan for our share of production to be about 45% below our productive capacity. In addition, at Inkai we will continue to follow the 20% reduction until the end of 2023 as announced by KAP. This will remain our production plan until we see further improvements in the uranium market and have made further progress in securing the appropriate homes for our unencumbered, in-ground inventory under long-term contracts, once again demonstrating that we are a responsible supplier of uranium fuel. See *Our strategy* starting on page 19 for more information.

We expect the investments we are making in digital and automation technologies will allow us to operate our assets with more flexibility. This is key to our ability to continue to align our production decisions with our contract portfolio commitments and opportunities. With a solid base of contracts to underpin our productive capacity, we will begin the process of preparing the McArthur River mine and Key Lake mill for production to allow us to achieve our 2024 production plan. This plan will significantly improve our financial performance by allowing us to source more of our committed sales from lower-cost produced pounds and we will no longer be required to expense care and maintenance costs directly to cost of sales. However, until we achieve a reasonable production rate, we expect to incur between $15 million to $17 million per month in operational readiness costs, which will be expensed directly to cost of sales. Operational readiness costs include all of the costs associated with care and maintenance in addition to the costs to complete critical projects, perform maintenance readiness checks, and recruit and train sufficient mine and mill personnel before beginning operations. Throughout, we will continue to focus on delivering our products safely and responsibly and addressing the environmental, social and governance (ESG) risks and opportunities that we believe will make our business sustainable and will build long-term value.

Financial performance

HIGHLIGHTS DECEMBER 31 ($ MILLIONS EXCEPT WHERE INDICATED)	2021	2020	CHANGE
Revenue	**1,475**	1,800	(18)%
Gross profit	**2**	106	(98)%
Net loss attributable to equity holders	**(103)**	(53)	(94)%
$ per common share (diluted)	**(0.26)**	(0.13)	(92)%
Adjusted net loss (non-IFRS, see page 33)	**(98)**	(66)	(48)%
$ per common share (adjusted and diluted)	**(0.25)**	(0.17)	(47)%
Cash provided by operations	**458**	57	>100%

Net loss attributable to equity holders (net loss) and adjusted net loss were greater in 2021 compared to 2020. See *2021 consolidated financial results* beginning on page 32 for more information. Of note:

- generated $458 million in cash from operations
- incurred $210 million in care and maintenance costs as a result of our strategic decisions, including $40 million due to the precautionary suspension at Cigar Lake in 2021 to deal with the risks posed by the COVID-19 pandemic
- received $21 million under the Canada Emergency Wage Subsidy program
- recorded $27 million in the first quarter as a reduction to administration costs to reflect the amounts owing to us for legal fees and disbursements for costs as awarded in our dispute with CRA. See *Transfer pricing dispute* on page 37 for more information
- filed notice of appeal to the Tax Court in our dispute with CRA to have $777 million in cash and letters of credit returned. See *Transfer pricing dispute* on page 37 for more information.

Our segment updates

In our uranium segment, we continued to execute our strategy to preserve our tier-one assets and to ensure a safe working environment for all our workers, which impacted our operations. Of note in 2021:

- continued the production suspensions at McArthur River/Key Lake, Rabbit Lake and US ISR operations, keeping about 23 million pounds (100% basis) out of the market
- resumed production at the Cigar Lake mine at the end of April following the second suspension that commenced in December 2020 as a precaution due to the COVID-19 pandemic
- annual production at Cigar Lake of 6.1 million pounds (our share) was 33% below licensed capacity due to the impacts of the precautionary four-month suspension
- purchased 11.1 million pounds of uranium, including our spot purchases, committed purchase volumes and JV Inkai purchases
- delivered on our sales commitments of over 24 million pounds in alignment with our contract portfolio and profitable market opportunities and added 30 million pounds in long-term contracts to our portfolio. Since the beginning of 2022, we have added another 40 million pounds, bringing the total added since the beginning of 2021 to 70 million pounds.

Production in 2021 from our fuel services segment was 3% higher than in 2020, as a result of production suspensions in 2020 due to the COVID-19 pandemic. Planned production was impacted by hydrogen supply issues in 2021. The hydrogen supply constraint was resolved in the fourth quarter, however supply chain disruption remains a risk generally.

Additionally, we increased our interest in Global Laser Enrichment LLC (GLE) from 24% to 49% and signed a number of non-binding arrangements to explore several areas of cooperation to advance the commercialization and deployment of small modular reactors (SMRs) in Canada and around the world. This furthers our commitment to responsibly and sustainably manage our business and increase our contributions to global climate change solutions by exploring other emerging and non-traditional opportunities within the fuel cycle.

See O*perations and projects* beginning on page 57 for more information.

HIGHLIGHTS			2021	2020	CHANGE
Uranium	Production volume (million lbs)		**6.1**	5.0	22%
	Sales volume (million lbs)		**24.3**	30.7	(21)%
	Average realized price[1]	($US/lb)	**34.53**	34.39	—
		($Cdn/lb)	**43.34**	46.13	(6)%
	Revenue ($ millions)		**1,055**	1,416	(25)%
	Gross profit (loss) ($ millions)		**(108)**	18	(700)%
Fuel services	Production volume (million kgU)		**12.1**	11.7	3%
	Sales volume (million kgU)		**13.6**	13.5	1%
	Average realized price [2]	($Cdn/kgU)	**29.72**	27.89	7%
	Revenue ($ millions)		**404**	377	7%
	Gross profit ($ millions)		**118**	96	23%

[1] Uranium average realized price is calculated as the revenue from sales of uranium concentrate, transportation and storage fees divided by the volume of uranium concentrates sold.

[2] Fuel services average realized price is calculated as revenue from the sale of conversion and fabrication services, including fuel bundles and reactor components, transportation and storage fees divided by the volumes sold.

Industry prices

	2021	2020	CHANGE
Uranium ($US/lb U_3O_8)[1]			
Average annual spot market price	**35.28**	29.96	18%
Average annual long-term price	**36.81**	34.63	6%
Fuel services ($US/kgU as UF_6)[1]			
Average annual spot market price			
North America	**19.41**	21.94	(12)%
Europe	**18.99**	21.09	(10)%
Average annual long-term price			
North America	**18.42**	18.27	1%
Europe	**18.42**	18.18	1%
Note: the industry does not publish UO_2 prices.			

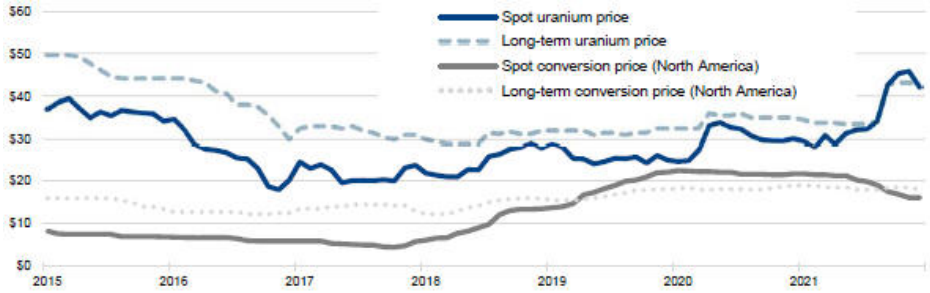
[1] Average of prices reported by TradeTech and UxC, LLC (UxC)

On the spot market, where purchases call for delivery within one year, the volume reported by UxC for 2021 was the highest annual total ever of approximately 102 million pounds U_3O_8 equivalent, compared to 95 million pounds U_3O_8 equivalent in 2020. Spot market volumes were significant in the second half of the year due to unplanned uranium demand from Sprott, which contributed to the thinning of spot uranium supply. Total spot purchases by producers, junior uranium companies and financial funds was approximately 50 million pounds U_3O_8 equivalent. At the end of 2021, the average reported spot price was $42.05 (US) per pound, up $11.85 (US) per pound from the end of 2020. During the year, the uranium spot price ranged from a month-end high of $45.75 (US) per pound to a low of $27.98 (US) per pound, averaging $35.28 (US) for the year.

Long-term contracts usually call for deliveries to begin more than two years after the contract is finalized, and use a number of pricing formulas, including base-escalated (fixed prices escalated over the term of the contract), and market referenced prices (spot and long-term indicators) quoted near the time of delivery. The volume of long-term contracting reported by UxC for 2021 was about 70 million pounds U_3O_8 equivalent, up from about 57 million pounds U_3O_8 equivalent in 2020. Higher volumes can be attributed in part to utilities turning their attention to securing their long-term needs as demand from financial funds further thinned the spot market and eliminated the ability for utilities to rely on carry trade activity. The average reported long-term price at the end of the year was $42.75 (US) per pound, up $7.75 (US) from 2020. During the year, the uranium long-term price ranged from a month-end high of $43.00 (US) per pound to a low of $33.50 (US) per pound, averaging $36.81 (US) for the year.

Following the record highs for conversion prices in both the North American and European markets in 2020, the average reported spot price for North American delivery at the end of 2021 was $16.10 (US) per kilogram uranium as UF_6 (US/kgU as UF_6), down $5.65 (US) from the end of 2020. Long-term UF_6 conversion prices finished 2021 at $18.00 (US/kgU as UF_6), down $1.00 (US) from the end of 2020.

URANIUM (US$/lb U_3O_8) AND CONVERSION (US$/kgU UF_6) PRICES



Source: Average of prices reported from TradeTech and UxC

Market overview and developments

A market in transition

In 2021, there was a significant improvement in uranium prices and market sentiment. Spot uranium prices for the year were up nearly 40%, reaching their highest level in nine years. The uranium available in the spot market thinned driven by record spot market purchases primarily by the Sprott Physical Uranium Trust, which has purchased approximately 26 million pounds since its inception in 2021, but also including other financial funds, producers and junior uranium companies who have indicated that the long-term fundamentals point to growing demand and supply uncertainty. The thinning of material available in the spot market and rising spot uranium prices motivated some utilities to return to the term market both with on-market RFPs as well as continued off-market contracting. As a result, the long-term price increased by 22%, ending the year at $42.75 (US) per pound. Despite an increase in contracting in the long-term market, the volume of uranium executed under long-term contracts remained well below annual consumption levels, continuing the inventory destocking that was already underway in the industry and adding to the growing wedge of uncovered requirements that we believe will need to be filled at a time when the availability of sufficient supply is not guaranteed. With a renewed focus on security of supply we believe we are in the early stages of a market transition, with utilities turning to proven producers and assets to meet their uncovered requirements.

Durable demand growth

The benefits of nuclear energy came clearly into focus with a durability we believe has not been previously seen, driven by the accountability created by the net-zero carbon targets being set by countries and companies around the world. These targets are turning attention to a triple challenge. First, is to lift one-third of the global population out of energy poverty by growing clean and reliable baseload electricity. Second, is to replace 85% of the current global electricity grids that run on carbon-emitting sources of thermal power with a clean, reliable alternative. And finally, is to grow global power grids by electrifying industries, such as private and commercial transportation, home, and industrial heating, largely powered with carbon-emitting sources of thermal energy today. Additionally, the energy crisis experienced in some parts of the world has amplified concerns about energy security and highlighted the role of energy policy in balancing three main objectives: providing a clean emissions profile; providing a reliable and secure baseload profile; and providing an affordable levelized cost profile. Too much focus on one objective, has left some jurisdictions struggling with power shortages and spiking energy prices. There is increasing recognition that nuclear power, with its clean emissions profile, reliable and secure baseload characteristics and low, levelized cost has a key role to play in achieving decarbonization goals.

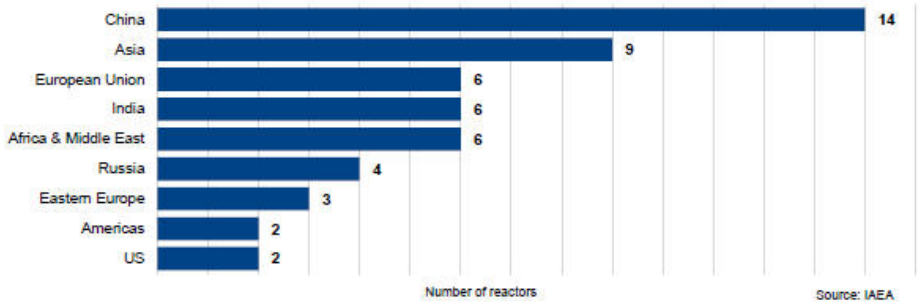
Demand and energy policy highlights

- On behalf of the Sprott Physical Uranium Trust, Sprott issued an At-The-Market (ATM) program allowing it to sell discretionary shares and use the proceeds to purchase U_3O_8. The initial limit was for up to $300 million (US), and on September 9th, Sprott increased the ATM program limit to $1.3 billion (US) followed by another increase to $3.5 billion (US) on November 23. As of February 7th, the fund had raised over $1.1 billion (US) and purchased approximately 26 million pounds U_3O_8. In addition to its listing on the Toronto Stock Exchange, Sprott is obligated to seek a US listing for the trust.
- In March, Yellow Cake PLC (YCA) raised $100 million (US) to exercise their option with KAP to purchase approximately 3.5 million pounds of U_3O_8 as well as an additional purchase of 440,000 pounds U_3O_8. Subsequently, YCA agreed to purchase an additional 2 million pounds U_3O_8 from KAP. In October, YCA then raised approximately $150 million (US) and used the proceeds to fund the purchase of 2 million pounds U_3O_8 from Curzon Uranium Limited and purchased an additional 1 million pounds U_3O_8 from KAP. The net impact of other transactions in 2021 resulted in YCA acquiring an additional 0.6 million pounds U_3O_8.
- On October 18th, KAP announced their 48.5% initial investment into a privately-held physical uranium fund for $50 million (US). The fund has a projected second stage of development to raise up to an additional $500 million (US), through either a public or private offering.
- Many countries, states, and utilities announced net-zero carbon targets in 2020 and 2021. Notable countries include China, Japan, South Korea, United States (US), Canada, and France. While most of these targets are further out in the future, many of the plans include an important role for nuclear.

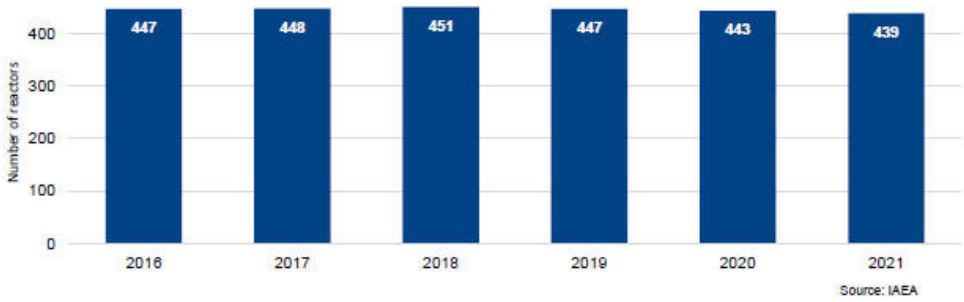
- The International Atomic Energy Agency (IAEA) increased its projections for nuclear out to 2050 for the first time since the Fukushima events in 2011. This includes nuclear generating capacity doubling to 792 GWe, from 393 GWe in 2020, which represents a 10% rise over the prior forecast.
- The 2021 World Nuclear Association Nuclear Fuel Report was released in September and includes numerous positive developments for the industry. It highlights the prospects for nuclear growth and linkages to countries now targeting net-zero carbon emissions. Improved growth in China makes the most notable impact to higher demand projections post 2030. On the supply side, uranium production through 2025 declined significantly relative to the previous report in 2019, demonstrating the growing need for more production out in time.
- China's 14th five-year plan and related policy documents covering the 2021 to 2025 period were published in March as part of their plan to be carbon neutral by 2060. Nuclear received increased attention in the plan relative to the prior version. The key objective stated was China targeting 70 GWe operating and 50 GWe under construction through 2025. Additionally, China's Nuclear Energy Association (CNEA) stated that by 2030, China could reach up to 120 GWe in operation.
- In Japan, Kansai's Mihama 3 restarted after over ten years and represents the first Japanese reactor in service over forty years to be restarted. In October, Fumio Kishida of the Liberal Democratic Party, was confirmed as Japan's 100th Prime Minister. He has stated support for Japan's energy policy which is targeting 20% to 22% nuclear by 2030 as part of its plan for carbon neutrality by 2050.
- Russia's nuclear generation reached historic records in 2021 as Leningrad II-2 became the latest operating reactor. In addition, Rosatom announced plans to build about 15 new 1,200 MWe Gen 3+ reactors by 2035, with most units being built at existing sites where units that were built in the 1970s are to be decommissioned.
- In the European Union (EU), on February 2nd, the European Commission approved in principle a Complementary Climate Delegated Act (CDA), which includes specific nuclear and gas energy activities in the list of economic activities covered by the EU Taxonomy. This defines certain nuclear energy projects as green and sustainable for access to low-cost financing. The nuclear-related activities included are all advanced Generation IV nuclear technology with no expiry date, new Generation III+ nuclear reactors until 2045, and lifetime extension to existing nuclear reactors until 2040, while comprehensive nuclear safety and waste management requirements apply to all. The CDA now goes to the European Parliament and Council for debate.
- The Netherlands has recently elected a new government which has promised to build two new nuclear power reactors and become climate neutral by 2050.
- In France, President Emmanuel Macron announced planned new reactors, for the first time in decades, to meet its 2050 carbon neutral goal. Additionally, Électricité de France submitted a final plan to construct six EPR-2 reactors, with the vendor yet to be finalized and also announced that 32 900 MWe reactors were approved for expanded life spans from 40 years to 50 years.
- In the United Kingdom (UK), Prime Minster Boris Johnson confirmed plans for all UK electricity to come from low-carbon sources including nuclear and renewables by 2035.
- Germany closed three reactors at the end of 2021 and remains scheduled to close the last three operating reactors at the end of 2022.
- In the US, Exelon's Byron and Dresden plants in Illinois were saved from early closure with the signing of the Climate and Equitable Jobs Act. This comprehensive energy bill included nearly $700 million (US) in new state subsidies over the next five years.
- US President Biden signed the $1.2 trillion bipartisan infrastructure bill that includes $6 billion to support at-risk nuclear plants and support for the US Department of Energy (DOE) with advanced reactors by 2030.
- India's first domestically designed 700 MWe pressurized heavy water reactor at Kakrapar is nearing commercial operation, an important milestone for the country. Three more units of this design are expected to come online in the next few years. The country is targeting an expansion to 22.5 GWe operating by 2031.
- In South Korea, there will be federal elections in March of 2022. The leading presidential candidate, Yoon Seok-youl of the Peoples Power Party is pro nuclear and wants to end the nuclear phase-out. In addition, in January 2022, the current government announced plans to revise its green taxonomy and consider SMRs as eligible for state funding, reversing its stance to drop nuclear projects.
- During September and October Cameco announced signing several non-binding arrangements to evaluate and explore possible opportunities to partner on the development and deployment of SMR and advanced reactor technologies and evaluate opportunities to supply uranium, fuel services and other services.

According to the International Atomic Energy Agency there are currently 439 reactors operating globally and 52 reactors under construction. Several nations are appreciating the clean energy benefits of nuclear power. They have reaffirmed their commitment to it and are developing plans to support existing reactor units and are reviewing their policies to encourage more nuclear capacity. Several other non-nuclear countries have emerged as candidates for new nuclear capacity. In the EU, specific nuclear energy projects have been identified for inclusion under its sustainable financing taxonomy and therefore eligible for access to low-cost financing. Even in countries with phase-out policies, there is growing debate about the role of nuclear power, with public opinion polls showing growing support for it. The growth in demand is not just in the form of new builds, it is medium-term demand in the form of reactor life extensions, and it is near-term growth as early reactor retirements are prevented. And we are seeing momentum building for non-traditional commercial uses of nuclear power around the world such as development of small modular reactors and advanced reactors, with numerous companies and countries pursuing projects.

CURRENTLY UNDER CONSTRUCTION



WORLD OPERABLE REACTOR COUNT



Supply uncertainty

Low uranium prices, government-driven trade policies, and the COVID-19 pandemic have had an impact on the security of supply in our industry. Despite the recent increase in uranium prices, years of underinvestment in new capacity has shifted risk from producers to utilities. In addition to the decisions many producers, including the lowest-cost producers, have made to preserve long-term value by leaving uranium in the ground, there have been a number of unplanned supply disruptions related to the impact of the COVID-19 pandemic and associated supply chain challenges on uranium mining and processing activities. In addition, according to industry transport experts, there is a risk of transport disruptions for Class 7 nuclear material. Uranium is a highly trade-dependent commodity. Adding to security of supply concerns is the role of commercial and state-owned entities in the uranium market, and trade policies that highlight the disconnect between where uranium is produced and where it is consumed. Over 80% of primary production is in the hands of state-owned enterprises, after taking into account the cuts to primary production that have occurred over the last several years. Furthermore, nearly 90% of primary production comes from countries that consume little-to-no uranium, and nearly 90% of uranium consumption occurs in countries that have little-to-no primary production. As a result, government-driven trade policies can be particularly disruptive for the uranium market.

Supply and trade policy highlights

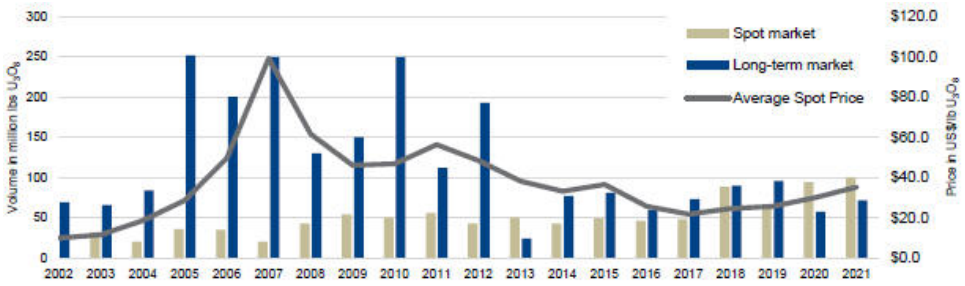
- In early January 2022, Kazakhstan saw the most significant political instability since it became independent in 1991. The events resulted in a state of emergency being declared across the country. With the assistance of the Collective Security Treaty Organization (CSTO), the government restored the order and in the second half of January, the state of emergency was gradually lifted and withdrawal of CSTO forces from Kazakhstan was completed. KAP reported that its operations have been unaffected by these events.
- In its 2021 fourth quarter operations and trading update, KAP confirmed its intent to maintain production levels at 20% below those stipulated in its Sub Soil Use Agreements through 2023. For 2022, production is expected to be between 54.6 million pounds and 57.2 million pounds U_3O_8 (100% basis). It also noted that wellfield development, procurement and supply chain challenges, including inflationary pressure on production materials and reagents, are expected to continue throughout 2022. In addition, it indicated its costs could be impacted by potential changes to the tax code in Kazakhstan and by possible local social funding requests.
- On November 19th, KAP announced the approval of a plan to develop JV Budenovskoye LLP. The plan is for production at Budenovskoye Blocks 6 and 7 of up to 6.5 million pounds U_3O_8 (100% basis) no earlier than 2024, ramping up to 15.6 million pounds U_3O_8 (100% basis) no earlier than 2026. It is owned 51% by KAP and 49% by Stepnogorsk Mining and Chemical Plant LLP. KAP confirmed that the anticipated ramp up production from 2024-2026 is fully committed for supplying Russia under an offtake contract.
- China General Nuclear Power Group acquired a 49% stake in Ortalyk LLP. This KAP subsidiary holds the Central Mynkuduk in situ recovery (ISR) mine with a capacity of about 5.2 million pounds U_3O_8 (100% basis) and the planned Zhalpak ISR mine with capacity of about 2 million pounds U_3O_8 (100% basis).
- Unplanned production disruptions at the Cigar Lake mine and the McClean Lake mill as a precaution due to the COVID-19 pandemic resulted in production for the year being about 6 million pounds (100% basis) below annual licensed capacity. The Cigar Lake mine restarted in mid-April. On July 1 production at the mine was again temporarily suspended as a precaution due to the proximity of a forest fire, but with the risk subsided and all infrastructure intact, operations resumed a short time after.
- ConverDyn's parent, Honeywell, announced a 2023 restart of its UF_6 conversion facility.
- Supply from the Ranger mine ceased in January, as planned, after 40 years in operation. Ranger had been milling about 4 million pounds U_3O_8 per year in recent years.
- Orano's Cominak mine shut in March 2021, as expected, due to depletion of reserves. The mine had been producing about 3 million pounds U_3O_8 per year in recent years.
- In August, the US DOE published a Request for Information to inform the establishment and procurement strategy of a Strategic Uranium Reserve program. The $75 Million (US) appropriated for the program for 2021 was rolled into 2022.

LONG-TERM CONTRACTING CREATES FULL-CYCLE VALUE FOR PROVEN PRODUCTIVE ASSETS

Global population is on the rise, and there is a growing focus on electrification and decarbonization. With the world's need for safe, clean, reliable baseload energy, it is becoming increasingly clear that nuclear power will be an essential part of the clean-energy transition. We remain confident in the future of the nuclear industry. Demand is increasing in the near, medium, and long term with reactor restarts, cancellation of early reactor retirement decisions, life extensions, construction of new reactors, and a growing focus on non-traditional uses of nuclear power.

Like other commodities, the demand for uranium is cyclical. However, unlike other commodities, uranium is not traded in meaningful quantities on a commodity exchange. The uranium market is principally based on bilaterally negotiated long-term contracts covering the annual run-rate requirements of nuclear power plants, with a small spot market to serve discretionary demand. History demonstrates that in general, when prices are rising and high, uranium is perceived as scarce, and a lot of contracting activity takes place with proven and reliable suppliers. The higher prices discovered during this contracting cycle drive investment in higher-cost sources of production, which due to lengthy development timelines, tend to miss the contracting cycle and ramp up after demand has already been captured by proven producers. The new uncommitted supply exposed to the small, discretionary spot market becomes value destructive. The downward pressure on price creates the perception that uranium is abundant, potentially resulting in a failure of long-term price signals. When prices are declining and low, like we have seen over the past number of years, there is no perceived urgency to contract, and contracting activity and investment in new supply drops off. After years of low prices, and a lack of investment in supply, and as the uncommitted material available in the spot market begins to thin, as we are seeing currently, security-of-supply tends to overtake price concerns. Utilities re-enter the long-term contracting market to ensure they have a reliable future supply of uranium to run their reactors.

