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

FORM 40-F

☐ **ANNUAL REPORT PURSUANT TO SECTION 13(a) or 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2016
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)

James Dobchuk, Cameco Inc.,
One Southwest Crossing, Suite 210,
11095 Viking Drive
Eden Prairie, Minnesota,
USA, 55344,
Telephone: (952) 941-2470
(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

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:

395,792,522 Common Shares outstanding as of December 31, 2016

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

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 Regarding Forward-Looking Information and Statements.”

Certifications and Disclosure Regarding Controls and Procedures.

(a) **Certifications regarding controls and procedures**. See Exhibits 99.9 and 99.10.

(b) **Evaluation of disclosure controls and procedures**. As of December 31, 2016 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, 2016.

(d) **Attestation report of the registered public accounting firm**. The effectiveness of Cameco Corporation's internal control over financial reporting as of December 31, 2016 was audited by KPMG LLP, an independent registered public accounting firm, as stated in their report in Exhibit 99.6 – Report of Independent Registered Public Accounting Firm.

(e) **Changes in internal control over financial reporting**. During the fiscal year ended December 31, 2016, there were no 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 two of the members of its audit and finance committee (the "audit committee") are audit committee financial experts. The audit committee financial experts are John Clappison and Ian Bruce. Mr. Bruce 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 relating to the independence of audit committee members.

Mr. Clappison has been determined to be an independent director by Cameco Corporation's board of directors under NI 52-110, which is the Canadian corporate governance rule that applies to Cameco Corporation, and under the Commission's audit committee independence requirements. However, Mr. Clappison's son-in-law is President, KPMG Corporate Finance Inc., a company affiliated with KPMG LLP who are the auditors of Cameco Corporation, and therefore Mr. Clappison is deemed to be a non-independent director as such term is used in the rules of the New York Stock Exchange. Mr. Clappison's son-in-law is prohibited from being engaged in the Cameco Corporation audit. Under the rules of the Commission and the Public Company Accounting Oversight Board (United States), such relationship does not impair the independence of KPMG LLP.

Information concerning the relevant experience of Mr. Clappison and Mr. Bruce is included in their 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 2016, we amended our previously filed Code and made non-substantive changes including updates to job titles and document references.

The Code was furnished to the Commission on January 17, 2017 as Exhibit 1 to a report on Form 6-K and is incorporated by reference herein as Exhibit 99.22.

Principal Accountant Fees and Services. 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**,** long-term product purchase contracts, other arrangements, as well as terms under certain financing arrangements at its subsidiary, NUKEM Energy GmbH (NUKEM). These arrangements are disclosed in the following sections of Exhibit 99.3 – 2016 Management's Discussion and Analysis and the notes to the financial statements in Exhibit No 99.2 – 2016 Consolidated Audited Financial Statements:

(a) **Financial assurances**. In the 2016 Management's Discussion and Analysis, see the disclosure at "Off-balance sheet arrangements" (page 40). In the 2016 Consolidated Audited Financial Statements, see the disclosure at note 13 of the financial statements.

(b) **Long-term product purchase contracts**. In the 2016 Management's Discussion and Analysis, see the disclosure at "Off-balance sheet arrangements" (page 40).

(c) **Other arrangements**. In the 2016 Management's Discussion and Analysis, see the disclosure at "Off-balance sheet arrangements" (page 40). In the 2016 Consolidated Audited Financial Statements, see the disclosure at note 25 of the financial statements.

(d) **NUKEM financing arrangements**. In the 2016 Management's Discussion and Analysis, see the disclosure at "NUKEM financing arrangement" (page 39). In the 2016 Consolidated Audited Financial Statements, see the disclosure at note 7 to the financial statements.

Tabular Disclosure of Contractual Obligations. See Exhibit 99.5.

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: John Clappison (chair), Ian Bruce, Daniel Camus and Catherine Gignac.

Audited Annual Financial Statements. Cameco Corporation's Consolidated Audited Financial Statements as at December 31, 2016 and 2015, including the related report of the independent registered public accounting firm, is included in Exhibit 99.7 – Report of Independent Registered Public Accounting Firm – Public Company Accounting Oversight Board (United States) Standards.

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. Neil McMillan, 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 with the exception of Donald Deranger and John Clappison. 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 – 11th 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: Ian Bruce; Daniel Camus; John Clappison; Donald Deranger; Catherine Gignac; James Gowans; Kathryn Jackson; Don Kayne; Anne McLellan; and Neil McMillan. Each of the non-management directors is "independent", as such term is used in the rules of the NYSE with the exception of Donald Deranger and John Clappison.

EXHIBIT INDEX

Exhibit No.	Description
99.1	2016 Annual Information Form
99.2	2016 Consolidated Audited Financial Statements
99.3	2016 Management's Discussion and Analysis
99.4	Principal Accountant Fees and Services
99.5	Tabular Disclosure of Contractual Obligations
99.6	Report of Independent Registered Public Accounting Firm – Internal Control Over Financial Reporting
99.7	Report of Independent Registered Public Accounting Firm – Public Company Accounting Oversight Board (United States) Standards
99.8	Consent of Independent Registered Public Accounting Firm
99.9	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
99.10	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
99.11	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.12	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.13	Consent of Alain G. Mainville, P. Geo.
99.14	Consent of C. Scott Bishop, P. Eng.
99.15	Consent of Leslie (Les) D. Yesnik, P. Eng.

Exhibit No.	Description
99.16	Consent of Darryl Clark, PhD, P. Geo.
99.17	Consent of Robert J. Sumner, PhD, P. Eng.
99.18	Consent of Stuart B. Soliz, P. Geo.
99.19	Consent of Baoyao Tang, P. Eng.
99.20	Consent of Gregory M. Murdock, P. Eng.
99.21	Consent of Thomas Saruchera, P. Eng.
99.22	Code of Conduct and Ethics (as amended and restated as of November 2016) (incorporated by reference to Cameco Corporation's Form 6-K, furnished to the Commission on January 17, 2017)

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 23rd day of March, 2017.

CAMECO CORPORATION

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

EXHIBIT 99.1

Cameco Corporation

2016 Annual Information Form

March 23, 2017



Cameco Corporation

2016 Annual information form

March 23, 2017

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Important information about this document

This annual information form (AIF) for the year ended December 31, 2016 provides important information about Cameco Corporation. It describes our history, our markets, our operations and projects, our mineral reserves and resources, sustainability, 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 (MD&A) for the year ended December 31, 2016 (2016 MD&A), which is available on SEDAR (sedar.com) and on EDGAR (sec.gov) as an exhibit to our Form 40-F
- our audited consolidated financial statements for the year ended December 31, 2016 (2016 financial statements), which is 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 US securities laws require.

Reporting currency and financial information

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

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

- It typically includes words and phrases about the future, such as *believe, estimate, anticipate, expect, plan, intend, predict, goal, target, forecast, project, scheduled, potential, strategy* and *proposed* (see examples on page 2).
- 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, because of 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 100, and our 2016 MD&A, which include a discussion of other material risks that could cause our actual results to differ from current expectations.

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

Examples of forward-looking information in this AIF

- our expectations about 2017 and future global uranium supply, consumption, demand and number of reactors
- our expectations about 2017 and future consumption for conversion services
- the discussion of our expectations relating to our Canada Revenue Agency (CRA) and United States Internal Revenue Service (IRS) transfer pricing disputes including our estimate of the amount and timing of expected cash taxes and transfer pricing penalties
- our expectations for future tax payments and rates
- our expectations for future royalty payments
- our future plans and expectations for each of our uranium properties and fuel services sites
- our estimated timing, and receipt, of the approvals necessary for the closing of the Implementation Agreement (defined on page 55) and our expectations resulting from the closing
- our mineral reserve and resource 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 or loss of market share to a competitor
- 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 estimates of production, purchases, costs, care and maintenance, decommissioning or reclamation expenses, or our tax expense estimates, prove to be inaccurate
- 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, including lack of success in our disputes with tax authorities or with Tokyo Electric Power Company Holdings, Inc. (TEPCO)
- we are unsuccessful in our dispute with CRA and/or the IRS and this results in significantly higher cash taxes, interest charges and penalties than the amount of our cumulative tax provision
- we are unable to utilize letters of credit to the extent anticipated in our dispute with CRA
- there are defects in, or challenges to, title to our properties
- our mineral reserve and resource estimates are not reliable, or we face challenging or unexpected geological, hydrological or mining conditions
- we are affected by environmental, safety and regulatory risks, including increased regulatory burdens or delays
- the necessary permits or approvals from government authorities are not obtained or maintained, including AREVA Resources Canada Inc.'s (AREVA) renewal of the McClean Lake mill's operating licence and the approvals necessary for closing of the Implementation Agreement
- we are affected by political risks
- we are affected by terrorism, sabotage, blockades, civil unrest, social or political activism, accident or a deterioration in political support for, or demand for, nuclear energy
- 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
- there are changes to government regulations or policies that adversely affect us, including tax and trade laws and policies
- our uranium suppliers fail to fulfill delivery commitments or our uranium purchasers fail to fulfill purchase 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
- any difficulties in milling of Cigar Lake ore at McClean Lake
- our Inkai development, mining or production plans are delayed or do not succeed for any reason
- our expectations relating to Rabbit Lake care and maintenance costs prove to be inaccurate
- we are affected by natural phenomena, including inclement weather, fire, flood and earthquakes
- our 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

Material assumptions

- our expectations regarding sales and purchase volumes and prices for uranium and fuel services, and that the counterparties to our sales and purchase agreements will honour their commitments
- our expectations regarding the demand for, and supply of, uranium, the pressure for a return to long-term contracting, 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 expected production levels and production costs, including our expectations regarding the success of our cost reduction strategies
- the assumptions regarding market conditions and other factors upon which we have based our capital expenditures expectations
- our expectations regarding spot prices and realized prices for uranium
- our expectations regarding tax rates and payments, royalty rates, currency exchange rates and interest rates
- our expectations about the outcome of disputes with tax authorities and with TEPCO
- we are able to utilize letters of credit to the extent anticipated in our dispute with CRA
- our decommissioning and reclamation expenses
- 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 mines
- our McArthur River development, mining and production plans succeed
- our Cigar Lake development, mining and production plans succeed
- the McClean Lake mill is able to process Cigar Lake ore as expected
- that annual Rabbit Lake care and maintenance costs will be as expected
- our Inkai development, mining and production plans succeed
- our ability to continue to supply our products and services in the expected quantities and at the expected times
- 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, including AREVA's renewal of the McClean Lake mill's operating licence and approvals necessary to close the Implementation Agreement
- our operations are not significantly disrupted as a result of political instability, nationalization, terrorism, sabotage, blockades, civil unrest, social or political activism, breakdown, natural disasters, governmental or political actions, litigation or arbitration proceedings, the unavailability of reagents, equipment, operating parts and supplies critical to production, equipment failure, labour shortages, labour relations issues , strikes or lockouts, underground floods, cave-ins, ground movements, tailings dam failures, lack of tailings capacity, transportation disruptions or accidents, unanticipated consequences of our cost reduction strategies, or other development or operating risks

About Cameco

Our head office is in Saskatoon, Saskatchewan. We are one of the world's largest uranium producers, with uranium assets on three continents. Nuclear energy plants around the world use our uranium products to generate one of the cleanest sources of electricity available today.

Strategy

Our strategy remains 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. You can find more information about our strategy at page 8 and in our 2016 MD&A.

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 3,580 employees at December 31, 2016.

Business segments

URANIUM

We are one of the world's largest uranium producers, and in 2016 accounted for about 17% of the world's production. We have controlling ownership of the world's largest high-grade reserves, with ore grades up to 100 times the world average, and low-cost operations.

Product

- uranium concentrates (U_3O_8)

Mineral reserves and resources

Mineral reserves

- approximately 415 million pounds proven and probable

Mineral resources

- approximately 487 million pounds measured and indicated
- approximately 248 million pounds inferred

Operating properties

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

Curtailed properties

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

Projects under evaluation

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

Global exploration

- focused on three continents
- approximately 1.5 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)
  (account for about 25% of world 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)

NUKEM

Our ownership of NUKEM GmbH (NUKEM) provides us with access to one of the world's leading traders of uranium and uranium-related products.

Activity

- physical trading uranium concentrates, conversion and enrichment services
- recovery of natural and enriched non-standard uranium from western facilities and other sources

For information about our revenue and gross profit by business segment for the years ended December 31, 2016 and 2015, see our 2016 MD&A as follows:

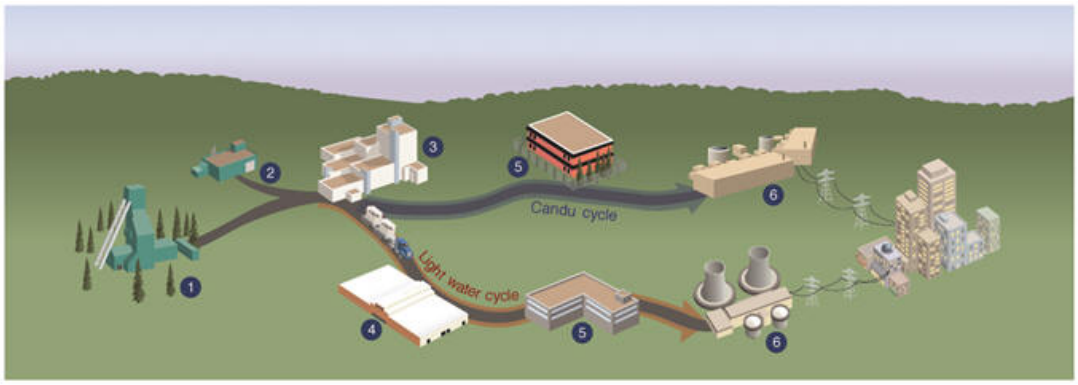
- uranium – page 42
- fuel services – page 44
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Other fuel cycle investments

ENRICHMENT

GE-Hitachi Global Laser Enrichment (GLE) is testing a third-generation technology that, if successful, will use lasers to commercially enrich uranium. We have a 24% interest in GLE, which is currently undergoing restructuring. Existing partners General Electric (51%) and Hitachi Ltd. (25%) have negotiated an arrangement providing Silex Systems Ltd. (the technology's licensor), with an exclusive option on their interests.

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 concentrates* (U_3O_8) or *yellowcake*. 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

2014

January

- We enter into an agreement to sell our 31.6% limited partnership interest in BPLP to BPC Generation Infrastructure Trust, one of the limited partners in Bruce Power Limited Partnership (BPLP).

March

- We complete the sale of our 31.6% limited partnership interest in BPLP to BPC Generation Infrastructure Trust.
- We begin ore production at Cigar Lake.

June

- We issue $500 million of 4.19% unsecured debentures due in 2024.

July

- We redeem $300 million of unsecured debentures due in 2015.

September

- We enter into a four-year collective agreement with approximately 535 unionized employees at our McArthur River/Key Lake operations.

October

- McClean Lake mill starts producing uranium concentrates from ore mined at Cigar Lake.

2015

May

- We begin commercial production at Cigar Lake.

June

- We enter into a three-year collective agreement with approximately 100 unionized employees at our fuel manufacturing operations in Port Hope and Cobourg, Ontario.

2016

April

- We suspend production at our Rabbit Lake operation and curtail production at Cameco Resources' US operations.

May

We enter into an agreement with Joint Stock Company National Atomic Company Kazatomprom (Kazatomprom) and Joint Venture Inkai LLP (JV Inkai) to restructure and enhance Inkai, subject to acquiring necessary government approvals.

July

- We enter into a three-year collective agreement with approximately 230 unionized employees at our Port Hope conversion facility.

August

- Transition to care and maintenance at our Rabbit Lake operation was completed.

2017 Major developments

On January 17, 2017, we announced planned additional activities for 2017, intended to further reduce costs and improve operational efficiency at our uranium mining operations. The workforce at McArthur River, Key Lake and Cigar Lake is expected to be reduced by 10% or 120 employees in total. Cameco also plans to implement changes to the air commuter service by which employees and contract workers get to and from mine and mill sites in northern Saskatchewan, as well as work schedule changes to achieve additional cost savings.

On January 31, 2017, TEPCO confirmed that it would not accept a uranium delivery scheduled for February 1, 2017, and would not withdraw the contract termination notice it provided to Cameco Inc. on January 24, 2017 with respect to a uranium supply agreement between TEPCO and Cameco Inc. TEPCO alleged that an event of force majeure has occurred because it has been unable to operate its nuclear reactors for 18 consecutive months due to the Fukushima nuclear accident in March 2011 and the resulting government regulations. Cameco Inc. sees no basis for terminating the agreement and will pursue all its legal rights and remedies against TEPCO.

Under the agreement, TEPCO has already received and paid for 2.2 million pounds of uranium since 2014. The termination would affect approximately 9.3 million pounds of uranium deliveries through 2028, worth approximately $1.3 billion in revenue to Cameco, including about $126 million in each of 2017, 2018 and 2019 based on 855,000 pounds of deliveries in each of those years. All estimates and uranium volumes are provided on a consolidated basis for Cameco using expected contract prices and an exchange rate of $1.00 (US) for $1.30 (Cdn) and do not reflect any resale of the cancelled deliveries under the contract with TEPCO.

In May 2016, Cameco, Kazatomprom and JV Inkai signed an Implementation Agreement to restructure and enhance Inkai. The Implementation Agreement is subject to obtaining all required government approvals, including certain amendments to JV Inkai's resource use contract. In February 2017, we estimated it would take 10 to 18 months to obtain the required approvals. For additional information about the Implementation Agreement, see page 55.

How Cameco was formed

Cameco Corporation 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 (uranium mining and milling operations)
- 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 120 and 121.

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 chairman of the board to be ordinarily resident in the province of Saskatchewan

We have three main subsidiaries:

- Cameco Europe Ltd., a Swiss company we have 100% ownership of through subsidiaries
- NUKEM Investments GmbH, a German company we have 100% ownership of through subsidiaries
- JV Inkai, a limited liability partnership in Kazakhstan, which we own a 60% interest in.

At December 31, 2016, we do not have any other subsidiaries that are 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/investors).

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 2017 annual meeting of shareholders to be available in April 2017.

See our 2016 financial statements and 2016 MD&A for additional financial information.

Our strategy

Tier-one focus

Our strategy is set within the context of a challenging market environment, which we expect to give way to strong long-term fundamentals driven by increasing population and electricity demand.

We are a pure-play nuclear fuel supplier, 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 is to focus on our tier-one assets and profitably produce at a pace aligned with market signals in order to increase long-term shareholder value, and to do that with an emphasis on safety, people and the environment. Uranium production is central to our strategy, as it is the biggest value driver of the nuclear fuel cycle and our business.

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

Market overview and 2016 developments

Cautiously optimistic

Today's uranium market is challenging, but we are cautiously optimistic that we are starting to see some of the signposts required for a market recovery. The future uncovered uranium requirements of utilities due to low levels of long-term contracting over the past four years are increasing. There have been several announcements on both the supply and demand side that are expected to have a positive impact on the challenging market, and there is renewed interest in nuclear power and uranium from non-traditional market participants. However, we believe it will ultimately be the return of term contracting in a significant way that will signal that market dynamics have turned more positive.

TODAY: A STORY OF OVERSUPPLY

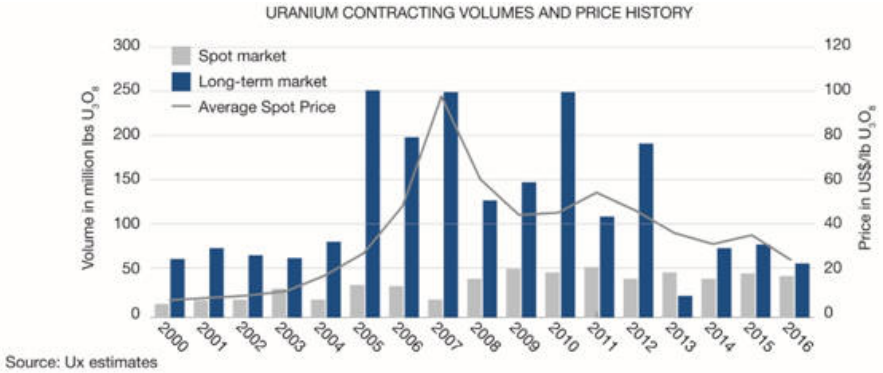
The uranium market continues to be in a state of oversupply. Market recovery has taken longer than anticipated as a result of a slower than expected pace of reactor restarts in Japan, unexpected reactor shutdowns in other regions, delays in reactor construction programs, and reactors under construction but not yet consuming uranium. At the same time, supply has continued to perform well, adding to the delay in market improvement.

On the supply side, secondary supplies, consisting largely of government inventories and enricher underfeeding, continue to provide the industry with an exceptionally low-cost source of uranium supply, where the economics differ considerably from mined production. Similarly, several producers, whose production drivers are not always economic, such as large diversified miners and companies mining uranium for strategic or social purposes, negatively impact the supply-demand balance. The lowest cost – tier-one – production, including our own assets, continues to perform well, with cash costs that allow them to remain economic, even at current prices. Finally, higher-cost production, though sensitive to the uranium price, continues to be supported by higher prices under long-term contracts and/or advantageous foreign exchange rates.

The excess supply has impacted the market in a significant way. Abundant spot material has been available to satisfy utilities' appetite for low-priced pounds to meet near- to mid-term requirements. As a result, strategic inventories have grown across the industry and the need to sign significant long-term contracts has been deferred.

These industry dynamics make it difficult to predict the timing of a market recovery. However, given that Ux Consulting Company, LLC (UxC) has reported that over the last four years only 245 million pounds have been locked-up in the long-term market, while over 635 million pounds have been consumed in reactors, we remain confident that utilities have a growing gap to fill. As annual supply adjusts and utilities' uncovered requirements grow, we believe the pounds available in the spot market won't be enough to satisfy the demand.

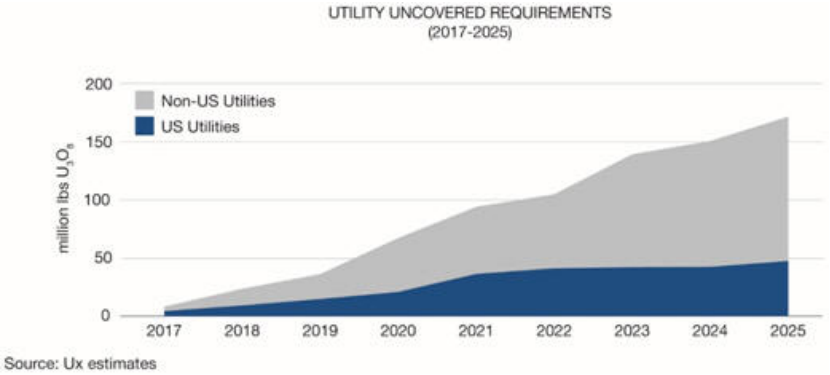
OPPORTUNITIES FOR THOSE WHO CAN WAIT



Like other commodities, the uranium industry is cyclical and the low level of contracting at low prices that we're seeing today is not new. When prices are low, there is no urgency to contract. The heavy contracting that took place during the previous price run, which drove investment in higher-cost sources of production, contributes to the perception that uranium is abundant and

always will be. History demonstrates that the opposite tends to occur when prices rise. After years of low investment in supply, as has been the case so far this decade, security of supply tends to overtake price concerns at some point, and utilities re-enter the long-term market to ensure they have the reliable supply of uranium they need to run their reactors.

The backlog of future contracting needs created by the low-price environment presents a substantial opportunity for suppliers like us that can weather the low-price part of the cycle. As a low-cost producer, we plan our business with these price cycles in mind.



In our industry, customers do not come to the market right before they need to load uranium 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 it arrives at the power plant as a finished fuel bundle. At present, we believe there is a significant amount of uranium that needs to be contracted to keep reactors running into the next decade.

Estimates by industry consultants show cumulative uncovered requirements to be about 800 million pounds over the next nine years. While uncovered requirements do not ramp up significantly in the near-term, the longer the delay in the recovery of the long-term market, the less certainty there is around the availability of future supply to fill growing demand. Ultimately, we expect the current price-sensitive sentiment to give way to increasing concerns about the security of future supply.

SUPPLY IS NOT GUARANTEED

Economic difficulties are beginning to take a toll on the supply side. Producers who have been protected from the low market prices under long-term contracts, are beginning to emerge from that protection. As a result, it is not just future supply that is at risk – we are seeing evidence that even existing supply is at risk:

- most recently, Kazatomprom announced its intention to reduce 2017 output from Kazakhstan by 10%, citing market challenges due to the current oversupply situation
- Paladin has announced reduced production from their 75% owned Langer Heinrich mine and modification of the mine plan to reduce costs
- in the conversion space, Honeywell is making permanent adjustments to its operation and lowering nameplate capacity of its facility from 15 million kgU to 7 million kgU as UF_6
- some enrichers are retiring centrifuge capacity, reducing the excess capacity in the enrichment space that is contributing to broader oversupply via underfeeding and tails re-enrichment
- we have suspended and curtailed three operations in addition to taking cost-cutting measures that carry additional supply risk.

Coupled with looming uncovered requirements, we expect the risks to future and existing supply could decrease the availability of spot material and increase the pressure for a return to long-term contracting.

DEMAND SIDE CHALLENGES

There was mixed news for the broader nuclear industry in 2016. On a regional demand basis, there were significant positive and negative developments:

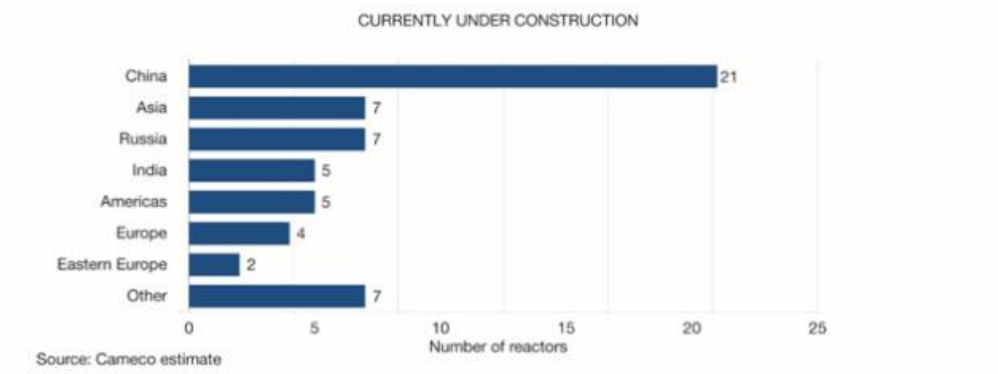
- China struggled with a lower economic growth forecast and excess capacity in the energy sector, although the country remains committed to a fast-paced and growing nuclear power program
- in Japan, a total of 10 reactors now meet the new regulatory standards; however, the pace of restarts continues to be slow
- India made strides in agreements with western nuclear vendors, including engineering and design work, and finalizing contractual arrangements, but the industry continues to face delays in achieving significant progress in nuclear power development
- Russia saw domestic challenges due to weaker demand for electricity, but continues to pursue an aggressive reactor export strategy
- US operators announced additional early reactor closures, but policy developments in some states targeted support for keeping at-risk reactors profitable
    - A number of additional reactors remain under threat of early closure subject to political and energy policy support
    - It remains to be seen what impact the new US administration will have on the success of their reactor program
- in the United Arab Emirates, construction of four units is proceeding smoothly, with the startup of the first unit expected in 2017, but continued growth remains uncertain
- the United Kingdom approved construction of Hinkley Point C, but the rest of Europe is expecting little to no growth in nuclear power in the next 10 years
- advances were also made in the potential growth of some other existing nuclear programs (South Korea, South Africa) and new nuclear programs (Bangladesh), while steps in the opposite direction occurred in other jurisdictions (Vietnam and Taiwan)
- in Canada, the Province of Ontario has shown a strong commitment to nuclear power for nearly 50 years, but continued support is subject to a successful refurbishment program
- several units in France's nuclear fleet were taken offline due to regulatory reviews linked to technical issues, though some have been cleared for restart. France is also showing signs of reversing a previously announced intention to reduce reliance on nuclear power.

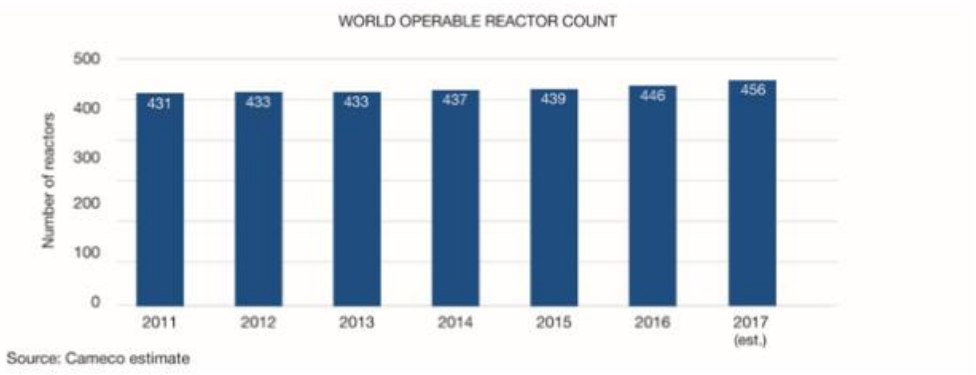
While 2016 offered some welcome progress in bringing supply and demand closer to equilibrium, uncertainty persists.

WHAT HAS TO CHANGE?

Ultimately, the industry needs to fill the demand gap left by forced and premature shut-downs since March of 2011 by continuing to safely bring reactors online. This means Japanese restarts, successful commissioning of new reactors under construction, and continued development of new construction plans. And we're seeing positive progress on all fronts:

- Japanese utilities have now successfully navigated through the new, rigorous safety inspection process
- 58 reactors are currently under construction around the world, the majority of which are expected to come online in the next three years
- the growth in nuclear power generation is real, with 10 new reactors connected to the grid in 2016





Global population is on the rise, and with the world's need for safe, clean, reliable baseload energy, nuclear remains an important part of the mix. We remain confident in the future of the nuclear industry, while at the same time recognizing that uncertainty persists.

With demand coming on in the form of restarts and new reactors, and supply falling on curtailments and lack of investment, we are continuing to expect a market shift. Until that time, we will continue to take the actions we believe are necessary to position the company for long-term success. Therefore, we will undertake contracting activity which aligns with the uncertain timing of a market recovery 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 deliver into a strengthening market.

Marketing strategy – balanced contract portfolio

The purpose of our marketing strategy 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.

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 with suppliers, and 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. This includes utilities in Belgium, Canada, China, Finland, France, Germany, India, Japan, Romania, South Korea, Spain, Sweden, Taiwan, and the US. We are a supplier of UO_2 to CANDU reactors operated in Canada and other countries. We have a solid portfolio of long-term sales contracts that reflect the long-term, trusting relationships we have with our customers.

In addition, we are active in the spot market, buying and selling uranium when it is beneficial for us. Our NUKEM business segment enhances our ability to participate in the market, as they are one of the world's leading traders of uranium and uranium-related products. We undertake activity in the spot market prudently, looking at the spot price and other business factors to decide whether it is appropriate to purchase or sell into the spot market. Not only is this activity a source of profit, it gives us insight into underlying market fundamentals. We have also bought uranium under long term contracts and may also do so again in the future. At February 1, 2017, we had firm commitments to buy about 21 million pounds of uranium equivalent from 2017 to 2028.

The demand for uranium is directly linked to the level of electricity generated by nuclear power plants. As the number of reactors grows, so too does the demand for uranium and conversion services.

The demand for UO_2 conversion services is linked to the level of electricity generated by heavy water moderated nuclear power plants such as CANDU reactors.

LONG-TERM CONTRACTING

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, geopolitical events, disruptions in planned supply and demand, and other market factors.

The objective of our contracting strategy is to:

- maximize realized price while reducing volatility of our future earnings and cash flow
- focus on meeting the nuclear industry's growing uncovered requirements with our future uncommitted supply while ensuring adequate regional diversity
- establish and grow market share with strategic customers.

We target a ratio of 40% fixed-pricing and 60% market-related pricing in our portfolio of long-term contracts, including mechanisms 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 and put a floor on our average realized price, and deliver the best value to shareholders over the long term.

This strategy 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.

Fixed-price contracts: are typically based on the industry long-term price indicator at the time the contract is accepted and escalated over the term of the contract.

Market-related contracts: are different from fixed-price contracts in that they 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, all of which are escalated over the term of the contract.

Fuel services contracts: the majority of our fuel services contracts are at a fixed price per kgU, escalated over the term of the contract, and reflect the market at the time the contract is accepted.

OPTIMIZING THE CONTRACT PORTFOLIO

In today's weak market environment, we have been working with certain customers to optimize the value of our existing contract portfolio. In cases where a customer is seeking relief due to a challenging policy, operating, or economic environment, we evaluate their specific circumstances and assess their long-term sustainability. Where we deem the customer's long-term demand to be at risk, we may consider options that allow us to benefit from converting that uncertain future value into certain present value. In contrast, where the customer is considered to have a more certain and predictable future, we may offer relief, for example by blending in more market-related volumes in the near term, but only where the customer is willing to extend the terms and conditions of that contract out into the future, and only where it is beneficial to us.

CUSTOMER'S FUTURE OPERATING ENVIRONMENT

UNCERTAIN		OPTIMISTIC
Changing	**Policy**	Clear pathways
Challenges	**Regulatory**	Established
Unregulated	**Economic**	Benefits recognized
Future uncertainty for present certain value	**Resulting trade-off considerations**	Relief where it is beneficial for us

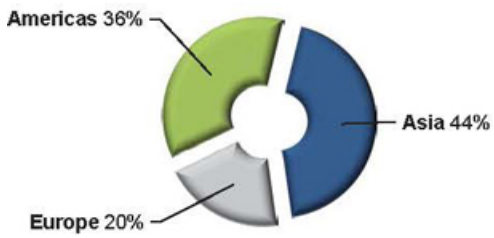
CONTRACT PORTFOLIO STATUS

Currently, our production is heavily committed under long-term uranium contracts through 2019, so we are being selective when considering new commitments and working to achieve our contracting objectives. We have commitments to sell approximately 150 million pounds of U_3O_8 with 40 customers worldwide in our uranium segment, and over 50 million kilograms as UF_6 conversion with 31 customers worldwide in our fuel services segment.

Customers – U_3O_8:

Five largest customers account for 52% of commitments

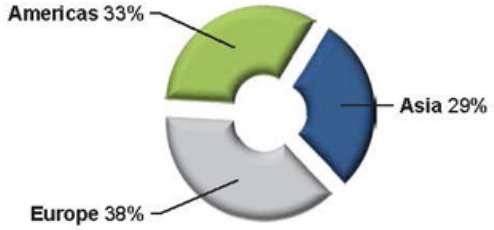
COMMITTED U_3O_8 SALES BY REGION



Customers – UF_6 conversion:

Five largest customers account for 56% of commitments

COMMITTED UF_6 SALES BY REGION



NUKEM

We acquired NUKEM in January 2013. NUKEM has access to contracted volumes and inventories in diverse geographic locations as well as scope for opportunistic trading of uranium and uranium products. This enables NUKEM to provide a wide range of solutions to its customers that may fall outside the scope of typical uranium sourcing and selling arrangements. Its trading strategy is non-speculative and seeks to match quantities and pricing structures under its long-term supply and delivery contracts, minimizing exposure to uranium related price fluctuations and locking in profits.

NUKEM's main customers are commercial nuclear power plants using enriched uranium fuel, typically large utilities that are either government-owned or large-scale utilities with multi-billion dollar market capitalization and strong credit ratings. NUKEM also trades with converters, enrichers, other traders and investors. NUKEM is active in the spot market on an ongoing basis, but also has some uranium and uranium-related products under contract until 2022.

MANAGING OUR CONTRACT COMMITMENTS

To meet our delivery commitments, we use our uranium supply, which includes uranium obtained from:

- our existing production
- purchases under long-term agreements and in the spot market
- our existing inventory.

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

- the level of sales commitments in our long-term contract portfolio (the annual average sales commitments over the next five years in our uranium segment is 24 million pounds, with commitment levels through 2019 higher than in 2020 and 2021)
- our production volumes

- purchases under existing and/or new arrangements
- discretionary use of inventories
- market opportunities.

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 between seven and 10 years. A number of new projects have been cancelled or delayed, and some existing production has been discontinued due to the low uranium prices that have persisted since the 2011 events at the Fukushima-Daiichi nuclear power plant in Japan. Today's uranium prices are not high enough to incent new mine production and not high enough to keep some current mines in operation.

We estimate world mine production in 2016 was about 163 million pounds U_3O_8, up from 157 million pounds in 2015:

- almost 80% of estimated world production came from four countries: Kazakhstan (39%), Canada (22%), Australia (10%) and Niger (7%)
- over 60% of estimated world production was marketed by four producers. We marketed about 17% (27 million pounds) of estimated world production.

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 makes some of its inventories available to the market, although in smaller quantities.
- 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.

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, which together impose annual quotas of approximately 12-13 million pounds U_3O_8 equivalent on imports of Russian uranium. These quotas were set at the equivalent of 20% of annual US reactor demand and are scheduled to expire at the end of 2020.

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 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.

Uranium from US inventories

We estimate that the US Department of Energy (DOE) has an excess uranium inventory of roughly 100 million pounds U_3O_8 equivalent. We expect a sizeable portion of this uranium 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

In March 2008, the DOE issued a policy statement and a general framework for managing this inventory, including the need to dispose of it without disrupting the commercial markets. It was updated in 2013 and is scheduled to be updated again in 2018. Under the 2013 *Excess Uranium Inventory Management Plan*, the DOE increased the allowable amount of material disposed of in a year to equal 15% or less of annual US nuclear fuel requirements. DOE sales are governed by Secretarial Determinations (issued every 2 years), which require that any such sales not have a material adverse impact on the US uranium, conversion and enrichment industries. The most recent Secretarial Determination was issued on May 1, 2015.

US Congressional Legislation

On May 21, 2015, the *Excess Uranium Transparency and Accountability Act* was introduced into the House and Senate. The purpose of the bipartisan bill is to restrict the DOE's inventory sales under a codified structure. The bill has an annual cap on DOE's uranium transfers of 2,100 MTU (5.5 million pounds U_3O_8) for calendar years 2016 through 2023 and 2,700 MTU (7.1 million pounds U_3O_8) for calendar years 2024 and each year thereafter. The limit includes uranium in all forms. If new legislation is introduced, the limit could be amended.

Conversion services

We account for about 25% of world UF_6 conversion capacity and are a supplier of UO_2 for Canadian-made CANDU reactors. For conversion services, we compete with three other primary commercial suppliers, in addition to the secondary supplies described above, to meet global demand.

Operations and projects

Uranium

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NUKEM

NUKEM GmbH	73

Uranium production

Cameco's share (million lbs U_3O_8)	**2015**	**2016**	**2017 Plan**
McArthur River/Key Lake	13.3	12.6	12.6
Cigar Lake	5.7	8.7	9.0
Inkai	3.4	3.4	3.1
Rabbit Lake	4.2	1.1	0.0
Smith Ranch-Highland	1.4	0.9	0.4
Crow Butte	0.4	0.3	0.1
Total	**28.4**	**27.0**	**25.2**

Uranium – operating properties



McArthur River/Key Lake

McArthur River is the world's largest high-grade uranium mine, and Key Lake is the largest uranium mill in the world.

Ore grades at the McArthur River mine are 100 times the world average, which means it can produce more than 18 million pounds per year by mining only 150 to 200 tonnes of ore per day. We are the operator of both the mine and mill.

McArthur River is one of our three material uranium properties.

Location	Saskatchewan, Canada
Ownership	69.805% - McArthur River 83.33% - Key Lake
End product	uranium concentrate
ISO certification	ISO 14001 certified
Mine type	underground
Estimated mineral reserves (our share)	258.1 million pounds (proven and probable), average grade U_3O_8 – 9.60%
Estimated mineral resources[1] (our share)	3.4 million pounds (measured and indicated), average grade U_3O_8 – 3.65% 7.7 million pounds (inferred), average grade U_3O_8 – 5.20%
Mining methods	primary: raiseboring, blasthole stoping secondary: boxhole boring
Licensed capacity	mine and mill: 25 million pounds per year
Total packaged production 2000 to 2016 1983 to 2002	 309.1 million pounds (McArthur River/Key Lake) (100% basis) 209.8 million pounds (Key Lake) (100% basis)
2016 production	12.6 million pounds (18.0 million pounds on 100% basis)
2017 production outlook	12.6 million pounds (18.0 million pounds on 100% basis)
Estimated mine life	2037 (based on current mineral reserves)
Estimated decommissioning cost (100% basis)	$48 million – McArthur River $218 million – Key Lake

1 Mineral resources that are not mineral reserves have no demonstrated economic viability.

Business structure

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

- Cameco – 69.805%
- AREVA – 30.195%

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

- Cameco –83 1/3%
- AREVA – 16 2/3%

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	• Saskatchewan Mining Development Corporation (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 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 AREVA, reducing our interest to 69.805%, and increasing AREVA'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 AREVA a 30.195% direct interest
	  • its 33 1/3% interest in the Key Lake joint venture, giving us an 83 1/3% direct interest, and AREVA a 16 2/3% 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

Technical report

This project description is based on the project's technical report: *McArthur River Operation, Northern Saskatchewan, Canada*, dated November 2, 2012 (effective August 31, 2012) except for some updates that reflect developments since the technical report was published. 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 David Bronkhorst, P. Eng., Alain G. Mainville, P. Geo., Gregory M. Murdock, P. Eng., and Leslie D. Yesnik, P. Eng.; four qualified persons within the meaning of NI 43-101. The following description has been prepared under the supervision of Alain G. Mainville, P. Geo., Gregory M. Murdock, P. Eng., Thomas Saruchera, P. Eng., Baoyao Tang, P. Eng., and Leslie D. Yesnik, P. Eng. They are all *qualified persons* within the meaning of NI 43-101, but are not independent of us.

For information about uranium sales see pages 12 to 15, environmental matters see *Safety, Health and Environment* starting on page 84, and taxes see page 98.

For a description of royalties payable to the province of Saskatchewan on the sale of uranium extracted from orebodies within the province, see page 98.

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 113, Environmental risks starting at page 114 and Legal and other risks starting at page 115.

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).

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 northeast 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 most recent agreement was signed in November 2010. It covers 1,425 hectares and has a term of 33 years.

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 21 mineral claims, totaling 83,438 hectares, surrounding the deposit. The mineral claims are in good standing until 2018, 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. One of the ways we implement this commitment is through our Five Pillar CSR Strategy. For more information, see Sustainable development at page 82.

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 from various pick-up points in smaller planes to the mine. 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 crystalline basement rocks underlying the deposit are members of the Aphebian-age Wollaston Domain, metasedimentary sequence. These rocks are overlain by flat lying sandstones and conglomerates of the Helikian Athabasca Group. These sediments consist of the A, B, C and D units of the Manitou Falls Formation, and a basal conglomerate containing pebbles and cobbles of quartzite. These sediments are over 500 metres thick in the deposit area.

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. The fault has thrust a wedge of basement rock into the overlying sandstone. There is a vertical displacement of more than 80 metres at the northeast end of the fault, which decreases to 60 metres at the southwest end.

The deposit consists of six distinct mineralized zones with delineated mineral reserves and resources (Zones 1 to 4, Zones A and B), plus one additional area with delineated mineral resources (McArthur north). In addition, there are several mineralized showings over a strike length of 2,700 metres.