URANIUM CONTRACTING VOLUMES AND PRICE HISTORY

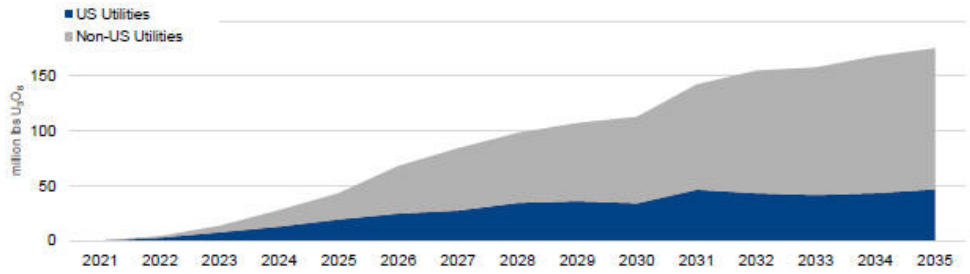


Source: UxC estimates

UxC reports that over the last five years approximately 400 million pounds U_3O_8 equivalent have been locked-up in the long-term market, while approximately 810 million pounds U_3O_8 equivalent have been consumed in reactors. We remain confident that utilities have a growing gap to fill.

We believe the current backlog of long-term contracting presents a substantial opportunity for commercially motivated suppliers like us who are proven reliable suppliers with tier-one productive capacity and a record of honouring our supply commitments. As a low-cost producer, we manage our operations to capture value throughout these price cycles.

UTILITY UNCOVERED REQUIREMENTS
(2021 - 2035)



Source: UxC estimates - December 31, 2021

In our industry, customers do not come to the market right before they need to load nuclear fuel into their reactors. To operate a reactor that could run for more than 60 years, natural uranium and the downstream services have to be purchased years in advance, allowing time for a number of processing steps before a finished fuel bundle arrives at the power plant. At present, we believe there is a significant amount of uranium that needs to be contracted to keep reactors running into the next decade.

UxC estimates that cumulative uncovered requirements are about 1.4 billion pounds to the end of 2035. With the lack of investment over the past decade due to low uranium prices, there is growing uncertainty about where uranium will come from to satisfy growing demand. In fact, utilities have started to secure supply under long-term contracts, which has resulted in a 22% increase in the long-term price of uranium over the past year.

As utilities' uncovered requirements continue to grow, primary and secondary supplies decline, and as continued demand for uranium from producers and other intermediaries leads to a thinning of the material available in the spot market, we expect there will be increased competition to secure uranium under long-term contracts on terms that will ensure the availability of reliable primary supply to meet growing demand.

Supply has become less certain as a result of low prices, production curtailments, lack of investment, end of reserve life, unplanned production disruptions, supply chain challenges, shrinking secondary supplies and trade policy issues. As a result, we believe we are starting to see a market transition that is shifting risk from the suppliers to the users of uranium fuel. We will continue to take the actions we believe are necessary to position the company for long-term success. Therefore, we will continue to align our production decisions with market signals and our contract portfolio. We will undertake contracting activity which is intended to ensure we have adequate protection under our contract portfolio, while maintaining exposure to the rewards that come from having uncommitted, low-cost supply to place into a strengthening market.

Our strategy

We are a pure-play nuclear fuel investment, focused on providing nuclear fuel products across the fuel cycle, on providing a clean source of energy, and on taking advantage of the long-term growth we see coming in our industry. Our strategy is set within the context of what we believe is a transitioning market environment, where increasing populations, and a growing focus on electrification and decarbonization are expected to durably strengthen the long-term fundamentals for our industry. Nuclear energy must be a central part of the solution to the world's shift to a low-carbon, climate resilient economy. It is an option that can provide the power needed, not only reliably, but also safely and affordably, and in a way that will help avoid some of the worst consequences of climate change.

Our strategy is to capture full-cycle value by:

- remaining disciplined in our contracting activity, building a balanced portfolio in accordance with our contracting framework
- profitably producing from our tier-one assets and aligning our production decisions with our contract portfolio and market signals
- being financially disciplined to allow us to self-manage risk
- exploring other emerging and non-traditional opportunities within the fuel cycle, which align with our commitment to responsibly and sustainably manage our business and increase our contributions to global climate change solutions

We expect our strategy will allow us to increase long-term value, and we will execute it with an emphasis on safety, people and the environment.

URANIUM

Uranium production is central to our strategy, as it is the biggest value driver of the nuclear fuel cycle and our business. We have operating and idle tier-one assets that are licensed, permitted, long-lived, and are proven reliable and have expansion capacity. These tier-one assets are backed up by idle tier-two assets and what we think is the best exploration portfolio that leverages existing infrastructure.

We are focused on protecting and extending the value of our contract portfolio, on aligning our production decisions with our contract portfolio and market opportunities thereby preserving the value of our lowest cost assets, on maintaining a strong balance sheet, and on efficiently managing the company. We have undertaken a number of deliberate and disciplined actions, including a focus on digitization and automation to allow us to operate our assets with more flexibility. In 2021, these actions resulted in:

- generation of $458 million in cash from operations
- a year-end balance of $1.3 billion in cash and cash equivalents and short-term investments on our balance sheet
- 70 million pounds of uranium added to our long-term contract portfolio since the beginning of 2021
- a more flexible asset base that allows us to continue to align our production with market conditions and our contract portfolio

FUEL SERVICES

Our fuel services division is a source of profit and supports our uranium segment while allowing us to vertically integrate across the fuel cycle.

We are focused on securing new long-term contracts that will allow us to continue to profitably produce and consistently support the long-term needs of our customers.

In addition, we are pursuing non-traditional markets for our UO_2 and fuel fabrication business and have been actively securing new contracts for reactor components to support refurbishment of Canadian reactors.

Our focus will continue to be on maintaining and optimizing the profitability of this segment of our business.

OTHER FUEL CYCLE INVESTMENTS

We continue to explore other opportunities within the nuclear fuel cycle. In particular, we are interested in the second largest value driver of the fuel cycle, enrichment. Having operational control of uranium production, conversion, and enrichment facilities would offer operational synergies that could enhance profit margins.

In January 2021, we increased our interest in Global Laser Enrichment LLC (GLE) from 24% to 49%. We are the commercial lead for the project and have an option to attain a majority interest of up to 75% ownership. GLE is testing a third-generation enrichment technology that, if successful, will use lasers to:

- re-enrich depleted uranium tails left over as a by-product, aiding in the responsible clean-up of enrichment facilities no longer in operation
- produce high-assay low-enriched uranium (HALEU), the primary fuel stock for the majority of small modular reactors and advanced reactor designs proceeding through development
- produce low-enriched uranium for the world's existing and future fleet of large-scale light-water reactors

Additionally, we signed a number of non-binding arrangements to explore several areas of cooperation to advance the commercialization and deployment of small modular reactors in Canada and around the world.

Building a balanced portfolio

The purpose of our contracting framework is to deliver value. Our approach is to secure a solid base of earnings and cash flow by maintaining a balanced contract portfolio that optimizes our realized price.

Contracting decisions need to consider the uranium market structure, the nature of our competitors, and the current market environment. The vast majority of run-rate fuel requirements are procured under long-term contracts. The spot market is thinly-traded where utilities pick-up small, discretionary volumes. This market structure is reflective of the baseload nature of nuclear power and the relatively small proportion of the overall operating costs the fuel represents compared to other sources of baseload electricity. Additionally, about half of the fuel supply is not sensitive to market prices and is typically supplied by diversified mining companies that produce uranium as a by-product or state-owned entities with production volume strategies or ambitions to serve state nuclear power ambitions with low-cost fuel supplies. We evaluate our strategy in the context of our market environment and continue to adjust our actions in accordance with our contracting framework:

- First, we will not produce from our tier-one assets to sell into an oversupplied spot market. We will not produce from these assets unless we can deliver our tier-one pounds under long-term contracts that provide an acceptable rate of return.
- Second, we do not intend to build an inventory of excess uranium. Excess inventory serves to contribute to the sense that uranium is abundant and creates an overhang on the market, and it ties up working capital on our balance sheet.
- Third, in addition to our committed sales, we will capture end-user demand in the market where we think we can obtain value. We will take advantage of opportunities the market provides, where it makes sense from an economic, logistical and strategic point of view. Those opportunities may come in the form of spot, mid-term or long-term demand, and will be additive to our current committed sales.
- Fourth, once we capture demand, we will decide how to best source material to satisfy that demand. Depending on the timing and volume of our production, purchase commitments, and our inventory volumes, this means we may be active buyers in the market in order to meet our demand obligations.
- And finally, in general, if we choose to source material to meet demand by purchasing it, we expect the price of that material will be more than offset by the leverage to market prices in our sales portfolio over the long-term.

In addition to this framework, our contracting decisions always factor in who the customer is, our desire for regional diversification, the product form, and logistical factors.

Ultimately, our goal is to protect and extend the value of our contract portfolio on terms that recognize the value of our assets and pricing mechanisms that provide adequate protection when prices go down and allow us to benefit when prices rise. We believe using this framework will allow us to create long-term value. Our focus will continue to be on ensuring we have the financial capacity to execute on our strategy and self-manage risk.

LONG-TERM CONTRACTING

Uranium is not traded in meaningful quantities on a commodity exchange. Utilities have historically bought the majority of their uranium and fuel services products under long-term contracts that are bilaterally negotiated with suppliers, and they have met the rest of their needs on the spot market. We sell uranium and fuel services directly to nuclear utilities around the world as uranium concentrates, UO_2 and UF_6, conversion services, or fuel fabrication. We have a solid portfolio of long-term sales contracts that reflect the long-term, trusting relationships we have with our customers.

In general, we are always active in the market, buying and selling uranium when it is beneficial for us and in support of our long-term contract portfolio. We undertake activity in the spot and term markets prudently, looking at the prices and other business factors to decide whether it is appropriate to purchase or sell into the spot or term market. Not only is this activity a source of profit, it gives us insight into underlying market fundamentals.

We deliver large volumes of uranium every year, therefore our net earnings and operating cash flows are affected by changes in the uranium price. Market prices are influenced by the fundamentals of supply and demand, market access and trade policy issues, geopolitical events, disruptions in planned supply and demand, and other market factors.

The objectives of our contracting strategy are to:

- maximize realized price while providing some certainty for our future earnings and cash flow
- focus on meeting the nuclear industry's growing annual uncovered requirements with our tier-one production
- establish and grow market share with strategic customers

We have a portfolio of long-term contracts that have a mix of base-escalated pricing and market-related pricing mechanisms, including provisions to protect us when the market price is declining and allow us to benefit when market prices go up. This is a balanced and flexible approach that allows us to adapt to market conditions, put a floor on our average realized price and deliver the best value over the long term.

This approach has allowed us to realize prices higher than the market prices during periods of weak uranium demand, and we expect it will enable us to realize increases linked to higher market prices in the future.

Base-escalated (fixed prices escalated over the term of the contract) contracts for uranium: typically use a pricing mechanism based on a term-price indicator at the time the contract is accepted and escalated over the term of the contract.

Market-related contracts for uranium: are different from base-escalated contracts in that the pricing mechanism may be based on either the spot price or the long-term price, and that price is as quoted at the time of delivery rather than at the time the contract is accepted. These contracts sometimes provide for discounts, and often include floor prices and/or ceiling prices, which are usually escalated over the term of the contract.

Fuel services contracts: the majority of our fuel services contracts use a base-escalated mechanism per kgU and reflect the market at the time the contract is accepted.

OPTIMIZING OUR CONTRACT PORTFOLIO

We work with our customers to optimize the value of our contract portfolio. With respect to new contracting activity, there is often a lag from when contracting discussions begin and when contracts are executed. With our large pipeline of business under negotiation in our uranium segment, and a value driven strategy, we continue to be strategically patient in considering the commercial terms we are willing to accept. Much of our pending business is off-market but we are starting to see more on-market activity emerge. We remain confident that we can add acceptable new sales commitments to our portfolio of long-term contracts to underpin the long-term operation of our productive capacity and capture long-term value.

Given our view that uranium prices need to rise to ensure the availability of long-term supply to fuel growing demand for safe, clean, reliable, carbon-free nuclear energy, our preference today is to sign long-term contracts with market-related pricing mechanisms. Unsurprisingly, we believe our customers too expect prices to rise and prefer to lock-in today's prices, with a fixed-price mechanism. Our goal is to balance all these factors, along with our desire for customer and regional diversification, with product form, and logistical factors to ensure we have adequate protection and will benefit from higher prices under our contract portfolio, while maintaining exposure to the rewards that come from having low-cost supply to deliver into a strengthening market.

With respect to our existing contracts, at times we may also look for opportunities to optimize the value of our portfolio. In cases where a customer is seeking relief under an existing contract due to a challenging policy, operating, or economic environment, or we deem the customer's long-term demand to be at risk, we may consider options that are beneficial to us and allow us to maintain our customer relationships.

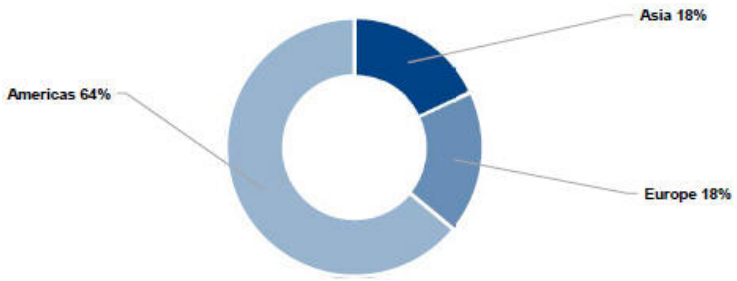
CONTRACT PORTFOLIO STATUS

We have commitments to sell over 160 million pounds of U_3O_8 with 34 customers worldwide in our uranium segment, and over 48 million kilograms as UF_6 conversion with 30 customers worldwide in our fuel services segment.

Customers – U_3O_8:

Five largest customers account for 59% of commitments

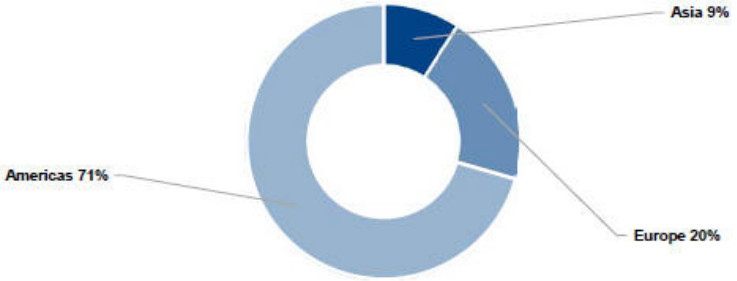
COMMITTED U_3O_8 SALES BY REGION



Customers – UF_6 conversion:

Five largest customers account for 52% of commitments

COMMITTED UF_6 SALES BY REGION



MANAGING OUR CONTRACT COMMITMENTS

To meet our delivery commitments and to mitigate risk, we have access to a number of sources of supply, which includes uranium obtained from:

- our existing production
- purchases under our JV Inkai agreement, under long-term agreements and in the spot market
- our inventory in excess of our working requirements
- product loans

We allow sales volumes to vary year-to-year depending on:

- the level of sales commitments in our long-term contract portfolio
- our production volumes
- purchases under existing and/or new arrangements
- discretionary use of inventories
- market opportunities

Our supply discipline

As spot is not the fundamental market, true value is captured under a long-term contract portfolio and is measured over the full commodity cycle. Therefore, we align our uranium production decisions with our contract commitments and market opportunities to avoid creating an oversupply in a thinly-traded spot market or building an excess inventory. In accordance with market conditions, and to mitigate risk, we evaluate the optimal mix of our production, inventory and purchases in order to satisfy our contractual commitments and in order to return the best value possible over the entire commodity cycle. During a prolonged period of uncertainty, this could mean leaving our uranium in the ground. As a result, since 2016, we have left almost 115 million pounds of uranium in the ground (100% basis) through our supply curtailment activities. We have purchased more than 55 million pounds in the spot market and in 2018 we drew down our inventory by almost 20 million pounds. That totals about 190 million pounds (100% basis) of uranium that we have pulled out of the market.

Today we believe we are in the early stages of a uranium market transition, driven by the growing demand for nuclear energy and the increasingly undeniable conclusion that it must be an essential part of the clean-energy transition. As the market continues to transition, we expect to continue to place our uranium under long-term contracts and to meet rising demand with production from our best margin operations. We will continue to adjust our actions based on market signals and our contract portfolio with the intent of being able to self-manage risk, and to capture long-term value.

With the improvements in the market and the new long-term contracts we have put in place, it is time for us to proceed with the next phase of our supply discipline strategy. Continuing with our indefinite supply discipline, starting in 2024, we plan to be operating at about 40% below productive capacity (100% basis) compared to 75% below productive capacity (100% basis) in 2021. To achieve this, we will begin preparing McArthur River/Key Lake to ensure it is operationally ready to reach our 2024 production plan. A return to production at McArthur River/Key Lake will significantly improve our financial performance by allowing us to source more of our committed sales from the lower-cost produced pounds and we will no longer be required to expense care and maintenance costs directly to cost of sales. However, until we achieve a reasonable production rate, we expect to incur between $15 million to $17 million per month in operational readiness costs, which will be expensed directly to cost of sales. This is not an end to our supply discipline. Over the course of 2022 and 2023, we will undertake all of the activities necessary to ensure we are operationally ready to achieve the 2024 production plan of 15 million pounds (100% basis) per year, 40% below the annual licensed capacity of the operation. Once we reach the planned production at McArthur River/Key Lake, starting in 2024, we plan to reduce production at Cigar Lake to 13.5 million pounds (100% basis) per year, 25% below its annual licensed capacity. Extending the mine life at Cigar Lake by aligning production with the market opportunities and our contract portfolio is consistent with our tier-one strategy and is expected to allow more time to evaluate the feasibility of extending the mine life beyond the current reserve base while continuing to supply ore to Orano's McClean Lake mill. This will remain our production plan until we see further improvements in the uranium market and contracting progress, once again demonstrating that we are a responsible supplier of uranium fuel.

Managing our costs

PRODUCTION COSTS

In order to operate efficiently and cost-effectively, we manage operating costs and improve plant reliability by prudently investing in production infrastructure, new technology, and business process improvements. Like all mining companies, our uranium segment is affected by the cost of inputs such as labour and fuel.

2021 URANIUM OPERATING COSTS BY CATEGORY



* Production supplies include reagents, fuel and other items. Contracted services include utilities and camp costs, air charters, mining and maintenance contractors and security and ground freight.

Over the last two years the annual cash cost of production at Cigar Lake has been slightly higher than the estimated life of mine cost of between $15 and $16 per pound, as a result of the impacts of COVID-19. See *2021 financial results by segment – Uranium* starting on page 49 for more information. In 2022 and 2023, our cash production costs may continue to be affected by the impacts of the COVID-19 pandemic, as well as timing and rate of production at the McArthur River/Key Lake operation. Once we achieve 2024 planned production, the average unit operating costs at Cigar Lake may increase as production declines.

Operating costs in our fuel services segment are mainly fixed. In 2021, labour accounted for about 51% of the total. The largest variable operating cost is for zirconium, followed by anhydrous hydrogen fluoride, and energy (natural gas and electricity).

We are currently undertaking a corporate-wide initiative to accelerate innovation and the adoption of advanced digital and automation technologies to improve efficiency and operational flexibility, and to further reduce cost.

For example, we are implementing energy management information systems to understand where we use energy so we can make changes to become more efficient. We have established a cross-functional working group to further study the transition opportunities and risks to our operations. This working group is analyzing the costs and benefits of various potential projects to achieve transformational reductions in emissions.

CARE AND MAINTENANCE COSTS AND OPERATIONAL READINESS COSTS

In 2022, we expect to incur between $50 million and $60 million in care and maintenance costs related to the suspension of production at our Rabbit Lake mine and mill, and our US operations. These operations are higher-cost, and with plenty of idle tier-one capacity and tier-one expansion capacity globally that can come back online relatively quickly, the restart horizon is less certain. We continue to evaluate our options in order to minimize these costs.

At the McArthur River/Key Lake operation we expect to incur between $15 million and $17 million per month in operational readiness costs which will be expensed directly to cost of sales until we achieve a reasonable production rate.

PURCHASES AND INVENTORY COSTS

Our costs are also affected by the purchases of uranium and conversion services we make under long-term contracts and on the spot market.

To meet our delivery commitments, we make use of our mined production, inventories, purchases under long-term contracts, purchases we make on the spot market and product loans. In 2022, the price for the majority of our purchases will be quoted at the time of delivery.

The cost of purchased material may be higher or lower than our other sources of supply, depending on market conditions. The cost of purchased material affects our cost of sales, which is determined by calculating the average of all of our sources of supply, including opening inventory, production, and purchases, and adding royalties, selling costs, and care and maintenance costs. If market prices exceed our cost of inventory, we expect the cost of sales may be impacted.

FINANCIAL IMPACT

As greater certainty returns to the uranium market, our view is that uranium prices will need to reflect the cost of bringing on new primary production to meet growing demand.

The deliberate and disciplined actions we have taken to reduce supply and streamline operations have come with near-term costs like care and maintenance costs and purchase costs higher than our production costs, but we believe the benefit over the long term will far outweigh those costs.

We believe our actions have helped position the company to self-manage risk and will reward shareholders for their continued patience and support of our strategy to build long-term value.

Capital allocation – focus on value

Delivering returns to our long-term shareholders is a top priority. While we navigate by our investment-grade rating, we continually evaluate our investment options to ensure we allocate our capital in a way that we believe will:

- sustain our assets and grow our business in a manner that we expect will create the greatest long-term value
- maintain a strong balance sheet that will allow us to execute on our strategy and mitigate risk
- allow us to sustainably execute on our dividend while considering the cyclical nature of our earnings and cash flow

To deliver value, free cash flow must be productively reinvested in the business or returned to shareholders, which requires good execution and disciplined allocation. Our decisions are based on the run rate of our business, not one-time events. Cash on our balance sheet that exceeds value-adding growth opportunities and/or is not needed to self-manage risk should be returned to shareholders.

We start by determining how much cash we have to invest (investable capital), which is based on our expected cash flow from operations minus expenses we consider to be a higher priority, such as dividends and financing costs, and could include others. This investable capital can be reinvested in the company or returned to shareholders.

REINVESTMENT

We have a multidisciplinary capital allocation team that evaluates all possible uses of investable capital.

If a decision is made to reinvest capital in sustaining, capacity replacement, or growth, all opportunities are ranked and only those that meet the required risk-adjusted return criteria are considered for investment. We also must identify, at the corporate level, the expected impact on cash flow, earnings, and the balance sheet. All project risks must be identified, including the risks of not investing. Allocation of capital only occurs once an investment has cleared these hurdles.

This may result in some opportunities being held back in favour of higher return investments and should allow us to generate the best return on investment decisions when faced with multiple prospects, while also controlling our costs. If there are not enough good investment prospects internally or externally, this may result in residual investable capital, which we would then consider returning directly to shareholders.

RETURN

We believe in returning cash to shareholders but are also focused on protecting the company and rewarding those shareholders who understand and support our strategy to build long-term value. If we have excess cash and determine the best use is to return it to shareholders, we can do that through a share repurchase or dividend—an annual dividend, one-time supplemental dividend or a progressive dividend. When deciding between these options, we consider a number of factors, including the nature of the excess cash (one time or cash generated by our business operations), growth prospects for the company, and growth prospects for the industry.

Share buyback: If we are at our tier-one run rate and are generating excess cash while there were few or no growth prospects for the company or the industry, then a share buyback might make sense. However, our current view is that the long-term fundamentals for Cameco and the industry remain strong.

Dividend: The amount and type of dividend paid, annual, progressive or one-time supplemental is evaluated by our board of directors with careful consideration of our cash flow, financial position, strategy, and other relevant factors including appropriate alignment with the cyclical nature of our earnings.

IN ACTION

Until such time as we return to our tier-one cost structure, the objective of our capital allocation will be to ensure we have the financial capacity to execute on our strategy, while navigating by our investment-grade rating through close management of our balance sheet metrics.

In today's transitioning uranium market environment, we are taking a cautious and prudent approach to capital allocation. We are not yet at our tier-one run-rate, and, despite rulings from the courts in our favour, our dispute with CRA continues. With the metrics that inform an investment-grade rating in mind, we have taken steps to allow us to deliver long-term value and self-manage risk by:

- responsibly managing our sources of supply by aligning our production decisions with market conditions and our contract portfolio, and building a more flexible tier-one asset base
- exercising strategic patience when contracting
- restructuring our activities to reduce our operating, capital, and general and administrative spending
- reducing our total debt and restructuring our debt maturity profile
- aligning our dividend with the run-rate of our business and with consideration for the cyclical nature of our earnings and cash flow
- focusing on technology and its applications to improve efficiency and reduce costs across the organization, with a particular focus on innovation and accelerating the adoption of advanced digital and automation technologies

As the market continues to transition, we will focus on improving operational effectiveness across our operations, including the use of digital and automation technologies with a particular goal of reducing operating costs and increasing operational flexibility. Any opportunities will be rigorously assessed before an investment decision is made. We will invest to ensure we are able to meet our 2024 production plan.