The width of the mineralization varies. The main part of the mineralization, generally at the upper part of the wedge, averages 12.7 metres in width and attains a maximum width of 28 metres (Zone 2). The height of the mineralization ranges from 50 metres to 120 metres.

With the exception of Zone 2, the mineralization occurs in both the sandstone and basement rock along the faulted edge of the basement wedge. Zone 2 occurs deeper in the basement rock in a unique area of the deposit, where a massive footwall quartzite unit lies close to the main fault zone.

Although all of the rocks at McArthur River are altered to some degree, the alteration is greatest in or near faults that are often associated with mineralization. Chloritization is common and most intense within a metre of mineralization in the pelitic hanging wall basement rocks above the P2 fault. The predominant alteration characteristic of the sandstone is pervasive silicification, which increases in intensity 375 metres below the surface, and continues to the unconformity. This brittle sandstone is strongly fractured along the path of the main fault zone, resulting in poor ground conditions and high permeability to water.

In general, the high-grade mineralization, characterized by botryoidal uraninite masses and subhedral uraninite aggregates, constitutes the earliest phase of mineralization in the deposit. Pyrite, chalcopyrite, and galena were also deposited during the initial mineralizing event. Later stage, remobilized uraninite occurs as disseminations, veinlets, and fracture coatings within chlorite breccia zones, and along the margins of silt beds in the Athabasca sandstone.

Deposit Type

McArthur River is an unconformity-associated uranium deposit. The geological model was confirmed by underground drilling, development and production activities. Similar deposits include: Rabbit Lake, Key Lake, Cluff Lake, Midwest Lake, McClean Lake, Cigar Lake and Maurice Bay in the Athabasca uranium district (Saskatchewan, Canada), Kiggavik (Lone Gull) Thelon Basin district (Nunavut, Canada), Jabiluka, Ranger, Koongarra and Nabarlek, Alligator River district (Northern Territory, Australia). Although these deposits belong to the unconformity-associated model, all are different. Uranium mineralization in the Nunavut and Australian deposits is all hosted in the basement lithologies whereas in the Athabasca deposits, mineralization is present in both the basement and overlying sandstone. Another key difference is that the Athabasca deposits are of considerably higher grade.

Unconformity-associated uranium deposits comprise massive pods, veins, and/or disseminations of uraninite spatially associated with unconformities between Proterozoic siliciclastic basins and metamorphic basement. The siliciclastic basins are relatively flat-lying, un-metamorphosed, late Paleoproterozoic to Mesoproterozoic, fluvial red-bed strata. The underlying basement rocks comprise tectonically interleaved Paleoproterozoic metasedimentary and Archean to Proterozoic granitoid rocks. Uranium as uraninite (commonly in the form of pitchblende) is the sole commodity in the monometallic sub-type and principle commodity in the polymetallic sub-type that includes variable amounts of Ni, Co, As and traces of Au, Pt, Cu and other elements. Some deposits include both sub-types and transitional types, with the monometallic tending to be basement-hosted, and the polymetallic generally hosted by basal siliciclastic strata and paleo-weathered basement at the unconformity.

About the McArthur River operation

McArthur River is a developed producing property with sufficient surface rights to meet current mining operation needs.

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.

McArthur River currently has six zones with delineated mineral reserves and resources (Zones 1 to 4, Zones A and B) and one additional area with delineated mineral resources (McArthur north). We are currently mining Zone 2 and Zone 4.

Zone 2 has been actively mined since production began in 1999. The ore zone was initially divided into three freeze panels (Panels 1-2, 3 and 5). 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. The majority of the remaining Zone 2 mineral reserves are in the upper portion of Panel 5.

Zone 4 is divided into three mining areas: north, central, and south. We are actively mining the lower central, and north areas. The upper central area is currently in the ground freezing stage, which is expected to be complete in 2017. Similar to Zone 2, the inner connecting freeze walls are decommissioned as new panels are brought on line in order to maximize ore recovery.

Zone 1 is under development and freeze hole drilling is in progress. Production from Zone 1 is expected to begin in 2020.

We have successfully extracted over 309 million pounds (100% basis) since we began mining in 1999.

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))
- *Water Rights Licence and Approval to Operate Works* – amended in 2011 and valid for an undefined term (from the Saskatchewan Watershed Authority).

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 airstrip and air terminal
- waste rock stockpiles
- water containment ponds and treatment plant
- a freshwater pump house
- a powerhouse
- electrical substations
- standby electrical generators
- a warehouse
- freeze plants
- a concrete batch plant
- an administration and maintenance shop building
- a permanent residence and recreation complex
- 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 entering our shafts is sufficient to meet all underground process water requirements. The site is connected to the provincial power grid, and it has standby 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.

Mining method

We use a number of innovative methods to mine the McArthur River deposit.

Ground freezing

The sandstone that overlays the deposit and metasedimentary basement rocks is water-bearing and more permeable, which results in significant water pressure at mining depths. In order to isolate the high-pressure water, ground freezing is used to form an impermeable wall around the area being mined. This prevents water from entering the mine, and helps stabilize weak rock formations. Ground freezing reduces, but does not eliminate, the risk of water inflows. To date, we have isolated six mining areas with freeze walls and a seventh mining area is expected to be isolated mid-2017.

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. It involves:

- establishing a drill chamber above the ore and an extraction chamber below the ore
- setting up a raisebore drill in the drill chamber, drilling a pilot hole down to the extraction chamber, attaching a 3-metre wide reaming head to the drill string, and pulling it back up through the ore zone
- collecting the high-grade broken ore at the bottom of the raises using line-of-sight remote-controlled scoop trams, and transporting it to an underground grinding circuit
- filling each raisebore hole with concrete
- when a series of overlapping raisebore holes in a chamber is complete, removing the equipment and filling the entire chamber with concrete
- starting the process again in an adjacent raisebore.

Blasthole stoping

Our use of blasthole stoping began in 2011 and has expanded; the majority of ore extraction is now carried out with blasthole stoping. The use of this method has allowed the site to improve operating costs by significantly reducing waste rock handling, backfill dilution, and backfill placement.

Similar to raiseboring, blasthole stoping requires establishing drill access above the ore and extraction access below the ore. We begin each stope with a single raisebore hole (explained above). The stope is then formed by expanding the circumference of the raise by drilling longholes around the raisebore hole and blasting the ore. The blasted material funnels into the raisebore hole and drops to the extraction level below. The broken rock is collected on the lower level and removed by line-of-sight remote-controlled scoop trams, and transported to the underground grinding circuit. Once a stope is mined out, it is backfilled with concrete to maintain ground stability and allow the next stope and/or raise to be mined. This mining method has been used extensively in the mining industry, including uranium mining.

Boxhole boring

Boxhole mining was tested at McArthur River between 2012 and 2015 and though it is approved for use as a mining method, the related costs are higher and it is not being actively used. Boxhole boring is similar to the raisebore method, but the drilling machine is located below the mineralization, so development is not required above the mineralization.

New mining areas

We must bring on new mining zones to sustain production, and two new areas are currently under active development: the upper central portion of Zone 4, and Zone 1. In order to support the development of these zones, infrastructure expansions are required related to freeze capacity and ventilation. In 2016, we completed the upgrade of our surface electrical infrastructure as part of our plan to address current and future needs. We also continued construction of the next freeze plant, which is scheduled to begin freezing the south end of the orebody (Zone 4) in 2017.

The mine life of McArthur River/Key Lake has been extended from 2033 to 2037 as a result of changes to the annual production assumptions in our mine plan, and the work completed to upgrade resources to reserves in Zone A. See Mineral reserves and resources on page 74 for more information.

Initial mine processing for transport to Key Lake Mill

Ore processing at McArthur River was commissioned in 2000 following a lengthy period of testing, design, procurement, and construction. Since commissioning, numerous changes have been made to the McArthur River ore processing and water treatment circuits to improve their operational reliability and efficiency.

We carry out initial processing of the extracted ore at McArthur River:

- the underground circuit grinds the ore and mixes it with water to form a slurry
- the slurry is pumped 680 metres to the surface and stored in one of four ore slurry holding tanks
- it is blended and thickened, removing excess water
- the final slurry, at an average grade of 15% U_3O_8, is pumped into transport truck containers and shipped to Key Lake mill on an 80 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.

Tailings

McArthur River does not have a tailings management facility because it ships the ore slurry to Key Lake for milling. We expect to have sufficient tailings capacity at Key Lake 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.

Waste

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

- clean rock (includes mine development waste, crushed waste, and various piles for concrete aggregate and backfill)
- mineralized waste and low grade ore (>0.03% U_3O_8) – stored on engineered lined pads
- waste with acid-generating potential – stored on engineered lined pads – for concrete aggregate.

Water inflows

Production was temporarily suspended on April 6, 2003, as increased water inflow due to a rock fall in a new development area (located just above the 530 metre level) began to flood portions of the mine. We resumed mining in July 2003 and sealed off the excess water inflow in July 2004.

In November 2008, there was a small water inflow in the lower Zone 4 development area on the 590 metre level. We captured and controlled the inflow, and did not have to alter our mining plan. We completed a freeze wall in this area in 2010, and are now mining in the area.

These two inflows have strongly influenced mine design, inflow risk mitigation and inflow preparedness.

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. We believe we have sufficient pumping, water treatment and surface storage capacity to handle the estimated maximum

sustained inflow. As our mine plan is advanced, we plan to make improvements in our dewatering system and to expand our water treatment capacity.

Production

- *2016*: 18.0 million pounds of U_3O_8 was produced by milling McArthur River ore at Key Lake (our share was 12.6 million pounds). Average mill metallurgical recovery was 99.04%.
- *2017 Forecast*: 18.0 million pounds of U_3O_8 (our share 12.6 million pounds) (which includes processing downblended material at Key Lake).
- For the remainder of the estimated mine life, the total production forecast as of December 31, 2016 is estimated to be 365 million pounds of U_3O_8 (our share 255 million pounds) based on an overall milling recovery of 98.7% (which does not include processing downblended material at Key Lake).

In alignment with our continued efforts to reduce costs, our 2017 production plan for the McArthur River and Key Lake operations includes an extended shut-down during the third quarter, which is expected to result in reduced flight and camp costs. The shut-down will consist of a four-week vacation period, followed by a two-week maintenance period at McArthur River and a four-week maintenance period at Key Lake, with mill production planned to restart before the end of the third quarter.

We have also planned additional actions for 2017, including a 10% reduction of the workforce at McArthur River and Key Lake, and changes to the commuter flight services at our sites, which are expected to further reduce costs and improve efficiency at the operations.

The operational changes we have made, and plan to make in 2017, which are intended to achieve cost savings and improve efficiency, carry with them increased risk of production disruption.

The collective agreement with the United Steelworkers local 8914 expires at the end of December 2017. We plan to begin contract negotiations prior to the expiration of the current agreement. There is a risk to our 2018 production if we are unable to reach agreement and there is a labour dispute.

McArthur River production expansion potential

In 2012, we completed the feasibility study on the *McArthur River extension project* and based on the positive results, we revised our mine plan to incorporate a mine expansion.

In 2015, the CNSC approved our application to increase McArthur River's licensed annual production to 25 million pounds (100% basis), to allow flexibility to match the approved Key Lake mill capacity. The licence conditions handbooks for these operations now allow both operations to produce up to 25 million pounds (100% basis) per year.

In order to successfully meet the planned production in the life of mine schedule, we must continue to successfully transition into new mine areas through mine development and investment in support infrastructure. We plan to:

- improve our dewatering system and expand our water treatment capacity, as required to mitigate capacity losses should mine developments increase background water volumes
- expand the concrete distribution systems and batch plant capacity.

Freeze plant and distribution systems will have to be expanded as new mining areas are developed and brought into production. Freeze plant capacity is expected to be expanded in three stages as follows:

- Expansion of the existing freeze plant: Expansion of the existing freeze plant from 800 tonnes to 1,300 tonnes was completed and commissioned in 2014.
- South freeze plant: A modular freeze plant with initial capacity of 750 tonnes of freeze capacity is planned for the south mining areas and is scheduled to be completed in 2017.
- North freeze plant: A freeze plant with capacity up to 1,250 tonnes is tentatively planned for the north mining areas and is scheduled to be completed by 2024. Final sizing will be determined after the completion of Zone A and Zone B delineation drilling.

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. Once the market signals that new supply is needed and a decision is made to begin increasing annual production, we will optimize the capacity of both the McArthur River mine and Key Lake mill with a

view to achieving annual licensed capacity of 25 million pounds per year (100% basis). We expect that this paced approach will allow us to extract maximum value from the operation as the market transitions.

Key Lake mill

Location and access

In northern Saskatchewan, 570 kilometres north of Saskatoon. The site is 9 kilometres long and 5 kilometres wide. It 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 four key permits to operate the Key Lake mill:

- *Uranium Mill Operating Licence* – renewed in 2013 and expires on October 31, 2023 (from the CNSC)
- *Approval to Operate Pollutant Control Facilities* – renewed in 2014 and expires on November 30, 2021 (from the SMOE)
- *Water Rights Licences to use ground water and approval to operate works* – last updated in 2008 and expires April 1, 2032 (from the Saskatchewan Watershed Authority)
- *Approvals to Operate Works for dewatering wells* – last issued/amended in 2015 with no expiry noted (from the Saskatchewan Watershed Authority).

In 2014, the CNSC approved the environmental assessment (EA) for the *Key Lake extension project,* a project which involves increasing our tailings capacity and Key Lake's nominal annual production rate. The licence conditions handbook now allows the Key Lake mill to produce up to 25.0 million pounds (100% basis) per year.

With the approved EA and once the Key Lake extension project is complete, mill production can be increased to closely follow production from the McArthur River mine. There will be differences in a given production year between mine and mill production due to the addition of mineralized material stockpiled at Key Lake, processing downblended material (see page 19), year-to-year inventory changes and recovery rate.

Supply

Our share of McArthur River ore 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 AREVA 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
- 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 AREVA's share of McArthur River ore.

With the UEM distribution in 2009 (see *History* on page 19 for more information), we made the following changes to the agreement:

- the fees and expenses related to AREVA's pro-rata share of ore produced just before the UEM distribution (16.234% – the first ore stream) have not changed. AREVA is not responsible for any capital or decommissioning costs related to the first ore stream.
- the fees and expenses related to AREVA'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. AREVA'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
- milling of the second ore stream at the Key Lake mill for the entire life of the McArthur River project.

Process and recovery

The Key Lake mill uses a seven-step process:

- blend McArthur River ore with low grade mineralized material to lower the grade
- dissolve the uranium using a leaching circuit

- clarify the uranium in solution using a counter current decantation circuit
- concentrate it using a solvent extraction circuit
- precipitate it with ammonia
- thicken, dewater and dry/roast it in a calcining kiln
- package it as 98% U_3O_8 (yellowcake).

Key Lake has been achieving annual milling recovery of 98.7% or better over the past 10 years and the forecast is for 99.2% in 2017.

Waste rock

There are five large 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 the 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 tailings management facilities 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.
- the Deilmann pit, which was mined out in the 1990s. Tailings from processing McArthur River ore are deposited in the Deilmann tailings management facility (TMF).

In 2009, regulators approved our plan for the long-term stabilization of the Deilmann TMF pitwalls. We implemented the plan in phases based on TMF water level and risk. Work was completed in 2013 on the west wall and 2016 on the south side. The final phase on the north east slope is targeted for completion in 2018.

In 2014, the CNSC approved an increase in Key Lake's tailings capacity. We now 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.

Mill revitalization

The Key Lake mill began operating in 1983 and we have continually upgraded circuits with new technology to simplify operations, and improve environmental performance, with the objective to increase the mill's nominal annual production capacity to match the annual production capacity of the McArthur River mine. As part of the mill upgrades, a new calciner was installed at the Key Lake mill to accommodate an eventual annual production increase to 25 million pounds. However, reliability issues were encountered with the new equipment during commissioning. Since market conditions do not currently support a decision to increase production, and as part of our continuing efforts to reduce costs, in 2016, we suspended the commissioning of and transition to the new calciner. We are assessing the cost to resolve the issues and expect to complete commissioning if we determine that there is financial and operational value in adding new calcining capacity. The existing calciner has sufficient capacity to meet our 2017 production target of 18 million pounds (12.6 million pounds our share).

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 submitted to the CNSC in 2014 and we received final approval from the CNSC in January 2015. These documents include our estimated cost for implementing the decommissioning plan and addressing known environmental liabilities.

We, along with our joint venture participant, have letters of credit posted as financial assurances with the government of Saskatchewan to cover the amount in the 2013 *preliminary decommissioning cost estimate* for McArthur River ($48 million) and the 2015 *preliminary decommissioning cost estimate* for Key Lake ($218 million).

Operating and capital costs

The following is a summary of the operating and capital cost estimates for the life of mine, stated in constant 2017 dollars and reflecting a forecast life-of-mine mill production of 366.6 million pounds U_3O_8:

Operating Costs ($Cdn million)	Total (2017 – 2037)
McArthur River Mining	
Site administration	$ 995.3
Mining costs	1,588.3
Process	305.8
Corporate overhead	187.7
Total mining costs	$ 3,077.1
Key Lake Milling	
Administration	$ 1,070.4
Milling costs	1,261.0
Corporate overhead	119.1
Total milling costs	$ 2,450.5
Total operating costs	**$ 5,527.6**
Total operating cost per pound U_3O_8	**$ 15.08**

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

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.

Capital Costs ($Cdn million)	Total (2017 – 2037)
McArthur River Mine Development	$ 714.3
McArthur River Mine Capital	
Freeze infrastructure	$ 226.4
Ventilation	46.6
Concrete batching and delivery	54.3
Other mine capital	330.9
Total mine capital	$ 658.2
Key Lake Mill Sustaining	
Revitalization	$ 7.4
Mill capital	200.5
Total mill capital	$ 207.9
Total capital costs	**$ 1,580.4**

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

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 capital at McArthur River is mine development. Other significant capital includes freeze infrastructure costs.

Our expectations and plans regarding McArthur River/Key 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 and 3. We may change operating or capital spending plans in 2017, depending upon 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 530 to 640 metres. Data included assay results from 42 drillholes. The very high grade found in the drillholes justified the development of an underground exploration project in 1993.

Exploration

In total, exploration drilling of the McArthur River deposit to date consists of over 1,440 drillholes and 277,981 metres. Drilling has been carried out from both surface and underground in order 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.

In 2016, we began underground infill definition drilling of Zone B in order to provide the information required for more detailed mining plans. In 2017, we plan to continue with the infill drilling of Zone B.

Greenfield exploration was carried out on the McArthur River property in 2016 and further work is planned for 2017.

Drilling

Surface drilling

We have carried out surface drilling since 2004, to test the extension of mineralization identified from the historical surface drillholes, to new targets along the strike, and to evaluate the P2 trend northeast and southwest of the mine. Surface drilling has delineated mineralization over a strike length of 1,700 metres, generally at between 500 metres to 640 metres below the surface. Surface drilling since 2004 has extended the potential strike length to 2,700 metres.

As of December 31, 2016, we had drilled 258 surface drillholes (both conventional and directional drilling) for a total of approximately 171,400 metres along the P2 trend.

We have completed preliminary drill tests of the P2 trend at 200 metre intervals over 11.5 kilometres (4.3 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. There was no work on the P2 trend in 2016 and none is planned for 2017, although drilling is planned elsewhere on the McArthur River 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 1,182 underground drillholes since 1993, resulting in over 106,581 metres to get detailed information along 1,800 metres of the surface delineation. This data was used to estimate the mineral reserves and resources in six mineralized zones (Zones 1 to 4 and Zones A and B). The drilling was primarily completed from the 530 and 640 metre levels. Data from hundreds of freezeholes and raisebore pilot holes support the estimate. Where there were no underground drillholes (McArthur north in the northeastern part of the deposit), we used surface exploration drillholes to estimate mineral resources.

Other data

In addition to the exploration drilling, geological data is also collected from the underground probe and grout, service, drain, freezeholes and geotechnical programs.

Recent activity

In 2013, we continued advancing the underground exploration drifts in the southwest and northeast directions and focused on

developing Zone 4 and areas at the southwest end of the underground mine workings. The delineation drilling program on Zone A progressed through the year.

In 2014, we completed the planned development advance of the underground exploration drifts and underground delineation drilling.

In 2015, we continued the advancement of our underground exploration drifts in the southwest and northeast directions. The delineation drilling program on Zone A also progressed throughout the year.

In 2016, we continued additional underground drilling to further delineate Zone A and Zone B and identify additional mineral resources in the deposit.

In 2017, we plan to continue with the infill delineation drilling of Zone B.

Sampling, analysis and data verification

Surface samples

- GPS or mine site surveying instruments are used in the field to verify the location of surface drillholes.
- Holes are generally drilled every 12 to 25 metres, on sections that are 50 to 200 metres apart. 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 drilled width. Angled holes usually intercept mineralization closer to perpendicular, giving intercepts that are closer to true width.
- All holes are radiometrically probed, where possible.
- A geologist examines the surface drillhole core in the field, determines its overall characteristics, including mineralization, logs the information, and takes samples that have noteworthy alteration, structures and radiometric anomalies.
- Basement sampling procedures depend on the length of the interval sampled, and attempts are made to avoid having samples cross lithological boundaries.
- All core with radioactivity greater than a set threshold is split and sampled for assay.
- We measure the uranium grade by assaying core. Core recovery is generally considered excellent with some local exceptions. The quality and representativeness of the surface drillhole samples is adequate for estimating mineral resources and mine planning, but we often validate surface drillhole results against underground drilling results in the same vicinity.

Underground samples

- Holes are drilled in stations 30 metres apart. Each station is drilled with three fans of holes, covering 10 metres across the deposit.
- Uranium grade is calculated from the adjusted radiometric probe readings. Radiometric probing is at 0.1 metre spacing in radioactive zones and 0.5 metre spacing in unmineralized zones. The drillhole fans give the gamma probes representative access across the entire deposit.
- A small portion of the data we obtain is from assays, which we use to estimate mineral resources. It is collected to determine the U_3O_8 content past the probe limit of a hole, or to provide correlation samples to compare against a probed interval. In these cases, we log the core, photograph it, and then sample it for uranium analysis. We sample the entire interval instead of splitting the core. This provides very high-quality samples in these areas.
- Core recovery in these areas can be excellent to poor.
- The quality and representativeness of the underground drillhole samples is adequate for estimating mineral resources and mine planning.

Analysis

We record the following for each sample:

- hole number, date and core logger name
- sample number
- from and to intervals and length
- recovered length
- core diameter
- rock type, alteration, and mineralization.

We place each sample in a plastic bag and write its number on the bag. We place the bags in a metal or plastic shipping drum, which is scanned by the radiation department and shipped to the Saskatchewan Research Council Geoanalytical Laboratories (SRC) in Saskatoon for analysis. SRC is independent of the participants of the MRJV.

SRC personnel:

- verify the sample information
- sort the samples by radioactivity
- dry, crush and grind them in secure facilities or in the main laboratory, if they have minimal radioactivity
- dilute the samples and carry out a chemical analysis
- prepare and analyse a quality control sample with each batch
- analyse one of every 40 samples in duplicate.

Quality control and data verification

A data and quality assurance coordinator on staff is responsible for reviewing the quality of geochemical data received from laboratory contractors. The coordinator reviews the analyses provided by the lab using the results of standard reference materials as a benchmark, and, together with project geologists, determines whether it is necessary to reassay.

We use several quality control measures and data verification procedures:

- enter surveyed drillhole collar coordinates and hole deviations in the database, display them in plan views and sections and visually compare them to their planned location
- visually validate core logging information on plan views and sections, and verify it against photographs of the core or the core itself
- compare downhole radiometric probing results with core radioactivity and drilling depth measurements
- validate uranium grade based on radiometric probing with sample assay results, when available
- compare the information in the database against the original data, including paper logs, deviation survey films, assay certificates and original probing data files.

Quality assurance and quality control for underground drillhole information focuses on ensuring quality probing results. We do this by:

- using a software program to check for data errors such as overlapping intervals and out of range values
- entering surveyed drillhole collar coordinates and downhole deviations into the database and visually validating and comparing to the planned location of the holes
- checking the calibration of probes before using them and periodically duplicating probe runs
- comparing downhole radiometric probing results with radioactivity measurements made on the core and drilling depth measurements
- validating uranium grades based on radiometric probing with sample assay results once available.

Since 2000, 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. Reconciling the uranium block model with mine production is a very good indicator that estimated grades in the block model accurately reflect the mined grades.

In 2014, we completed at Cigar Lake a test program of the McArthur River radiometric probes to demonstrate that consistent count rates were being obtained between probes. A total of eight surface freezeholes were probed multiple times with each probe to compare count rates. This test demonstrated that probes with the same equipment configurations and GM tubes produced very consistent count rates. The reliability of the probe readings was last confirmed in January 2015 by comparison with the results of an independent non-Cameco test using a series of probes built by a different manufacturer.

Sample security

Samples include chain of custody documentation that accompanies the samples during transportation to the laboratory for analysis.

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

We store and ship all samples in compliance with regulations. We consider it unlikely that samples are tampered with because of the high grade of the ore and the process used: the core is scanned immediately after it is received at a sample preparation laboratory and grade is estimated at that point.

Accuracy

We are satisfied with the quality of data obtained from surface exploration and underground drilling at McArthur River and consider it valid for estimating mineral resources and mineral reserves. Results of the quality control measures and data verification procedures are reflected by the fact that for the last five years, our estimation of tonnage, grade and pounds showed differences of -17%, 14% and -5% respectively compared to production. Tonnage and grade variances are partially a result of transitioning to the blasthole stoping mining method with added dilution. Overall, estimated pounds are within 5% of production.

Mineral reserve and resource estimates

Please see page 74 for our mineral reserve and resource estimates for McArthur River.

Uranium – operating properties



Cigar Lake

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 AREVA's McClean Lake mill.

Cigar Lake is one of our three material uranium properties.

Location	Saskatchewan, Canada
Ownership	50.025%
End product	uranium concentrate
ISO Certification	ISO 14001 certified
Mine type	underground
Estimated mineral reserves (our share)	107.6 million pounds (proven and probable), average grade U_3O_8 – 15.90%
Estimated mineral resources[1] (our share)	42.3 million pounds (measured and indicated), average grade U_3O_8 – 16.17% 10.4 million pounds (inferred), average grade U3O8 – 7.36%
Mining method	jet boring system (JBS)
Licensed capacity	mine: 18 million pounds per year (our share 9.0 million pounds per year)
Total production 2014 to 2016	28.9 million pounds (100% basis)
2016 production	8.7 million pounds (17.3 million pounds on 100% basis)
2017 production outlook	9.0 million pounds (18.0 million pounds on 100% basis)
Estimated mine life	2028 (based on current mineral reserves)
Estimated decommissioning cost	$49 million (100% basis)

1 Mineral resources that are not mineral reserves have no demonstrated economic viability.

Business structure

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

- Cameco – 50.025% (operator)
- AREVA – 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	• Saskatchewan Mining Development Corporation (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 AREVA becomes the operator of the remaining Waterbury 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	• Jet boring mining system 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 jet boring system 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.

Technical report

This project 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 C. 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 C. Scott Bishop, P. Eng., Alain G. Mainville, P. Geo., and Leslie D. Yesnik, 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 modifications 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 12 to 15, environmental matters see *Safety, Health and the Environment* starting on page 84, and taxes see page 98.

For a description of royalties payable to the province of Saskatchewan on the sale of uranium extracted from orebodies within the province, see page 98.

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 113, Environmental risks starting at page 114 and Legal and other risks starting at page 115.

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 km northeast by road and McArthur River mine is 46 km 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 December 1, 2021. 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 25 mineral claims (Nos. S-106540 to 106564), totaling 92,740 hectares, adjoining the mineral lease and surrounding the site. The mineral claims are in good standing until 2023.

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. One of the ways we implement this commitment is through our Five Pillar CSR Strategy. For more information, see Sustainable development at page 82.

The closest inhabited site is Points North Landing, 50 km northeast by road. The community of Wollaston Lake is approximately 80 km by air to the east of the mine site.

Athabasca Basin community resident employees and contractors fly from various pickup points in smaller planes to the mine site. 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 (general structural setting, mineralogy, geochemistry, host rock association and the age of the mineralization), 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. Phase 1, the eastern part of Cigar Lake, is approximately 670 metres long by 100 metres wide and Phase 2, 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 unconformity mineralization consists primarily of three dominant rock and mineral facies occurring in varying proportions: quartz, clay (primarily chlorite with lesser illite) and metallic minerals (oxides, arsenides, sulphides). In the relatively higher grade Phase 1 area, the ore consists of approximately 50% clay matrix, 20% quartz and 30% metallic minerals, visually estimated by volume. In this area, the unconformity mineralization is overlain by a weakly mineralized contiguous clay cap one to 10 metres thick. In the relatively lower grade Phase 2 area, the proportions change to approximately 20% clay, 60% quartz and 20% metallic minerals.

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 producing property with sufficient surface rights to meet current mining operation needs. We are currently mining in the eastern part of the ore body (referred to as Phase 1), and surface delineation drilling continues for the western portion (Phase 2).

Permits

Please see page 42 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 freezing

The permeable sandstone that overlays the deposit and basement rocks contains large volumes of water under significant pressure. We freeze the ore zone and surrounding ground in the area to be mined to prevent water from entering the mine and to help stabilize weak rock formations. This system freezes the deposit and underlying basement rock in two to four years, depending on water content and geological conditions. 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.

Prior to the mine inflow events in 2006, we had been pursuing a strategy of bulk freezing exclusively from underground. Following mine remediation and a surface freeze test program in 2010, we shifted to a hybrid freezing strategy combining freezing from both surface and underground. However, based on additional studies and experience gained with surface freezing since the 2010 test, we decided in 2015 to pursue a strategy of freezing exclusively from surface.

The costs related to each technique are similar; however, there are significant advantages to freezing the ground from the surface. With surface freezing, less mine development is required, which results in less waste rock and greater ground stability, since freeze tunnels are not required between production tunnels. In addition, congestion is reduced and underground development for freeze infrastructure is no longer a critical path mine activity.

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 -30ºC at the surface freeze plant and recirculated.

Jet boring

After many years of test mining, we selected the jet boring mining system, 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 4.5 to 6 metre diameter cavity out of the frozen ore resulting in cylindrical void with a height corresponding to the thickness of the ore body up to 13.5 metres
- 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 the sump storage to a grinding and processing circuit, eventually loading a tanker truck with ore slurry for transport to the mill
- filling each cavity in the orebody with concrete once mining is complete
- 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.

Ore shipments started in March 2014 and the McClean Lake mill started producing uranium concentrates from the ore in October 2014.

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 the needs of the mine plan for the next few years. The current mine plan, with its underlying productivity assumptions, assumes that a fourth JBS unit is required later in the mine life. We are currently investigating if there are opportunities for productivity improvements that could negate the need for the fourth JBS unit.

As we ramp up production, 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 and variable dilution, recovery values, chemical ore characteristics, performance of the water treatment system, mining productivity and equipment reliability. There is a risk that the ramp up to full production may take longer than planned and that the full production rate may not be achieved on a sustained and consistent basis. We are confident we will be able to solve challenges that may arise, but failure to do so would have a significant impact on our business.

Mine development

Mine development for construction and operation uses two basic approaches: for good quality, competent rock mass, drill and blast with conventional ground support is applied. 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.

Since 2010, when the mine was dewatered, significant spalling, cracking and deterioration of the tunnel segments was identified in all four crosscuts excavated with the former MDS tunnel boring technique. Steps were taken to halt the deterioration and the affected area was reinforced. Two geotechnical consultants were retained to provide advice on the need for any possible further tunnel reinforcement or change in excavation and ground support methodology. Based on their recommendations, we have retrofitted the 781 and 737 production tunnels using NATM techniques, which effectively extended their life to allow the safe recovery of the ore above them. The remaining two MDS crosscuts at Cigar Lake were decommissioned and backfilled in 2016. They were originally intended to be used for ground freezing and are no longer required.

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 located 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 steps:

High density ore slurry – The ore slurry produced by the jet boring mining system is pumped to Cigar Lake's underground crushing, grinding and thickening facility. The resulting finely ground, high density ore slurry is pumped to surface storage tanks, thickened and loaded into truck mounted containers like the ones used at McArthur River.

Processing – Containers of ore slurry are trucked to AREVA's McClean Lake mill, 70 kilometres to the northeast for processing. 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 began in 2013 and were completed in 2014, with mill start-up in September 2014.

The 1992 – 1999 work was performed in France at AREVA's (formerly Cogema) 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. A range of ore grades, as high as 26% uranium, have been processed at the McClean Lake milling facility. Based on the test results and mill performance in 2015 and 2016, 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. Leaching temperature will continue to be monitored in the future through the full range of arsenic grades within the orebody.

Tailings

Cigar Lake site does not have a tailings management facility. The ore is processed at the McClean Lake mill. See *Toll Milling Agreement* below for a discussion of the McClean Lake tailings management facility.

Waste

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
- waste with acid-generating potential – temporarily stored on engineered lined pads.

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

Water discharged from the mine had historically been treated and released to Aline Creek. We began discharging treated water to Seru Bay in August 2013 following receipt of approval from the CNSC and the SMOE.

Production

In 2016, total packaged production from Cigar Lake was 17.3 million pounds U_3O_8; our share was 8.7 million pounds. The operation exceeded our forecast of 16 million pounds (100% basis) as a result of higher productivity and our intention to adjust annual production as necessary, based on our operating experience during ramp up. In 2017, we expect to reach full annual production of 18 million pounds (100% basis, 9 million pounds our share).

The mining plan is designed to extract all of the current mineral reserves. The following is a general summary of the production schedule guideline and parameters on a 100% basis:

Total mill production	• 211.8 million pounds of U_3O_8, based on current mineral reserves and an overall milling recovery of 98.5% • Full annual production of 18 million pounds of U_3O_8[1]
Total mine production	• 613 thousand tonnes of ore
Average annual mine production	• 100 to 200 tonnes per day during peak production, depending on ore grade
Average mill feed grade	• 15.9% U_3O_8

1 In 2016, AREVA received approval to increase the annual production of the mill to 24 million pounds U_3O_8.

In alignment with our continued efforts to reduce costs, our 2017 production plan for the Cigar Lake mine includes an extended shut-down during the third quarter, which is expected to result in reduced flight and camp costs. The shut-down will consist of a four-week vacation period, followed by a two-week maintenance period with mine start-up planned before the end of the third quarter.

We have also planned additional actions for 2017, including a 10% reduction of the workforce at Cigar Lake, changes to the shift rotation schedule, and changes to the commuter flight services at the site, which are expected to further reduce costs and improve efficiency at the operation.

The operational changes we have made, and plan to make in 2017, which are intended to achieve cost savings and improve efficiency, carry with them increased risk of production disruption.

Commercial production

Commercial production signals a transition in the accounting treatment for costs incurred at the mine. Cigar Lake met all of the criteria for commercial production, including cycle time and process specifications, in the second quarter of 2015. Therefore, effective May 1, 2015, we began charging all production costs, including depreciation, to inventory and subsequently recognizing them in cost of sales as the product is sold.

Production Increase

In order to accommodate processing all of Cigar Lake's current mineral reserves and ramp up to the target production rate of 18 million pounds U_3O_8 per year, the McClean Lake mill required expansion and a licence increase. In 2016, construction to expand the facility was completed and AREVA received CNSC approval to increase the mill's licensed production capacity from 13 million pounds to 24 million pounds U_3O_8 per year. AREVA was also successful in negotiating a collective agreement with its union local in 2016.

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 revised this plan and the accompanying *preliminary decommissioning cost estimate* again when we received our operating licence in 2013.

We, along with our joint venture participants have letters of credit posted as financial assurances with the government of Saskatchewan, to cover the amount in the 2013 *preliminary decommissioning cost estimate* ($49 million).

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 as a result of three water inflow incidents. The first occurred in April of 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 completed to that point in time. We developed and successfully executed recovery and remediation plans for all three inflows. Through 2010 and 2011, we developed a comprehensive plan and successfully proceeded with remediation to restore the underground workings at Cigar Lake. Successful re-entry into the main mine workings was achieved in early 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 in order 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. As mine production progresses, a significant expansion to the surface freeze plant capacity will be required. It is planned to be completed in 2018.

The McClean Lake mill has been expanded to process and package all Cigar Lake ore. Construction of the expanded facility began in 2013 and was completed in 2016. Upgrades to the tails neutralization circuit were substantially completed in 2016.

During 2016, we:

- discontinued use of the underground freeze infrastructure and backfilled two redundant crosscuts related to underground freezing
- completed a freeze pad extension to enable surface freeze drilling to resume in 2017
- advanced the freeze plant expansion project through the prefeasibility stage.

In 2016, we began advancing two new production crosscuts tunnels to ensure we maintain continuous access to frozen ore inventory once mining in the current crosscuts is complete.

Toll milling agreement

The McClean Lake joint venture has 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). The McClean Lake joint venture has agreed to dedicate at the McClean Lake mill the necessary mill capacity to process and package 18 million pounds of Cigar Lake uranium concentrate annually.

The CLJV will pay 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 AREVA. The McClean Lake mill required modification and expansion to process and package all of Cigar Lake's current mineral reserves. In 2014, the McClean Lake mill completed the first stage of mill upgrades. These initial modifications primarily focused on upgrades to the existing leach circuit and associated hydrogen mitigation systems to allow them to process high-grade ore.

In order to meet Cigar Lake's ramp up schedule, McClean Lake needed to be expanded. These upgrades included: a second solvent extraction circuit to accommodate the increased uranium pregnant aqueous flows; an expanded tailings neutralization circuit; an additional crystallization plant to handle the increased ammonium sulphate flow; and new diesel generators. All upgrades are complete and the mill has sufficient capacity to meet Cigar Lake's production schedule.

The McClean Lake joint venture commenced work in 2012 to optimize its tailings management facility to accommodate all of Cigar Lake's current mineral reserves. Subject to a capped contribution of $4.6 million from the CLJV, the McClean Lake joint venture is responsible for the cost to optimize its tailings management facility.

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.

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 was issued for an eight-year term in June 2013 and expires on June 30, 2021. The SMOE approval was renewed in 2012 and expires on December 31, 2017. 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, AREVA 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.

We continue to optimize our mine water treatment process and system to attain the effluent concentrations that form part of the licensing basis, including detailed technical work as required.

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 2017 dollars and reflecting a forecast life-of-mine mill production of 211.7 million pounds:

Operating Costs ($Cdn million)	Total (2017 – 2028)
Cigar Lake Mining	
Site administration	$ 468.7
Mining costs	896.8
Process	231.3
Corporate overhead	105.0
Total mining costs	$ 1,701.8
McClean Lake Milling	
Administration	$ 510.9
Milling costs	821.2
Corporate overhead	48.6
Toll milling	255.1
Total milling costs	$ 1,635.8
Total operating costs	**$ 3,337.6**
Total operating cost per pound U_3O_8	**$ 15.77**

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 (2017 – 2028)
Cigar Lake Mine Development	$ 367.3
Cigar Lake Mine Capital	
Sustaining capital	$ 99.7
Capacity replacement capital	234.3
Growth capital	—
Reclamation	1.0
Total mine capital	$ 335.0
McClean Lake mill modifications	$ 101.8
McClean Lake mill sustaining capital	179.6
Total mill capital	$ 281.4
Total capital costs	**$ 983.7**

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.

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 and 3. We may change operating or capital spending plans in 2017, depending on 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. AREVA is responsible for exploration activity on the 25 surrounding mineral claims. The data from the exploration program on the 25 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 Phase 1 area of the deposit to identify major structures within the sandstone column. This has allowed 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 Phase 1 and Phase 2 were conducted by us between 2007 and 2012, which targeted a broad range of technical objectives, including geotechnical, geophysical, delineation and ground freezing. Since 2012, diamond drilling managed by us has mainly focused on surface ground freezing programs at Phase 1 until 2016 when we initiated a surface delineation program over Phase 2 of the deposit.

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 Phase 1 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. However, the central portion of the Phase 1 deposit has had surface freezeholes installed at a nominal 6 × 6 m pattern.

The Phase 2 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 of Phase 2, locally reducing the drillhole spacing down to an approximate 15 × 15 m pattern.

In 2015, a surface geotechnical drill program was conducted by us over the western portion of the Phase 1 deposit. Down-hole cross-well seismic was conducted within these boreholes in an attempt to image major fault structures and geotechnical characteristics of this portion of the deposit. The majority of exploration and delineation drilling completed by us on the surface of the mineral lease consists of wireline diamond drilling recovering NQ size (47.6 millimetres) drill core. All surface freezehole core is of PQ size (85.0 millimetres).

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 within the Phase 1 mineral resource and reserve and Phase 2 mineral resource.

In 2016, we temporarily ceased our surface freezehole drilling program. In 2017, we plan to resume it.

In 2016, we completed 29,000 metres of diamond drilling as part of the first year of a three-year, 65,000-metre surface drilling program to confirm and update mineral resources contained in Phase 2. The objective of the program is to complete a detailed geological and geotechnical interpretation, a mineral resource estimate, and a prefeasibility study for Phase 2.

Surface drilling – mineral claims

AREVA operates the exploration activities on the 25 mineral claims outside of ML 5521. Between 1981 and 2016, 116,527 metres of exploration drilling have been completed in 264 drill holes. Numerous airborne and ground geophysical surveys,

geochemical surveys and geological studies have been completed over the same period. In 2006, drilling discovered the Cigar East zone that is located outside ML 5521, approximately 650 metres east of Phase 1 mineralization. Further exploration has been conducted in this area since 2006 and has delineated a zone of unconformity style uranium mineralization approximately 210 metres in length and 30 metres in width. No mineral resource has been reported for the Cigar East zone.

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.

Freezeholes were drilled from underground into the deposit for the purposes of freezing the ground prior to mining. A total of 83 holes at a spacing of 1.0 to 1.5 m were drilled in two periods of drilling in 1991 and again in 1999. Generally, these upward holes were rotary drilled holes from which no core was recovered; however, in a limited number of cases, core was recovered and sampled. Freezehole drilling started up again in late 2004 with the start of the construction phase of development. During this phase, over 300 freeze and temperature monitoring holes were drilled. The latter freezeholes were all drilled by percussion methods so no core was available for assays. No underground freezeholes have been drilled since 2006. None of the underground freezeholes are currently used for freezing purpose and for mineral resource and reserve estimation.

Sampling, analysis and data verification

Sampling

*Vertical sur*face drilling generally represented the true thickness of the zone since the mineralization is flat. All holes were core drilled and gamma probed whenever possible. Cigar Lake uses a high-flux gamma probe designed and constructed by alphaNUCLEAR (aN), a member of the Cameco group of companies. This high-flux gamma probe utilizes two Geiger Müller 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. The consistency between probe data and chemical assays demonstrates that secular equilibrium exists within the deposit.

To validate the core depth, the down-hole gamma survey results were compared to hand-held scintillometer surveys on core. Down-hole gamma surveys and hand-held scintillometer surveys guided sampling of drill core for assay purposes. In the early stages of exploration drilling, sampling intervals were of various lengths, up to 50 centimetres, based on geological differences in the character of the mineralization. Starting in 1983, sampling intervals were fixed at a standard interval of 50 centimetres. All sample results have since been composited to the standard interval of 50 centimetres for mineral resources estimation purpose. On each of the upper and lower contacts of the mineralized zone, at least one additional 50 centimetres sample was taken to ensure that the zone was fully sampled at the 0.10% U_3O_8 cut-off. Starting in 1983, all drilling and sample procedures were standardized and documented. This gives us a high degree of confidence in the accuracy and reliability of results of all phases of the work.