If we get clarity on our CRA dispute without a continued and sustained market transition, which generates a one-time cash infusion, we may focus on the debt portion of our ratings metrics. This may mean greater emphasis on reducing the debt on our balance sheet. However, if the market continues to transition and higher uranium prices are flowing through our contract portfolio, and we are able to increase our portfolio of long-term contracts with acceptable pricing mechanisms, the earnings portion of our rating metrics are expected to improve. In that scenario, reducing debt would not be the priority. Our priorities would be to invest in ramping up and expanding production at our tier-one assets, and if warranted leveraging our existing tier-two assets and brownfield infrastructure, turning to value-adding growth opportunities including further vertical integration and returning excess cash to shareholders.

SHARES AND STOCK OPTIONS OUTSTANDING

At February 7, 2022, we had:

- 398,289,260 common shares and one Class B share outstanding
- 3,228,006 stock options outstanding, with exercise prices ranging from $11.32 to $26.81

DIVIDEND

In 2021, our board of directors declared a dividend of $0.08 per common share, which was paid December 15, 2021.

As a result of our deliberate actions and conservative financial management we have been and continue to be resilient. With a strong balance sheet, improving fundamentals for our business, a growing contract portfolio, and our decision to prepare McArthur River/Key Lake to be operationally ready, we have line of sight to a significant improvement in our future earnings and cash flow. Therefore, we are increasing our 2022 annual dividend by 50%.

An annual dividend of $0.12 per common share has been declared, payable on December 15, 2022 to shareholders of record on November 30, 2022. The decision to declare an annual dividend by our board is reviewed regularly and will be based on our cash flow, financial position, strategy and other relevant factors including appropriate alignment with the cyclical nature of our earnings.

Our ESG principles and practices: A key part of our strategy, reflecting our values

We are committed to delivering our products responsibly. We integrate environmental, social and governance (ESG) principles and practices into every aspect of our business, from our objectives and approach to compensation, to our overall corporate strategy and day-to-day operations. We seek to be transparent with our stakeholders, keeping them updated on the risks and opportunities that we believe may have a significant impact on our ability to add long-term value. We recognize the importance of integrating certain ESG factors, such as safety performance, a clean environment and supportive communities, into our executive compensation strategy as we see success in these areas as critical to the long-term success of the company.

Our 2020 ESG report, published in October of 2021, marked an evolution in our sustainability reporting. We adopted the relevant ESG performance indicators issued by the Sustainability Accounting Standards Board (SASB) and have taken the first steps towards addressing the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), which we expect to continue to progress. The report sets out our strategy and the policies and programs we use to govern and manage ESG issues that are important to our stakeholders. In addition to SASB and TCFD, the report provides key ESG performance indicator data based on the Global Reporting Initiative's Sustainability Framework as well as some unique corporate indicators, to measure and report our performance on environmental, social and economic impacts in the areas we believe have a significant impact on our sustainability in the long-term. This is our ESG report card to our stakeholders. You can find our report at cameco.com/about/sustainability.

Environment

We recognize and embrace our responsibility to manage our activities with care for the protection of environmental resources. Protection of the environment is one of our highest corporate priorities during all stages of our activities from exploration through development, operations, and decommissioning. Environmental stewardship is embedded in how we operate.

We are guided by our safety, health, environment and quality policy and associated programs that are designed to minimize our impact on air, land, and water and to conserve the biodiversity of surrounding ecosystems. Across our operations, we comply with strict regulations and have systems in place to monitor and mitigate our impacts. In addition to our own environmental monitoring, we collaborate with local communities around our operations to give confidence to them that traditionally harvested foods remain safe to eat, and water remains safe to drink.

Climate change: Nuclear power is part of the solution

We believe the reduction of carbon and greenhouse gas (GHG) emissions is important and necessary in Canada and around the world, and that nuclear power must be a central part of the solution to the world's shift to a low-carbon, climate-resilient economy. As one of the world's largest producers of the uranium needed to fuel nuclear reactors, we believe there is a significant opportunity for us to be part of the solution to combat climate change. We are a constructive partner in the battle against climate change. We enable vast emissions reductions that can be achieved through nuclear power and are committed to transforming our own low GHG emissions footprint in our ambition to reach net-zero emissions while delivering significant long-term business value.

We recognize that climate change, including shifts in temperature, precipitation and more frequent severe weather events could affect our operations in a range of possible ways. We have established a working group composed of representatives from across the organization to further study the climate-related opportunities and risks for our business. For example, this working group has conducted a preliminary analysis of the increase in operating costs that could occur at our Canadian facilities (in the short-, medium-, and long-term) as a result of increased GHG pricing and regulation. In addition, in 2022, we are undertaking a physical climate risk assessment with a third-party expert.

Social

Our relationships with our workforce, Indigenous Peoples, and local communities are fundamental to our success. The safety and protection of our workforce and the public is our top priority in our assessment of risk and planning for safe operations and product transport. To deliver on our vision, we invest in programs to attract and retain a diverse and skilled workforce that better reflects the communities in which we operate and to increase the participation of underrepresented groups in trades and technical positions. We want to build a workforce that is dedicated to continuous improvement and shares our values.

The importance of our workers and Indigenous Peoples working and living near our operations is exemplified by our ongoing commitment to help manage the impacts of the COVID-19 pandemic on our workforce, their families and their communities.

Our response to the COVID-19 pandemic

We continue to closely monitor and adapt to the developments related to the outbreak of COVID-19. Throughout the pandemic, our priority has been to protect the health and well-being of our workers, including employees and contractors, their families, and their communities. Early in 2020, we activated our Corporate Crisis Management Plan, which includes our Pandemic Plan, and our various Local and Corporate Business Continuity Plans.

Following the precautions and restrictions enacted by all levels of government where we operate, and, considering the unique circumstances at each of our operating sites, we proactively implemented a number of measures and made a number of decisions to ensure a safe working environment for all our workers. In addition to all the safety protocols and measures put in place in 2020, in 2021 we:

- suspended production at Cigar Lake for a second time for about four months starting in December 2020
- introduced a requirement that all employees, contractors and visitors be vaccinated across all our operations and offices
- developed a hybrid work model for employees working from home that balances time in the office and remote working in accordance with business needs

The proactive decisions we have made, and continue to make, to protect our workers and to help slow down the spread of the COVID-19 virus are necessary decisions that are consistent with our values. Even while production was suspended, we kept and continued to pay all our employees. The health and safety of our workers, their families and their communities continues to be the priority in all our plans, which will align with the guidance of the relevant health authorities where we operate.

Governance: Sound governance is the foundation for strong performance

We believe that sound governance is the foundation for strong corporate performance. Our diverse and independent board of directors plays an important role in providing oversight of the management team and providing direction for our strategy and business affairs, including the integration of ESG principles throughout the company. The board guides the company to operate as a sustainable business, to optimize financial returns while effectively managing risk, and to conduct business in a way that is transparent, independent, and ethical.

The board has formal governance guidelines that set out our approach to governance and the board's governance role and practices. The guidelines ensure we comply with all of the applicable governance rules and legislation in Canada and the United States, conduct ourselves in the best interests of our stakeholders, and meet industry best practices. The guidelines are reviewed and updated regularly.

Our corporate governance framework includes an established and recognized management system that describes the policies, processes and procedures we use to help us fulfill all the tasks required to achieve our objectives and strategy. It sets out our vision, values, and measures of success. It speaks to our strategic planning process, leadership alignment and accountability, compliance and assessment, people and culture, process identification and work management, risk management, communications and stakeholder support, knowledge and information management, change management, problem identification and resolution, and continual improvement.

OUR VISION

Our vision – "Energizing a clean-air world" – recognizes that we have an important role to play in enabling the vast reductions in global greenhouse gas emissions required to achieve a resilient net-zero carbon economy. We support climate action that is consistent with the ambition of the Paris Agreement and the Canadian government's commitment to the agreement to limit global temperature rise to less than 2°C and we know that this means the world needs to reach net-zero emissions by 2050 or sooner. The uranium we produce is used around the world in the generation of safe, carbon-free, affordable, base-load nuclear power. As we seek to achieve our vision, we will do so in a manner that reflects our values. We believe we have the right strategy to achieve our vision and are committed to our efforts to transform our own, already low, greenhouse gas footprint in our ambition to reach net-zero emissions, while identifying and addressing the ESG risks and opportunities that we believe may have a significant impact on our ability to add long-term value for our stakeholders.

COMMITTED TO OUR VALUES

Our values are discussed below and are at the core of everything we do and define who we are as a company. They are:

- safety and environment
- people

- integrity
- excellence

Safety and Environment

The safety of people and protection of the environment are the foundations of our work. All of us share in the responsibility of continually improving the safety of our workplace and the quality of our environment.

We are committed to keeping people safe and conducting our business with respect and care for both the local and global environment.

People

We value the contribution of every employee and we treat people fairly by demonstrating our respect for individual dignity, creativity and cultural diversity. By being open and honest, we achieve the strong relationships we seek.

We are committed to developing and supporting a flexible, skilled, stable and diverse workforce, in an environment that:

- attracts and retains talented people and inspires them to be fully productive and engaged
- encourages relationships that build the trust, credibility and support we need to grow our business

Integrity

Through personal and professional integrity, we lead by example, earn trust, honour our commitments and conduct our business ethically.

We are committed to acting with integrity in every area of our business, wherever we operate.

Excellence

We pursue excellence in all that we do. Through leadership, collaboration and innovation, we strive to achieve our full potential and inspire others to reach theirs.

Risk and Risk Management

Our board of directors oversee management's implementation of appropriate risk management processes and controls. We have a Risk Policy that is supported by our formal Risk Management Program.

Our Risk Management Program involves a broad, systematic approach to identifying, assessing, monitoring, reporting and managing the significant risks we face in our business and operations, including consideration of ESG and climate-related risks that could impact our four measures of success. The program establishes clear accountabilities for employees throughout the company to take ownership of risks specific to their area and to effectively manage those risks. The program is reviewed annually to ensure that it continues to meet our needs.

We use a common risk matrix throughout the company. Any risk that has the potential to significantly affect our ability to achieve our corporate objectives or strategic plan is considered an enterprise risk and is brought to the attention of senior management and the board.

See *Managing the risks*, starting on page 58, for a discussion of the risks, that generally apply to all of our operations and advanced uranium projects, and that could have a material impact on business in the near term. We also recommend you review our most recent annual information form, which includes a discussion of other material risks that could have an impact on our business.

Measuring our results

TARGETS AND METRICS: THE LINK BETWEEN ESG FACTORS AND EXECUTIVE PAY

Each year, we set corporate objectives that are aligned with our strategic plan. These objectives fall under our four measures of success: outstanding financial performance, safe, healthy and rewarding workplace, clean environment and supportive communities. Performance against specific targets under these objectives forms the foundation for a portion of annual employee and executive compensation. See our most recent management proxy circular for more information on how executive compensation is determined.

Our targets for 2021 continue to reflect the operational strategic actions that we are taking. As such, we do not believe our financial performance (earnings and cash flow) reflects our long-term run rate performance. Despite the impact on financial results, we believe that the strategic actions we are taking will help to pave the way to stronger financial performance over time, and we will not compromise our commitment to safety, people and our environment.

2021 OBJECTIVES[1]	TARGET	RESULTS
OUTSTANDING FINANCIAL PERFORMANCE		
Earnings measure	Achieve targeted adjusted net earnings.	• adjusted net earnings was below target
Cash flow measure	Achieve targeted cash flow from operations (before working capital changes).	• cash flow from operations was slightly below target
SAFE, HEALTHY AND REWARDING WORKPLACE		
Workplace safety measure	Strive for no injuries at all Cameco-operated sites. Maintain a long-term downward trend in combined employee and contractor total recordable injury rate while achieving targets on specified leading indicators.	• a new performance record was set for the fourth year in a row. TRIR improved significantly by about 25% relative to 2020, exceeding the 2021 improvement target • performance of the leading indicators exceeded the targets
CLEAN ENVIRONMENT		
Environmental performance measures	Achieve divisional environmental aspect improvement targets.	• performance was within the targeted range • there were no significant environmental incidents in 2021
SUPPORTIVE COMMUNITIES		
Stakeholder support measure	Enhance the skill set of Residents of Saskatchewan's North for changing industrial environments	• performance exceeded the target

1 Detailed results for our 2021 corporate objectives and the related targets will be provided in our 2022 management proxy circular prior to our Annual Meeting of Shareholders on May 10, 2022.

2022 objectives

OUTSTANDING FINANCIAL PERFORMANCE

- Achieve targeted financial measures focused on controlling costs and generating cash.

SAFE, HEALTHY AND REWARDING WORKPLACE

- Improve workplace safety performance at all sites.

CLEAN ENVIRONMENT

- Improve environmental performance at all sites.

SUPPORTIVE COMMUNITIES

- Build and sustain strong stakeholder support for our activities.

Financial results

This section of our MD&A discusses our performance, financial condition and outlook for the future.

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2021 consolidated financial results

This section of our MD&A discusses our performance, financial condition and outlook for the future.

In the third quarter, we determined that NUKEM no longer meets the criteria for being considered a segment and concluded that it was appropriate to include NUKEM's results with our uranium and fuel services segments. The purchase and sale of enriched uranium product and separative work units will continue to be reported in "other". Comparative information has been adjusted. See note 28 for more information.

HIGHLIGHTS DECEMBER 31 ($ MILLIONS EXCEPT WHERE INDICATED)	2021	2020	2019	CHANGE FROM 2020 TO 2021
Revenue	**1,475**	1,800	1,863	(18)%
Gross profit	**2**	106	242	(98)%
Net earnings (loss) attributable to equity holders	**(103)**	(53)	74	(94)%
$ per common share (basic)	**(0.26)**	(0.13)	0.19	(92)%
$ per common share (diluted)	**(0.26)**	(0.13)	0.19	(92)%
Adjusted net earnings (loss) (non-IFRS, see page 33)	**(98)**	(66)	41	(48)%
$ per common share (adjusted and diluted)	**(0.25)**	(0.17)	0.10	(47)%
Cash provided by operations	**458**	57	527	>100%

Net earnings

The following table shows what contributed to the change in net earnings in 2021 compared to 2020 and 2019.

($ MILLIONS)		2021	2020	2019
Net earnings (losses) - previous year		**(53)**	**74**	**166**
Change in gross profit by segment				
(we calculate gross profit by deducting from revenue the cost of products and services sold, and depreciation and amortization (D&A), net of hedging benefits)				
Uranium	Lower sales volume	(4)	(4)	(27)
	Higher (lower) realized prices ($US)	5	25	(133)
	Foreign exchange impact on realized prices	(72)	14	35
	Lower (higher) costs	(55)	(169)	9
	change – uranium	(126)	(134)	(116)
Fuel services	Higher (lower) sales volume	1	(4)	13
	Higher (lower) realized prices ($Cdn)	23	21	(11)
	Lower (higher) costs	(2)	(10)	28
	change – fuel services	22	7	30
Other changes				
Lower (higher) administration expenditures		17	(20)	17
Lower exploration expenditures		3	3	6
Change in reclamation provisions		32	(21)	57
Change in gains or losses on derivatives		(24)	5	113
Change in foreign exchange gains or losses		(14)	33	(45)
Change in earnings from equity-accounted investments		32	(9)	13
Redemption of Series E debentures in 2020		24	(24)	—
Canadian Emergency Wage Subsidy		(16)	37	—
Arbitration award in 2019 related to TEPCO contract		—	(52)	52
Gain on sale of interest in Wheeler River Joint Venture in 2018		—	—	(17)
Gain on restructuring of JV Inkai in 2018		—	—	(49)
Gain on customer contract restructuring in 2018		—	—	(6)
Sale of exploration properties in 2018		—	—	(7)
Reversal of tax provision in 2018 related to CRA dispute		—	—	(61)
Change in income tax recovery or expense		15	47	(126)
Other		(15)	1	47
Net earnings (losses) - current year		**(103)**	**(53)**	**74**

Non-IFRS measures

ADJUSTED NET EARNINGS

Adjusted net earnings (ANE) is a measure that does not have a standardized meaning or a consistent basis of calculation under IFRS (non-IFRS financial measure). We use this measure as a more meaningful way to compare our financial performance from period to period. Adjusted net earnings is our net earnings attributable to equity holders, adjusted to better reflect the underlying financial performance for the reporting period. We believe that, in addition to conventional measures prepared in accordance with IFRS, certain investors use this information to evaluate our performance. Adjusted net earnings is one of the targets that we measure to form the basis for a portion of annual employee and executive compensation (see *Measuring our results* starting on page 30).

In calculating ANE we adjust for derivatives. We do not use hedge accounting under IFRS and, therefore, we are required to report gains and losses on all hedging activity, both for contracts that close in the period and those that remain outstanding at the end of the period. For the contracts that remain outstanding, we must treat them as though they were settled at the end of the reporting period (mark-to-market). However, we do not believe the gains and losses that we are required to report under IFRS appropriately reflect the intent of our hedging activities, so we make adjustments in calculating our ANE to better reflect the impact of our hedging program in the applicable reporting period. See *Foreign exchange* starting on page 39 for more information.

We also adjust for changes to our reclamation provisions that flow directly through earnings. Every quarter we are required to update the reclamation provisions for all operations based on new cash flow estimates, discount and inflation rates. This normally results in an adjustment to an asset retirement obligation asset in addition to the provision balance. When the assets of an operation have been written off due to an impairment, as is the case with our Rabbit Lake and US ISR operations, the adjustment is recorded directly to the statement of earnings as “other operating expense (income)”. See note 15 of our annual financial statements for more information. This amount has been excluded from our ANE measure.

Adjusted net earnings is a non-IFRS financial measure and should not be considered in isolation or as a substitute for financial information prepared according to accounting standards. Other companies may calculate this measure differently, so you may not be able to make a direct comparison to similar measures presented by other companies.

To facilitate a better understanding of these measures, the table below reconciles adjusted net earnings with our net earnings for the years ended 2021, 2020 and 2019.

($ MILLIONS)	2021	2020	2019
Net earnings (loss) attributable to equity holders	**(103)**	(53)	74
Adjustments			
Adjustments on derivatives	**13**	(45)	(49)
Adjustments on other operating expense (income)	**(8)**	24	3
Income taxes on adjustments	**—**	8	13
Adjusted net earnings (loss)	**(98)**	(66)	41

The following table shows what contributed to the change in adjusted net earnings (non-IFRS measure, see above) in 2021 compared to the same period in 2020 and 2019.

($ MILLIONS)		2021	2020	2019
Adjusted net earnings (losses) - previous year		**(66)**	**41**	**211**
Change in gross profit by segment				
(we calculate gross profit by deducting from revenue the cost of products and services sold, and depreciation and amortization (D&A), net of hedging benefits)				
Uranium	Lower sales volume	(4)	(4)	(27)
	Higher (lower) realized prices ($US)	5	25	(133)
	Foreign exchange impact on realized prices	(72)	14	35
	Lower (higher) costs	(55)	(169)	9
	change – uranium	(126)	(134)	(116)
Fuel services	Higher (lower) sales volume	1	(4)	13
	Higher (lower) realized prices ($Cdn)	23	21	(11)
	Lower (higher) costs	(2)	(10)	28
	change – fuel services	22	7	30
Other changes				
Lower (higher) administration expenditures		17	(20)	17
Lower (higher) exploration expenditures		3	3	6
Change in gains or losses on derivatives		34	9	(1)
Change in foreign exchange gains or losses		(14)	33	(45)
Change in earnings from equity-accounted investments		32	(9)	13
Redemption of Series E debentures in 2020		24	(24)	—
Canadian Emergency Wage Subsidy		(16)	37	—
Arbitration award in 2019 related to TEPCO contract		—	(52)	52
Gain on sale of interest in Wheeler River Joint Venture in 2018		—	—	(17)
Gain on customer contract restructuring in 2018		—	—	(6)
Sale of exploration properties in 2018		—	—	(7)
Reversal of tax provision in 2018 related to CRA dispute		—	—	(61)
Change in income tax recovery or expense		7	42	(82)
Other		(15)	1	47
Adjusted net earnings (losses) - current year		**(98)**	**(66)**	**41**

Average realized prices

		2021	2020	2019	CHANGE FROM 2020 TO 2021
Uranium[1]	$US/lb	**34.53**	34.39	33.77	—
	$Cdn/lb	**43.34**	46.13	44.85	(6)%
Fuel services	$Cdn/kgU	**29.72**	27.89	26.21	7%

[1] Average realized foreign exchange rate ($US/$Cdn): 2021 – 1.26, 2020 – 1.34 and 2019 – 1.33.

Revenue

The following table shows what contributed to the change in revenue for 2021.

($ MILLIONS)	
Revenue – 2020	**1,800**
Uranium	
Lower sales volume	(293)
Lower realized prices ($Cdn)	(68)
Fuel services	
Higher sales volume	2
Higher realized prices ($Cdn)	25
Other	9
Revenue – 2021	**1,475**

See 2021 *Financial results by segment* on page 49 for more detailed discussion.

THREE-YEAR TREND

In 2020, revenue decreased by 3% compared to 2019 due to a decrease in sales volume in the uranium segment that was partially offset by an increase in the Canadian dollar average realized price. In our fuel services segment, revenue increased by 2% as a result of the increase in average realized price partially offset by a decrease in sales volume.

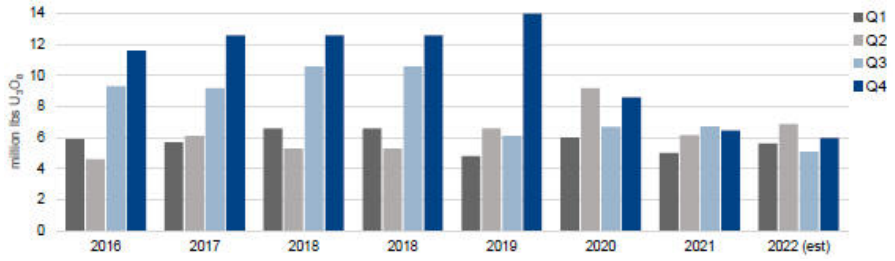
In 2021, revenue decreased by 18% compared to 2020 due to a decrease in sales volume in the uranium segment and a decrease in the Canadian dollar average realized price. In our fuel services segment, revenue increased by 10% as a result of the increase in average realized price and sales volume. See notes 17 and 28 in our annual financial statements for more information.

SALES DELIVERY OUTLOOK FOR 2022

For 2022 we have committed sales volumes in our uranium segment of between 23 to 25 million pounds. We will continue to be active buying and selling uranium in the spot market if it makes sense for us.

In our uranium and fuel services segments, our customers choose when in the year to receive deliveries. As a result, our quarterly delivery patterns and, therefore, our sales volumes and revenue can vary significantly. We expect the quarterly distribution of uranium deliveries in 2022 to be fairly evenly distributed as shown below. However, not all delivery notices have been received to date and the expected delivery pattern could change. Typically, we receive notices six months in advance of the requested delivery date.

ANNUAL DELIVERY VOLUME DISTRIBUTION BY QUARTER



Source: Cameco reports and estimates

Corporate expenses

ADMINISTRATION

($ MILLIONS)	2021	2020	CHANGE
Direct administration[1]	**111**	113	(2)%
Stock-based compensation[1]	**44**	32	38%
Recovery of fees related to CRA dispute	**(27)**	—	n/a
Total administration	**128**	145	(12)%

[1] Direct administration and stock-based compensation are supplementary financial measures. They are components of administration expense as shown on the statement of earnings and calculated according to IFRS.

Direct administration costs in 2021 decreased by $2 million from 2020. As a result of the Supreme Court's dismissal of CRA's application for leave to appeal the June 26, 2020 decision of the Court of Appeal, we recorded $27 million as a reduction to administration costs to reflect the amounts owing to us for legal fees and disbursements for costs as was awarded to us by the Tax Court and nominal cost awards related to the Court of Appeal hearing and Supreme Court application.

We recorded $44 million in stock-based compensation expenses in 2021, $12 million higher compared to 2020 due to the increase in our share price. See note 24 to the financial statements.

Administration outlook for 2022

We expect direct administration costs to be between $125 million to $135 million.

EXPLORATION

Our 2021 exploration activities were focused primarily on Canada. Our spending decreased from $11 million in 2020 to $8 million in 2021 due to lower planned expenditures.

Exploration outlook for 2022

We expect exploration expenses to be about $11 million in 2022. The focus for 2022 will be on our core projects in Saskatchewan.

FINANCE COSTS

Finance costs were $77 million, a decrease from $96 million in 2020 due to the cost associated with the early redemption of our Series E debentures in 2020. See note 19 to the financial statements.

FINANCE INCOME

Finance income was $7 million compared to $11 million in 2020 mainly due to lower interest rates.

GAINS AND LOSSES ON DERIVATIVES

In 2021, we recorded $13 million in gains on our derivatives compared to $37 million in gains in 2020. The decrease reflects the strength in the Canadian dollar compared to the US dollar at the end of 2021 compared to 2020. See *Foreign exchange* on page 39 and note 26 to the financial statements.

INCOME TAXES

We recorded an income tax recovery of $1 million in 2021 compared to an expense of $14 million in 2020. The increase in recovery was primarily due to a change in the distribution of earnings among jurisdictions compared to 2020.

In 2021, we recorded earnings of $59 million in Canada compared to earnings of $73 million in 2020, while in foreign jurisdictions, we recorded a loss of $162 million compared to a loss of $112 million in 2020. Differences between accounting income and income for tax purposes resulted in lower taxes recorded in Canada.

($ MILLIONS)	2021	2020
Net earnings (loss) before income taxes		
Canada	**59**	73
Foreign	**(162)**	(112)
Total net loss before income taxes	**(103)**	(39)
Income tax expense (recovery)		
Canada	**(2)**	9
Foreign	**1**	5
Total income tax expense (recovery)	**(1)**	14
Effective tax rate	**1%**	(36)%

TRANSFER PRICING DISPUTE

Background

Since 2008, CRA has disputed our marketing and trading structure and the related transfer pricing methodology we used for certain intercompany uranium sale and purchase agreements.