When sampled, the entire core from each sample interval was taken for assay, except for some of the earliest sampling in 1981 and 1982. This reduced 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 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 geologist
- 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
- placement of samples in steel drums for shipping.

Analysis

Since 2002, 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:HNO3, 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. The 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 a qualified geoscientist 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.

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 and geochemical analytical results obtained from the external laboratory are uploaded directly into the centralized database, thereby mitigating potential for manual data transfer errors.

Additional data quality control measures taken include:

- entering surveyed drillhole collar coordinates and downhole deviations into the database and visually validating and comparing to the planned location of the holes
- random survey spot checks of drillhole collar locations, which were reviewed in detail if differences were encountered (non-material collar location discrepancies were identified late in the May 2012 Phase 2 mineral resource estimate process, and will be addressed in the next Phase 2 mineral resource estimate update)
- using a software program to check for data errors such as overlapping intervals and out of range values
- comparing downhole radiometric probing results with radioactivity measurements made on the core and drilling depth measurements
- validating uranium grades based on radiometric probing with sample assay results once available.

In 2014, we completed a thorough test program of our high-flux probes to demonstrate that consistent count rates were being obtained between probes. A total of eight surface freezeholes were probed multiple times with each probe to compare count rates. This test demonstrated that probes with the same equipment configurations and GM tubes produced very consistent count rates. The reliability of the probe readings was last confirmed in January 2015 by comparison with the results of an independent non-Cameco test using a series of probes built by a different manufacturer. For drillholes completed prior to 2011, the reliance on down-hole radiometric probing for determination of uranium grades for mineral resource estimation is minimal. Boreholes completed prior to 2011 were consistently sampled to obtain U_3O_8 chemical assays when uranium mineralization was encountered.

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. 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 under the Transport of Dangerous Goods regulations through the Cameco warehouse facilities directly to the laboratory.

We are satisfied with all aspects of sample preparation and assaying. The sampling records are meticulously documented and samples are whole core assayed to reduce bias. The assaying was done to a high standard and the QA/QC procedures employed by the laboratories are adequate.

We are not aware of the historic security measures in place at the time of the deposit delineation – 1981 to 1986. Sample security is largely defined by regulation and, since 1987, all samples have been stored and shipped in compliance with

regulations. We believe that sample security was and is maintained throughout the process. There has been no indication of significant inconsistencies in the data used for the latest update of the mineral reserve and resource estimates.

Accuracy

We are satisfied with the quality of data obtained from the exploration and freezehole drilling programs and consider it valid for estimating mineral resources and mineral reserves. Results of the quality control measures and data verification procedures are reflected by the fact that since 2014, the mineral reserves estimate is within 7% on tonnage, 5% on grade and 2% on uranium content of the mill feed and inventories.

Mineral reserve and resource estimates

Please see page 74 for our mineral reserve and resource estimates for Cigar Lake.

Uranium – operating properties



Inkai

Inkai is a very significant uranium deposit, located in Kazakhstan. There are two production areas (blocks 1 and 2) and an exploration area (block 3). The operator is Joint Venture Inkai Limited Liability Partnership (JV Inkai), which we jointly own (60%) with Kazatomprom (40%).

Inkai is one of our three material uranium properties.

Location	South Kazakhstan
Ownership[1]	60%
End product	uranium concentrate
Certifications	BSI OHSAS 18001 ISO 14001 certified
Estimated mineral reserves (our share) [2]	46.3 million pounds (proven and probable), average grade U_3O_8 – 0.06%
Estimated mineral resources (our share) [3]	81.3 million pounds (measured and indicated), average grade U_3O_8 – 0.06% 86.2 million pounds (inferred), average grade U_3O_8 – 0.05%
Mining method	in situ recovery (ISR)
Licensed capacity	5.2 million pounds per year (our share 3.0 million pounds per year)
Total production 2009 to 2016	36.7 million pounds (100% basis)
2016 production	3.4 million pounds (5.9 million pounds 100% basis)
2017 forecast production	3.1 million pounds (5.4 million pounds 100% basis)
Estimated mine life	2030 (based on current licence term)
Estimated decommissioning cost (100% basis)	$10 million (US)

1 We signed an agreement with our partner Kazatomprom and JV Inkai to restructure and enhance Inkai. As part of the agreement, subject to closing, our ownership interest in JV Inkai will reduce to 40%. For more information, see Production expansion on page 55.

2 Our share of uranium in the mineral reserves is based on our interest in planned production (57.5%) assuming an annual production rate of 5.2 million pounds, which differs from our ownership interest in JV Inkai (60%).

3 Our share of uranium in the mineral resources is based on our interest in potential production (57.5%), which differs from our ownership interest in JV Inkai (60%). Mineral resources that are not mineral reserves have no demonstrated economic viability.

Business structure

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

- Cameco – 60%
- Kazatomprom – 40% (a Kazakhstan Joint Stock Company owned by the Republic of Kazakhstan)

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	• Kazatomprom is established
1998	• KATEP transfers all of its interest in JV Inkai to Kazatomprom
	• 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 Kazatomprom, 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 Kazatomprom 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 Kazatomprom 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 Kazatomprom and JV Inkai to restructure and enhance Inkai, subject to closing, increasing Kazatomprom's holdings to a 60% interest and reducing our holdings to a 40% interest. For more information, see Production expansion on page 55
- Sign Amendment No. 5 to the resource use contract, which extends the exploration period for block 3 to July 2018

Technical report

This project description is based on the project's technical report: *Inkai Operation, South Kazakhstan Oblast, Republic of Kazakhstan*, dated March 23, 2017 (effective December 31, 2016). The report was prepared for us in accordance with NI 43-101, by or under the supervision of Alain G. Mainville, P. Geo., Darryl Clark, P. Geo., Stuart B. Soliz, P. Geo., and Robert J. Sumner, 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. 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 *Safety, Health and the Environment* starting on page 84.

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 pages 98 and 99.

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 110, Regulatory risks starting at page 113, Environmental risks starting at page 114, and Legal and other risks starting at page 115.

About the Inkai property

Location

Inkai is located in the Suzak District of South Kazakhstan Oblast, Kazakhstan near the town of Taikonur, 350 kilometres northwest of the city of Shymkent and 155 kilometres east of the city of Kyzl-Orda. JV Inkai's corporate office is located 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, Kyzl-Orda and beyond. A rail line also runs from the town of Dzhambul to a Kazatomprom facility to the south of Taikonur. From Almaty and Astana, commercial airline services are available to Shymkent and Kyzl-Orda.

Licences

JV Inkai holds the rights to three contiguous licence blocks, blocks 1, 2 and 3, based on the licences it has received and its *resource use contract* with the Kazakhstan government. JV Inkai has to meet certain obligations to maintain these rights. See page 53 for more information.

Surface Leases

A subsoil 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 surface lease agreement with applicable local administrative authorities.

On a regular basis, JV Inkai obtains from local authorities the necessary surface lease agreements for new buildings and infrastructure. JV Inkai does not hold surface leases for the entire area subject to its licences for blocks 1, 2 and 3. It obtains them 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 Inkai property boundary 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 56 for more information.

JV Inkai must give preference to local producers, as long as the goods, works and services comply with the requirements of the respective project documentation and Kazakhstan law. See Kazakhstan government and legislation – local content – on page 59 for more information.

We are committed to building long-lasting and trusting relationships with the communities in which we operate. One of the ways we implement this commitment is through our Five Pillar CSR Strategy. For more information, see Sustainable development at page 82.

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 Inkuduk and Mynkuduk Formations 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

Ten mineralized zones have been identified on blocks 1, 2 and 3, including four zones in the Mynkuduk horizon and six zones in the Inkuduk horizon.

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

Block 1

- Bulk of the uranium mineralization is contained in the Mynkuduk horizon and extends over more than 10 kilometres
- A small portion is contained in the Lower Inkuduk horizon
- Depth to the bottom of mineralization in the Mynkuduk horizon ranges from 450 to 528 metres. Average depth is 490 metres
- Mineralization width in plan view ranges from 40 to 600 metres and averages 250 metres
- Mineralized levels are generally at the lower part of the horizon, close to the Permian-Upper Cretaceous unconformity, but may also be found at a higher level, above the oxidized part of the Mynkuduk

Block 2

- Bulk of the mineralization is contained in the Lower and Middle Inkuduk horizons and extends over more than 35 kilometres
- A small portion is contained in the Mynkuduk horizon
- Depth to the bottom of mineralization in the Inkuduk horizons ranges from 300 to 426 metres. Average depth for Lower Inkuduk is 390 metres and 340 metres for the Middle Inkuduk
- Mineralization width for the Inkuduk horizon in plan view ranges from 40 to 1400 metres and averages 350 metres

Block 3

- Bulk of mineralization is contained in the Lower and Middle Inkuduk horizons and extends over more than 25 kilometres
- A small portion is contained in the Mynkuduk horizon
- Depth to the bottom of mineralization for the Middle Inkuduk horizon ranges from 278 to 415 metres. Average depth is 330 metres. Width in plan view ranges from 40 to 1600 metres and averages 350 metres
- Depth to the bottom of the Lower Inkuduk horizon is 331 to 445 metres. Average depth is 360 metres. Width in plan view ranges from 40 to 1600 metres and averages 250 metres
- Depth to the bottom of the Mynkuduk horizon is 360 to 516 metres. Average depth is 430 metres. Width in plan view ranges from 40 to 350 metres and averages 200 metres

Block 3 Appraisal Program

Exploration work on block 3 has identified extensive mineralization hosted by several horizons in the lower and middle parts of the Upper Cretaceous stratigraphic level and traced along 25 kilometres from block 2 of the Inkai deposit in the southwest through to the Mynkuduk deposit in the northeast. This discovery requires further assessment of its commercial viability. In February 2010, JV Inkai filed a notice of the discovery with regulators. A Cameco subsidiary funded JV Inkai's block 3 work. JV Inkai is operating a test mine at block 3. The exploration period expires July 13, 2018 unless extended.

Approvals

In 2009, Amendment No. 2 to the resource use contract was signed, extending the exploration period at block 3 to July 13, 2010.

In 2011, Amendment No. 3 to the resource use contract was signed, giving JV Inkai government approval to carry out a five year assessment program that included delineation drilling, uranium resource estimation, construction and operation of a test leach facility, and completion of a feasibility study.

In 2012, JV Inkai received regulatory approval for the detailed block 3 delineation drilling and test leach work programs

In November 2016, Amendment No.5 to the resource use contract was signed, extending the exploration period at block 3 until July 13, 2018.

Appraisal work

Extensive exploration and delineation work was completed at block 3 by JV Inkai from 2006 to 2016. For information on drilling at block 3 see Exploration, drilling, sampling, data quality and estimates at page 60.

In 2011, JV Inkai began infrastructure development and completed engineering for a test leach facility for the block 3 assessment program. In addition, a preliminary estimate of the mineralization in the southwest corner of block 3 was prepared, which was reviewed and approved by the SRC.

In 2012, JV Inkai started drilling at test wellfields and started construction of the test leach facility.

In 2013, JV Inkai continued construction of the test leach facility and test wellfields, and started work on an appraisal of mineral potential according to Kazakhstan standards.

In 2014, JV Inkai continued construction of the test leach facility and test wellfields, and advanced work on a preliminary appraisal of the mineral potential according to Kazakhstan standards. An interim report on exploration results and estimate of the mineralization at block 3 was reviewed and conditionally approved by the SRC.

In 2015, JV Inkai completed construction of the test leach facility, began pilot production from test wellfields, as well as advanced work on a preliminary appraisal of the mineral potential of block 3 according to Kazakhstan standards.

At December 31, 2016, total production from test mining at block 3 was 865,000 pounds.

In February 2017, JV Inkai submitted an updated estimate of the in-situ uranium mineralization and a study, similar to a preliminary feasibility study, to the State Reserve Commission of Kazakhstan (SRC) for their approval. During 2017, JV Inkai plans to continue with pilot production from the test leach facility.

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.

Licences

JV Inkai needs a number of licences to operate the Inkai mine:

- *Licence Series AY 1370D*, April 20, 1999, expires in April 2024

  For uranium extraction in block 1 (16.6 square kilometres)

- *Licence Series AY 1371D*, April 20, 1999

  For exploration and uranium extraction in block 2 (230 square kilometres) and in block 3 (240 square kilometres) (expires in April 2030) (the block 3 deposit exploration period has been extended to July 13, 2018).

Other material licences

- *Licence for radioactive substances handling* expires January 23, 2020
- *Licence for operation of mining production and mineral raw material processing* has an indefinite term
- *Licence for transportation of radioactive substances within the territory of the Republic of Kazakhstan* expires January 23, 2020
- *Licence for dealing with radioactive wastes* expires January 23, 2020

JV Inkai’s material environmental permits are described on page 57.

Infrastructure

JV Inkai facilities in Taikonur

- a camp for 429 employees, with catering and leisure facilities
- perimeter fence for security
- space for recreational activities

Block 1

- main processing plant, which includes an ion exchange product recovery, drying and packaging facility that produces yellowcake
- administrative office, shops, garage, laboratory, emergency response building, waste disposal enclosures for low-level radioactive waste and domestic waste, engineering and construction offices
- food services facility
- holding ponds

Block 2

- satellite processing plant, which includes an ion exchange product recovery facility that produces uranium loaded ion exchange resin and eluate
- holding ponds
- office, shops, and a food services facility
- roads and power lines
- pipelines and header houses
- reagent storage tanks

Block 3

- test leach facility
- holding ponds
- office, shops, and a food services facility
- roads and power lines
- pipelines and header houses
- reagent storage tanks

- roads and power lines
- pipelines and header houses
- reagent storage tanks

Water, power and heat

Groundwater wells provide sufficient water for all planned industrial activities. Shallow wells on site have potable water for use at the camp. 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 International Atomic Energy Agency 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 processing plant or satellite plant, 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 in both blocks 1 and 2 to support the current production plan.

Processing

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

- leach the uranium in-situ with a lixiviant
- recover it from solution with ion exchange resin
- elution of uranium from resin with ammonium nitrate
- precipitate uranium as yellowcake with hydrogen peroxide and ammonia
- thicken, dewater, and dry it
- package it in drums.

All plants load and eluate uranium from resin while the resulting eluate is converted to yellowcake at the main processing plant. Inkai is designed to produce a dry uranium product that meets the quality specifications of uranium refining and conversion facilities.

Production

Total production	Based on current mineral reserves, we expect Inkai to produce a total of 68.5 million pounds of U_3O_8 (100% basis, recovered after processing) over the life of the mine.
Average annual production	The main processing plant has the capacity to produce more than 5.2 million pounds per year (100% basis) depending on the grade of the production solution.

Production increases

In April 2011, JV Inkai received government approval to produce 3.9 million pounds per year (100% basis).

In August 2011, we entered into a memorandum of agreement (2011 MOA) with Kazatomprom to increase annual uranium production at Inkai from blocks 1 and 2 to 5.2 million pounds (100% basis). Under the 2011 MOA, our share of Inkai's annual production is 2.9 million pounds with the processing plant near full capacity. We are also entitled to receive profits on 3.0 million pounds, defining the basis of our 57.5% share of mineral resources and mineral reserves (assuming annual production of 5.2 million pounds).

In December 2013, JV Inkai received government approval to produce 5.2 million pounds per year (100% basis).

During 2015, the subsoil use law in Kazakhstan was amended to allow producers to produce within 20% (above or below) their licensed production rate in a year.

Production expansion

In 2012, we entered into a memorandum of agreement (2012 MOA) with Kazatomprom setting out a framework to:

- increase Inkai's annual production from blocks 1 and 2 to 10.4 million pounds (our share 5.2 million pounds) and sustain it at that level
- extend the term of JV Inkai's resource use contract through 2045.

In May 2016, Cameco, Kazatomprom and JV Inkai signed an implementation agreement (Implementation Agreement) to restructure and enhance Inkai. The Implementation Agreement replaces the 2012 MOA and, subject to closing, provides as follows:

- JV Inkai will have the right to produce 4,000 tonnes of uranium (tU) (10.4 million pounds of U_3O_8) per year (Cameco's share 4.2 million pounds), an increase from the current 5.2 million pounds (Cameco's share 3.0 million pounds)
- JV Inkai will have the right to produce from blocks 1, 2 and 3 until 2045 (currently, the licence terms are to 2024 for block 1 and to 2030 for blocks 2 and 3)
- subject to further adjustments tied to the construction of a refinery as described below, Cameco's ownership interest in JV Inkai will be adjusted to 40%, and Kazatomprom's ownership interest in JV Inkai will be adjusted to 60%. However, the Implementation Agreement ensures that during production rampup, our share of annual production remains at 57.5% on the first 5.2 million pounds. As annual production increases above 5.2 million pounds, we will be entitled to 22.5% of any incremental production, to the maximum annual share of 4.2 million pounds. Once the rampup to 10.4 million pounds annually is complete, our interest in production will be adjusted to match our ownership interest at 40%.
- a governance framework that provides protection for Cameco as a minority owner of JV Inkai
- the current boundaries of blocks 1, 2 and 3 will be adjusted to match the agreed production profile for Inkai to 2045
- the loan made by a Cameco subsidiary to JV Inkai to fund exploration and evaluation of block 3 will be paid on a priority basis.

The Implementation Agreement is subject to obtaining all required government approvals, including certain amendments to JV Inkai's resource use contract. In February 2017, we estimated it would take 10 to 18 months to obtain the required approvals. The government approvals are conditional upon submission of certain technical reports and other documents. The Implementation Agreement provides for annual production at the Inkai operation to be ramped up to 10.4 million pounds U_3O_8 over three years following receipt of required approvals. Since signing the agreement, we have been working with Kazatomprom and JV Inkai to prepare the various documents required to obtain the necessary government approvals.

The Implementation Agreement also provides that Cameco and Kazatomprom will complete a feasibility study for the purpose of evaluating the design, construction and operation of a uranium refinery in Kazakhstan with the capacity to produce 6,000 tU annually as uranium trioxide (UO_3). The Implementation Agreement includes provisions that would make Cameco's proprietary uranium refining technology available to Kazatomprom on a royalty-free basis, and grants Kazatomprom a five-year option to

license Cameco's proprietary uranium conversion technology for purposes of constructing and operating a UF_6 conversion facility in Kazakhstan.

If Cameco and Kazatomprom decide to build the refinery, the agreement also provides that Cameco's ownership interest in JV Inkai will be increased to 42.5% upon commissioning of the refinery and, depending on the level of commercial support Cameco provides, may be increased further to 44%. Further, if Cameco and Kazatomprom decide to build the refinery, Kazatomprom will have the option to obtain UF_6 conversion services at Cameco's Port Hope facility for a period of 10 years and receive other commercial support.

If the Implementation Agreement closes, the estimated mineral resources and mineral reserves of Inkai, and Cameco's share of them, will change materially.

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 Kazatomprom. 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 (effective February 3, 2011), product is currently purchased from JV Inkai at a price equal to the uranium spot price, less a 5% discount (maximum allowable).

Funding

We advanced funds for JV Inkai's exploration and evaluation work on block 3. As of December 31, 2016, the principal and interest amounted to $168 million (US). Under the loan agreement, JV Inkai is to repay us from the sale of its production. On January 20, 2017, a payment of $30 million (US) was received.

Resource use contract

In 2000, JV Inkai and the Republic of Kazakhstan signed the resource use contract, which covers the licences issued in 1999 (resource use contract). JV Inkai has to meet the obligations under these licences and the resource use contract to maintain its rights to blocks 1, 2 and 3.

In 2007, JV Inkai and the relevant government authority signed Amendment No.1 to the resource use contract to extend the exploration period at blocks 2 and 3.

In 2009, JV Inkai and the relevant government authority signed Amendment No. 2 to the resource use contract, which:

- extended the exploration period for block 3 to July 13, 2010
- approved mining at block 2
- combined blocks 1 and 2 for mining and reporting purposes
- required JV Inkai to adopt the new tax code that took effect January 1, 2009
- required JV Inkai to adopt current Kazakhstan legal and policy requirements for subsoil users to procure goods, works and services under certain prescribed procedures and foster greater local content
- required a certain level of Kazakhstan employment by JV Inkai: over the life of the resource use contract, 100% of the workers, at least 70% of technical and engineering staff and at least 60% of the management staff must be from Kazakhstan.

In 2011, JV Inkai and the relevant government authority signed Amendment No. 3 to the resource use contract which:

- approved an increase to annual production from blocks 1 and 2 to 3.9 million pounds (100% basis)
- provided for a five-year appraisal period to July 2015 at block 3 to carry out delineation drilling, uranium resource estimation, construction and operation of a test leach facility, and to complete a feasibility study.

In 2013, JV Inkai and the relevant government authority signed Amendment No. 4 to the resource use contract, which approved an increase to annual production from blocks 1 and 2 to 5.2 million pounds (100% basis).

In November 2016, JV Inkai and the relevant government authority signed Amendment No. 5 to the resource use contract, which extended the exploration period at block 3 to July 13, 2018.

Work programs

JV Inkai is required to follow the work program appended to the resource use contract, which applies to mining operations over the life of the mine**.** To comply with the subsoil law, JV Inkai developed a life of mine work plan and submitted it to the relevant

government authority who approved it in April 2011 as part of the approval of Amendment No. 3 to the resource use contract (see *Project documentation* on page 59). An updated work program was submitted to the relevant government authority in 2012 in support of the Amendment No. 4 application and was approved in December 2013. An updated work program for the block 3 appraisal project was submitted to the relevant government authority and approved in connection with Amendment No. 5.

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.

Under Kazakhstan law, JV Inkai needs an environmental permit to operate. JV Inkai has a permit for environmental emissions and discharges for the operation that is valid until December 31, 2022. JV Inkai also holds certain water use permits.

Insurance

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

Decommissioning

JV Inkai's decommissioning obligations are largely defined by the resource use contract. It has deposited the required contributions into a separate bank account as security to ensure it will meet its obligations. Contributions are capped at $500,000 (US). JV Inkai has funded the full amount.

Under the resource use contract, JV Inkai must submit a plan for decommissioning the mine to the government six months before mining activities are complete. It developed a preliminary decommissioning plan to estimate total decommissioning costs, and updates the plan every five years, or when there is a significant change at the operation that could affect decommissioning estimates. The preliminary decommissioning cost estimate is $10 million (US).

Groundwater is not actively restored post-mining in Kazakhstan. See page 86 for additional details.

Kazakhstan government and legislation

Subsoil law

The principal legislation governing subsoil exploration and mining activity in Kazakhstan is the *Law on the Subsoil and Subsoil Use* dated June 24, 2010, which took effect July 7, 2010, and was most recently amended in 2016 (the *subsoil law*). It replaces the *Law on the Subsoil and Subsoil Use*, dated January 27, 1996, as amended (the *old law*).

In general, JV Inkai's licences are governed by the version of the subsoil law that was in effect when the licences were issued in April 1999, and new legislation applies to JV Inkai only if it does not worsen JV Inkai's position. Changes to legislation related to national security, among other criteria, however, are exempt from the stabilization clause in the resource use contract. The Kazakhstan government interprets the national security exemption broadly.

The subsoil law defines the framework and procedures connected with the granting 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 pre-emptive 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 relevant government authority is finalized and registered. Pursuant to the subsoil law, 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 law.

Currently, the Ministry of Energy of the Republic of Kazakhstan is the competent authority under the subsoil law. We refer to the competent authority as the *relevant government authority*.

To date, the subsoil law has not had a significant impact on JV Inkai, however, we continue to assess the impact. Some of the general impact is described below.

Stabilization clause

The general stability provision has been changed in the subsoil law . Under the old law, changes in legislation that worsened the position of the subsoil user did not apply to resource use contracts signed before the changes were adopted.

Under the subsoil law, contracts are only protected from changes in legislation if the changes worsen the results of business operations of the subsoil user. The subsoil law expands the list of exceptions from stabilization to include taxation and customs regulation. These are in addition to exceptions in the old law for defence, national security, environmental protection and public health.

With the subsoil law, the government continues to weaken its stabilization guarantee. The government is broadly applying the national security exception 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.

The resource use contract contains significantly broader stabilization provisions than the subsoil law, and these contract provisions currently apply to us.

Transfer of subsoil rights and pre-emptive rights

The subsoil law strengthens the state's control over transactions involving subsoil rights and the direct and indirect ownership interests in a subsoil user.

Like the old law, transfers of subsoil rights, transfers of shares (interests) in subsoil users and the grant of security over subsoil rights require consent of the relevant government authority. The subsoil law expands the list of transactions that require consent and also spells out in more detail the circumstances, documentation and information that must accompany the request for consent. It also contains a new provision requiring notification to the relevant government authority within five business days of completion of the transaction.

Similar to the old law, the state has a priority right on terms not worse than those offered by other buyers. However, this right is now limited to strategic deposits. Inkai is a strategic deposit and therefore transactions related to it are subject to this pre-emptive right.

Failing to obtain the state's waiver of its pre-emptive right or the consent of the relevant government authority or to provide the completion notification, are grounds for the state to invalidate a transfer.

Dispute resolution

The dispute resolution procedure in the subsoil law does not specifically disallow international arbitration. Instead it states that if a dispute related to a resource use contract cannot be resolved by negotiation, the parties can resolve the dispute according to the laws of Kazakhstan and international treaties ratified by the Republic of Kazakhstan.

The resource use contract allows for international arbitration. We believe the subsoil law does not affect this right.

Contract termination

Under the old law, the relevant government authority could terminate a contract if, for example, the subsoil user materially breached its obligations established by the contract or work program.

Under the subsoil law, the relevant government authority can unilaterally terminate a contract before it expires if:

- a subsoil user does not fix more than two breaches of its contractual obligations specified in a notice by the relevant government authority within a specific period (non-compliance with project documents are excluded from the grounds for termination)
- subsoil rights or direct and indirect ownership interests in a subsoil user are transferred without consent of the relevant government authority if such consent was required
- less than 30% of the financial obligations under a contract are fulfilled during the previous two years
- activities of a subsoil user exploring or developing a strategic deposit entails such changes in the economic interests of the Republic of Kazakhstan that it poses a threat to national security and the subsoil user does not satisfy the relevant government authority's request to amend the contract in this regard.

Under the resource use contract, if JV Inkai breaches its obligations, the relevant government authority has to notify JV Inkai of the breach and provide a reasonable period for JV Inkai to fix the breach before it can terminate the contract**.** We believe that the terms of the resource use contract should continue to apply unless the state seeks to apply the national security or environmental protection exception to stabilization.

Local content

Subsoil users must procure goods, works and services in compliance with the subsoil law. Procurement is carried out through a specially created register of the goods, works and services and of the entities (producers) providing them. Subsoil users must give preference to local producers. This local content provision applies to JV Inkai. However, due to Kazakhstan's accession to the World Trade Organization, it only applies to goods procured by JV Inkai until January 1, 2021 unless the resource use contract is amended earlier to remove this requirement.

Project documentation

Subsoil users who received subsoil rights before the subsoil law was introduced were required to:

- develop new project documentation to be approved by July 7, 2011
- develop a new work program in accordance with the project documentation to be approved by January 7, 2012.

JV Inkai submitted the required documentation and received approval of its new life of mine work program as part of the April 2011 approval of Amendment No. 3 to the resource use contract.

The subsoil law repealed the previous requirement for annual work plans. Instead, expected exploration and/or production volumes for each year are now set out in one work program. JV Inkai revised its work program to support the application to increase the annual production rate to 5.2 million pounds (100% basis).

Proposed new Subsoil Law

The Kazakhstan government is developing a new subsoil use law, *the Subsoil and Subsoil Use Code,* to replace the subsoil law. A draft dated December 22, 2016 has been issued and we are assessing the potential impact. The draft does not address licences issued and resource use contracts executed before its enactment. Therefore, the status of JV Inkai's resource use contract and licences is unclear under the proposed law. Currently, the new law is expected to be enacted in the second half of 2017.

Strategic deposits

According to a governmental resolution *On Determination of the List of Subsoil (Deposit) Areas having Strategic Importance* dated August 13, 2009, 231 deposits are considered to be strategic deposits, including blocks 1, 2 and 3. The government re-approved this list in 2011 and Inkai's blocks remained on it.

Under the subsoil law, if any actions by a subsoil user relating to a strategic deposit leads to a change in the economic interests of the Republic of Kazakhstan that creates a threat to national security, the relevant government authority has the right to demand a change to a contract that will restore the economic interests of the Republic of Kazakhstan. The parties have to agree on and make the change within a specific time period, or the relevant government authority can unilaterally terminate the contract.

Currency control regulations

In 2009, specific amendments to existing currency regulations were adopted. These amendments are aimed at preventing possible threats to the economic security and stability of the Kazakhstan financial system. The President of Kazakhstan was granted the power to establish a special currency regime that can:

- require foreign currency holders to deposit a certain portion of their foreign currency interest free with a resident Kazakhstan bank or the National Bank of Kazakhstan
- require the permission of the National Bank of Kazakhstan for currency transactions
- require the sale of foreign currency received by residents
- restrict overseas transfers of foreign currency.

While the special currency regime has not been imposed, it has the potential to prevent Kazakhstan companies, like JV Inkai, from being able to pay dividends to their shareholders abroad or repatriating any or all of its profits in foreign currency. It can also impose additional administrative procedures, and Kazakhstan companies could be required to hold a portion of their foreign currency in local banks.

In 2015, the National Bank of Kazakhstan amended the rules on currency operations. The rules regulate foreign exchange operations, the regime of foreign investments into Kazakhstan, and cross border and domestic currency payments.

A new law, *Law on Currency Regulation and Currency Control,* has been proposed and could be adopted by the end of 2017. The proposed law envisages substantial changes to Kazakhstan currency control. In particular, the contemplated changes relate to: amendment to the definition of Kazakhstan residents; the sale and purchase of currency by residents in the

Kazakhstan market; and requirements applicable to export/import operations with custom 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.

Operating and capital costs

The following is a summary of the operating and capital cost estimates for the remaining life of mine, stated in constant 2017 dollars and reflecting a forecast life-of-mine production of 68.5 million pounds U_3O_8 and a 245 Kazakhstan Tenge to 1 Cdn dollar exchange rate assumption:

Operating Costs ($Cdn million)	Total (2017 – 2030)
Site administration	$ 233.9
Processing costs	148.8
Mining costs	300.0
Corporate overhead	188.0
Total operating costs	**$ 870.7**
Average cost per pound U_3O_8	**$ 12.71**

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 (2017 – 2030)
Total wellfield development	$ 217.3
Construction and maintenance capital	55.5
Sustaining capital	24.1
Total capital costs	**$ 296.9**

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

Estimated capital costs includes wellfield development to mine the mineral reserves as well as construction and maintenance capital along with sustaining capital. Construction capital is heavily weighted to the first three years due to the major repairs and modernization planned for facilities at both block 1 and block 2. Pending closing of the Implementation Agreement, there are no other major construction projects anticipated.

Our expectations and plans regarding Inkai, 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 and 3. We may change operating or capital spending plans in 2017, depending on 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

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 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.

We have relied on historic data to estimate mineral reserves and resources at blocks 1 and 2. There are no historical mineral resources and reserves estimates within the meaning of NI 43-101 to report.

Exploration

Historical drilling

- Historical drilling at Inkai included 3,662 holes in blocks 1 and 2, and 489 in block 3.

- Drilling was vertical, on grids at prescribed density of 3.2 to 1.6-kilometre line spacing by 200 to 50-metre (3.2-1.6-kilometres × 200-50-metres) hole spacing. Additional drilling at grids of 800-400 × 200-50-metres and 200-100 × 50-25-metre grid increased the level of geological knowledge and confidence.
- Vertical holes were drilled with a triangular drill bit for use in unconsolidated formations down to a certain depth and the rest of the hole were cored.

Exploration drilling

- All exploration drilling has been confined to block 3 for delineation purposes.
- JV Inkai's geology department oversees exploration, including the drilling program and management of contractors. JV Inkai has retained a contractor, JSC Volkovgeology, to direct and coordinate day-to-day drilling activities, and to ensure the quality of drilling, core recovery, surveying, geological logging, sampling, assaying and daily data processing.
- Drilling carried out at block 3 includes 489 holes drilled prior to JV Inkai obtaining its licenses and 3,748 holes drilled by JV Inkai from 2006 to 2013.

Recent activity

- The first phase of the drilling program, from 2006 through 2009, was focused on drilling on an 800 × 50-metre grid pattern in the southwestern part of block 3. The mineralization trends were also followed along the northwestern border using sparser drilling patterns.
- The second phase of the drilling program from 2010 to May 2011 was aimed at developing an 800 × 50-metre infill drilling grid pattern throughout the mineralized trend identified along the northwestern border, as well as the trend developed along the southern border. In addition, 200 × 50-metre grids patterns started to be developed in the southwestern part of block 3 with the goal of identifying sites and designing test wellfields in the Lower Inkuduk and Lower Mynkuduk horizons.
- The third phase of drilling started in June 2011 and continued until the end of 2013. Progressively tightening drilling grids (from 800 × 50-metre to 400 to 200 × 50-metre) were used to delineate mineralization in the southwestern, western and northern parts of block 3.
- In the fourth phase of drilling, during the second half of 2016, 69 infill delineation holes were drilled on a 100 × 50-metre grid on a selected site to confirm the continuity of the mineralization and its categorization. Thirty-nine drillholes were drilled at the ISR test wellfields to study the recovery process.
- Results of exploration and delineation:
    - traced the presence of mineralization throughout block 3 with greater certainty. There was a significant increase in the extent of mineralization in many places, compared to results of predecessors, which were based on sparser historical drilling grids
    - used the mineralization delineation from 800 × 50-metre and 200 × 50-metre drilling grids in block 3 to form a preliminary estimate of the mineralization for most of the area covered
    - led to a preliminary estimate in 2011 of the mineralization on the southwestern corner of block 3, which was reviewed and approved by the SRC
    - confirmed the need for additional drilling to close off mineralization zones and better define their morphology and continuity
    - interim report in 2014 on exploration results and estimate of the mineralization at block 3, which was reviewed and conditionally approved by the SRC
    - in February 2017, JV Inkai submitted an updated estimate of the in-situ uranium mineralization and a study, similar to a preliminary feasibility study, to the SRC for their approval.

Sampling analysis and data verification

Sampling

- Detailed sampling procedures guide the sampling interval within the mineralization. Holes are drilled on progressively tightening grids: 3.2 to 1.6 kilometre × 200-50 metre, 800-400 metre × 200-50 metre and 200-100 metre x 50-25 metre. When core recoveries are higher than 70% and radioactivity greater than 40 micro-roentgen per hour, core samples are taken at irregular 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 metres.
- The split core is tested for grainsize and carbonate content.
- Core recovery is considered acceptable given the unconsolidated state of the mineralized material.

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 Kazatomprom, 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

- Our geoscientists, including a qualified person as such term is defined in NI 43-101, have witnessed core handling, logging and sampling used at the Inkai mine and consider the methodologies to be very satisfactory and the results representative and reliable.
- We confirmed the correlation between radioactive readings and calculated radium grades.
- We carried out a data verification process that validated the historic Kazakh mineral resource and reserve estimate.
- 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 QA/QC 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.
- Geologists with JV Inkai, JSC Volkovgeology, the State Reserves Commission and Cameco, have validated the current database a number of times. Our geologists consider it relevant and reliable.
- The findings are supported by results of the leach tests, past and recent production, and wellfield drilling results on blocks 1 and 2 and exploration drilling in block 3.

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 historic Kazakhstan exploration on blocks 1, 2 and 3, but we believe the security measures taken to store and ship samples were of the same high quality.

Accuracy

We consider the historic Kazakhstan exploration data adequate and reliable for estimating mineral reserves and resources, based on our 2003 and 2007 validation of Kazakhstan estimated uranium reserves for blocks 1 and 2 (see *sampling analysis and data verification*) and actual production results over the last eight years.

Block 3 data has been validated by JSC Volkovgeology, JV Inkai and the SRC. Cameco has not reviewed their validation results. The block 3 data is currently being reviewed by Cameco.

Mineral reserve and resource estimates

Please see page 74 for our mineral reserve and resource estimates for Inkai.

Uranium – curtailed properties



Rabbit Lake

The Rabbit Lake operation, which opened in 1975, is the longest operating uranium production facility in North America, and the second largest uranium mill in the world.

Location	Saskatchewan, Canada
Ownership	100%
End product	uranium concentrate
ISO certification	ISO 14001 certified
Mine type	underground
Estimated mineral reserves	none
Estimated mineral resources	39.7 million pounds (indicated), average grade U_3O_8 – 0.79% 33.6 million pounds (inferred), average grade U_3O_8 – 0.58%
Mining method	vertical blasthole stoping
Licensed capacity	mill: maximum 16.9 million pounds per year; currently 11 million
Total production 1975 to 2016	203.3 million pounds
2016 production	1.1 million pounds
Estimated decommissioning cost	$203 million

Business structure

We own 100% of Rabbit Lake.

Given current market conditions, and our belief they will continue to be depressed in the near term, we suspended production at Rabbit Lake during the second quarter of 2016. Prior to the decision to suspend production, the operation produced 1.1 million pounds in 2016. The facilities are now in a state of safe and sustainable care and maintenance. The transition to care and maintenance was completed in August, 2016. Care and maintenance costs for the year totaled $55.4 million and related severance totaled $10.6 million.

A workforce of 120 (down from 650) continues to maintain the facilities, manage ongoing treatment and release of site water effluent, and sustain environmental monitoring and reclamation activities.

We are continually weighing the value of maintaining the operation in standby, against the cost of doing so. However, as long as production is suspended, we expect care and maintenance costs to range between $35 million and $40 million annually for the first few years. The estimated decommissioning cost for the Rabbit Lake mine site is $203 million, based on the preliminary decommissioning cost estimate that has been accepted by the Province of Saskatchewan and the CNSC.

Uranium – curtailed properties



Smith Ranch-Highland & Satellite Facilities

We operate Smith Ranch and Highland as a combined operation. Each has its own processing facility, but the Smith Ranch central plant currently processes all the uranium, including uranium from satellite facilities. The Highland plant is currently idle. Together, they form the largest uranium production facility in the United States.

Location	Wyoming, US
Ownership	100%
End product	uranium concentrate
ISO certification	ISO 14001 certified
Estimated mineral reserves	*Smith Ranch-Highland:* 1.1 million pounds (proven and probable), average grade U_3O_8 – 0.10% *North Butte-Brown Ranch:* 0.7 million pounds (proven), average grade U_3O_8 – 0.08%
Estimated mineral resources	*Smith Ranch-Highland:* 24.0 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:* 9.4 million pounds (measured and indicated), average grade U_3O_8 – 0.07% 0.4 million pounds (inferred), average grade U_3O_8 – 0.07%
Mining method	in situ recovery (ISR)
Licensed capacity	wellfields: 3 million pounds per year processing plants: 5.5 million pounds per year including Highland mill
Total production 2002 to 2016	22.7 million pounds
2016 production	0.9 million pounds
2017 production outlook	0.4 million pounds
Estimated decommissioning cost	Smith Ranch-Highland $188 million (US); North Butte $23 million (US)

Business structure

We own 100% of Smith Ranch-Highland through a wholly owned subsidiary.

At Smith Ranch-Highland, production for the year was 36% lower than in 2015. Production was lower due to the decision to curtail production in 2016. The US Nuclear Regulatory Commission (NRC) license renewal for Smith Ranch-Highland continues. Although we have now taken actions to curtail production, due to the nature of ISR mining and our wellfield restoration requirements, production at Smith Ranch-Highland is expected to continue, but at a decreasing rate over time as head grade and flow rate declines. In 2017, we expect to produce 0.4 million pounds at Smith Ranch-Highland.

Uranium – curtailed properties



Crow Butte

Crow Butte was discovered in 1980 and began production in 1991.

Location	Nebraska, US
Ownership	100%
End product	uranium concentrate
ISO certification	ISO 14001 certified
Estimated mineral reserves	0.4 million pounds (proven), average grade U_3O_8 – 0.03%
Estimated mineral resources	15.2 million pounds (measured and indicated), average grade U_3O_8 – 0.25% 2.9 million pounds (inferred), average grade U_3O_8 – 0.12%
Mining method	in situ recovery (ISR)
Licensed capacity (processing plant and wellfields)	2.0 million pounds per year
Total production 2002 to 2016	10.4 million pounds
2016 production	0.3 million pounds
2017 production outlook	0.1 million pounds
Estimated decommissioning cost	$46 million (US)

Business structure

We own 100% of Crow Butte through a wholly owned subsidiary.

At Crow Butte, 2016 production was 25% lower than in 2015. Production was lower due to the decision to curtail production in 2016. The licence for Crow Butte has been renewed. Although we have now taken actions to curtail production, due to the nature of ISR mining and our wellfield restoration requirements, production at Crow Butte is expected to continue, but at a decreasing rate over time as head grade and flow rate declines. In 2017, we expect to produce 0.1 million pounds at Crow Butte.

Uranium – projects under evaluation



Millennium

Millennium is a uranium deposit in northern Saskatchewan. We are the operator.

Location	Saskatchewan, Canada
Ownership	69.9%
End product	uranium concentrate
Mine type	underground
Estimated mineral 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%

Business structure

Millennium is owned by a joint venture of two companies:

- Cameco – 69.9% (operator)
- JCU Exploration (Canada) Co. Ltd. – 30.1%

See our 2016 MD&A for more information.

Uranium – projects under evaluation



Yeelirrie

Yeelirrie is a near-surface calcrete-style deposit that is amenable to open pit mining techniques. We are the operator.

Location	Western Australia
Ownership	100%
End product	uranium concentrate
Mine type	open pit
Estimated mineral resources	128.1 million pounds (measured and indicated), average grade U_3O_8 – 0.15%

Business structure

Yeelirrie is owned 100% by a Cameco subsidiary.

See our 2016 MD&A for more information.

Uranium – projects under evaluation

Kintyre

Kintyre is a uranium deposit that is amenable to open pit mining techniques. We are the operator.

Location	Western Australia
Ownership	70%
End product	uranium concentrate
Mine type	open pit
Estimated mineral resources (our share)	37.5 million pounds (indicated), average grade U_3O_8 – 0.62% 4.2 million pounds (inferred), average grade U_3O_8 – 0.53%

Business structure

Kintyre is owned by two companies:

- A Cameco subsidiary – 70%
- Mitsubishi Development Pty Ltd. – 30%

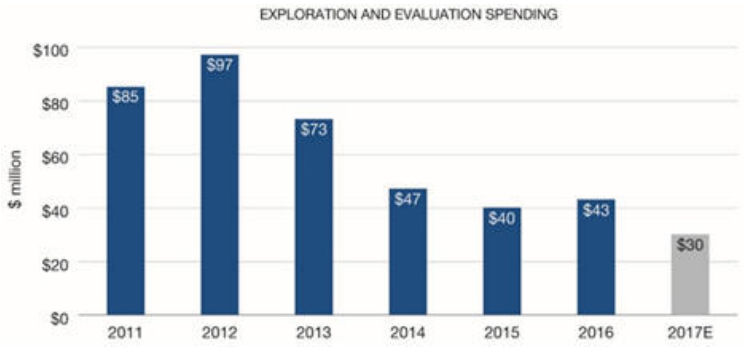
See our 2016 MD&A for more information.