For the years 2003 to 2014, CRA shifted Cameco Europe Limited's income (as recalculated by CRA) back to Canada and applied statutory tax rates, interest and instalment penalties, and, from 2007 to 2011, transfer pricing penalties. In addition, for 2014 and 2015, CRA has advanced an alternate reassessing position, see *Reassessments, remittance and next steps* below for more information.

In September 2018, the Tax Court ruled that our marketing and trading structure involving foreign subsidiaries, as well as the related transfer pricing methodology used for certain intercompany uranium sales and purchasing agreements, were in full compliance with Canadian law for the tax years in question (2003, 2005 and 2006). On June 26, 2020 the Court of Appeal upheld the Tax Court's decision.

Supreme Court of Canada decision

On February 18, 2021, the Supreme Court dismissed CRA's application for leave to appeal the June 26, 2020 decision of the Court of Appeal. The dismissal means that the dispute for the 2003, 2005 and 2006 tax years is fully and finally resolved in our favour. Although not technically binding, there is nothing in the reasoning of the lower court decisions that should result in a different outcome for the 2007 through 2014 tax years, which were reassessed on the same basis.

Refund and cost award

The total tax reassessed for the three tax years was $11 million, and we remitted 50%. The Minister of National Revenue has issued new reassessments for the 2003 through 2006 tax years in accordance with the decision and in July we received payments totaling $9 million, representing the refund of the $5.5 million we remitted plus interest.

On April 20, 2021, we received $10 million from CRA, which includes payment of the legal fees awarded by the Tax Court as well as the cost awards related to the Court of Appeal and Supreme Court decisions.

In addition to the cost award for legal fees, in 2019, the Tax Court awarded us an amount for disbursements of up to $17 million. The actual amount of the award for disbursements will be determined by an officer of the Tax Court. We expect to recover all, or substantially all, of the $17 million in disbursements.

We anticipate further direction on our award for disbursements from the Tax Court in the first quarter of this year.

Reassessments, remittances and next steps

The Canadian income tax rules include provisions that generally require larger companies like us to remit or otherwise secure 50% of the cash tax plus related interest and penalties at the time of reassessment. While we have received a refund for the amounts remitted for the 2003 through 2006 reassessments as noted above, CRA continues to hold $777 million ($295 million in cash and $482 million in letters of credit) we paid or secured for the years 2007 through 2013. For the 2014 and 2015 reassessments, CRA did not require additional security to secure the tax debts they considered owing.

Following the Supreme Court's dismissal of CRA's application for leave to appeal, we wrote to CRA requesting reversal of CRA's transfer pricing adjustments for 2007 through 2013 and the return of our $777 million in cash and letters of credit. Given the strength of the court decisions received, our request was made on the basis that the Tax Court would reject any attempt by CRA to defend its reassessments for the 2007 through 2013 tax years applying the same or similar positions already denied for previous years. Due to a lack of significant progress in response to our request, in October 2021, we filed a notice of appeal with the Tax Court for the years 2007 through 2013. We are asking the Tax Court to order the reversal of the CRA's transfer pricing adjustment for those years and the return of our cash and letters of credit, with costs.

In 2020, CRA advanced an alternate reassessing position for the 2014 tax year in the event the basis for its original reassessment, noted above, is unsuccessful. In late 2021, we received a reassessment for the 2015 tax year using this alternative reassessing position. The new basis of reassessment is inconsistent with the methodology CRA has pursued for prior years and we are disputing it separately. Our view is that this alternate methodology will not result in a materially different outcome from our 2014 or 2015 filing positions.

We will not be in a position to determine the definitive outcome of this dispute for any tax year other than 2003 through 2006 until such time as all reassessments have been issued advancing CRA's arguments and final resolution is reached for that tax year. CRA may also advance alternative reassessment methodologies for years other than 2003 through 2006, such as the alternative reassessing position advanced for 2014 and 2015.

Caution about forward-looking information relating to our CRA tax dispute

This discussion of our expectations relating to our tax dispute with CRA and future tax reassessments by CRA is forward-looking information that is based upon the assumptions and subject to the material risks discussed under the heading *Caution about forward-looking information* beginning on page 2 and also on the more specific assumptions and risks listed below. Actual outcomes may vary significantly.

Assumptions

- our entitlement and ability to receive the expected refunds and payments from CRA
- the courts will reach consistent decisions for subsequent tax years that are based on similar positions and arguments
- CRA will not successfully advance different positions and arguments that may lead to a different outcome for other tax years

Material risks that could cause actual results to differ materially

- we will not receive the expected refunds and payments from CRA
- the possibility the courts may accept the same, similar or different positions and arguments advanced by CRA to reach decisions that are adverse to us for other tax years
- the possibility that we will not be successful in eliminating all double taxation
- the possibility that CRA does not agree that the court decisions for the years that have been resolved in Cameco's favour should apply to subsequent tax years
- the possibility CRA will not return all or substantially all of the cash and security that has been paid or otherwise secured by Cameco in a timely manner, or at all
- the possibility of a materially different outcome in disputes for other tax years
- an unfavourable determination of the officer of the Tax Court of the amount of our disbursements award

Tax outlook for 2022

Our consolidated tax rate is a blend of the statutory rates applicable to taxable income earned or tax losses incurred in Canada and in our foreign subsidiaries. We have a global customer base and we have established a marketing and trading structure involving foreign subsidiaries, which entered into various intercompany purchase and sale arrangements, as well as uranium purchase and sale agreements with third parties. Cameco and its subsidiaries made reasonable efforts to put arm's-length transfer pricing arrangements in place, and these arrangements expose the parties to the risks and rewards accruing to them under these contracts. The intercompany contract prices are generally comparable to those established in comparable contracts between arm's-length parties entered into at that time. In 2017, we changed our global marketing organization to consolidate our international activities in Canada in order to achieve efficiencies. The existing purchase and sale arrangements will continue to be in place until they expire. As the existing contracts expire, we anticipate that more income will be earned in Canada.

We continue to expect our consolidated tax rate will trend toward the Canadian statutory rate in the longer term. The actual effective tax rate will vary from year-to-year, primarily due to the actual distribution of earnings among jurisdictions and the market conditions at the time transactions occur under both our intercompany and third-party purchase and sale arrangements.

FOREIGN EXCHANGE

The exchange rate between the Canadian dollar and US dollar affects the financial results of our uranium and fuel services segments.

We sell the majority of our uranium and fuel services products under long-term sales contracts, which are routinely denominated in US dollars. Our product purchases are denominated in US dollars while our production costs are largely denominated in Canadian dollars. To provide cash flow predictability we hedge a portion of our net US/Cdn exposure (e.g. total US dollar sales less US dollar expenditures and product purchases) to manage shorter term exchange rate volatility.

Our risk management policy is based on a 60-month period and permits us to hedge 35% to 100% of our expected net exposure in the first 12-month period. Our normal practice is to layer in hedge contracts over a three- to four-year period with the hedge percentage being highest in the first 12 months and decreasing hedge percentages in subsequent years. The portion of our net exposure that remains unhedged is subject to prevailing market exchange rates for the period. Therefore, our results are affected by the movements in the exchange rate on our hedge portfolio (explained below), and on the unhedged portion of our net exposure. A weakening Canadian dollar would have a positive effect on the unhedged exposure, and a strengthening Canadian dollar would have a negative effect

Impact of hedging on IFRS earnings

We do not use hedge accounting under IFRS and, therefore, we are required to report gains and losses on all hedging activity, both for contracts that close in the period and those that remain outstanding at the end of the period. For the contracts that remain outstanding, we must treat them as though they were settled at the end of the reporting period (mark-to-market).

However, we do not believe the gains and losses that we are required to report under IFRS appropriately reflect the intent of our hedging activities, so we make adjustments in calculating our ANE to better reflect the impact of our hedging program in the applicable reporting period.

Impact of hedging on ANE

We designate contracts for use in particular periods, based on our expected net exposure in that period. Hedge contracts are layered in over time based on this expected net exposure. The result is that our current hedge portfolio is made up of a number of contracts which are currently designated to net exposures we expect in 2022 and future years and we will recognize the gains or losses in ANE in those periods.

For the purposes of ANE, gains and losses on derivatives are reported based on the difference between the effective hedge rate of the contracts designated for use in the particular period and the exchange rate at the time of settlement. This results in an adjustment to current period IFRS earnings to effectively remove reported gains or losses on derivatives that arise from contracts put in place for use in future periods. The effective hedge rate will lag the market in periods of rapid currency movement. See *Non-IFRS measures* on page 33.

The table below provides a summary of our hedge portfolio at December 31, 2021. You can use this information to estimate the expected gains or losses on derivatives for 2022 on an ANE basis. However, if we add contracts to the portfolio that are designated for use in 2022 or if there are changes in the US/Cdn exchange rates in the year, those expected gains or losses could change.

HEDGE PORTFOLIO SUMMARY

DECEMBER 31, 2021 ($ MILLIONS)		2022	AFTER 2022	TOTAL
US dollar forward contracts	($ millions)	210	330	540
Average contract rate [1]	(US/Cdn dollar)	1.34	1.28	1.30
US dollar option contracts	($ millions)	120	70	190
Average contract rate range[1]	(US/Cdn dollar)	1.32 to 1.36	1.30 to 1.34	1.31 to 1.36
Total US dollar hedge contracts	**($ millions)**	**330**	**400**	**730**
Average hedge rate range	**(US/Cdn dollar)**	**1.33 to 1.35**	**1.28 to 1.30**	**1.31 to 1.33**
Hedge ratio[2]		**51%**	**9%**	**14%**

[1] The average contract rate is the weighted average of the rates stipulated in the outstanding contracts.
[2] Hedge ratio is calculated by dividing the amount (in foreign currency) of outstanding derivative contracts by estimated future net exposures.

At December 31, 2021:

- The value of the US dollar relative to the Canadian dollar was $1.00 (US) for $1.26 (Cdn), down from $1.00 (US) for $1.27 (Cdn) at December 31, 2020. The exchange rate averaged $1.00 (US) for $1.25 (Cdn) over the year.
- The mark-to-market position on all foreign exchange contracts was a $28 million gain compared to a $41 million gain at December 31, 2020. The mark-to-market position is a component of gain on derivatives as shown on the statement of earnings and calculated in accordance with IFRS.

We manage counterparty risk associated with hedging by dealing with highly rated counterparties and limiting our exposure. At December 31, 2021, all of our hedging counterparties had a Standard & Poor's (S&P) credit rating of A or better.

For information on the impact of foreign exchange on our intercompany balances, see note 26 to the financial statements.

Outlook for 2022

Our outlook for 2022 reflects the expenditures necessary to help us achieve our strategy, including the ramp-up to planned production of 15 million pounds per year (100% basis) at McArthur River/Key Lake by 2024. As in prior years, we will incur care and maintenance costs for the ongoing outage at our tier-two assets, which are expected to be between $50 million and $60 million. We also expect to incur between $15 million and $17 million per month at McArthur River/Key Lake in operational readiness costs which will be expensed directly to cost of sales until we achieve a reasonable production rate.

The production outlook reflects the expected impact of the delays and deferrals to development work at Cigar Lake in 2021 and the ongoing pandemic and supply chain challenges we are currently experiencing at all our operations. We will work to mitigate and minimize any disruptions to our operations.

We expect our business to remain resilient. From a cash perspective, we expect to continue to maintain a significant cash balance. We expect to continue to generate cash from operations. The amount of cash generated will be dependent on the timing and volume of production at McArthur River, and the extent to which COVID-related disruptions including supply chain challenges impact our operations and the resulting magnitude of our purchasing activity. Therefore, our cash balances may fluctuate throughout the year.

See *2021 Financial results by segment* on page 49 for details.

2021 outlook compared to actual

Our actual results were largely in-line with the outlook provided in our third quarter MD&A. In 2021 we started the year with Cigar Lake suspended due to the uncertainty created by the COVID-19 pandemic. Based on the restart of the Cigar Lake mine in April, we set a production target for Cigar Lake of up to 6 million pounds (our share). We achieved 6.1 million pounds production at Cigar Lake in 2021.

Capital expenditures for 2021 were $99 million, lower than our outlook of $130 to $155 million, as a result of the deferral of project work to 2022.

2022 FINANCIAL OUTLOOK

	CONSOLIDATED	URANIUM	FUEL SERVICES
Production (owned and operated properties)	—	up to 11 million lbs	12.5 to 13.5 million kgU
Purchases	—	11 to 13 million lbs	—
Sales/delivery volume	—	23 to 25 million lbs	10.5 to 11.5 million kgU
Revenue	$1,500 to 1,650 million	$1,150 to 1,240 million	$340-370 million
Average realized price	—	$50.90/lb	—
Average unit cost of sales (including D&A)	—	$50.00-51.00/lb[1]	$21.50-22.50/kgU[2]
Direct administration costs	$125-135 million	—	—
Exploration costs	—	$11 million	—
Capital expenditures	$150-175 million	—	—

1 Uranium average unit cost of sales is calculated as the cash and non-cash costs of the product sold, royalties, care and maintenance and selling costs, divided by the volume of uranium concentrates sold.

2 Fuel services average unit cost of sales is calculated as the cash and non-cash costs of the product sold, transportation and weighing and sampling costs, as well as care and maintenance costs, divided by the volume of products sold.

We do not provide an outlook for the items in the table that are marked with a dash.

The following assumptions were used to prepare the outlook in the table above:

- Production – we achieve 11 million pounds of production (our share) in our uranium segment. If we do not achieve 11 million pounds, the outlook for the uranium segment could vary.

- Purchases – are based on the volumes we currently have commitments to acquire under contract in 2022, including our JV Inkai purchases, and it includes additional volumes we are required to purchase in order to meet the sales/delivery commitments we have under contract in 2022 and maintain a working inventory. It does not include any purchases that we may make as a result of the impact of any delays or disruptions to production for any reason, including disruptions caused by the COVID-19 pandemic and related supply chain challenges.
- Our 2022 outlook for sales/delivery volume does not include sales between our uranium and fuel services segments.
- Sales/delivery volume is based on the volumes we currently have commitments to deliver under contract in 2022.
- Uranium revenue and average realized price are based on a uranium spot price of $42.10 (US) per pound (the UxC spot price as of December 31, 2021), a long-term price indicator of $40.50 (US) per pound (the UxC long-term indicator on December 31, 2021) and an exchange rate of $1.00 (US) for $1.27 (Cdn)
- Uranium average unit cost of sales (including D&A) is based on the expected unit cost of sales for produced material, the planned purchases noted in the outlook at an anticipated average purchase price of about $48.80 (Cdn) per pound and includes care and maintenance costs of between $50 million and $60 million, and operational readiness costs at McArthur River and Key Lake operations of between $15 million and $17 million per month until a reasonable level of production is achieved. We expect overall unit cost of sales could vary if there are changes in production and purchase volumes, uranium spot prices, care and maintenance costs and/or operational readiness costs in 2022.

Our 2022 financial outlook is presented on the basis of equity accounting for our minority ownership interest in JV Inkai. Under equity accounting, our share of the profits earned by JV Inkai on the sale of its production will be included in "income from equity-accounted investees" on our consolidated statement of earnings. Our share of production will be purchased at a discount to the spot price and included at this value in inventory. In addition, JV Inkai capital is not included in our outlook for capital expenditures. Please see *Inkai Planning for the future* on pages 71 and 72 for more details.

The following table shows how changes in the exchange rate or uranium prices can impact our outlook. For more details on the impact of exchange rates, also see *Foreign exchange* on page 39.

		IMPACT ON:		
FOR 2022 ($ MILLIONS)	CHANGE	REVENUE	ANE	CASH FLOW
Uranium spot and long-term price [1]	**$5(US)/lb increase**	68	29	16
	$5(US)/lb decrease	(76)	(35)	(24)
Value of Canadian dollar vs US dollar	**One cent decrease in CAD**	11	4	3
	One cent increase in CAD	(11)	(4)	(3)

1 Assuming change both UxC spot price ($42.10 (US) per pound on December 27, 2021) and the UxC long-term price indicator ($40.50 (US) per pound on December 27, 2021).

PRICE SENSITIVITY ANALYSIS: URANIUM SEGMENT

As discussed under the *Long-term contracting* section on page 20, our portfolio of long-term contracts includes a mix of base-escalated and market-related contracts. Each contract is bilaterally negotiated with the customer and is subject to terms of confidentiality. Therefore, to help understand how the pricing under our current portfolio of commitments is expected to react at various spot prices at December 31, 2021, we have constructed the table below.

The table is based on the pricing terms under the long-term commitments in our contract portfolio that have been fully executed as at December 31, 2021. Based on the terms and volumes under those commitments, the table is designed to indicate how our average realized price will react under various spot price assumptions at a point in time. At year-end, the annual average sales commitments under our contract portfolio at December 31, 2021 are 18 million pounds per year, with commitment levels in 2022, 2023 and 2024 higher than the average and in 2025 and 2026 lower than the average. As the market improves, we expect to continue to layer in volumes capturing greater upside using market-related pricing mechanisms. In this table, we do not consider the impact on our average realized price of volumes under negotiation and those not yet committed under contract. In other words, the prices shown in the table would only be realized if the contract portfolio remained exactly as it was on December 31, 2021, using the following assumptions:

- The uranium price remains fixed at a given spot level for each annual period shown
- Deliveries based on commitments under contracts include best estimates of the expected deliveries under contract terms
- To reflect escalation mechanisms contained in existing contracts, the long-term US inflation rate of 2% is used, for modeling purposes only

It is important to note, that the table is not a forecast of prices we expect to receive. The prices we actually realize will be different from the prices shown in the table. We intend to update this table each quarter in our MD&A to reflect deliveries made and changes to our contract portfolio. As a result, we expect the table to change from quarter to quarter.

Expected realized uranium price sensitivity under various spot price assumptions at December 31, 2021

(rounded to the nearest $1.00) SPOT PRICES ($US/lb U_3O_8)	$20	$40	$60	$80	$100	$120	$140
2022	29	39	48	55	59	62	65
2023	28	39	50	57	61	63	66
2024	30	39	49	54	57	58	58
2025	31	40	52	60	64	66	68
2026	33	40	53	61	66	71	74

Liquidity and capital resources

Our financial objective is to ensure we have the cash and debt capacity to fund our operating activities, investments and other financial obligations in order to execute our strategy and to allow us to self-manage risk. We have a number of alternatives to fund future capital requirements, including using our operating cash flow, drawing on our existing credit facilities, entering new credit facilities, and raising additional capital through debt or equity financings. We are always considering our financing options so we can take advantage of favourable market conditions when they arise. In addition, due to the deliberate cost reduction measures we have implemented, we have continued to have positive cash from operations and as a result, we have significant cash balances.

At the end of 2021, we had cash and cash equivalents and short-term investments of $1.3 billion, while our total debt amounted to $996 million.

We have large, creditworthy customers that continue to need uranium even during weak economic conditions, and we expect the uranium contract portfolio we have built to continue to provide a solid revenue stream. From 2022 through 2026, we have commitments to deliver an average of 18 million pounds per year, with commitment levels in 2022, 2023 and 2024 higher than in 2025 and 2026.

The health and safety of our employees, their families and their communities is our priority as the COVID-19 pandemic continues to bring uncertainty and could have an impact on both the sources and uses of liquidity.

We expect a return to production at McArthur River/Key Lake will be positive for cash flow. It will allow us to source more of our committed sales from lower-cost produced pounds and we will no longer be required to expense care and maintenance costs directly to cost of sales. Until we achieve a reasonable production rate, we expect to incur between $15 million to $17 million per month in operational readiness costs, which will be expensed directly to cost of sales. Therefore, cash flow from operations for 2022 will be dependent on the timing and volume of McArthur River/Key Lake production, the timing and volume of Cigar Lake production and the timing and magnitude of our purchasing activity, as a result cash balances may fluctuate throughout the year. However, we expect our cash balances and operating cash flows to meet our capital requirements during 2022.

With the Supreme Court's dismissal of CRA's application for leave, the dispute of the 2003 through 2006 tax years are fully and finally resolved in our favour. Furthermore, we are confident the courts would reject any attempt by CRA to utilize the same or similar positions and arguments for the other tax years currently in dispute (2007 through 2014) and believe CRA should return the $777 million in cash and letters of credit we have been required to pay or otherwise secure. As such, we have filed notice of appeal to the Tax Court however, timing of any further payments is uncertain. See page 37 for more information.

FINANCIAL CONDITION

	2021	2020
Cash position ($ millions)		
(cash and cash equivalents and short-term investments)	**1,332**	943
Cash provided by operations ($ millions)		
(net cash flow generated by our operating activities after changes in working capital)	**458**	57
Cash provided by operations/net debt[1]		
(net debt is total consolidated debt, less cash position)	**-136%**	109%
Net debt/total capitalization[1]		
(total capitalization is net debt and equity)	**-7%**	1%

[1] As at December 31, 2021, Cameco was negative net debt due to our strong cash position.

CREDIT RATINGS

The credit ratings assigned by external ratings agencies are important as they impact our ability to raise capital at competitive pricing to support our business operations and execute our strategy.

Third-party ratings for our commercial paper and senior debt as of February 8, 2022:

SECURITY	DBRS	S&P
Commercial paper	R-2 (middle)	A-3
Senior unsecured debentures	BBB	BBB-
Rating trend / rating outlook	Stable[1]	Negative[2]

[1] On May 28, 2020, DBRS changed Cameco's rating trend to stable. On June 3, 2021, DBRS confirmed the rating and outlook.
[2] On March 11, 2020, S&P changed Cameco's rating outlook to negative. On March 12, 2021, S&P affirmed the rating and outlook.

The rating agencies may revise or withdraw these ratings if they believe circumstances warrant. The rating trend/outlook represents the rating agency's assessment of the likelihood and direction that the rating could change in the future.

A change in our credit ratings could affect our cost of funding and our access to capital through the capital markets.

Liquidity

($ MILLIONS)	2021	2020
Cash and cash equivalents at beginning of year	**943**	1,062
Cash from operations	**458**	57
Investment activities		
Additions to property, plant and equipment and acquisitions	**(99)**	(77)
Other investing activities	**79**	1
Financing activities		
Change in debt	**—**	(2)
Interest paid	**(39)**	(66)
Other financing activities	**(3)**	(3)
Issue of shares	**27**	5
Dividends	**(32)**	(32)
Exchange rate on changes on foreign currency cash balances	**(2)**	(2)
Cash and cash equivalents and short-term investments at end of year	**1,332**	943

CASH FROM OPERATIONS

Cash from operations was higher than in 2020 due largely to the purchasing activity that was a result of the Cigar Lake production suspension and higher sales commitments in 2020. Purchases in 2021 were 11.1 million pounds compared to 36.2 million pounds in 2020. Not including working capital requirements, our operating cash flows in the year were down $79 million. See note 23 to the financial statements.

INVESTING ACTIVITIES

Cash used in investing includes acquisitions and capital spending.

Capital spending

We classify capital spending as sustaining, capacity replacement or growth. As a mining company, sustaining capital is the money we spend to keep our facilities running in their present state, which would follow a gradually decreasing production curve, while capacity replacement capital is spent to maintain current production levels at those operations. Growth capital is money we invest to generate incremental production, and for business development.

Capital expenditures for 2021 were $99 million, lower than our outlook of $130 million to $155 million, as a result of the deferral of project work to 2022.

Outlook for investing activities

CAMECO'S SHARE ($ MILLIONS)	2022 PLAN	2023 PLAN	2024 PLAN
Total uranium & fuel services	**150-175**	**100-150**	**100-150**
Sustaining capital	110-125	75-105	75-105
Capacity replacement capital	40-50	25-45	25-45
Growth capital	—	—	—

Our 2022, 2023 and 2024 capital spending estimates assume that we engage in operational readiness activities at McArthur River/Key Lake to reach our 2024 production plan and are able to mitigate the risks posed by the COVID-19 pandemic and supply chain disruptions at all our operations.

Our estimate for capital spending in 2022 has been increased to between $150 million and $175 million (previously between $50 million and $100 million) due to the capital required for operational readiness activities and the rescheduling of some expenditures planned in 2021 to 2022.

Capital expenditures for JV Inkai are expected to be covered by JV Inkai cash flows in 2022 and are included in our overall equity investment.

Major sustaining and capacity replacement expenditures in 2022 include:

- Fuel services – continued work on our Vision in Motion project
- Cigar Lake – underground development and necessary ground freezing infrastructure to meet production targets
- McArthur River/Key Lake – capital required for operational readiness to reach the 2024 planned production of 15 million pounds per year (100% basis)
- Our investment in digital and automation technologies

This information regarding currently expected capital expenditures for future periods is forward-looking information and is based upon the assumptions and subject to the material risks discussed on pages 3 and 4. Our actual capital expenditures for future periods may be significantly different.

FINANCING ACTIVITIES

Cash from financing includes borrowing and repaying debt, and other financial transactions including paying dividends and providing financial assurance.

Long-term contractual obligations

DECEMBER 31 ($ MILLIONS)	2022	2023 AND 2024	2025 AND 2026	2027 AND BEYOND	TOTAL
Long-term debt	—	500	—	500	1,000
Interest on long-term debt	38	65	34	93	230
Provision for reclamation	45	66	71	918	1,100
Provision for waste disposal	1	4	3	—	8
Other liabilities	4	8	2	85	99
Capital commitments	53	—	—	—	53
Total	**141**	**643**	**110**	**1,596**	**2,490**

We have contractual capital commitments of approximately $53 million at December 31, 2021. Certain of the contractual commitments may contain cancellation clauses; however, we disclose the commitments based on management's intent to fulfil the contracts.