Exploration

Our exploration program is directed at replacing mineral resources as they are depleted by our production, and is key to sustaining our business. We have maintained an active program even during periods of weak uranium prices, which has helped us secure land with exploration and development prospects that are among the best in the world, mainly in Canada, Australia, Kazakhstan and the US. Globally, our land holdings total 1.5 million hectares (3.6 million acres). In northern Saskatchewan alone, we have direct interests in 650,000 hectares (1.6 million acres) of land covering many of the most prospective exploration areas of the Athabasca Basin. Many of our prospects are located close to our existing operations where we have established infrastructure and capacity to expand.

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.

In 2016, we continued our exploration strategy of focusing on the most prospective projects in our portfolio. Exploration is key to ensuring our long-term growth.



2016 UPDATE

Brownfield exploration

Brownfield exploration is uranium exploration near our existing operations, and includes expenses for advanced exploration projects where uranium mineralization is being defined.

In 2016, we spent $10 million on brownfield exploration projects under evaluation in Saskatchewan and Australia. At Inkai and our US operations, we spent $2 million.

Regional exploration

We spent approximately $31 million on regional exploration programs (including support costs), primarily in Saskatchewan and Australia.

PLANNING FOR THE FUTURE

In 2017, we plan to reduce our regional exploration spending by over 35%. We will maintain an active uranium exploration program and continue to focus on our core projects in Saskatchewan under our long-term exploration strategy.

Fuel services – refining



Blind River refinery

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	24 million kgU as UO_3 per year (subject to the completion of certain equipment upgrades)
Estimated decommissioning cost	$48 million (this updated estimate is currently under regulatory review)

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 2012, the CNSC granted our Blind River refinery a 10-year operating licence.

Fuel services – conversion and fuel manufacturing



Port Hope conversion services

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
Estimated decommissioning cost	$129 million

Cameco Fuel Manufacturing Inc. (CFM)

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 as finished bundles
Estimated decommissioning cost	$21 million (this updated estimate is currently under regulatory review)

Port Hope and CFM produced a total of 8.4 million kgU in 2016, 13% lower than 2015. This was the result of our decision to decrease production in response to weak market conditions.

Licensing

In February 2012, the CNSC approved a ten-year licence for CFM.

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

Conversion services

At its UO_2 plant, Port Hope produces 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 its UF_6 plant, Port Hope converts UO_3 to UF_6, and then ships it to enrichment plants primarily in the United States 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 multiple suppliers of AHF to provide us with diversity of supply.

Environment

In 2009, we completed a site-wide environmental investigation of subsurface contamination and a site-wide risk assessment to identify contaminants that could pose a potential risk to the environment. We used the results to develop an environmental management plan to mitigate potential risks. In 2010, we enhanced the plan by adding a number of groundwater retrieval wells. In 2011, we added four additional wells. The environmental management plan met expectations between 2012 and 2015. In 2014, we also met with the regulatory authorities to discuss and agree on the adequacy of the environmental management plan and opportunities to further enhance it through the Vision in Motion project.

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

The Vision in Motion project completed the feasibility stage and was part of the CNSC licensing process in 2016. The project will now be undergoing detailed engineering work and some early implementation aspects in 2017.

Labour relations

In July 2016, our unionized employees at the Port Hope conversion facility accepted a three-year collective agreement. The previous agreement expired on June 30, 2016.

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.

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.

Labour relations

In June 2015, unionized employees at CFM's operations in Port Hope and Cobourg, Ontario accepted a new three-year collective agreement. The previous agreement expired on June 1, 2015.

NUKEM GmbH

NUKEM is one of the world's leading traders of uranium and uranium-related products.

Offices	Alzenau, Germany (NUKEM GmbH) Connecticut, US (subsidiary NUKEM Inc.)
Ownership	100%
Activity	trading of uranium and uranium-related products
2016 sales	7.1 million lbs U_3O_8
2017 forecast sales	5 to 6 million lbs U_3O_8

For more information, see our 2016 MD&A.

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 our estimates of the proven and probable mineral reserves, and measured, indicated and inferred mineral resources at those properties. However, only three of the uranium properties listed in those tables are material uranium properties for us: McArthur River/Key Lake, Cigar Lake and Inkai.

We estimate and disclose mineral reserves and resources in five categories, using the definitions adopted by the Canadian Institute of Mining, Metallurgy and Petroleum, and in accordance with 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 that are not mineral reserves have no demonstrated economic viability but do have reasonable prospects for eventual economic extraction. They fall into three categories: measured, indicated and inferred. Our reported mineral resources do not include 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 on the basis of limited geological evidence and sampling, sufficient to imply but not verify geological and grade continuity. They have a lower level of confidence than that applied to an indicated mineral resource and must not be directly converted to a mineral reserve. 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 mineral resource tables below is based on our respective ownership interests, except for Inkai which is based on our interest in potential production (57.5%), which differs from our ownership interest in JV Inkai (60%).

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 pattern. 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.
- *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.

We use current geological models, constant dollar average uranium prices per operation of $40 to $51 (US) per pound U_3O_8, depending on the varying production schedules and the annual forecast realized prices, and current or projected operating costs and mine plans to estimate our mineral reserves, allowing for dilution and mining losses. For ISR operations, dilution does not impact the tonnage and mining losses are included in the metallurgical recovery. We apply our standard data verification process for every estimate.

Our share of uranium in the mineral reserves table below is based on our respective ownership interests, except for Inkai which is based on our interest in planned production (57.5%) assuming an annual production rate of 5.2 million pounds, which differs from our ownership interest in JV Inkai (60%).

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

- Alain G. Mainville, director, mineral resources management, Cameco
- Greg Murdock, operations manager, McArthur River, Cameco
- Thomas Saruchera, technical superintendent, Key Lake, Cameco
- Baoyao Tang, technical superintendent, McArthur River, Cameco
- Leslie D. Yesnik, general manager, mining operations, Key Lake and McArthur River, Cameco

Cigar Lake

- Scott Bishop, manager, technical services, Cameco
- Alain G. Mainville, director, mineral resources management, Cameco
- Leslie D. Yesnik, general manager, mining operations, Key Lake and McArthur River, Cameco

Inkai

- Darryl Clark, managing director, Cameco Kazakhstan LLP
- Alain G. Mainville, director, mineral resources management, Cameco
- Stuart B. Soliz, principal geologist, Cameco Resources
- Robert J. Sumner, principal metallurgist, technical services, Cameco

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 100 for a discussion of the risks that can affect our business.

Please see pages 80, 81 and 82 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 107. 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 our Saskatchewan mines* at page 101
- Technical challenges – see *Technical challenges at Cigar Lake and McArthur River* at page 102

- The closing of the Implementation Agreement – see page 55
- Political risks – see page 110

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

While the terms measured, indicated and inferred mineral resources are recognized and required by Canadian securities regulatory authorities, the US Securities and Exchange Commission (SEC) does not recognize them. Under US standards, mineralization may not be classified as a 'reserve' unless it has been determined at the time of reporting that the mineralization could be economically and legally produced or extracted. US investors should not assume that:

- any or all of a measured or indicated mineral resource will ever be converted into proven or probable mineral reserves
- any or all of an inferred mineral resource exists or is economically or legally mineable, or will ever be upgraded to a higher category. Under Canadian securities regulations, estimates of inferred resources may not form the basis of feasibility or pre-feasibility studies. Inferred resources have a great amount of uncertainty as to their existence and economic and legal feasibility.

The requirements of Canadian securities regulators for identification of "reserves" are also not the same as those of the SEC, and mineral reserves reported by us in accordance with Canadian requirements may not qualify as reserves under SEC standards.

Other information concerning descriptions of 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 US domestic mining companies, including Industry Guide 7.

Mineral reserves

As at December 31, 2016 (100% basis – only the second last column shows Cameco's share)

Proven and probable (tonnes in thousands; pounds in millions)

		Proven			Probable			Total mineral reserves				
Property	**Mining method**	**Tonnes**	**Grade %U_3O_8**	**Content (M lbs U_3O_8)**	**Tonnes**	**Grade %U_3O_8**	**Content (M lbs U_3O_8)**	**Tonnes**	**Grade %U_3O_8**	**Content (M lbs U_3O_8)**	**Cameco's share of content (M lbs U_3O_8)**	**Metallurgical recovery (%)**
Cigar Lake	underground	209.6	19.86	91.8	403.8	13.84	123.2	613.4	15.90	215.0	107.6	98.5
Key Lake	open pit	61.1	0.52	0.7	—	—	—	61.1	0.52	0.7	0.6	98.7
McArthur River	underground	1,184.9	9.57	250.1	562.5	9.64	119.5	1,747.4	9.60	369.7	258.1	98.7
Crow Butte	ISR	583.0	0.03	0.4	—	—	—	583.0	0.03	0.4	0.4	85
Inkai	ISR	33,193.4	0.07	48.6	30,717.0	0.05	32.0	63,910.3	0.06	80.6	46.3	85
North Butte-Brown Ranch	ISR	364.5	0.08	0.7	—	—	—	364.5	0.08	0.7	0.7	60
Smith Ranch-Highland	ISR	444.7	0.10	1.0	34.2	0.13	0.1	478.9	0.10	1.1	1.1	80
Total		**36,041.2**	**—**	**393.3**	**31,717.5**	**—**	**274.8**	**67,758.7**	**—**	**668.1**	**414.7**	—

Notes

ISR – in situ recovery

Estimates in the above table:

- use constant dollar average uranium prices per property, varying over time, from $40 to $51 (US)/lb U_3O_8
- are based on an average exchange rate of $1.00 US=$1.20 to $1.25 Cdn and 245 Kazakhstan Tenge to $1.00 Cdn.

Totals may not add up due to rounding.

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 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

The table below shows the change in our share of mineral reserves for each property in 2016. The change was primarily the result of:

- new and updated mining plans for two zones at McArthur River, which contributed 8 million pounds to proven mineral reserves and 33 million pounds to probable mineral reserves
- revised mineral reserve and resource classifications in Kazakhstan, which resulted in an increase of 27 million pounds in proven mineral reserves, and a decrease of 20 million pounds in probable mineral reserves

partially offset by:

- production, which removed 28 million pounds from our mineral inventory
- conversion of 16 million pounds of reserves to resources, due to economic considerations related to our curtailed US and Rabbit Lake operations.

(thousands of pounds U_3O_8)	December 31, 2015	Throughput(1)	Additions (deletions)(2)	December 31, 2016
Proven mineral reserves				
Cigar Lake	54,696	-8,749	-30	45,917
Crow Butte	700	-264	11	447
Inkai	1,207	-96	26,842	27,953
Key Lake	584			584
McArthur River	177,003	-9,320	6,929	174,612
North Butte-Brown Ranch	1,152	-433	-39	680
Rabbit Lake	79	-79		
Smith Ranch-Highland	2,459	-786	-708	965
Total	**237,880**	**-19,727**	**33,005**	**251,158**
Probable mineral reserves				
Cigar Lake	56,162		5,477	61,639
Inkai	41,894	-3,912	-19,592	18,390
McArthur River	57,926	-3,266	28,789	83,449
North Butte-Brown Ranch	692		-692	
Rabbit Lake	11,843	-950	-10,893	
Smith Ranch-Highland	3,758		-3,661	97
Total	**172,275**	**-8,128**	**-572**	**163,575**
Total mineral reserves	**410,155**	**-27,855**	**32,433**	**414,733**

Notes

(1) Throughput corresponds to mill feed. The difference between 2016 mill feed and Cameco's share of pounds U_3O_8 produced in 2016 is due to mill recovery, mill inventory and processing of low-grade material.

(2) Changes in reserves or resources, as applicable, include reassessment of geological data, results of information provided by mining and milling, and reclassification of reserves or resources, as applicable.

(3) Crow Butte, Three Crow, Marsland and North Trend are reported under Crow Butte.

Mineral resources

As at December 31, 2016 (100% basis – only the last column shows Cameco's share)

Measured and indicated (tonnes in thousands; pounds in millions)

		Measured			Indicated			Total measured and indicated	
Property	Mining method	Tonnes	Grade % U_3O_8	Content (M lbs U_3O_8)	Tonnes	Grade % U_3O_8	Content (M lbs U_3O_8)	Content (M lbs U_3O_8)	Cameco's share (M lbs U_3O_8)
Cigar Lake	underground	1.3	4.71	0.1	235.7	16.24	84.4	84.5	42.3
Kintyre	open pit	—	—	—	3,897.7	0.62	53.5	53.5	37.5
McArthur River	underground	43.4	4.36	4.2	16.8	1.79	0.7	4.8	3.4
Millennium	underground	—	—	—	1,442.6	2.39	75.9	75.9	53.0
Wheeler River	underground	—	—	—	166.4	19.13	70.2	70.2	21.1
Rabbit Lake	underground	—	—	—	2,281.5	0.79	39.7	39.7	39.7
Tamarack	underground	—	—	—	183.8	4.42	17.9	17.9	10.3
Yeelirrie	open pit	27,172.9	0.16	95.9	12,178.3	0.12	32.2	128.1	128.1
Crow Butte	ISR	1,418.2	0.21	6.6	1,354.9	0.29	8.6	15.2	15.2
Gas Hills - Peach	ISR	687.2	0.11	1.7	3,626.1	0.15	11.6	13.3	13.3
Inkai	ISR	34,885.4	0.07	55.3	77,914.4	0.05	86.0	141.3	81.3
North Butte-Brown Ranch	ISR	604.2	0.08	1.1	5,530.3	0.07	8.4	9.4	9.4
Ruby Ranch	ISR	—	—	—	2,215.3	0.08	4.1	4.1	4.1
Shirley Basin	ISR	89.2	0.16	0.3	1,638.2	0.11	4.1	4.4	4.4
Smith Ranch - Highland	ISR	3,354.0	0.10	7.1	14,338.1	0.05	16.9	24.0	24.0
Total		**68,225.8**	**—**	**172.3**	**127,020.2**	**—**	**514.1**	**686.4**	**487.00**

Inferred (tonnes in thousands; pounds in millions)

Property	Mining method	Tonnes	Grade % U_3O_8	Content (M lbs U_3O_8)	Cameco's share (M lbs U_3O_8)
Cigar Lake	underground	128.4	7.36	20.8	10.4
Fox Lake	underground	386.7	7.99	68.1	53.3
Kintyre	open pit	517.1	0.53	6.0	4.2
McArthur River	underground	95.9	5.20	11.0	7.7
Millennium	underground	412.4	3.19	29.0	20.2
Wheeler River	underground	842.5	2.38	44.1	13.2
Rabbit Lake	underground	2,631.4	0.58	33.6	33.6
Tamarack	underground	45.6	1.02	1.0	0.6
Crow Butte	ISR	1,135.2	0.12	2.9	2.9
Gas Hills - Peach	ISR	3,307.5	0.08	6.0	6.0
Inkai	ISR	151,583.1	0.05	149.9	86.2
North Butte-Brown Ranch	ISR	294.5	0.07	0.4	0.4
Ruby Ranch	ISR	56.2	0.14	0.2	0.2
Shirley Basin	ISR	508.0	0.10	1.1	1.1
Smith Ranch - Highland	ISR	6,861.0	0.05	7.7	7.7
Total		**168,805.5**	**—**	**382.0**	**247.9**

Notes

ISR – *in situ recovery*

Mineral resources do not include amounts that have been identified as mineral reserves.

Mineral resources do not have demonstrated economic viability.

Totals may not add up due to rounding.

Changes this year

The table below shows the change in our share of mineral resources for each property in 2016. The change was mostly the result of:

- revised mineral reserve and resource classifications in Kazakhstan, which resulted in increases of 32 million pounds and 19 million pounds in measured and indicated resources respectively, and a decrease of 58 million pounds in inferred resources
- surface delineation drilling at Cigar Lake, resulting in the re-classification of 41 million pounds from inferred to indicated mineral resources
- delineation drilling at McArthur River to increase geological knowledge, moving 33 million pounds from the inferred to the indicated mineral resources category, subsequently converted to probable reserves
- the reclassification of 16 million pounds of reserves as 18 million pounds of resources, due to economic considerations related to our curtailed US and Rabbit Lake operations.

(thousands of pounds U_3O_8)	December 31, 2015	Additions (deletions)	December 31, 2016
Measured mineral resources			
Cigar Lake	181	-113	68
Crow Butte	6,595		6,595
Gas Hills – Peach	1,667		1,667
Inkai		31,792	31,792
McArthur River	3,660	-744	2,916
North Butte-Brown Branch	400	692	1,092
Shirley Basin	304		304
Smith Ranch-Highland	2,909	4,224	7,133
Yeelirrie	92,382	3,567	95,949
Total	**108,098**	**39,418**	**147,516**
Indicated mineral resources			
Cigar Lake	1,468	40,742	42,210
Crow Butte	8,599		8,599
Gas Hills – Peach	11,632		11,632
Inkai	30,256	19,216	49,472
Kintyre	37,464		37,464
McArthur River	222	239	461
Millennium	53,040		53,040
North Butte – Brown Ranch	8,357		8,357
Wheeler River	21,060		21,060
Rabbit Lake	26,707	12,958	39,665
Ruby Ranch	4,078		4,078
Shirley Basin	4,085		4,085
Smith Ranch-Highland	16,901		16,901
Tamarack	10,288		10,288
Yeelirrie	34,935	-2,734	32,201
Total	**269,092**	**70,421**	**339,513**
Total measured and indicated mineral resources	**377,190**	**109,839**	**487,029**

(thousands of pounds U_3O_8)	December 31, 2015	Additions (deletions)(1)	December 31, 2016
Inferred mineral resources			
Cigar Lake	51,592	-41,170	10,422
Crow Butte	2,893		2,893
Fox Lake	53,284		53,284
Gas Hills – Peach	6,041		6,041
Inkai	144,333	-58,133	86,200
Kintyre	4,194		4,194
McArthur River	40,898	-33,204	7,694
Millennium	20,243		20,243
North Butte/Brown Ranch	422		422
Wheeler River	13,241		13,241
Rabbit Lake	33,707	-60	33,647
Ruby Ranch	167		167
Shirley Basin	1,132		1,132
Smith Ranch-Highland	7,728		7,728
Tamarack	591		591
Total inferred mineral resources	**380,466**	**-132,567**	**247,899**

Notes

(1) Additions and (deletions) come from reassessing geological data, gathering data from drilling, mining and milling, and reclassifying material as either a mineral reserve or a mineral resource, as applicable.
(2) Mineral resources do not include amounts that have been identified as mineral reserves.

Key assumptions, parameters and methods

McArthur River

Key assumptions

- Mineral reserves have been estimated with an allowance of approximately 5% dilution from backfill. Mineralized waste dilution is included into each individual planned excavation tonnage. Mineral reserves have been estimated based on 99.1% mining recovery. Mineral resources do not include such allowances.
- Mineral resources are estimated at a minimum mineralized thickness of 1.0 metre and at a minimum grade of 0.1% to 0.5% U_3O_8 depending upon the underground extraction methods. Reported mineral reserves are based on pounds U_3O_8 recovered per excavation, translating into an average cut-off grade of 0.82% U_3O_8.
- Based on the current life of mine plan, a $1.20 (Cdn) fixed exchange rate was used with an average uranium price of $48 (US).

Key parameters

- The uranium grade is determined from assay samples where available, or by converting radiometric probing values to equivalent % U_3O_8 based on a correlation between radiometric counts and assay values.
- When not measured, densities are determined using formulas based on the relation between density measurements of drill core and chemical assay grades.
- Mineral reserves are estimated based on the use of raisebore and blasthole stope mining methods in conjunction with freeze curtains.
- Between 2017 and 2036, the production schedule assumes 18 million pounds U_3O_8 (which includes processing downblended material at Key Lake) mined and processed annually. Production of 9.8 million pounds U_3O_8 is forecast (which includes processing downblended material at Key Lake) at end of the mine life in 2037.
- Reasonable expectation for eventual economic extraction of the mineral resources is based on the long-term forecast uranium price, the average grade of the mineralized areas and the proximity of surface and mining infrastructure on the site.

Key methods

- Mineral resources were estimated using 3-dimensional block models and cross-sectional method. Mineral reserves were estimated with 3-dimensional block models.

- The models were created from the geological interpretation on section and plan views and in 3D derived from surface and underground drillhole information. Estimates of block grade and density were obtained with ordinary kriging or inverse squared distance methods.
- The mining application used was Maptek Vulcan and Leapfrog Geo.

Cigar Lake

Key assumptions

- Mineral reserves have been estimated with an average allowance of 30% dilution at 0% U_3O_8, inclusive of 0.5 m of dilution material above and below the planned cavity.
- Mineral reserves have been estimated based on 90% mining recovery. Mineral resources do not include dilution and mining recovery.
- 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) = $1.20 – $1.25 (Cdn) fixed exchange rate was used to estimate the mineral reserves, taking into account the annual planned production and the 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 (< 75%) or missing samples, the grade was determined from probing.
- A correlation between uranium, nickel, cobalt and clay content and density was applied where the density was not directly measured for each sample.
- 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, the average grade of the mineralized areas and the proximity of surface and mining infrastructure on the site.

Key methods

- The geological interpretation of the orebody was done on section and plan views and in 3D derived from drillhole information. Mineral resources and mineral reserves were estimated using a 3-dimensional block model. Geostatistical conditional simulation (with sequential Gaussian simulation) and inverse distance squared were used to estimate the grade and density of the different areas.
- The mining applications used were Maptek Vulcan and Leapfrog Geo.

Inkai

Key assumptions

- Mineral resources were estimated based on the use of the ISR extraction method and yellowcake production.
- Reasonable expectation for eventual economic extraction of the mineral resources is based on average forecast price of $32.80 (US) per pound U_3O_8, realistic production costs and the proximity of surface and mining infrastructure on the site.
- Average metallurgical recovery of 85% is based on the production results so far.
- To estimate the mineral reserves, an average uranium price of $51.00 (US) per pound U_3O_8 was used, derived from the production schedule and annual forecast realized prices, with exchange rates of $1.00 US = $1.20 to $1.25 Cdn and 245 Kazakhstan Tenge to $1.00 Cdn.