We have sufficient borrowing capacity with available unsecured lines of credit totalling about $2.7 billion, which include the following:

- A $1.0 billion unsecured revolving credit facility that matures October 1, 2025. Each calendar year, upon mutual agreement, the facility can be extended for an additional year. We may increase the revolving credit facility above $1.0 billion, by increments of no less than $50 million, up to a total of $1.25 billion. The facility ranks equally with all of our other senior debt. At December 31, 2021, there were no amounts outstanding under this facility and we do not expect to need to draw on this facility in 2022.
- At December 31, 2021, we had approximately $1.6 billion outstanding in financial assurances provided by various financial institutions. We use these facilities mainly to provide financial assurance for future decommissioning and reclamation of our operating sites, for our obligations relating to the CRA dispute, and as overdraft protection.

In total we have $1.0 billion in senior unsecured debentures outstanding:

- $500 million bearing interest at 4.19% per year, maturing on June 24, 2024
- $400 million bearing interest at 2.95% per year, maturing on October 21, 2027
- $100 million bearing interest at 5.09% per year, maturing on November 14, 2042

Debt covenants

Our revolving credit facility includes the following financial covenants:

- our funded debt to tangible net worth ratio must be 1:1 or less
- other customary covenants and events of default

Funded debt is total consolidated debt less non-recourse debt, $100 million in letters of credit, cash and cash equivalents and short-term investments.

Not complying with any of these covenants could result in accelerated payment and termination of our revolving credit facility. At December 31, 2021, we complied with all covenants, and we expect to continue to comply in 2022.

OFF-BALANCE SHEET ARRANGEMENTS

We had three kinds of off-balance sheet arrangements at the end of 2021:

- purchase commitments
- financial assurances
- other arrangements

Purchase commitments

We make purchases under long-term contracts where it is beneficial for us to do so and in order to support our long-term contract portfolio. The following table is based on our purchase commitments in our uranium and fuel services segments at December 31, 2021[2] but does not include purchases of our share of Inkai production. These commitments include a mix of fixed-price and market-related contracts. Actual payments will be different as a result of changes to our purchase commitments and, in the case of contracts with market-related pricing, the market prices in effect at the time of delivery. We will update this table as required in our MD&A to reflect material changes to our purchase commitments and changes in the prices used to estimate our commitments under market-related contracts.

DECEMBER 31, 2021 ($ MILLIONS)	2022	2023 AND 2024	2025 AND 2026	2027 AND BEYOND	TOTAL
Purchase commitments[1,2]	224	207	258	175	864

1 Denominated in US dollars and Japanese yen, converted from US dollars to Canadian dollars at the rate of 1.27 and from Japanese yen to Canadian dollars at the rate of $0.01.

2 These amounts have been adjusted for any additional purchase commitments that we have entered into since December 31, 2021 but does not include deliveries taken under contract since December 31, 2021.

We have commitments of $864 million (Cdn) for the following:

- approximately 19 million pounds of U_3O_8 equivalent from 2022 to 2028
- approximately 0.8 million kgU as UF_6 in conversion services from 2022 to 2024
- about 0.9 million Separative Work Units (SWU) of enrichment services to meet existing forward sales commitments under agreements with a non-Western supplier

The suppliers do not have the right to terminate agreements other than pursuant to customary events of default provisions.

Financial assurances

We use standby letters of credit and surety bonds mainly to provide financial assurance for the decommissioning and reclamation of our mining and conversion facilities as well as for our obligations relating to the CRA dispute. We are required to provide financial assurances to various regulatory agencies until decommissioning and reclamation activities are complete. We are also providing letters of credit until the CRA dispute is resolved. Our financial assurances renew automatically on an annual basis, unless otherwise advised by the issuing institution. At December 31, 2021 our financial assurances totaled $1.6 billion, the same as at December 31, 2020.

Other arrangements

We have arranged for standby product loan facilities with various counterparties. The arrangements allow us to borrow up to 2.0 million kgU of UF_6 conversion services and 2.6 million pounds of U_3O_8 over the period 2020 to 2023 with repayment in kind up to December 31, 2023. Under the loan facilities, standby fees of up to 1% are payable based on the market value of the facilities and interest is payable on the market value of any amounts drawn at rates ranging from 0.5% to 1.6%. At December 31, 2021, we have 1.1 million kgU of UF_6 conversion services drawn on the loans.

BALANCE SHEET

DECEMBER 31, ($ MILLIONS EXCEPT PER SHARE AMOUNTS)	2021	2020	2019	CHANGE 2020 TO 2021
Inventory	**410**	680	321	(40)%
Total assets	**7,518**	7,581	7,427	(1)%
Total non-current liabilities	**2,258**	2,318	2,155	(3)%
Dividends per common share	**0.08**	0.08	0.08	—

Total product inventories decreased by 40% to $410 million this year as sales were higher than production and purchases during the year. At December 31, 2021, our average cost for uranium was $38.30 per pound, up from $38.01 per pound at December 31, 2020. As of December 31, 2021, we held an inventory of 8 million pounds of U_3O_8 equivalent (excluding broken ore).

At the end of 2021, our total assets amounted to $7.5 billion, a decrease of 1% compared to 2020, due mainly to lower inventories which were largely offset by an increase in cash and investment balances. In 2020, the total asset balance increased by $0.2 billion compared to 2019, due mainly to higher inventories.

The major components of long-term financial liabilities are long-term debt, the provision for reclamation, accrued pension and post-retirement benefit liability, deferred sales and financial derivatives.

2021 financial results by segment

Uranium

HIGHLIGHTS		2021	2020	CHANGE
Production volume (million lbs)		**6.1**	5.0	22%
Sales volume (million lbs)		**24.3**	30.7	(21)%
Average spot price	($US/lb)	**35.28**	29.96	18%
Average long-term price	($US/lb)	**36.81**	34.63	6%
Average realized price	($US/lb)	**34.53**	34.39	—
	($Cdn/lb)	**43.34**	46.13	(6)%
Average unit cost of sales (including D&A)	($Cdn/lb)	**47.80**	45.53	5%
Revenue ($ millions)		**1,055**	1,416	(25)%
Gross profit (loss) ($ millions)		**(108)**	18	(700)%
Gross profit (loss) (%)		**(10)**	1	(1100)%

Production volumes in 2021 increased by 22% compared to 2020. See *Uranium – production overview* on page 61 for more information.

Uranium revenues this year were down 25% compared to 2020 due to a decrease in sales volumes of 21% and a decrease of 6% in the Canadian dollar average realized price. Although the spot price for uranium averaged $35.28 (US) per pound in 2021, an increase of 18% compared to the 2020 average price of $29.96 (US) per pound, the average realized price was 6% lower compared to the same period in 2020 primarily due to the strengthening of the Canadian dollar compared to 2020.

Total cost of sales (including D&A) decreased by 17% ($1.16 billion compared to $1.40 billion in 2020) due to a decrease in sales volume of 21% partially offset by a 5% increase in unit cost of sales. Unit cost of sales is higher than in the same period in 2020 due to the higher cost of purchased material and the higher unit cost impact of fixed care and maintenance costs resulting from lower sales volumes.

The net effect was a $126 million decrease in gross profit for the year.

The following table shows the costs of produced and purchased uranium incurred in the reporting periods (non-IFRS measures, see below). These costs do not include care and maintenance costs, selling costs such as royalties, transportation and commissions, nor do they reflect the impact of opening inventories on our reported cost of sales.

($CDN/LB)	2021	2020	CHANGE
Produced			
Cash cost	16.17	16.24	—
Non-cash cost	17.18	15.10	14%
Total production cost [1]	33.35	31.34	6%
Quantity produced (million lbs)[1]	6.1	5.0	22%
Purchased			
Cash cost[1]	42.30	39.66	7%
Quantity purchased (million lbs)[1]	11.1	36.2	(69)%
Totals			
Produced and purchased costs	39.13	38.65	1%
Quantities produced and purchased (million lbs)	17.2	41.2	(58)%

[1] Due to equity accounting for JV Inkai, our share of production is shown as a purchase at the time of delivery. JV Inkai purchases will fluctuate during the quarters and timing of purchases will not match production. In 2021 we purchased 5.2 million pounds at a purchase price per pound of $45.31 ($36.03 (US)) (2020 – 4.0 million pounds at a purchase price per pound of $36.63 ($27.66 (US))).

Over the last two years the annual cash cost of production has averaged $16.21 per pound at Cigar Lake, slightly higher than the estimated life of mine cost of between $15 and $16 per pound, as a result of the impacts of COVID-19. In 2022 and 2023, our cash production costs may continue to be affected by the impacts of the COVID-19 pandemic, as well as timing and rate of production at the McArthur River/Key Lake operation. Once we achieve the 2024 planned production, the average unit operating costs at Cigar Lake may increase as production declines.

The benefit of the estimated life-of-mine operating cost for Inkai's production of between $6 and $7 per pound, is expected to be reflected in the line item on our statement of earnings called "share of earnings from equity-accounted investee".

Our purchases in 2021, totaled about $470 million, representing an average annual cost of $42.30 per pound, about $9.90 per pound higher than the average production cost at Cigar Like for 2021 and 2020. Although purchased pounds are transacted in US dollars, we account for the purchases in Canadian dollars. In the year, the average cash cost of purchased material was $42.30 (Cdn), or $33.73 (US) per pound, compared to $39.66 (Cdn), or $29.17 (US) per pound in the same period in 2020.

Cash cost per pound, non-cash cost per pound and total cost per pound for produced and purchased uranium presented in the above table are non-IFRS measures. These measures do not have a standardized meaning or a consistent basis of calculation under IFRS. We use these measures in our assessment of the performance of our uranium business. We believe that, in addition to conventional measures prepared in accordance with IFRS, certain investors use this information to evaluate our performance and ability to generate cash flow.

These measures are non-standard supplemental information and should not be considered in isolation or as a substitute for measures of performance prepared according to accounting standards. These measures are not necessarily indicative of operating profit or cash flow from operations as determined under IFRS. Other companies may calculate these measures differently, so you may not be able to make a direct comparison to similar measures presented by other companies.

To facilitate a better understanding of these measures, the following table presents a reconciliation of these measures to our unit cost of sales for the years ended 2021 and 2020 as reported in our financial statements.

CASH AND TOTAL COST PER POUND RECONCILIATION

($ MILLIONS)	2021	2020
Cost of product sold	**1,028.8**	1,243.3
Add / (subtract)		
Royalties	**(15.2)**	(15.5)
Other selling costs	**(4.6)**	(12.1)
Care and maintenance and severance costs	**(156.7)**	(138.5)
Change in inventories	**(284.1)**	439.7
Cash operating costs (a)	**568.2**	1,516.9
Add / (subtract)		
Depreciation and amortization	**134.6**	154.6
Care and maintenance costs	**(52.9)**	(57.5)
Change in inventories	**23.1**	(21.6)
Total operating costs (b)	**673.0**	1,592.4
Uranium produced & purchased (million lbs) **(c)**	**17.2**	41.2
Cash costs per pound (a ÷ c)	**33.03**	36.82
Total costs per pound (b ÷ c)	**39.13**	38.65

ROYALTIES

We pay royalties on the sale of all uranium extracted at our mines in the province of Saskatchewan. Two types of royalties are paid:

- **Basic royalty**: calculated as 5% of gross sales of uranium, less the Saskatchewan resource credit of 0.75%.
- **Profit royalty**: a 10% royalty is charged on profit up to and including $24.38/kg U_3O_8 ($11.06/lb) and a 15% royalty is charged on profit in excess of $24.38/kg U_3O_8. Profit is determined as revenue less certain operating, exploration, reclamation and capital costs. Both exploration and capital costs are deductible at the discretion of the producer.

As a resource corporation in Saskatchewan, we also pay a corporate resource surcharge of 3% of the value of resource sales.

URANIUM SEGMENT OUTLOOK

Based on the contracts we have in place, and not including sales between our segments, we expect to deliver between 23 million and 25 million pounds of U_3O_8 in 2022.

In addition, we expect to purchase between 11 million and 13 million pounds in 2022 to meet our sales commitments and maintain a working inventory. This includes our spot market purchases and other purchase commitments, including from JV Inkai.

Fuel services

(includes results for UF_6, UO_2, UO_3 and fuel fabrication)

HIGHLIGHTS		2021	2020	CHANGE
Production volume (million kgU)		**12.1**	11.7	3%
Sales volume (million kgU)		**13.6**	13.5	1%
Average realized price	($Cdn/kgU)	**29.72**	27.89	7%
Average unit cost of sales (including D&A)	($Cdn/kgU)	**21.02**	20.76	1%
Revenue ($ millions)		**404**	377	7%
Gross profit ($ millions)		**118**	96	23%
Gross profit (%)		**29**	25	16%

Total revenue increased by 7% from 2020 due to a 7% increase in the realized price and a 1% increase in sales volume. The increase in realized price was mainly the result of contracts that were entered into in an improved price environment.

Total cost of products and services sold (including D&A) increased 2% ($286 million compared to $281 million in 2020), due to the 1% increase in sales volume and a 1% increase in average unit cost of sales compared to 2020 due to higher input costs.

The net effect was a $22 million increase in gross profit.

FUEL SERVICES SEGMENT OUTLOOK

In 2022, we plan to produce 12.5 million to 13.5 million kgU, and we expect sales volumes, not including intersegment sales, to be 10.5 million to 11.5 million kgU. Overall revenue is expected to be between $340 million and $370 million, slightly lower than 2021 due to lower committed sales volumes. We expect the average unit cost of sales (including D&A) to be between $21.50/kgU and $22.50/kgU.

Fourth quarter financial results

Consolidated results

HIGHLIGHTS ($ MILLIONS EXCEPT WHERE INDICATED)	THREE MONTHS ENDED DECEMBER 31 2021	2020	CHANGE
Revenue	**465**	550	(15)%
Gross profit	**56**	109	(49)%
Net earnings attributable to equity holders	**11**	80	(86)%
$ per common share (basic)	**0.03**	0.20	(85)%
$ per common share (diluted)	**0.03**	0.20	(85)%
Adjusted net earnings (non-IFRS, see page 33)	**23**	48	(52)%
$ per common share (adjusted and diluted)	**0.06**	0.12	(50)%
Cash provided by operations	**59**	257	(77)%

NET EARNINGS

The following table shows what contributed to the change in net earnings and adjusted net earnings (non-IFRS measure, see page 33) in the fourth quarter of 2021 compared to the same period in 2020.

($ MILLIONS)		IFRS	Adjusted
Net earnings (losses) - 2020		**80**	**48**
Change in gross profit by segment			
(we calculate gross profit by deducting from revenue the cost of products and services sold, and depreciation and amortization (D&A), net of hedging benefits)			
Uranium	Lower sales volume	(20)	(20)
	Higher realized prices ($US)	10	10
	Foreign exchange impact on realized prices	(13)	(13)
	Higher costs	(47)	(47)
	change – uranium	(70)	(70)
Fuel services	Higher sales volume	4	4
	Higher realized prices ($Cdn)	11	11
	change – fuel services	15	15
Other changes			
Lower administration expenditures		8	8
Lower exploration expenditures		1	1
Change in reclamation provisions		(10)	—
Change in gains or losses on derivatives		(35)	13
Change in foreign exchange gains or losses		7	7
Change in earnings from equity-accounted investments		16	16
Redemption of Series E debentures in 2020		24	24
Canadian Emergency Wage Subsidy		(37)	(37)
Change in income tax recovery or expense		19	5
Other		(7)	(7)
Net earnings - 2021		**11**	**23**

ADJUSTED NET EARNINGS

We use adjusted net earnings, a non-IFRS measure, as a more meaningful way to compare our financial performance from period to period. See page 33 for more information. The following table reconciles adjusted net earnings with our net earnings.

($ MILLIONS)	THREE MONTHS ENDED DECEMBER 31 2021	2020
Net earnings attributable to equity holders	**11**	80
Adjustments		
Adjustments on derivatives	**5**	(43)
Adjustments on other operating expense (income)	**10**	—
Income taxes on adjustments	**(3)**	11
Adjusted net earnings	**23**	48

ADMINISTRATION

($ MILLIONS)	THREE MONTHS ENDED DECEMBER 31 2021	2020	CHANGE
Direct administration	**28**	31	(10)%
Stock-based compensation	**9**	14	(36)%
Total administration	**37**	45	(18)%

Direct administration costs were $28 million in the quarter, $3 million lower than the same period last year. Stock-based compensation expenses were $5 million lower from the fourth quarter of 2020. See note 24 to the financial statements.

Quarterly trends

HIGHLIGHTS ($ MILLIONS EXCEPT PER SHARE AMOUNTS)	2021 Q4	Q3	Q2	Q1	2020 Q4	Q3	Q2	Q1
Revenue	**465**	361	359	290	550	379	525	346
Net earnings (loss) attributable to equity holders	**11**	(72)	(37)	(5)	80	(61)	(53)	(19)
$ per common share (basic)	**0.03**	(0.18)	(0.09)	(0.01)	0.20	(0.15)	(0.13)	(0.05)
$ per common share (diluted)	**0.03**	(0.18)	(0.09)	(0.01)	0.20	(0.15)	(0.13)	(0.05)
Adjusted net earnings (loss) (non-IFRS, see page 33)	**23**	(54)	(38)	(29)	48	(78)	(65)	29
$ per common share (adjusted and diluted)	**0.06**	(0.14)	(0.10)	(0.07)	0.12	(0.20)	(0.16)	0.07
Cash provided by (used in) operations (after working capital changes)	**59**	203	152	45	257	(66)	(316)	182

Key things to note:

- The timing of customer requirements, which tends to vary from quarter to quarter, drives revenue in the uranium and fuel services segments.
- Net earnings do not trend directly with revenue due to unusual items and transactions that occur from time to time. We use adjusted net earnings, a non-IFRS measure, as a more meaningful way to compare our results from period to period (see page 33 for more information).
- Cash from operations tends to fluctuate as a result of the timing of deliveries and product purchases in our uranium and fuel services segments.
- Quarterly results are not necessarily a good indication of annual results due to the variability in customer requirements noted above.

The table that follows presents the differences between net earnings and adjusted net earnings for the previous seven quarters.

HIGHLIGHTS ($ MILLIONS EXCEPT PER SHARE AMOUNTS)	2021 Q4	2021 Q3	2021 Q2	2021 Q1	2020 Q4	2020 Q3	2020 Q2	2020 Q1
Net earnings (loss) attributable to equity holders	**11**	(72)	(37)	(5)	**80**	(61)	(53)	(19)
Adjustments								
Adjustments on derivatives	**5**	26	(9)	(9)	**(43)**	(31)	(41)	70
Adjustments on other operating expense (income)	**10**	(2)	6	(22)	**—**	7	23	(6)
Income taxes on adjustments	**(3)**	(6)	2	7	**11**	7	6	(16)
Adjusted net earnings (losses) (non-IFRS, see page 33)	**23**	(54)	(38)	(29)	**48**	(78)	(65)	29

Fourth quarter financial results by segment

Uranium

HIGHLIGHTS		THREE MONTHS ENDED DECEMBER 31 2021	2020	CHANGE
Production volume (million lbs)		**2.8**	2.8	—
Sales volume (million lbs)		**6.5**	8.6	(24)%
Average spot price	($US/lb)	**44.33**	29.86	48%
Average long-term price	($US/lb)	**42.92**	35.00	23%
Average realized price	($US/lb)	**39.65**	38.43	3%
	($Cdn/lb)	**49.94**	50.40	(1)%
Average unit cost of sales (including D&A)	($Cdn/lb)	**48.35**	41.09	18%
Revenue ($ millions)		**323**	436	(26)%
Gross profit ($ millions)		**10**	80	(88)%
Gross profit (%)		**3**	18	(83)%

Production volumes this quarter were unchanged from the fourth quarter of 2020. See *Uranium – production overview* on page 61 for more information.

Uranium revenues were down 26% due to a 24% decrease in sales volume and a 1% decrease in the Canadian dollar average realized price. While the average spot price for uranium increased by 48% compared to the same period in 2020, our average realized price decreased by 1% as a result of lower prices on fixed-price contracts and the lagging effect of changes in spot price on market related prices. In addition, the Canadian dollar was stronger compared to the same period last year, $1.00 (US) for $1.26 (Cdn) compared to $1.00 (US) for $1.31 (Cdn) in the fourth quarter of 2020.

Total cost of sales (including D&A) decreased by 12% ($313 million compared to $355 million in 2020). This was primarily the result of the 24% decrease in sales volume as the average unit cost of sales increased by 18% due to the higher cost of purchased material and higher care and maintenance costs.

The net effect was a $70 million decrease in gross profit for the quarter.

The following table shows the costs of produced and purchased uranium incurred in the reporting periods. These costs do not include care and maintenance costs, selling costs such as royalties, transportation and commissions, nor do they reflect the impact of opening inventories on our reported cost of sales.

($/LB)	THREE MONTHS ENDED DECEMBER 31 2021	2020	CHANGE
Produced			
Cash cost	**14.01**	13.48	4%
Non-cash cost	**17.10**	14.62	17%
Total production cost [1]	**31.11**	28.10	11%
Quantity produced (million lbs)[1]	**2.8**	2.8	—
Purchased			
Cash cost[1]	**52.73**	38.24	38%
Quantity purchased (million lbs)[1]	**3.3**	5.7	(42)%
Totals			
Produced and purchased costs	**42.81**	34.90	23%
Quantities produced and purchased (million lbs)	**6.1**	8.5	(28)%

[1] Due to equity accounting for JV Inkai, our share of production will be shown as a purchase at the time of delivery. JV Inkai purchases will fluctuate during the quarters and timing of purchases will not match production. During the quarter, we purchased 2.2 million pounds at a purchase price per pound of $52.69 ($41.79 (US)) (Q4 2020 – 2.7 million pounds at a purchase price per pound of $37.14 ($28.17 (US))).

Although purchased pounds are transacted in US dollars, we account for the purchases in Canadian dollars. In the fourth quarter, the average cash cost of purchased material was $52.73 (Cdn) per pound, or $41.87 (US) per pound in US dollar terms, compared to $38.24 (Cdn) per pound, or $29.21 (US) per pound in the fourth quarter of 2020.

Cash cost per pound, non-cash cost per pound and total cost per pound for produced and purchased uranium presented in the above table are non-IFRS measures. See page 49 for more information.

To facilitate a better understanding of these measures, the following table presents a reconciliation of these measures to our unit cost of sales for the fourth quarters of 2021 and 2020.

CASH AND TOTAL COST PER POUND RECONCILIATION

	THREE MONTHS ENDED DECEMBER 31	
($ MILLIONS)	2021	2020
Cost of product sold	**278.9**	296.6
Add / (subtract)		
Royalties	**(5.0)**	(7.8)
Other selling costs	**(1.6)**	(1.3)
Care and maintenance and severance costs	**(36.8)**	(29.5)
Change in inventories	**(22.3)**	(2.5)
Cash operating costs (a)	**213.2**	255.5
Add / (subtract)		
Depreciation and amortization	**34.2**	58.6
Care and maintenance costs	**(10.1)**	(11.4)
Change in inventories	**23.8**	(6.1)
Total operating costs (b)	**261.1**	296.6
Uranium produced & purchased (million lbs) **(c)**	**6.1**	8.5
Cash costs per pound (a ÷ c)	**34.95**	30.06
Total costs per pound (b ÷ c)	**42.81**	34.90

Fuel services

(includes results for UF_6, UO_2, UO_3 and fuel fabrication)		THREE MONTHS ENDED DECEMBER 31		
HIGHLIGHTS		2021	2020	CHANGE
Production volume (million kgU)		**3.1**	3.3	(6)%
Sales volume (million kgU)		**4.9**	4.4	11%
Average realized price	($Cdn/kgU)	**28.80**	26.29	10%
Average unit cost of sales (including D&A)	($Cdn/kgU)	**19.45**	19.12	2%
Revenue ($ millions)		**140**	115	22%
Gross profit ($ millions)		**46**	32	44%
Gross profit (%)		**33**	28	18%

Total revenue increased by 22% due to an 11% increase in sales volumes and a 10% increase in average realized price. The increase in average realized price was mainly the result of contracts that were entered into in an improved price environment.

Total cost of sales (including D&A) increased by 14% to $95 million compared to the fourth quarter of 2020 due to the 11% increase in sales volumes and an increase of 2% in the average unit cost of sales, due to higher input costs.

The net effect was a $14 million increase in gross profit.

Operations and projects

This section of our MD&A is an overview of the mining properties we operate or have an interest in, our curtailed operations and our projects, what we accomplished this year, our plans for the future and how we manage risk.

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Managing the risks

The nature of our operations means we face many potential risks and hazards that could have a significant impact on our business.

Below we list the risks that generally apply to all of our operations and advanced projects. We also talk about how we manage specific risks in each operation or project update. These risks could have a material impact on our business in the near term. These risks, however, are not a complete list of the potential risks our operations and advanced projects face. There may be others we are not aware of or risks we feel are not material today that could become material in the future.

We recommend you also review our annual information form, which includes a discussion of other material risks that could have an impact on our business.

Regulatory risks

A significant part of our economic value depends on our ability to:

- obtain and renew the licences and other approvals we need to restart, operate, to increase production at our mines and to develop new mines. If we do not receive the regulatory approvals we need, or do not receive them at the right time, then we may have to delay, modify or cancel a project, which could increase our costs and delay or prevent us from generating revenue from the project. Regulatory review, including the review of environmental matters, is a long and complex process.
- comply with the conditions in these licences and approvals. Our right to continue operating facilities, restart operations, increase production at our mines and develop new mines depends on our compliance with these conditions.
- comply with the extensive and complex laws and regulations that govern our activities. Environmental legislation imposes strict standards and controls on almost every aspect of our operations and projects, and is not only introducing new requirements, but also becoming more stringent. For example:
    - we must complete the environmental assessment process before we can begin developing a new mine or, in some cases, make significant changes to our operations
    - we may need regulatory approval to make changes to our operational processes, which can take a significant amount of time because it may require an extensive review of supporting technical information. The complexity of this process can be further compounded when regulatory approvals are required from multiple agencies.
    - the federal government has introduced an Impact Assessment Act as well as a Canadian Navigable Waters Act along with significant revisions to the federal Fisheries Act. This legislation could impact the scope, timeliness and cost of approvals for projects and the revisions could impact existing operations.
    - Federal requirements stemming from the Species at Risk Act are introducing significant uncertainty into the management of activities in northern Saskatchewan. One specific example includes the amended national recovery strategy for woodland caribou, which contains strategic directions that have the potential to impact economic and social development in northern Saskatchewan. As a requirement of this document, the province of Saskatchewan is responsible for developing range plans that outline population and habitat protection measures for activities conducted in northern Saskatchewan. Mitigation requirements, and other measures, could have an impact on Saskatchewan operations and advanced projects in northern Saskatchewan.
    - A number of government or governmental bodies have introduced or are contemplating regulatory changes in response to the potential impacts of climate change. While we have a relatively small carbon footprint, our Canadian facilities could experience higher annual operating costs due to changes in GHG pricing and regulations, such as carbon pricing, the Canadian Clean Fuel Standard, and/or other policy changes.

We use significant management and financial resources to manage our regulatory risks.

Environmental risks

We have the safety, health and environmental risks associated with any mining and chemical processing company. Our uranium and fuel services segments also face unique risks associated with radiation.

Laws to protect the environment are becoming more stringent for members of the nuclear energy industry, including mining, milling and processing facilities, and have inter-jurisdictional aspects (both federal and provincial/state regimes are applicable). Once we have permanently stopped mining and processing activities at an operating site, we are required to decommission the site to the satisfaction of the regulators. We have developed preliminary decommissioning plans for our operating sites and use them to estimate our decommissioning costs. Regulators review and accept our preliminary decommissioning plans on a regular basis. As the site approaches or goes into decommissioning, regulators review the detailed decommissioning plans. This can result in further regulatory process, as well as additional requirements, costs and financial assurances.

We have submitted updates to all Saskatchewan operations' Preliminary Decommissioning Plan (PDP) and Preliminary Decommissioning Cost Estimate (PDCE) documents in accordance with the five-year timeline specified in the regulations. Upon acceptance of the PDP and PDCE documents by the Saskatchewan Ministry of Environment and Canadian Nuclear Safety Commission (CNSC) staff, a formal Commission proceeding will be required for final approval of the PDP and PDCE by the Commission. All Saskatchewan mining operations have received the necessary approvals for the current PDP and PDCE and all required financial assurances are in place.

At the end of 2021, our estimate of total decommissioning and reclamation costs was $1.11 billion. This is the undiscounted value of the obligation and is based on our current operations. We had accounting provisions of $1.14 billion at the end of 2021 (the present value of the $1.11 billion). Regulatory approval is required prior to beginning decommissioning. Since we expect to incur most of these expenditures at the end of the useful lives of the operations they relate to, and none of our assets have approval for decommissioning, our expected costs for decommissioning and reclamation for the next five years are not material.

We provide financial assurances for decommissioning and reclamation such as letters of credit or surety bonds to regulatory authorities, as required. We had a total of about $1.01 billion in financial assurances supporting our reclamation liabilities at the end of 2021. All of our North American operations have financial assurances in place in connection with our preliminary plans for decommissioning of the sites.

Some of the sites we own or operate have been under ongoing investigation and/or remediation and planning as a result of historic soil and groundwater conditions.

We use significant management and financial resources to manage our environmental risks.

We manage environmental risks through our safety, health, environment and quality (SHEQ) management system. Our chief executive officer is responsible for ensuring that our SHEQ management system is implemented. Our board's safety, health and environment committee also oversees how we manage our SHEQ risks, including the use of our enterprise risk management program.

A key cornerstone of our SHEQ management system is the continual improvement of process and physical infrastructure supporting the management system. Proposed projects are evaluated and, if beneficial, included in our site's life of asset plan. Noteworthy projects expected to reduce SHEQ risks that were advanced in 2021 included:

- The Vision in Motion project at the Port Hope conversion facility
- the program to advance the assessment of innovation opportunities at the McArthur River mine and Key Lake mill
- energy management improvements at our Saskatchewan operations
- progressive decommissioning activities at our in-situ recovery operations in the United States
- containment system upgrades at our operations.

Most of these projects are multi-year projects that are expected to continue into 2022 and beyond.

Operational risks

Other risks and hazards generally applicable to our operations and advanced projects include:

- environmental damage
- industrial and transportation accidents
- labour shortages, disputes or strikes
- cost increases for labour, contracted or purchased materials, supplies and services
- shortages of, or interruptions in the supply of, required materials, supplies and equipment
- transportation and delivery disruptions
- interruptions in the supply of electricity, water, and other utilities
- equipment failures
- cyberattacks
- joint venture disputes or litigation
- non-compliance with laws and licences
- increased workforce health and safety or increased regulatory burdens resulting from the COVID-19 pandemic or other causes
- uncertain environment resulting from the COVID-19 pandemic and its related operational and safety risks
- catastrophic accidents
- fires
- blockades or other acts of social or political activism
- climate change or natural phenomena, such as inclement weather conditions, forest fires, floods and earthquakes
- outbreak of illness (such as a pandemic like COVID-19)
- unusual, unexpected or adverse mining or geological conditions
- underground floods
- ground movement or cave-ins
- tailings pipeline or dam failures
- technological failure of mining methods
- unanticipated consequences of our cost reduction strategies

We have insurance to cover some of these risks and hazards, but not all of them, and not to the full amount of losses or liabilities that could potentially arise.

Uranium – production overview

Production in our uranium segment in the fourth quarter was 2.8 million pounds, no change compared to the same period in 2020, while production for the year was 6.1 million pounds, 22% higher than in 2020. The McArthur River/Key Lake and Rabbit Lake operations remained in a safe and sustainable state of care and maintenance, and we are no longer developing new wellfields at Crow Butte and Smith Ranch-Highland. See *Uranium – Tier-one operations* starting on page 62 and *Uranium – Tier-two operations* beginning on page 73 for more information.

Uranium production

CAMECO SHARE (MILLION LBS)	THREE MONTHS ENDED DECEMBER 31 2021	2020	YEAR ENDED DECEMBER 31 2021	2020	2021 PLAN[1]	2022 PLAN
Cigar Lake	**2.8**	2.8	**6.1**	5.0	up to 6.0	7.5[2]
McArthur River/Key Lake	**—**	—	**—**	—	—	up to 3.5[3]
Total	**2.8**	2.8	**6.1**	5.0	up to 6.0	up to 11.0

1 A production target was not set in 2021 until after production at Cigar Lake resumed following the proactive four-month COVID-19-related suspension that started in December of 2020. A production target of up to 6.0 million pounds (our share) was provided in our 2021 second quarter MD&A.

2 At Cigar Lake, we expect production of 15 million pounds (100% basis) in 2022 due to the delays and deferrals to development work experienced in 2021 related to the suspension of production noted above and the ongoing pandemic and supply chain challenges impacting the availability of construction materials, equipment and labour.

3 Over the course of 2022 and 2023, we will undertake all the activities necessary to ramp up to the 2024 planned production of 15 million pounds per year (100% basis) at McArthur River/Key Lake. As a result, in 2022, we could produce up to 5 million pounds (100% basis).

Production outlook

We remain focused on taking advantage of the long-term growth we see coming in our industry, while maintaining the ability to respond to market conditions as they evolve. Our strategy includes a focus, in our uranium segment, on protecting and extending the value of our contract portfolio, on aligning our production decisions with our contract portfolio and market opportunities thereby preserving the value of our lowest cost assets in order to increase long-term value, and to do that with an emphasis on safety, people and the environment.

Given the transition we are seeing in the uranium market, we plan to:

- begin the work necessary at McArthur River/Key Lake to achieve our 2024 production plan, matching our production level to our sales commitments and market opportunities
- focus on technology and its applications to improve efficiency, reduce costs and improve operational effectiveness across our operations, including the use of digital and automation technologies

We expect our share of production to be up to 11 million pounds in 2022 and we will work to minimize the impact of any COVID-19 pandemic disruptions and supply chain challenges on the availability of materials, reagents and labour.

We expect total production from Inkai to be 8.3 million pounds in 2022 on a 100% basis, assuming no production disruptions due to the COVID-19 pandemic, civil unrest, supply chain issues or other causes. Due to equity accounting, our share of production is shown as a purchase. An adjustment to the production purchase entitlement allows us to purchase 4.2 million pounds in 2022.

Uranium – Tier-one operations

McArthur River mine / Key Lake mill



2021 Production (our share)
0.0M lbs
2022 Production Outlook (our share)
up to 3.5M lbs
Estimated Reserves (our share)
275.0M lbs
Estimated Mine Life

2048

McArthur River is the world's largest, high-grade uranium mine, and Key Lake is the world's largest uranium mill. Ore grades at the McArthur River mine are 100 times the world average. We are the operator of both the mine and mill.

In 2018, a decision was made to suspend production and place the mine and mill in care and maintenance. With the improvement in the uranium market and the success we have had in securing new long-term contracts, it is time to proceed with the next phase of our supply discipline decisions. Therefore, continuing to align our production with market conditions and our contract portfolio, our plan is to produce 15 million pounds (100% basis) per year by 2024 at McArthur River/Key Lake, 40% below its licensed capacity. This will remain our production plan until we see further improvements in the uranium market and contracting progress, demonstrating that we continue to be a responsible supplier of uranium fuel.

McArthur River is considered a material uranium property for us. There is a technical report dated March 29, 2019 (effective December 31, 2018) that can be downloaded from SEDAR (sedar.com) or from EDGAR (sec.gov).

Location	Saskatchewan, Canada
Ownership	McArthur River – 69.805% Key Lake – 83.33%
Mine type	Underground
Mining methods	Primary: blasthole stoping Secondary: raiseboring
End product	Uranium concentrate
Certification	ISO 14001 certified
Estimated reserves	275.0 million pounds (proven and probable), average grade U_3O_8: 6.58%
Estimated resources	6.3 million pounds (measured and indicated), average grade U_3O_8: 2.46% 1.8 million pounds (inferred), average grade U_3O_8: 2.85%
Licensed capacity	Mine and mill: 25.0 million pounds per year
Licence term	Through October, 2023
Total packaged production: 2000 to 2021 **1983 to 2002**	325.4 million pounds (McArthur River/Key Lake) (100% basis) 209.8 million pounds (Key Lake) (100% basis)
2021 production	0.0 million pounds (0.0 million pounds on 100% basis)
2022 production outlook	up to 3.5 million pounds (5.0 million pounds on 100% basis)
Estimated decommissioning cost	$42 million – McArthur River (100% basis) $223 million – Key Lake (100% basis)

All values shown, including reserves and resources, represent our share only, unless indicated.

BACKGROUND

Mine description

The mineral reserves at McArthur River are contained within seven zones: Zones 1, 2, 3, 4, 4 South, A and B. Prior to care and maintenance, there were two active mining zones and one where development was significantly advanced.

Zone 2 has been actively mined since production began in 1999. The ore zone was initially divided into three freeze panels. As the freeze wall was expanded, the inner connecting freeze walls were decommissioned in order to recover the inaccessible uranium around the active freeze pipes. Mining of zone 2 is almost complete. About 4.8 million pounds of mineral reserves remain and we expect to recover them using a combination of raisebore and blasthole stope mining.

Zone 4 has been actively mined since 2010. The zone was divided into four freeze panels, and like in zone 2, as the freeze wall was expanded, the inner connecting freeze walls were decommissioned. Zone 4 has 117.5 million pounds of mineral reserves secured behind freeze walls and it will be the main source of production when mine production restarts. Raisebore mining and blasthole stoping will be used to recover the mineral reserves.

Zone 1 is the next planned mine area to be brought into production. Freezehole drilling was 90% complete and brine distribution construction was approximately 10% complete when work was suspended in 2018 as part of the production suspension. Work remaining before production can begin includes completion of the freezehole drilling, brine distribution construction, ground freezing and drill and extraction chamber development. Once complete, an additional 47.5 million pounds of mineral reserves will be secured behind freeze walls. Blasthole stope mining is currently planned as the main extraction method.

We have successfully extracted over 325 million pounds (100% basis) since we began mining in 1999.

Mining methods and techniques

The McArthur River deposit presents unique challenges that are not typical of traditional hard or soft rock mines. These challenges are the result of mining in or near high pressure ground water in challenging ground conditions with significant radiation concerns due to the high-grade uranium ore. Therefore, mine designs and mining methods are selected based on their ability to mitigate hydrological, radiological and geotechnical risks.

There are three approved mining methods at McArthur River: raisebore mining, blasthole stope mining and boxhole mining. However, only raisebore and blasthole stope mining remain in use. In addition, we use ground freezing to mine the McArthur River deposit.

Ground freezing

All the mineralized areas discovered to date at McArthur River are in, or partially in, water-bearing ground with significant pressure at mining depths. This high pressure water source is isolated from active development and production areas in order to reduce the inherent risk of an inflow. To date, McArthur River has relied on pressure grouting and ground freezing to successfully mitigate the risks of the high pressure ground water.

Chilled brine is circulated through freeze holes to form an impermeable freeze barrier around the area being mined. This prevents water from entering the mine, and helps stabilize weak rock formations.

Blasthole stoping

Blasthole stoping began in 2011 and was the main extraction method prior to our production suspension. It is planned in areas where blastholes can be accurately drilled and small stable stopes excavated without jeopardizing the freeze wall integrity. The use of this method has allowed the site to improve operating costs by increasing overall extraction efficiency by reducing underground development, concrete consumption, mineralized waste generation and improving extraction cycle time.

Raisebore mining

Raisebore mining is an innovative non-entry approach that we adapted to meet the unique challenges at McArthur River, and it has been used since mining began in 1999. This method is favourable for mining the weaker rock mass areas of the deposit, and is suitable for massive high-grade zones where there is access both above and below the ore zone.

Initial processing

McArthur River produces two product streams, high grade slurry and low-grade mineralized rock. Both product streams are shipped to Key Lake mill to produce uranium ore concentrate.

The high-grade material is ground and thickened into a slurry paste underground and then pumped to surface. The material is then thickened and blended for grade control and shipped to Key Lake in slurry totes using haul trucks.

The low-grade mineralized material is hoisted to surface and shipped as a dry product to Key Lake using covered haul trucks. Once at Key Lake, the material is ground, thickened and blended with the high-grade slurry to a nominal 5% U_3O_8 mill feed grade. It is then processed into uranium ore concentrate and packaged in drums for further processing offsite.

Tailings capacity

Based on the current licence conditions, tailings capacity at Key Lake is sufficient to mill all the known McArthur River mineral reserves and resources, should they be converted to reserves, with additional capacity to toll mill ore from other regional deposits.

Licensed annual production capacity

The McArthur River mine and Key Lake mill are both licensed to produce up to 25 million pounds (100% basis) per year. To achieve annual production at the licensed capacity, additional investment will be required.

2021 UPDATE

Production suspension

The facilities remained in a state of safe and sustainable care and maintenance throughout 2021.

Care and maintenance activities included mine dewatering, water treatment, freeze wall maintenance, and environmental monitoring. In addition, preservation maintenance and monitoring of the critical facilities continued. These activities were performed to ensure that the McArthur River and Key Lake operations are available to return to production in a timely manner.

Exploration

As a result of the production suspension, there was no exploration activity in 2021.

PLANNING FOR THE FUTURE

Production

Over the course of 2022 and 2023, we will undertake all the activities necessary to ramp up to the planned annual production of 15 million pounds (100% basis) by 2024. As a result, in 2022, we could produce up to 5 million pounds (100% basis). This plan will significantly improve our financial performance by allowing us to source more of our committed sales from lower-cost produced pounds and we will no longer be required to expense care and maintenance costs directly to cost of sales. However, until we achieve a reasonable production rate, we expect to incur between $15 million to $17 million per month in operational readiness costs, which will be expensed directly to cost of sales. There is a potential for the COVID-19 pandemic and related supply chain challenges to impact the availability of materials, reagents and labour, which could not only impact 2022 production but could also introduce risk to production in 2023.

Innovation

In 2020, we began a program to advance the assessment of innovation opportunities at the McArthur River mine and Key Lake mill. We established a team of internal experts who have been tasked with assessing, designing and implementing opportunities to improve operating efficiency. During the year, the team advanced a portfolio of projects focused on improvement of the mine and mill through application of automation, digitization and optimization. In 2021, the projects that met our investment criteria were advanced to implementation.

Optimizing production

The technical report dated March of 2019 is based on production of 18 million pounds (100% basis) per year, however, we plan to align production with our contract portfolio and market signals once operations resume. Our current plan is to achieve production of 15 million pounds (100% basis) per year by 2024. We expect that this paced approach will allow us to extract maximum value from the operation.

MANAGING OUR RISKS

Production at McArthur River/Key Lake poses many challenges. These challenges include control of groundwater, weak rock formations, radiation protection, water inflow, mine area transitioning, regulatory approvals, surface and underground fires and other mining related challenges. Operational experience gained since the start of production has resulted in a significant reduction in risk.

Mine and mill operational readiness

The operational changes we have made, including the suspension of production in 2018 and the accompanying workforce reduction, carry with them the risks of a delay in achieving operational readiness and resuming production.

With the extended period of time the assets were on care and maintenance, there is increased uncertainty regarding the timing of a successful rampup to planned production and the associated costs.

Labour relations

The collective agreement with the United Steelworkers local 8914 expires in December 2022. We plan to begin contract negotiations prior to the expiration of the current agreement. There is a risk to the ramp up to planned production if we are unable to reach agreement and there is a labour dispute.

Water inflow risk

Water inflows pose a significant risk to mine production. In 2003, a water inflow resulted in a three-month suspension of production. We also had a small water inflow in 2008 that did not impact production but did cause significant development delays.

The consequences of another water inflow at McArthur River would depend on its magnitude, location and timing, but could include a significant interruption or reduction in production, a material increase in costs or a loss of mineral reserves.

We take significant steps and precautions to reduce the risk of inflows, but there is no guarantee that these will be successful. In the event that an inflow does occur, we believe we have sufficient pumping, water treatment and surface storage capacity to handle the estimated maximum sustained inflow.

We also manage the risks listed on pages 58 to 60.

Uranium – Tier-one operations

Cigar Lake

2021 Production (our share)
6.1M lbs
2022 Production Outlook (our share)
7.5M lbs
Estimated Reserves (our share)
76.2M lbs
Estimated Mine Life
2032

Cigar Lake is the world's highest grade uranium mine, with grades that are 100 times the world average. We are a 50% owner and the mine operator. Cigar Lake uranium is milled at Orano's (previously AREVA) McClean Lake mill.

Cigar Lake is considered a material uranium property for us. There is a technical report dated March 29, 2016 (effective December 31, 2015) that can be downloaded from SEDAR (sedar.com) or from EDGAR (sec.gov).

Location	Saskatchewan, Canada
Ownership	50.025%
Mine type	Underground
Mining method	Jet boring system
End product	Uranium concentrate
Certification	ISO 14001 certified
Estimated reserves	76.2 million pounds (proven and probable), average grade U_3O_8: 15.41%
Estimated resources	51.9 million pounds (measured and indicated), average grade U_3O_8: 13.83% 11.5 million pounds (inferred), average grade U_3O_8: 5.58%
Licensed capacity	18.0 million pounds per year (our share 9.0 million pounds per year)
Licence term	Through June, 2031
Total packaged production: 2014 to 2021	105 million pounds (100% basis)
2021 production	6.1 million pounds (12.2 million pounds on 100% basis)
2022 production outlook	7.5 million pounds (15.0 million pounds on 100% basis)
Estimated decommissioning cost	$62 million (100% basis)

All values shown, including reserves and resources, represent our share only, unless otherwise indicated.

BACKGROUND

Development

We began developing the Cigar Lake underground mine in 2005, but development was delayed due to water inflows in 2006 and 2008. The underground workings were successfully remediated and secured in 2011 and, in October 2014 the McClean Lake mill produced the first uranium concentrate from ore mined at the Cigar Lake operation. Commercial production was declared in May 2015.

Mine description

Cigar Lake's geological setting is similar to McArthur River's: the permeable sandstone, which overlays the deposit and basement rocks, contains large volumes of water at significant pressure. However, unlike McArthur River, the Cigar Lake deposit has the shape of a flat- to cigar-shaped lens. As a result of these challenging geological conditions, we are unable to utilize traditional mining methods that require access above the ore, necessitating the development of a non-entry mining method specifically adapted for this deposit: the Jet Boring System (JBS).

Mine development is carried out uniquely in the basement rocks below the ore horizon. New mine development is required throughout the mine life to gain access to the ore above.

Mining method

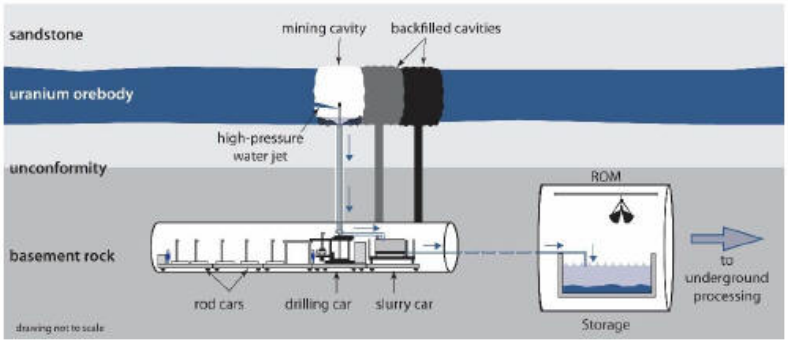
Bulk ground freezing

The sandstone that overlays the deposit and basement rocks is water-bearing, and to prevent water from entering the mine, help stabilize weak rock formations, and meet our production schedule, we freeze the ground from surface. The ore zone and surrounding ground in the area to be mined must meet specific ground freezing requirements before we begin jet boring.

Jet boring system (JBS) mining

After many years of test mining, we selected jet boring, a non-entry mining method, which we have developed and adapted specifically for this deposit. This method involves:

- drilling a pilot hole into the frozen orebody, inserting a high pressure water jet and cutting a cavity out of the frozen ore
- collecting the ore and water mixture (slurry) from the cavity and pumping it to storage (sump storage), allowing it to settle
- using a clamshell, transporting the ore from sump storage to an underground grinding and processing circuit
- once mining is complete, filling each cavity in the orebody with concrete
- starting the process again with the next cavity



We have divided the orebody into production panels and at least three production panels need to be frozen at one time to achieve the annual production rate. One JBS machine is located below each frozen panel. Three JBS machines are currently in operation. Two machines actively mine at any given time while the third is moving, setting up, or undergoing maintenance.

Initial processing

We carry out initial processing of the extracted ore at Cigar Lake:

- the underground circuit grinds the ore and mixes it with water to form a slurry
- the slurry is pumped 500 metres to the surface and stored in one of two ore slurry holding tanks
- it is blended and thickened, removing excess water
- the final slurry, at an average grade of approximately 15% U_3O_8, is pumped into transport truck containers and shipped to McClean Lake mill on a 69 kilometre all-weather road

Water from this process, including water from underground operations, is treated on the surface. Any excess treated water is released into the environment.

Milling

All of Cigar Lake's ore slurry is being processed at the McClean Lake mill, operated by Orano. Given the McClean Lake mill's capacity, it is able to:

- process up to 18 million pounds U_3O_8 per year
- process and package all of Cigar Lake's current mineral reserves

Licensing annual production capacity

The Cigar Lake mine is licensed to produce up to 18 million pounds (100% basis) per year. Orano's McClean Lake mill is licensed to produce 24 million pounds annually.

2021 UPDATE

Production

Total packaged production from Cigar Lake in 2021 was 12.2 million pounds U_3O_8 (6.1 million pounds our share) compared to 10 million pounds U_3O_8 (5.0 million pounds our share) in 2020. Production was impacted by suspensions in the second and third quarters of 2020 as a precautionary measure due to COVID-19. In December 2020, we safely suspended production at the Cigar Lake mine a second time as a precaution. The mine remained suspended through the first quarter of 2021 until its restart in mid-April. On July 1, all non-essential personnel from the Cigar Lake mine were evacuated and production was temporarily suspended as a precaution due to the proximity of a forest fire. With the risk subsided and all infrastructure intact, the workforce returned on July 4 and production resumed in the first week of July.

During the year, we:

- executed planned ten-day annual maintenance activities in September
- executed production activities from three production tunnels in the eastern part of the orebody
- in alignment with our long-term production plans, we substantially completed optimizations of the underground water handling system and header expansions, and expanded our ground freezing program to ensure continued frozen ore inventory

Underground development

Underground mine development continued in 2021. A new production cross cut was completed in 2021 as well as development work in the western portion of the orebody. However, as a result of the suspension in production, we have also experienced delays and deferrals in project work, including lower capital expenditures, which have introduced risk to production in 2022. Furthermore, the potential for supply chain impacts on construction materials, equipment and labour remains uncertain and could further exacerbate production risk in 2022 and future years.

PLANNING FOR THE FUTURE

Production

At Cigar Lake, due to delays and deferrals to development work caused by the proactive COVID-19-related four-month suspension of production in 2021 and the ongoing pandemic and supply chain challenges impacting the availability of construction materials, equipment and labour, we expect production of 15 million pounds (100% basis) in 2022. We will work to minimize the impacts of these disruptions.

In 2022, we plan to:

- continue production activities focused on bringing one new production panel online and closing out a completed one
- continue surface freeze drilling and complete construction and commissioning of freeze distribution infrastructure expansion in support of future production
- continue underground mine development on two new production tunnels as well as expand ventilation and access drifts in alignment with the long-term mine plan
- continue upgrades to process water handling circuits and the surface backfill batch plant to support ongoing operations

Optimizing production

Consistent with our strategy and the improving market conditions, we are proceeding with the next phase of our supply discipline decisions. Continuing to align our production with the market conditions and our contract portfolio, starting in 2024, we will target production from Cigar Lake that is 25% below the licensed capacity, or 13.5 million pounds (100% basis) per year. Extending the mine life at Cigar Lake by aligning production with the market opportunities and our contract portfolio is consistent with our tier-one strategy and is expected to allow more time to evaluate the feasibility of extending the mine life beyond the current reserve base while continuing to supply ore to Orano's McClean Lake mill. This will remain our production plan until we see further improvements in the uranium market and contracting progress, demonstrating that we continue to be a responsible supplier of uranium fuel.

MANAGING OUR RISKS

Cigar Lake is a challenging deposit to develop and mine. These challenges include control of groundwater, weak rock formations, radiation protection, chemical ore characteristics, performance of the water treatment system, water inflow, regulatory approvals, surface and underground fires and other mining-related challenges. To reduce this risk, we are applying our operational experience and the lessons we have learned about water inflows at McArthur River and Cigar Lake.

Transition to new mining areas

In order to successfully achieve the planned production schedule, we must continue to successfully transition into new mining areas, which includes mine development and investment in critical support infrastructure.

Ground freezing

To manage our risks and meet our production schedule, the areas being mined must meet specific ground freezing requirements before we begin jet boring. We have identified greater variation of the freeze rates of different geological formations encountered in the mine, based on information obtained through surface freeze drilling. As a mitigation measure, we have increased the site freeze capacity to facilitate the mining of ore cavities as planned.

Environmental performance

The Cigar Lake orebody contains elements of concern with respect to the water quality and the receiving environment. The distribution of elements such as arsenic, molybdenum, selenium and others is non-uniform throughout the orebody, and this can present challenges in attaining and maintaining the required effluent concentrations.

There have been ongoing efforts to optimize the current water treatment process and water handling systems to ensure acceptable environmental performance, which is expected to avoid the need for additional capital upgrades and potential deferral of production.

Water inflow risk

A significant risk to development and production is from water inflows. The 2006 and 2008 water inflows were significant setbacks.

The consequences of another water inflow at Cigar Lake would depend on its magnitude, location and timing, but could include a significant delay or disruption in Cigar Lake production, a material increase in costs or a loss of mineral reserves.

We take the following steps to reduce the risk of inflows, but there is no guarantee that these will be successful:

- Bulk freezing: Two of the primary challenges in mining the deposit are control of groundwater and ground support. Bulk freezing reduces but does not completely eliminate the risk of water inflows.
- Mine development: We plan for our mine development to take place away from known groundwater sources whenever possible. In addition, we assess all planned mine development for relative risk and apply extensive additional technical and operating controls for all higher risk development.
- Pumping capacity and treatment limits: We have pumping capacity to meet our standard for this operation of at least one and a half times the estimated maximum inflow.

We believe we have sufficient pumping, water treatment and surface storage capacity to handle the estimated maximum inflow.

We also manage the risks listed on pages 58 to 60.

Uranium – Tier-one operations

Inkai



2021 Production (100% basis)
9.0M lbs
2022 Production Outlook (100% basis)
8.3M lbs
Estimated Reserves (our share)
112.5M lbs
Estimated Mine Life

2045 *(based on licence term)*

Inkai is a very significant uranium deposit, located in Kazakhstan. The operator is JV Inkai limited liability partnership, which we jointly own (40%) with Kazatomprom (60%)[1].

Inkai is considered a material uranium property for us. There is a technical report dated January 25, 2018 (effective January 1, 2018) that can be downloaded from SEDAR (sedar.com) or from EDGAR (sec.gov).

Location	South Kazakhstan
Ownership	40%[1]
Mine type	In situ recovery (ISR)
End product	Uranium concentrate
Certifications	BSI OHSAS 18001 ISO 14001 certified
Estimated reserves	112.5 million pounds (proven and probable), average grade U_3O_8: 0.04%
Estimated resources	35.6 million pounds (measured and indicated), average grade U_3O_8: 0.03% 9.6 million pounds (inferred), average grade U_3O_8: 0.03%
Licensed capacity (wellfields)	10.4 million pounds per year (our share 4.2 million pounds per year)[1]
Licence term	Through July 2045
Total packaged production: 2009 to 2021	73 million pounds (100% basis)
2021 production	9.0 million pounds (100% basis)[1]
2022 production outlook	8.3 million pounds (100% basis)[1]
Estimated decommissioning cost (100% basis)	$20 million (US) (100% basis) (this estimate is currently under review)

All values shown, including reserves and resources, represent our share only, unless indicated.

[1] Our ownership interest in the joint venture is 40% and we equity account for our investment. As such, our share of production is shown as a purchase.

BACKGROUND

Mine description

The Inkai uranium deposit is a roll-front type orebody within permeable sandstones. The more porous and permeable units host several stacked and relatively continuous, sinuous “roll-fronts” of low-grade uranium forming a regional system. Superimposed over this regional system are several uranium projects and active mines.

Inkai’s mineralization ranges in depths from about 260 metres to 530 metres. The deposit has a surface projection of about 40 kilometres in length, and the width ranges from 40 to 1600 metres. The deposit has hydrogeological and mineralization conditions favourable for use of in-situ recovery (ISR) technology.

Mining and milling method

JV Inkai uses conventional, well-established, and very efficient ISR technology, developed after extensive test work and operational experience. The process involves five major steps:

- leach the uranium in-situ by circulating an acid-based solution through the host formation
- recover it from solution with ion exchange resin (takes place at both main and satellite processing plants)
- precipitate the uranium with hydrogen peroxide
- thicken, dewater, and dry it
- package the uranium peroxide product in drums

Production

Total 2021 production from Inkai was 9.0 million pounds (100% basis), an increase of 28% from 2020. The increase in production is due to the impact of the reduction in operational activities introduced to manage the risks posed by the COVID-19 pandemic in 2020.

Production purchase entitlements

Under the terms of a restructuring agreement signed with our partner Kazatomprom in 2016, our ownership interest in JV Inkai is 40% and Kazatomprom’s share is 60%. However, during production rampup to the licensed limit of 10.4 million pounds, we are entitled to purchase 57.5% of the first 5.2 million pounds of annual production, and as annual production increases over 5.2 million pounds, we are entitled to purchase 22.5% of such incremental production, to the maximum annual share of 4.2 million pounds. Once the rampup to 10.4 million pounds annually is complete, we will be entitled to purchase 40% of such annual production, matching our ownership interest.

Based on an adjustment to the production purchase entitlement under the 2016 JV Inkai restructuring agreement, in 2021 we were entitled to purchase 5.3 million pounds, or 59.4% of JV Inkai’s 2021 production of 9.0 million pounds.

Cash distribution

Excess cash, net of working capital requirements, will be distributed to the partners as dividends. In 2021, we received dividend payments from JV Inkai totaling $40 million (US). Our share of dividends follows our production purchase entitlements as described above.

PLANNING FOR THE FUTURE

Production

On July 2, 2021, Kazatomprom announced that it plans to maintain 2023 production at a similar level to 2022, which is expected to be 20% lower than the planned volumes under its Subsoil Use Contracts.

Based on an adjustment to the production purchase entitlement under the 2016 JV Inkai restructuring agreement described above, we are entitled to purchase 4.2 million pounds, or 50% of JV Inkai’s planned 2022 production of 8.3 million pounds, assuming no production disruptions due to the COVID-19 pandemic, supply chain disruptions, civil unrest or other causes.

Presently, JV Inkai is experiencing wellfield development, procurement and supply chain issues, including inflationary pressure on production materials and reagents, which are expected to continue and could pose a risk to JV Inkai's 2022 production volume, impacting its costs. In addition, JV Inkai's costs could be impacted by potential changes to the tax code in Kazakhstan and by possible increased financial contributions to social and other state causes, although these risks cannot be quantified or estimated at this time.

Our share of production is purchased at a discount to the spot price and included at this value in inventory. In addition, JV Inkai capital is not included in our outlook for capital expenditures.

MANAGING OUR RISKS

2022 production forecast risk

Achievement of JV Inkai's 2022 production forecast requires it to successfully manage its operating and other risks including the current uncertain environment resulting from civil unrest and from the COVID-19 pandemic, including the risk of significant disruption to JV Inkai's operations, workforce, required supplies or services, and its ability to produce uranium.

Political risk

Kazakhstan declared itself independent in 1991 after the dissolution of the Soviet Union. Our investment in JV Inkai is subject to the greater risks associated with doing business in developing countries, which have significant potential for social, economic, political, legal and fiscal instability. Kazakh laws and regulations are complex and still developing and their application can be difficult to predict. The other owner of JV Inkai is Kazatomprom, an entity majority owned by the government of Kazakhstan. We have entered into agreements with JV Inkai and Kazatomprom intended to mitigate political risk. This risk includes the imposition of governmental laws or policies that could restrict or hinder JV Inkai paying us dividends, or selling us our share of JV Inkai production, or that impose discriminatory taxes or currency controls on these transactions. The restructuring of JV Inkai, which took effect January 1, 2018, was undertaken with the objective to better align the interests of Cameco and Kazatomprom and includes a governance framework that provides for protection for us as a minority owner of JV Inkai.

In early January 2022, Kazakhstan saw the most significant political instability since it became independent in 1991. The events resulted in a state of emergency being declared across the country. With the assistance of the Collective Security Treaty Organization (CSTO), the government restored the order and in the second half of January, the state of emergency was gradually lifted and withdrawal of CSTO forces from Kazakhstan was completed. The early outcome of those events was a number of political and economic reforms declared by the government. While the exact impact of those reforms is unclear at this time, they could potentially impact JV Inkai's operations and costs.

For more details on this risk, please see our most recent annual information form under the heading political risks.

JV Inkai manages risks listed on pages 58 to 60.

Uranium – Tier-two operations

Rabbit Lake

Located in Saskatchewan, Canada, our 100% owned Rabbit Lake operation opened in 1975, and has the second largest uranium mill in the world. Due to market conditions, we suspended production at Rabbit Lake during the second quarter of 2016.

Location	Saskatchewan, Canada
Ownership	100%
End product	Uranium concentrates
ISO certification	ISO 14001 certified
Mine type	Underground
Estimated reserves	-
Estimated resources	38.6 million pounds (indicated), average grade U_3O_8: 0.95% 33.7 million pounds (inferred), average grade U_3O_8: 0.62%
Mining methods	Vertical blasthole stoping
Licensed capacity	Mill: maximum 16.9 million pounds per year; currently 11 million
Licence term	Through October, 2023
Total production: 1975 to 2021	202.2 million pounds
2021 production	0 million pounds
2022 production outlook	0 million pounds
Estimated decommissioning cost	$213 million

PRODUCTION SUSPENSION

The facilities remained in a state of safe and sustainable care and maintenance throughout 2021.

While in standby, we continue to evaluate our options in order to minimize care and maintenance costs. We expect care and maintenance costs to range between $27 million and $32 million annually.

MANAGING OUR RISKS

We also manage the risks listed on pages 58 to 60.

US ISR Operations

Located in Nebraska and Wyoming in the US, the Crow Butte and Smith Ranch-Highland (including the North Butte satellite) operations began production in 1991 and 1975. Each operation has its own processing facility. Due to market conditions, we curtailed production and deferred all wellfield development at these operations during the second quarter of 2016.

Ownership		100%
End product		Uranium concentrates
ISO certification		ISO 14001 certified
Estimated reserves	*Smith Ranch-Highland:*	-
	North Butte-Brown Ranch:	-
	Crow Butte:	-
Estimated resources	*Smith Ranch-Highland:*	24.9 million pounds (measured and indicated), average grade U_3O_8: 0.06% 7.7 million pounds (inferred), average grade U_3O_8: 0.05%
	North Butte-Brown Ranch:	9.5 million pounds (measured and indicated), average grade U_3O_8: 0.07% 0.4 million pounds (inferred), average grade U_3O_8: 0.07%
	Crow Butte:	13.9 million pounds (measured and indicated), average grade U_3O_8: 0.25% 1.8 million pounds (inferred), average grade U_3O_8: 0.16%
Mining methods		In situ recovery (ISR)
Licensed capacity	*Smith Ranch-Highland:*[1]	Wellfields: 3 million pounds per year; processing plants: 5.5 million pounds per year
	Crow Butte:	Processing plants and wellfields: 2 million pounds per year
Licence term	*Smith Ranch-Highland:*	Through September, 2028
	Crow Butte:	Through October, 2024
Total production: 2002 to 2021		33.0 million pounds
2021 production		0 million pounds
2022 production outlook		0 million pounds
Estimated decommissioning cost		Smith Ranch-Highland: $219 million (US), including North Butte Crow Butte: $56 million (US)

[1] Including Highland mill

PRODUCTION CURTAILMENT

As a result of our 2016 decision, production at the US operations ceased in 2018. We expect ongoing cash and non-cash care and maintenance costs to range between $17 million (US) and $19 million (US) for 2022.

FUTURE PRODUCTION

We do not expect any production in 2022.

MANAGING OUR RISKS

We manage the risks listed on pages 58 to 60.

Uranium – advanced projects

Work on our advanced projects has been scaled back and will continue at a pace aligned with market signals.

Millennium

Location	Saskatchewan, Canada
Ownership	69.9%
End product	Uranium concentrates
Potential mine type	Underground
Estimated resources (our share)	53.0 million pounds (indicated), average grade U_3O_8: 2.39% 20.2 million pounds (inferred), average grade U_3O_8: 3.19%

BACKGROUND

The Millennium deposit was discovered in 2000, and was delineated through geophysical survey and surface drilling work between 2000 and 2013.

Yeelirrie

Location	Western Australia
Ownership	100%
End product	Uranium concentrates
Potential mine type	Open pit
Estimated resources	128.1 million pounds (measured and indicated), average grade U_3O_8: 0.15%

BACKGROUND

The deposit was discovered in 1972 and is a near-surface calcrete-style deposit that is amenable to open pit mining techniques. It is one of Australia's largest undeveloped uranium deposits.

Kintyre

Location	Western Australia
Ownership	100%
End product	Uranium concentrates
Potential mine type	Open pit
Estimated resources	53.5 million pounds (indicated), average grade U_3O_8: 0.62% 6.0 million pounds (inferred), average grade U_3O_8: 0.53%

BACKGROUND

The Kintyre deposit was discovered in 1985 and is amenable to open pit mining techniques.

2021 PROJECT UPDATES

We believe that we have some of the best undeveloped uranium projects in the world. However, in the current market environment these assets are not required to meet near-term demand. We continue to await a signal from the market that additional production is needed prior to making any new development decisions.

PLANNING FOR THE FUTURE

2022 Planned activity

No work is planned at Millennium, Yeelirrie or Kintyre.

Further progress towards a development decision on any of these projects is not expected until the market fully transitions and supply is incented by prices that reflect production economics.

MANAGING THE RISKS

Project approval

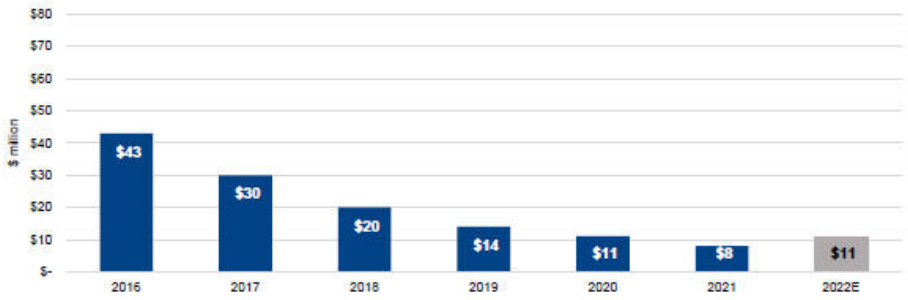
The approval for the Yeelirrie project, received from the prior state government, required substantial commencement of the project by January 2022 unless an extension is granted by the state government. The Minister for Environment; Climate Action for the state government has indicated that it will not consider our request for an extension at this time. In the future we can again apply for an extension of time to achieve substantial commencement of the project. If granted by a future government we could commence the Yeelirrie project, provided we have all other required regulatory approvals. Approval for the Yeelirrie project at the federal level was granted in 2019 and extends until 2043.

For all of our advanced projects, we manage the risks listed on pages 58 to 60.

Uranium – exploration

Our exploration program is directed at replacing mineral reserves as they are depleted by our production and is key to sustaining our business. However, as we are preserving our tier-one assets and have ample idled production capacity, we have reduced our spending to focus only on exploration near our existing operations where we have established infrastructure and capacity to expand. Globally, we have land with exploration and development prospects that are among the best in the world, mainly in Canada, Australia and the US. Our land holdings total about 0.85 million hectares (2.1 million acres). In northern Saskatchewan alone, we have direct interests in about 0.75 million hectares (1.9 million acres) of land covering many of the most prospective exploration areas of the Athabasca Basin.

EXPLORATION AND EVALUATION SPENDING



2021 UPDATE

Brownfield exploration

Brownfield exploration is uranium exploration near our existing operations and includes expenses for advanced exploration on the evaluation of projects where uranium mineralization is being defined.

In 2021, we spent about $3 million on brownfields and advanced uranium projects in Saskatchewan and Australia. At the US operations we spent $1 million.

Regional exploration

We spent about $4 million on regional exploration programs (including support costs), primarily in Saskatchewan's Athabasca Basin.

PLANNING FOR THE FUTURE

We will continue to focus on our core projects in Saskatchewan under our long-term exploration strategy. Long-term, we look for properties that meet our investment criteria. We may partner with other companies through strategic alliances, equity holdings and traditional joint venture arrangements. Our leadership position and industry expertise in both exploration and corporate social responsibility make us a partner of choice.

Fuel services

Refining, conversion and fuel manufacturing

We have about 21% of world UF_6 primary conversion capacity and are a supplier of natural UO_2. Our focus is on cost-competitiveness and operational efficiency.

Our fuel services segment is strategically important because it helps support the growth of the uranium segment. Offering a range of products and services to customers helps us broaden our business relationships and expand our uranium market share.

Blind River Refinery



Licensed Capacity

24.0M kgU as UO_3

Licence renewal in

February, 2022

Blind River is the world's largest commercial uranium refinery, refining uranium concentrates from mines around the world into UO_3.

Location	Ontario, Canada
Ownership	100%
End product	UO_3
ISO certification	ISO 14001 certified
Licensed capacity	18.0 million kgU as UO_3 per year, approved to 24.0 million subject to the completion of certain equipment upgrades (advancement depends on market conditions)
Licence term	Through February, 2022
Estimated decommissioning cost	$48 million

Port Hope Conversion Services



Licensed Capacity

12.5M kgU as UF_6

2.8M kgU as UO_2

Licence renewal in

February, 2027

Port Hope is the only uranium conversion facility in Canada and a supplier of UO_2 for Canadian-made CANDU reactors.

Location	Ontario, Canada
Ownership	100%
End product	UF_6, UO_2
ISO certification	ISO 14001 certified
Licensed capacity	12.5 million kgU as UF_6 per year 2.8 million kgU as UO_2 per year
Licence term	Through February, 2027
Estimated decommissioning cost	$129 million

Cameco Fuel Manufacturing Inc. (CFM)



Licensed Capacity

1.2M kgU as UO_2 fuel pellets

Licence renewal in

February, 2022

CFM produces fuel bundles and reactor components for CANDU reactors.

Location	Ontario, Canada
Ownership	100%
End product	CANDU fuel bundles and components
ISO certification	ISO 9001 certified, ISO 14001 certified
Licensed capacity	1.2 million kgU as UO_2 fuel pellets
Licence term	Through February, 2022
Estimated decommissioning cost	$21 million

2021 UPDATE

Production

Fuel services produced 12.1 million kgU, 3% higher than 2020 due to production suspensions in 2020 as a precaution due to the COVID-19 pandemic. Planned production was impacted by hydrogen supply issues in 2021. The hydrogen supply constraint was resolved in the fourth quarter, however supply chain disruption remains a risk generally.

Port Hope conversion facility cleanup and modernization (Vision in Motion)

Vision in Motion is a unique opportunity that demonstrates our continued commitment to a clean environment. It has been made possible by the opening of a long-term waste management facility by the government of Canada's Port Hope Area Initiative project. There is a limited opportunity during the life of this project to engage in clean-up and renewal activities that address legacy waste at the Port Hope Conversion facility inherited from historic operations. While there were some targeted activities throughout the year, significant progress on the Vision in Motion project was limited due to the COVID-19 pandemic and actions taken by the Ontario government to limit all non-essential construction activity.

PLANNING FOR THE FUTURE

Production

We plan to produce between 12.5 million and 13.5 million kgU in 2022, assuming no production disruptions due to the COVID-19 pandemic or other causes.

In addition, in conjunction with our initiative intended to provide a greater focus on technology and its applications to improve efficiency and reduce costs across the organization, we will continue to look for opportunities to improve operational effectiveness, including the use of digital and automation technologies.

MANAGING OUR RISKS

2022 production forecast risk

Achievement of our 2022 forecast for fuel services production requires us to successfully manage our operating and other risks, including the current uncertain environment resulting from the COVID-19 pandemic and its related operational risks, such as the risk of significant disruption to our workforce, required supplies or services, and our ability to produce product.

Labour relations

The current collective bargaining agreement with the unionized employees at Port Hope Conversion Facility expires on July 1, 2022. There is a risk to our production if we are unable to reach an agreement and there is a labour disruption.

Licensing

The current operating licence from the CNSC for both the Blind River refinery and CFM expire in February 2022. The relicensing process for both sites took place in the fourth quarter of 2021 and a decision from the CNSC is expected in early 2022. We do not expect any interruption or significant risks from this process.

We also manage the risks listed on pages 58 to 60.

Corporate development

INVESTMENT PROGRAM

Currently, with our extensive portfolio of reserves and resources and our belief that we have ample idle production capacity for a market that is transitioning, our focus is on navigating by our investment-grade rating and continuing to preserve the value of our tier-one assets by aligning our tier-one production with our delivery commitments and market opportunities. We expect that these assets will allow us to meet rising uranium demand with increased production from our best margin operations and will help to mitigate risk in the event of prolonged uncertainty.

Additionally, we are exploring other emerging and non-traditional opportunities within the fuel cycle, which align well with our commitment to responsibly and sustainably manage our business and increase our contributions to global climate change solutions, such as our investment in Global Laser Enrichment LLC and the non-binding arrangements we signed to explore several areas of cooperation to advance the commercialization and deployment of small modular reactors in Canada and around the world.

We continually evaluate investment opportunities within the nuclear fuel cycle that could add to our future supply options, support our sales activities, and complement and enhance our business in the nuclear industry. We will make an investment decision when an opportunity is available at the right time and the right price. We strive to pursue corporate development initiatives that will leave us and our shareholders in a fundamentally stronger position. As such, an investment opportunity is never assessed in isolation. Investments must compete for investment capital with our own internal growth opportunities. They are subject to our capital allocation process described under *Our strategy*, starting on page 19.

Mineral reserves and resources

Our mineral reserves and resources are the foundation of our company and fundamental to our success.

We have interests in a number of uranium properties. The tables in this section show the estimates of the proven and probable mineral reserves, and measured, indicated, and inferred mineral resources at those properties. However, only three of the properties listed in those tables are material uranium properties for us: McArthur River/Key Lake, Cigar Lake and Inkai. Mineral reserves and resources are all reported as of December 31, 2021.

We estimate and disclose mineral reserves and resources in five categories, using the definition standards adopted by the Canadian Institute of Mining, Metallurgy and Petroleum Council, and in accordance with *National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101),* developed by the Canadian Securities Administrators. You can find out more about these categories at www.cim.org.

About mineral resources

Mineral resources do not have to demonstrate economic viability but have reasonable prospects for eventual economic extraction. They fall into three categories: measured, indicated and inferred. Our reported mineral resources are exclusive of mineral reserves.

- *Measured and indicated mineral resources* can be estimated with sufficient confidence to allow the appropriate application of technical, economic, marketing, legal, environmental, social and governmental factors to support evaluation of the economic viability of the deposit.
- *measured resources*: we can confirm both geological and grade continuity to support detailed mine planning
- *indicated resources*: we can reasonably assume geological and grade continuity to support mine planning
- *Inferred mineral resources* are estimated using limited geological evidence and sampling information. We do not have enough confidence to evaluate their economic viability in a meaningful way. You should not assume that all or any part of an inferred mineral resource will be upgraded to an indicated or measured mineral resource, but it is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources with continued exploration.

Our share of uranium in the following mineral resource tables is based on our respective ownership interests. Reported mineral resources have not demonstrated economic viability.

About mineral reserves

Mineral reserves are the economically mineable part of measured and/or indicated mineral resources demonstrated by at least a preliminary feasibility study. The reference point at which mineral reserves are defined is the point where the ore is delivered to the processing plant, except for ISR operations where the reference point is where the mineralization occurs under the existing or planned wellfield patterns. Mineral reserves fall into two categories:

- *proven reserves*: the economically mineable part of a measured resource for which at least a preliminary feasibility study demonstrates that, at the time of reporting, economic extraction could be reasonably justified with a high degree of confidence
- *probable reserves*: the economically mineable part of a measured and/or indicated resource for which at least a preliminary feasibility study demonstrates that, at the time of reporting, economic extraction could be reasonably justified with a degree of confidence lower than that applying to proven reserves

For properties where we are the operator, we use current geological models, an average uranium price of $50 (US) per pound U_3O_8, and current or projected operating costs and mine plans to report our mineral reserves, allowing for dilution and mining losses. We apply our standard data verification process for every estimate. For properties in which Cameco has an interest but is not the operator, we will take reasonable steps to ensure that the reserve and resource estimates that we report are reliable.

Our share of uranium in the mineral reserves table below is based on our respective ownership interests.

PROVEN AND PROBABLE (P&P) RESERVES, MEASURED AND INDICATED (M&I) RESOURCES, INFERRED RESOURCES (SHOWING CHANGE FROM 2020)
at December 31, 2021



Changes this year

Our share of proven and probable mineral reserves increased from 455 million pounds U_3O_8 at the end of 2020, to 464 million pounds at the end of 2021. The change was primarily the result of:

- a mineral resource and reserve estimate update at Inkai which added 19.0 million pounds to proven and probable reserves based on the infill drilling program completed in the Sat-1 area in 2018-2019. This update also resulted in increased confidence and consequent upgrading to the underlying mineral resource categories.

partially offset by:

- production at Cigar Lake and Inkai, which removed 10.5 million pounds from our mineral inventory

The remaining changes are attributable to mineral resource and reserve estimate updates at Cigar Lake and McArthur River.

Our share of measured and indicated mineral resources increased from 426 million pounds U_3O_8 at the end of 2020, to 447 million pounds at the end of 2021. Our share of inferred mineral resources is 154 million pounds U_3O_8, a decrease of 20 million pounds from the end of 2020. The variance in mineral resources was primarily the result of the Inkai mineral resource estimate update.

Qualified persons

The technical and scientific information discussed in this MD&A for our material properties (McArthur River/Key Lake, Cigar Lake and Inkai) was approved by the following individuals who are qualified persons for the purposes of NI 43-101:

MCARTHUR RIVER/KEY LAKE

- Greg Murdock, general manager, McArthur River/Key Lake, Cameco
- Alain D. Renaud, chief geologist, technical services, Cameco
- Biman Bharadwaj, principal metallurgist, technical services, Cameco

CIGAR LAKE

- Lloyd Rowson, general manager, Cigar Lake, Cameco
- Scott Bishop, director, technical services, Cameco
- Alain D. Renaud, chief geologist, technical services, Cameco
- Biman Bharadwaj, principal metallurgist, technical services, Cameco

INKAI

- Alain D. Renaud, chief geologist, technical services, Cameco
- Scott Bishop, director, technical services, Cameco
- Biman Bharadwaj, principal metallurgist, technical services, Cameco
- Sergey Ivanov, deputy director general, technical services, Cameco Kazakhstan LLP

Important information about mineral reserve and resource estimates

Although we have carefully prepared and verified the mineral reserve and resource figures in this document, the figures are estimates, based in part on forward-looking information.

Estimates are based on knowledge, mining experience, analysis of drilling results, the quality of available data and management's best judgment. They are, however, imprecise by nature, may change over time, and include many variables and assumptions, including:

- geological interpretation
- extraction plans
- commodity prices and currency exchange rates
- recovery rates
- operating and capital costs

There is no assurance that the indicated levels of uranium will be produced, and we may have to re-estimate our mineral reserves based on actual production experience. Changes in the price of uranium, production costs or recovery rates could make it unprofitable for us to operate or develop a particular site or sites for a period of time. See page 2 for information about forward-looking information.

Please see our mineral reserves and resources section of our most recent annual information form for the specific assumptions, parameters and methods used for McArthur River, Inkai and Cigar Lake mineral reserve and resource estimates.

Important information for US investors

We present information about mineralization, mineral reserves and resources as required by National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators (NI 43-101), in accordance with applicable Canadian securities laws. As a foreign private issuer filing reports with the US Securities and Exchange Commission (SEC) under the Multijurisdictional Disclosure System, we are not required to comply with the SEC's disclosure requirements relating to mining properties. Investors in the United States should be aware that the disclosure requirements of NI 43-101 are different from those under applicable SEC rules, and the information that we present concerning mineralization, mineral reserves and resources may not be comparable to information made public by companies that comply with the SEC's reporting and disclosure requirements for mining companies.

Mineral reserves

As of December 31, 2021 (100% – only the shaded column shows our share)

PROVEN AND PROBABLE

(tonnes in thousands; pounds in millions)

		PROVEN			PROBABLE			TOTAL MINERAL RESERVES			OUR SHARE RESERVES	
PROPERTY	MINING METHOD	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	CONTENT (LBS U_3O_8)	METALLURGICAL RECOVERY (%)
Cigar Lake	UG	271.0	15.90	95.0	177.5	14.67	57.4	448.5	15.41	152.4	**76.2**	98.5
Key Lake	OP	61.1	0.52	0.7	—	—	—	61.1	0.52	0.7	**0.6**	95
McArthur River	UG	2,139.6	6.97	328.9	575.1	5.13	65.1	2,714.7	6.58	393.9	**275.0**	99
Inkai	ISR	264,001.7	0.04	226.9	80,459.5	0.03	54.3	344,461.2	0.04	281.2	**112.5**	85
Total		**266,473.4**	**—**	**651.5**	**81,212.1**	**—**	**176.8**	**347,685.5**	**—**	**828.2**	**464.3**	**—**

(UG – underground, OP – open pit, ISR – in situ recovery)

Note that the estimates in the above table:

- use a constant dollar average uranium price of approximately $50 (US) per pound U_3O_8 except Inkai, where an average uranium price of approximately $35 (US) per pound U_3O_8 was used by JV Inkai
- are based on exchange rates of $1.00 US=$1.25 Cdn and $1.00 US=425 Kazakhstan Tenge

Our estimate of mineral reserves and mineral resources may be positively or negatively affected by the occurrence of one or more of the material risks discussed under the heading *Caution about forward-looking information* beginning on page 2, as well as certain property-specific risks. See *Uranium – Tier-one operations* starting on page 62.

Metallurgical recovery

We report mineral reserves as the quantity of contained ore supporting our mining plans and provide an estimate of the metallurgical recovery for each uranium property. The estimate of the amount of valuable product that can be physically recovered by the metallurgical extraction process is obtained by multiplying the quantity of contained metal (content) by the planned metallurgical recovery percentage. The content and our share of uranium in the table above are before accounting for estimated metallurgical recovery.

Mineral resources

As of December 31, 2021 (100% – only the shaded columns show our share)

MEASURED, INDICATED AND INFERRED

(tonnes in thousands; pounds in millions)

	MEASURED RESOURCES (M)			INDICATED RESOURCES (I)				OUR SHARE	INFERRED RESOURCES			OUR SHARE
PROPERTY	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	TOTAL M+I CONTENT (LBS U_3O_8)	TOTAL M+I CONTENT (LBS U_3O_8)	TONNES	GRADE % U_3O_8	CONTENT (LBS U_3O_8)	INFERRED CONTENT (LBS U_3O_8)
Cigar Lake	26.8	7.55	4.5	313.3	14.37	99.3	103.7	51.9	186.4	5.58	22.9	11.5
Fox Lake	—	—	—	—	—	—	—	—	386.7	7.99	68.1	53.3
Kintyre	—	—	—	3,897.7	0.62	53.5	53.5	53.5	517.1	0.53	6.0	6.0
McArthur River	91.7	2.63	5.3	74.5	2.26	3.7	9.0	6.3	41.0	2.85	2.6	1.8
Millennium	—	—	—	1,442.6	2.39	75.9	75.9	53.0	412.4	3.19	29.0	20.2
Rabbit Lake	—	—	—	1,836.5	0.95	38.6	38.6	38.6	2,460.9	0.62	33.7	33.7
Tamarack	—	—	—	183.8	4.42	17.9	17.9	10.3	45.6	1.02	1.0	0.6
Yeelirrie	27,172.9	0.16	95.9	12,178.3	0.12	32.2	128.1	128.1	—	—	—	—
Crow Butte	1,558.1	0.19	6.6	939.3	0.35	7.3	13.9	13.9	531.4	0.16	1.8	1.8
Gas Hills - Peach	687.2	0.11	1.7	3,626.1	0.15	11.6	13.3	13.3	3,307.5	0.08	6.0	6.0
Inkai	87,192.7	0.03	56.1	65,236.0	0.02	32.9	89.1	35.6	36,165.2	0.03	23.9	9.6
North Butte - Brown Ranch	621.3	0.08	1.1	5,530.3	0.07	8.4	9.5	9.5	294.5	0.07	0.4	0.4
Ruby Ranch	—	—	—	2,215.3	0.08	4.1	4.1	4.1	56.2	0.14	0.2	0.2
Shirley Basin	89.2	0.16	0.3	1,638.2	0.11	4.1	4.4	4.4	508.0	0.10	1.1	1.1
Smith Ranch - Highland	3,703.5	0.10	7.9	14,372.3	0.05	17.0	24.9	24.9	6,861.0	0.05	7.7	7.7
Total	**121,143.4**	**—**	**179.4**	**113,484.3**	**—**	**406.4**	**585.9**	**447.4**	**51,774.0**	**—**	**204.5**	**153.9**

Note that mineral resources:

- do not include amounts that have been identified as mineral reserves
- do not have demonstrated economic viability
- totals may not add due to rounding

Additional information

Due to the nature of our business, we are required to make estimates that affect the amount of assets and liabilities, revenues and expenses, commitments and contingencies we report. We base our estimates on our experience, our best judgment, guidelines established by the Canadian Institute of Mining, Metallurgy and Petroleum and on assumptions we believe are reasonable.

We believe the following critical accounting estimates reflect the more significant judgments used in the preparation of our financial statements. These estimates affect all of our segments, unless otherwise noted.

Decommissioning and reclamation

In our uranium and fuel services segments, we are required to estimate the cost of decommissioning and reclamation for each operation, but we normally do not incur these costs until an asset is nearing the end of its useful life. Regulatory requirements and decommissioning methods could change during that time, making our actual costs different from our estimates. A significant change in these costs or in our mineral reserves could have a material impact on our net earnings and financial position. See note 15 to the financial statements.

Property, plant and equipment

We depreciate property, plant and equipment primarily using the unit-of-production method, where the carrying value is reduced as resources are depleted. A change in our mineral reserves would change our depreciation expenses, and such a change could have a material impact on amounts charged to earnings.

We assess the carrying values of property, plant and equipment and goodwill every year, or more often if necessary. If we determine that we cannot recover the carrying value of an asset or goodwill, we write off the unrecoverable amount against current earnings. We base our assessment of recoverability on assumptions and judgments we make about future prices, production costs, our requirements for sustaining capital and our ability to economically recover mineral reserves. A material change in any of these assumptions could have a significant impact on the potential impairment of these assets.

In performing impairment assessments of long-lived assets, assets that cannot be assessed individually are grouped together into the smallest group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Management is required to exercise judgment in identifying these cash generating units.

Taxes

When we are preparing our financial statements, we estimate taxes in each jurisdiction we operate in, taking into consideration different tax rates, non-deductible expenses, valuation of deferred tax assets, changes in tax laws and our expectations for future results.

We base our estimates of deferred income taxes on temporary differences between the assets and liabilities we report in our financial statements, and the assets and liabilities determined by the tax laws in the various countries we operate in. We record deferred income taxes in our financial statements based on our estimated future cash flows, which includes estimates of non-deductible expenses, future market conditions, production levels and intercompany sales. If these estimates are not accurate, there could be a material impact on our net earnings and financial position.

Controls and procedures

We have evaluated the effectiveness of our disclosure controls and procedures and internal control over financial reporting as of December 31, 2021, as required by the rules of the US Securities and Exchange Commission and the Canadian Securities Administrators.

Management, including our Chief Executive Officer (CEO) and our Chief Financial Officer (CFO), supervised and participated in the evaluation, and concluded that our disclosure controls and procedures are effective to provide a reasonable level of assurance that the information we are required to disclose in reports we file or submit under securities laws is recorded, processed, summarized and reported accurately, and within the time periods specified. It should be noted that, while the CEO and CFO believe that our disclosure controls and procedures provide a reasonable level of assurance that they are effective, they do not expect the disclosure controls and procedures or internal control over financial reporting to be capable of preventing all errors and fraud. 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.

Management, including our CEO and our CFO, is responsible for establishing and maintaining internal control over financial reporting and conducted an evaluation of the effectiveness of our internal control over financial reporting based on the Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2021.

There have been no changes in our internal control over financial reporting during the year that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

New standards adopted

A number of amendments to existing standards became effective January 1, 2021 but they did not have an effect on the Company's financial statements.

The following amendment to an existing standard is not yet effective for the year ended December 31, 2021 and has not been applied in preparing these consolidated financial statements. Cameco does not intend to early adopt the amendment.

In May 2021, the International Accounting Standards Board issued *Deferred Tax related to Assets and Liabilities arising from a Single Transaction*, which amended IAS 12, *Income Taxes* (IAS 12). The amendments are effective for periods beginning on or after January 1, 2023, with early adoption permitted. The amendments narrowed the scope of the recognition exemption in paragraphs 15 and 24 of IAS 12 (recognition exemption) so that it no longer applies to transactions that, on initial recognition, give rise to equal taxable and deductible temporary differences, such as leases and decommissioning liabilities. Cameco does not expect adoption of the standard to have a material impact on the financial statements.

EXHIBIT 99.4

For fiscal years ended December 31, 2021 and December 31, 2020, KPMG LLP and its affiliates billed Cameco Corporation and its subsidiaries the following fees:

	2021 ($)	% of total fees	2020 ($)	% of total fees
Audit fees				
Cameco[1]	1,863,000	83.8	1,845,700	75.7
Subsidiaries[2]	146,600	6.6	335,300	13.8
Total audit fees	2,009,600	90.4	2,181,000	89.5
Audit-related fees				
Pensions	30,000	1.3	27,300	1.1
Total audit-related fees	30,000	1.3	27,300	1.1
Tax fees				
Compliance	15,300	0.7	32,400	1.3
Planning and advice[3]	168,600	7.6	157,400	6.5
Total tax fees	183,900	8.3	189,800	7.8
All other fees				
Other non-audit fees[4]	—	—	39,000	1.6
Total other non-audit fees	—	—	39,000	1.6
Total fees	**2,223,500**	**100.0**	**2,437,100**	**100.0**

1 Includes amounts billed for the audit of Cameco's annual consolidated financial statements and the review of interim financial statements.
2 Includes amounts billed for the audit of Cameco's subsidiary financial statements.
3 Includes amounts billed for transfer pricing advisory.
4 Includes amounts billed for Cameco's I-4 Membership.

Pre-Approval Policies and Procedures

As part of Cameco Corporation's corporate governance practices, under its committee charter, the audit committee is required to pre-approve the audit and non-audit services performed by the external auditors. The audit committee pre-approves the audit and non-audit services up to a maximum specified level of fees. If fees relating to audit and non-audit services are expected to exceed this level or if a type of audit or non-audit service is to be performed that previously has not been pre-approved, then separate pre-approval by Cameco Corporation's audit committee or audit committee chair, or in the absence of the audit committee chair, the chair of the board, is required. All pre-approvals granted pursuant to the delegated authority must be presented by the member(s) who granted the pre-approvals to the full audit committee at its next meeting. The audit committee has adopted a written policy to provide procedures to implement the foregoing principles. For each of the years ended December 31, 2021 and 2020, none of Cameco Corporation's Audit-Related Fees, Tax Fees or All Other Fees made use of the de minimis exception to pre-approval provisions contained in paragraph (c)(7)(i) of Rule 2-01 of Regulation S-X promulgated by the U.S. Securities and Exchange Commission.

EXHIBIT 99.5

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors
Cameco Corporation

We consent to the use of:

- our report dated February 8, 2022 on the consolidated statements of Cameco Corporation (the "Entity") which comprise the consolidated statements of financial position as of December 31, 2021 and December 31, 2020, the related consolidated statements of earnings, comprehensive income, changes in equity and cash flows for the years then ended, and the related notes (collectively the "consolidated financial statements"), and
- our report dated February 8, 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 Statements (Nos. 333-11736, 333-06180, 333-139165, and 333-196422) on Form S-8.

/s/ KPMG LLP
Chartered Professional Accountants

March 22, 2022
Saskatoon, Canada

EXHIBIT 99.6

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a)
OF THE U.S. SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Tim Gitzel, certify that:

1. I have reviewed this annual report on Form 40-F of Cameco Corporation;

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 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 22, 2022

/s/ Tim Gitzel
Name: Tim Gitzel
Title: President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 99.7

CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a)
OF THE U.S. SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Grant Isaac, certify that:

1. I have reviewed this annual report on Form 40-F of Cameco Corporation;

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 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 22, 2022

/s/ Grant Isaac
Name: Grant Isaac
Title: Senior Vice-President and
Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 99.8

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Cameco Corporation (the "Company") on Form 40-F for the year ended December 31, 2021, as filed with the U.S. Securities and Exchange Commission on the date hereof (the "Report"), I, Tim Gitzel, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 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.

By: */s/ Tim Gitzel*
Name: Tim Gitzel
Title: President and Chief Executive Officer

March 22, 2022

EXHIBIT 99.9

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Cameco Corporation (the "Company") on Form 40-F for the year ended December 31, 2021, as filed with the U.S. Securities and Exchange Commission on the date hereof (the "Report"), I, Grant Isaac, Senior Vice-President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 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.

By: */s/ Grant Isaac*
Name: Grant Isaac
Title: Senior Vice-President and Chief Financial Officer

March 22, 2022

EXHIBIT 99.10

CONSENT OF EXPERT

Reference is made to the Annual Report on Form 40-F (the "Form 40-F") of Cameco Corporation (the "Corporation") to be filed with the United States Securities and Exchange Commission pursuant to the United States Securities Exchange Act of 1934, as amended.

I hereby consent to reference to my name and my involvement in the preparation of, or supervision of the preparation of, scientific and technical information in the following instances:

(a) under the headings "Operations and projects – Uranium – Tier-one operations – McArthur River mine/Key Lake mill", "Operations and projects – Uranium – Tier-one operations – Cigar Lake", "Operations and projects – Uranium – Tier-one operations – Inkai", "Mineral reserves and resources" and "Governance – Interest of experts" in the Corporation's Annual Information Form for the year ended December 31, 2021 dated March 22, 2022 for the McArthur River mine/Key Lake mill, Cigar Lake and Inkai operations; and

(b) under the headings "Operations and projects – Uranium – Tier-one operations – McArthur River mine/Key Lake mill", "Operations and projects – Uranium – Tier-one operations – Cigar Lake", "Operations and projects – Uranium – Tier-one operations – Inkai", and "Mineral reserves and resources" in Management's Discussion and Analysis for the year ended December 31, 2021 dated February 9, 2022 for the McArthur River mine/Key Lake mill, Cigar Lake and Inkai operations,

(collectively the "Technical Information") in the Form 40-F, and to the inclusion and incorporation by reference of information derived from the Technical Information in the Form 40-F.

I also hereby consent to the incorporation by reference of such Technical Information in the registration statements (Nos. 333-11736, 333-06180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan and registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan.

Sincerely,

/s/ Alain D. Renaud

Name: Alain D. Renaud, P. Geo.
Title: Chief Geologist, Technical Services, Cameco Corporation

Date: March 22, 2022

EXHIBIT 99.11

CONSENT OF EXPERT

Reference is made to the Annual Report on Form 40-F (the "Form 40-F") of Cameco Corporation (the "Corporation") to be filed with the United States Securities and Exchange Commission pursuant to the United States Securities Exchange Act of 1934, as amended.

I hereby consent to reference to my name and my involvement in the preparation of, or supervision of the preparation of, scientific and technical information in the following instances:

(a) under the headings "Operations and projects – Uranium – Tier-one operations – McArthur River mine/Key Lake mill", "Operations and projects – Uranium – Tier-one operations – Cigar Lake", "Operations and projects – Uranium – Tier-one operations – Inkai", "Mineral reserves and resources" and "Governance – Interest of experts" in the Corporation's Annual Information Form for the year ended December 31, 2021 dated March 22, 2022 for the McArthur River mine/Key Lake mill, Cigar Lake and Inkai operations; and

(b) under the headings "Operations and projects – Uranium – Tier-one operations – McArthur River mine/Key Lake mill", "Operations and projects – Uranium – Tier-one operations – Cigar Lake", "Operations and projects – Uranium – Tier-one operations – Inkai", and "Mineral reserves and resources" in Management's Discussion and Analysis for the year ended December 31, 2021 dated February 9, 2022 for the McArthur River mine/Key Lake mill, Cigar Lake and Inkai operations,

(collectively the "Technical Information") in the Form 40-F, and to the inclusion and incorporation by reference of information derived from the Technical Information in the Form 40-F.

I also hereby consent to the incorporation by reference of such Technical Information in the registration statements (Nos. 333-11736, 333-06180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan and registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan.

Sincerely,

/s/ Biman Bharadwaj

Name: Biman Bharadwaj, P. Eng.
Title: Principal Metallurgist, Technical Services, Cameco Corporation

Date: March 22, 2022

EXHIBIT 99.12

CONSENT OF EXPERT

Reference is made to the Annual Report on Form 40-F (the "Form 40-F") of Cameco Corporation (the "Corporation") to be filed with the United States Securities and Exchange Commission pursuant to the United States Securities Exchange Act of 1934, as amended.

I hereby consent to reference to my name and my involvement in the preparation of, or supervision of the preparation of, scientific and technical information in the following instances:

(a) under the headings "Operations and projects – Uranium – Tier-one operations – Cigar Lake", "Operations and projects – Uranium – Tier-one operations – Inkai", "Mineral reserves and resources" and "Governance – Interest of experts" in the Corporation's Annual Information Form for the year ended December 31, 2021 dated March 22, 2022 for the Cigar Lake and Inkai operations; and

(b) under the headings "Operations and projects – Uranium – Tier-one operations – Cigar Lake", "Operations and projects – Uranium – Tier-one operations – Inkai", and "Mineral reserves and resources" in Management's Discussion and Analysis for the year ended December 31, 2021 dated February 9, 2022 for the Cigar Lake and Inkai operations,

(collectively the "Technical Information") in the Form 40-F, and to the inclusion and incorporation by reference of information derived from the Technical Information in the Form 40-F.

I also hereby consent to the incorporation by reference of such Technical Information in the registration statements (Nos. 333-11736, 333-06180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan and registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan.

Sincerely,

/s/ Scott Bishop
Name: Scott Bishop, P. Eng.
Title: Director, Technical Services, Cameco Corporation

Date: March 22, 2022

EXHIBIT 99.13

CONSENT OF EXPERT

Reference is made to the Annual Report on Form 40-F (the "Form 40-F") of Cameco Corporation (the "Corporation") to be filed with the United States Securities and Exchange Commission pursuant to the United States Securities Exchange Act of 1934, as amended.

I hereby consent to reference to my name and my involvement in the preparation of, or supervision of the preparation of, scientific and technical information in the following instances:

(a) under the headings "Operations and projects – Uranium – Tier-one operations – Cigar Lake", "Mineral reserves and resources" and "Governance – Interest of experts" in the Corporation's Annual Information Form for the year ended December 31, 2021 dated March 22, 2022 for the Cigar Lake operation; and

(b) under the headings "Operations and projects – Uranium – Tier-one operations – Cigar Lake" and "Mineral reserves and resources" in Management's Discussion and Analysis for the year ended December 31, 2021 dated February 9, 2022 for the Cigar Lake operation,

(collectively the "Technical Information") in the Form 40-F, and to the inclusion and incorporation by reference of information derived from the Technical Information in the Form 40-F.

I also hereby consent to the incorporation by reference of such Technical Information in the registration statements (Nos. 333-11736, 333-06180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan and registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan.

Sincerely,

/s/ Lloyd Rowson

Name: Lloyd Rowson, P. Eng.
Title: General Manager, Cigar Lake, Cameco Corporation

Date: March 22, 2022

EXHIBIT 99.14

CONSENT OF EXPERT

Reference is made to the Annual Report on Form 40-F (the "Form 40-F") of Cameco Corporation (the "Corporation") to be filed with the United States Securities and Exchange Commission pursuant to the United States Securities Exchange Act of 1934, as amended.

I hereby consent to reference to my name and my involvement in the preparation of, or supervision of the preparation of, scientific and technical information in the following instances:

(a) under the headings "Operations and projects – Uranium – Tier-one operations – McArthur River mine/Key Lake mill", "Mineral reserves and resources" and "Governance – Interest of experts" in the Corporation's Annual Information Form for the year ended December 31, 2021 dated March 22, 2022 for the McArthur River mine/Key Lake mill operations; and

(b) under the headings "Operations and projects – Uranium – Tier-one operations – McArthur River mine/Key Lake mill" and "Mineral reserves and resources" in Management's Discussion and Analysis for the year ended December 31, 2021 dated February 9, 2022 for the McArthur River mine /Key Lake mill operations,

(collectively the "Technical Information") in the Form 40-F, and to the inclusion and incorporation by reference of information derived from the Technical Information in the Form 40-F.

I also hereby consent to the incorporation by reference of such Technical Information in the registration statements (Nos. 333-11736, 333-06180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan and registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan.

Sincerely,

/s/ Gregory M. Murdock

Name: Gregory M. Murdock, P. Eng.
Title: General Manager, McArthur River/Key Lake, Cameco Corporation

Date: March 22, 2022

EXHIBIT 99.15

CONSENT OF EXPERT

Reference is made to the Annual Report on Form 40-F (the "Form 40-F") of Cameco Corporation (the "Corporation") to be filed with the United States Securities and Exchange Commission pursuant to the United States Securities Exchange Act of 1934, as amended.

I hereby consent to reference to my name and my involvement in the preparation of, or supervision of the preparation of, scientific and technical information in the following instances:

(a) under the headings "Operations and projects – Uranium – Tier-one operations – Inkai", "Mineral reserves and resources" and "Governance – Interest of experts" in the Corporation's Annual Information Form for the year ended December 31, 2021 dated March 22, 2022 for the Inkai operations; and

(b) under the headings "Operations and projects – Uranium – Tier-one operations – Inkai", and "Mineral reserves and resources" in Management's Discussion and Analysis for the year ended December 31, 2021 dated February 9, 2022 for the Inkai operations,

(collectively the "Technical Information") in the Form 40-F, and to the inclusion and incorporation by reference of information derived from the Technical Information in the Form 40-F.

I also hereby consent to the incorporation by reference of such Technical Information in the registration statements (Nos. 333-11736, 333-06180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan and registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan.

Sincerely,

/s/ Sergey Ivanov

Name: Sergey Ivanov, P. Geo.
Title: Deputy Director General, Technical Services, Cameco Kazakhstan LLP

Date: March 22, 2022