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.

- 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 and 0.047 m% U_3O_8 per hole for blocks 1 and 2, respectively.
- Mineral reserves have been estimated at a minimum GT of 0.130 m% U_3O_8.
- Average density of 1.70 tonnes per cubic metre was used, based on historical and current sample measurements.
- Mineral reserves represent the in-situ ore that can be extracted within the term of the block 1 and block 2 licenses.
- The production rate is planned for 5.4 million pounds of U_3O_8 for 2017, then 5.2 million pounds per year for 2018 to 2028 and then decreasing till 2030.

Key methods

- The geological interpretation of the orebody outlines was done on 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.
- Only indicated and measured mineral resources are considered for conversion to mineral reserves.
- Considerations of the rate of in-situ uranium recovery, lixiviant uranium head grades, wellfield flow rates and production requirements to define the production sequence.
- The geological modelling and mining applications used were AtomGeo, MapInfo and Maptek Vulcan.

Sustainable development

Social responsibility and environmental protection are top priorities for us, so much so that we have built our corporate objectives around them within our four measures of success: a safe, healthy and rewarding workplace, a clean environment, supportive communities, and outstanding financial performance. For us, sustainability is not an add-on for our company; it is at the core of our company culture. It helps us:

- build trust, credibility and corporate reputation
- gain and enhance community support for our operations and plans
- attract and retain employees
- manage risk
- drive innovation and continual improvement to build competitive advantage.

Because they are so important, we integrate sustainable development principles and practices at each level of our organization, from our overall corporate strategy to individual employee practice in day-to-day operations.

We have developed a corporate social responsibility policy (CSR policy) that defines our standards and expectations for sustainable development throughout the company. Under the CSR policy:

- our goal is to be recognized as a leader in corporate social responsibility by proactively addressing the social, environmental and financial aspects of our business with key stakeholders; and
- we seek to integrate corporate social responsibility in our day to day business, and achieve strong performance in our four key measures of success: a safe, healthy and rewarding workplace, a clean environment, supportive communities and outstanding financial performance.

We seek to implement our CSR policy by including commitments based upon these four key measures of success:

Safe, healthy and rewarding workplace

We are committed to having a safe, healthy and rewarding workplace that reflects the diversity of the communities in which we operate. One of the ways we implement this commitment is through our safety, health, environment and quality policy. See Safety, Health and Environment starting at page 84 for more information about this policy.

Clean environment

We are committed to continually improving our overall environmental performance throughout the lifecycle of our operations. See Safety, Health and Environment starting at page 84 for how we implement this commitment.

Supportive communities

We are committed to building long-lasting and trusting relationships with the communities in which we operate. One of the ways we implement this commitment is through our Five Pillar CSR Strategy, which is described below.

Outstanding financial performance

We are committed to managing our business in a way that ensures long-term financial stability and profitability.

Our CSR policy describes further what we do to implement these commitments.

Our chief executive officer is responsible for ensuring compliance with our CSR policy and implementation of its supporting policies and programs.

Five Pillar CSR Strategy

Over more than 27 years of operation and partnership in northern Saskatchewan, we have developed a comprehensive Five Pillar CSR Strategy aimed at ensuring the support of the communities with whom we work, all across our operations globally. The strategy is flexible and is implemented by our global operations at a local level to reflect the needs of the local communities.

While developed in part as a result of some of the socio-economic obligations that are contained in our surface lease agreements with the Saskatchewan government, the bulk of the strategy has evolved as a result of the commercial benefits we see from ensuring strong support among local communities wherever we operate. The pillars are:

1. The *Workforce Development pillar* delivers programming that aims to build educational and skills capacity in local communities. The goal of this pillar is to ensure that students stay in school, have the means to attend post-secondary education, and receive training to facilitate employment opportunities in our industry.

2. The *Business Development pillar* is designed to promote the involvement of locally-owned businesses in contracting opportunities at our operations, and to provide additional jobs, revenue streams and capacity building at the local community level. We work with local contractors in a variety of ways, including by providing updates on contracting opportunities. In Saskatchewan, we also have a northern contractor strategy, which gives preference to majority-owned northern companies and helps to build a long-term relationship between northern contractors and ourselves.

3. The *Community Engagement pillar* is designed with the objective to ensure that we secure support for our operations from local communities and satisfy the obligations placed on us by regulators and laws. While the main activities here are focused specifically on the communities in closest proximity to our operations, in northern Saskatchewan, we also ensure that the greater region is kept informed of our operations, whether it is through our yearly community tours or community focused websites.

4. The *Community Investment pillar* is designed to help local communities with much-needed funding for community programming and infrastructure. Through this pillar, we look to support community initiatives that are focused on youth, education and literacy, health and wellness and community development.

5. The *Environmental Stewardship pillar*, the most recent addition to the strategy, is designed to support our overall environmental programming. It is intended to provide communities with a voice in both the formal environmental assessment regulatory process, as well as ongoing monitoring activities.

Impact of Organizational Changes

We recognize that changes in our operations and support functions, including the suspension of production at Rabbit Lake, curtailment at Cameco Resources' US operations, and the reduction of the workforce at our northern Saskatchewan operations and at our corporate office, all have a significant impact on the communities where we operate. While we regret the negative impact that these carefully deliberated decisions have on affected employees and other stakeholders, these actions are deemed necessary for the long-term health of the company in a uranium market that continues to be weak and oversupplied. Improving operational efficiency is part of our strategy to effectively manage costs and remain competitive through these low times, while positioning the company and our stakeholders to benefit as the market improves.

Safety, Health and Environment

We introduced our safety, health, environment and quality (SHEQ) policy (SHEQ Policy) in 1991. We have refined our approach over the years and have since developed our overall integrated SHEQ management system.

The SHEQ Policy, which was reviewed and reissued in 2015, includes our statement of principles and identifies the seven programs that comprise the SHEQ management system, which implements the SHEQ Policy and supports these principles. The next review is scheduled for 2018.

Our principles

- prevent injury, ill health and pollution
- comply with and move beyond legal and other requirements
- keep risks at levels as low as reasonably achievable, accounting for social and economic factors
- ensure quality of processes, products and services
- continually improve our overall performance.

SHEQ management system

The seven programs that comprise Cameco's SHEQ management system are as follows:

- Quality management program
- Safety and health management program
- Radiation protection program
- Environmental management program
- Management system audit program
- Emergency preparedness and response program
- Contractor management program.

We benchmark our system against those used by other companies in the mining and nuclear power generation sectors. On behalf of the board, the safety, health and environment committee oversees our SHEQ Policy and management system as well as our safety and environmental performance. Our chief executive officer is responsible for ensuring this system is established and maintained across the company.

Our SHEQ management system is centralized and managed at the corporate level. It is implemented across the corporation as a whole with a focus on our operations.

Corporate SHEQ activity at our operations focuses on consistent application of programs and procedures, as well as carrying out certain centralized functions and providing support for identified issues. Our sites are regularly audited to safety health and environmental requirements and to ensure the site-based programs meet Cameco requirements. The SHEQ management system is also part of our program to manage environmental risks at our operations and meet the requirements of ISO 14001. All of our operating sites are ISO 14001 certified. In addition, we have now transitioned from individual site-based ISO 14001 certifications to a single corporate certification. We have started the process to roll the majority of our operations into this single certification.

In 2016, we invested:

- $80 million in environmental protection, monitoring and assessment programs, slightly more than 2015
- $27 million in health and safety programs (or 30% less than in 2015 due to major safety improvement projects being completed in 2015).

Spending on environmental as well as health and safety programs is expected to decrease in 2017 as a result of the decisions to transition Rabbit Lake into care and maintenance and to reduce production at our US operations.

There were no environmentally significant incidents in 2016.

In 2016, we continued to achieve solid and improving safety performance at our operations. Highlights included the McArthur River operation winning the John T. Ryan award for safety performance at a metal mine for the 3rd year in a row and 4th time in

the last 6 years. As well, our Blind River and Crow Butte operations celebrated significant safety milestones reaching the 10th and 9th year in a row respectively without a lost time injury. Further, we continued to have strong safety and environmental performance while transitioning our Rabbit Lake operation into care and maintenance.

Focus on the environment

Our business by its nature has an impact on the environment, so environmental performance is a key area of focus for us.

Our focus in this regard is reinforced by our systematic approach to SHEQ issues. We have integrated this approach into activities at our operating properties and our planning process for major projects. We also have conceptual decommissioning plans in place for all of our operating sites.

We report our performance annually. You can find this information on our website (cameco.com) and in our sustainable development report, which is also available on our website.

Reducing our impact

We have been carrying out our long-term plan to reduce the impact we have on the environment. This includes assessing, monitoring and looking for opportunities to reduce our effect on air, water and land, optimize the amount of energy we consume, and manage the effects of waste.

We are investing in management systems and safety initiatives to achieve operational excellence and reliability, and this continues to improve our safety and environmental performance and operating efficiency. We have also incorporated life cycle value assessment (LCVA) into our project management and engineering processes to ensure social, environmental and financial risks have been more fully considered when designing new facilities.

Like other large industrial organizations, we use chemicals in our operations that could be hazardous to our health and the environment if they are not handled correctly. We train our employees in the proper use of hazardous substances and in emergency response techniques.

We work with communities who are affected by our activities by informing them of what we are doing and to obtain feedback and further input, to build and sustain their trust. In Saskatchewan, we participate in the Athabasca Working Group and Northern Saskatchewan Environmental Quality Committee.

In Ontario, we liaise with the community by regularly holding educational and environment-focused activities including through our Community Forum series, our presence at the Port Hope Fair, our regular community newsletters and ongoing communication with local elected officials and community leaders.

Land

Cameco's North American operating sites affect a relatively small area compared to what would be required to generate the same amount of energy using other technologies.

Our mines in northern Saskatchewan are underground mines so the impact on the surface land is minimal. We use ISR mining in our US operations to extract uranium from underground non-potable, brackish aquifers, so the impact on the surface there is also minimal. We also use ISR mining at Inkai so the impact on the surface there is minimal as well.

Water

We look to improve processes and adopt new technologies to improve how we manage water, and the effect it has on receiving water bodies. In 2016, Cameco completed decommissioning and reclamation of select crossings and borrow areas on the Fox Lake road near McArthur River that were no longer in use by Cameco.

United States

The ISR method we use in our US 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 has been completed, an ISR wellfield 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. In the US, we are not only working to improve the groundwater restoration process, but also on waste reduction programs. Smith Ranch-Highland completed a pipeline that allowed the optimization of its existing wastewater disposal capacity, as part of efforts to improve and optimize groundwater restoration in Cameco Resources. We also continued to be involved in industry leading research and innovation in groundwater restoration at in situ recovery operations.

We have 14 wellfields under restoration. See pages 88 and 89 for more information.

Kazakhstan

The ISR mining method we use 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.

Air

The table below shows our most recent data on our greenhouse gas emissions. We follow the general guidelines outlined by the *Intergovernmental Panel on Climate Change* to qualify greenhouse gas emissions.

	2016	2015	2014
Greenhouse gas emissions(1) of tonnes of CO_2 equivalent (CO_2e)	492,296	521,834	548,247

Notes

(1) Greenhouse gas emissions include carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs) expressed as a carbon equivalent (CO_2e).

While greenhouse gas emissions have been slowly increasing since 2005, in 2015 and 2016 overall corporate greenhouse gas emissions have declined due to a number of factors, including decreasing project activity as well as the decisions in 2016 to suspend production at our Rabbit Lake uranium mine and mill and to curtail production at Cameco Resources.

Port Hope

In 2011, we lowered emissions of uranium and hydrofluoric acid to the air by installing new equipment and changing the operating procedures. Our fuel services division has since focused on improving the monitoring of some emission sources and in 2014 established a process for setting an objective for reducing uranium in air emissions. These efforts are seeing positive results. Further, after installing a scrubber in 2014, we managed to sustain a nearly 50% reduction in uranium in air emissions in 2015 and even further in 2016.

McArthur River

McArthur River has a large refrigeration plant that produces cold brine used for freezing the area of the deposit to be mined. The plant uses refrigerants, but they are not ozone-depleting chemicals that harm the earth's atmosphere.

Cigar Lake

Cigar Lake has a large refrigeration plant that produces cold brine used for freezing the area of the deposit to be mined. The plant uses refrigerants, but they are not ozone-depleting chemicals that harm the earth's atmosphere.

Waste

Our mines and the Key Lake mill in northern Saskatchewan account for most of the tailings and waste rock our operations generate.

We treat the mill tailings at Key Lake to stabilize contaminants before depositing them in tailings management facilities (in mined-out open pits near the mill).

We divert groundwater and surface water around the tailings management facilities, monitor the water to make sure it is not impacted by the tailings, and treat it if necessary. We monitor runoff and treat water from waste rock piles as needed. We stockpile some waste rock to blend with higher grade ores. We contour other waste rock piles and revegetate them before decommissioning the site. We plan to continue to monitor groundwater after the facility has been decommissioned.

In 2015, we took steps to address legacy waste at several of our operations. In particular, our legacy waste management plan at fuel services included the shipment of over 4,000 historically contaminated drums to a licensed facility and 1600 drum equivalents of contaminated combustibles to be processed at the Blind River Refinery incinerator. In 2016, we continued implementing this plan, shipping over 6,700 historically contaminated drums and two sea containers containing machinery to licensed facilities. The 2015 and 2016 shipments represent about 17% of the total number of drums remaining for disposal. In addition, all of our Saskatchewan mining operations continued efforts to address historical laydown areas of contaminated material.

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 are 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 start processing activities, 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 *Nuclear Safety and Control Act* (NSCA), is our main federal regulator in Canada. It regulates our compliance with the NSCA and is the federal lead for environmental assessments required to be carried out under the *Canadian Environmental Assessment Act*, *2012*, which was introduced as part of the federal government's responsible resource development policy.

The primary objectives of an environmental assessment are to ensure that:

- potential adverse environmental effects are considered before proceeding with a project
- projects that cause unjustifiable, significant adverse environmental effects are not permitted to proceed
- appropriate measures are implemented, where necessary, to mitigate risk.

Plans to expand production or build new mines in Saskatchewan are subject to this 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 a number of activities underway:

- improving uranium emissions from different systems at the Port Hope conversion facility to meet the newly established objective
- focusing on maintaining our excellent water quality while maintaining production at our facilities.

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 environmental assessment or 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.

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 expenses.

United States

Our ISR operations in the US have to 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 have to 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 for the US operations that we need to meet our 2017 production plans.

After mining is complete, ISR wellfields have to 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 Wyoming Department of Environmental Quality and the NRC.

The EPA is proposing to add new health and environmental protection standards to regulate by-product materials produced by uranium in situ recovery. The proposed rule includes surface and subsurface standards, with a primary focus on groundwater protection, restoration and stability. One of the most significant proposed requirements is that groundwater must be monitored for 30 years after restoration. We are working with other industry participants and associations to respond to the proposed requirements, including making written submissions and appearing at the EPA hearings in 2015. In our view, as argued in

written submissions and in the EPA hearings, the proposed rulemaking will result in a regulatory framework that is more subjective and arbitrary than protective. In early 2017, the EPA withdrew its rule, but then proposed a new rule for public comment, which is less onerous though still has a number of problematic aspects. Ultimately, the decision on moving forward with the EPA's new proposal will be decided by the new administration.

Also in late 2016, the EPA released a proposed rule that would impose additional financial responsibility requirements on owners and operations, along with various recordkeeping and notification requirements. If finalized as proposed, it would apply to Crow Butte and Smith Ranch-Highland, and the amount of Cameco Resources' financial responsibility could be material.

See page 91 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 complies 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*, dated January 9, 2007 and in effect as of February 3, 2007. This code replaced the three main laws that had related to environmental protection. Amendments were made to the code in December 2011 that include more stringent environmental protection regulations, particularly relating to the control of greenhouse gas emissions, obtaining environmental permits, state monitoring requirements and other similar matters.

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 *Ecological Code*, JV Inkai needs 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 the *Ecological Code*. JV Inkai has a permit for environmental emissions and discharges for the operation that is valid until December 31, 2022. 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.

JV Inkai has environmental insurance, as required by the *Ecological Code* and the resource use contract, as well as civil liability insurance.

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 and tailings management facilities and the 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 2016, our estimate of total decommissioning and reclamation costs was $1.04 billion. This is the undiscounted value of the obligation and is based on our current operations. We had accounting provisions of $894 million at the end of 2016 (the present value of the $1.04 billion). Since we expect to incur most of these expenditures at the end of the useful lives of the operations they relate to, our expected costs for decommissioning and reclamation for the next five years are not material.

We provide financial assurances for decommissioning and reclamation as letters of credit to regulatory authorities, as required. We had a total of $998 million in letters of credit supporting our reclamation liabilities at the end of 2016. All of our North American operations have letters of credit in place that provide financial assurance in connection with our preliminary plans for decommissioning for the sites.

Please also see note 15 to our 2016 financial statements for our estimate of decommissioning and reclamation costs and related letters of credit.

Canada

Decommissioning estimates

(100% basis)	
McArthur River	$ 48 million
Rabbit Lake	$203 million
Key Lake	$218 million
Cigar Lake	$ 49 million

As part of the licensing process in 2013 for McArthur River, Rabbit Lake, Key Lake and Cigar Lake, the preliminary decommissioning plans for each facility were updated and submitted to the CNSC staff. Our Key Lake decommissioning estimate was further revised and submitted to the CNSC in 2014 and we received final approval of the decommissioning estimate from the CNSC in January 2015. Letters of credit for McArthur River, Key Lake, Rabbit Lake, and Cigar Lake are in place and reflect the current decommissioning cost estimate.

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	an updated estimate of $48 million is currently under regulatory review
CFM	an updated estimate of $21 million is currently under regulatory review

We renewed our licences for Blind River and CFM in 2012. As part of that process, in 2011, the preliminary decommissioning plans for each facility were accepted by the CNSC staff and two letters of credit were updated in April 2012 after the licence renewals were granted. Updated preliminary decommissioning plans and estimates are under regulatory review.

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.

Historical waste

When Cameco was formed, we assumed ownership and primary responsibility for managing the waste already existing at the time of the reorganization. This historical waste was all in Ontario, at the historical facilities, which include the Port Hope Conversion Facility, Blind River Refinery, Port Granby Waste Management Facility, Welcome Waste Management Facility and the Centre Pier in Port Hope.

In March 2004, we reached an agreement to transfer two historical facilities and their associated liabilities to the Government of Canada: the Welcome Waste Management Facility and the Port Granby Waste Management Facility. We transferred the Welcome Waste Management Facility and the Port Granby Waste Management Facility to Natural Resources Canada on March 31, 2010 and March 29, 2012, respectively.

In March 2012, we entered into a settlement with Canada Eldor Inc., the entity established by the federal government to assume the historical liabilities and obligations of Eldorado Nuclear Limited, regarding liability for historical waste located at the historical facilities. We are now responsible for all liabilities and costs and expenses related to historical waste and the remaining historical facilities owned or leased by us, which are the Port Hope Conversion Facility, the Blind River Refinery and the Centre Pier in Port Hope.

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. Arrangements for recycling of this material are also in place at our Key Lake mill. We received regulatory approval from the Saskatchewan government for this process in 2003, and were advised by the CNSC in 2011 that the project could proceed. Recycled byproduct material has been successfully processed at Key Lake since 2014.

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 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 $46 million (US). We have provided the State of Nebraska with a $46 million (US) letter of credit 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) and the NRC. 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. Additional quarterly groundwater sampling of the monitor production wells was undertaken through 2016 for an anticipated revised ACL submission.

Our estimated cost of decommissioning the property is $201 million (US), including North Butte. We have provided the State of Wyoming with $248 million (US) in letters of credit as security for decommissioning the property.

Kazakhstan

JV Inkai is subject to decommissioning liabilities, largely defined by the terms of the resource use contract. JV Inkai has established a separate bank account and made the required contributions to the account as security for decommissioning. Contributions are set as a percentage of gross revenue and are capped at $500,000 (US). JV Inkai has funded the full amount.

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 established a preliminary plan and an estimate of total decommissioning costs of $10 million (US). It updates the plan every five years, or when there is a significant change at the operation that could affect decommissioning estimates.

Groundwater is not actively restored post-mining in Kazakhstan. See page 86 for additional details.

The regulatory environment

This section, and the section *Complying with environmental regulations* starting on page 87, discuss 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 International Atomic Energy Agency. 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 International Atomic Energy Agency's 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 main regulatory agency, but does not issue licences and 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.

In 2013, it was announced that the proposed Canada-EU Trade Agreement (CETA) contemplates that the Canadian uranium mine ownership requirement would be relaxed for all European companies. In Canada, a bill to implement CETA is going through the final stages of the parliamentary approval process and the Canadian government is targeting the spring of 2017 for royal assent. On February 15, 2017, the European Parliament voted to ratify CETA. For final ratification and implementation each of the EU member countries must vote to ratify the agreement. This waiver will not come into effect until the Canadian bill receives royal assent and each of the EU member countries ratifies CETA.

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 120 and 121 for more information.

Industry governance

The 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 in order 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 in order 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 located 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 has to spend a certain amount on exploration to keep the mineral claim in good standing. If we spend more than the amount required, 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* (NEPA) 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 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 Land Quality Division administers the permit.

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 reserves and 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 install wellfields and conduct ISR mining.

Kazakhstan

See *Kazakhstan government and legislation* starting on page 57.

Taxes and Royalties

Transfer pricing disputes

We have been reporting on our transfer pricing disputes with CRA since 2008, when it originated, and with the IRS since the first quarter of 2015. Below, we discuss the general nature of transfer pricing disputes and, more specifically, the ongoing disputes we have.

Transfer pricing is a complex area of tax law, and it is difficult to predict the outcome of cases like ours. However, tax authorities generally test two things:

- the governance (structure) of the corporate entities involved in the transactions
- the price at which goods and services are sold by one member of a corporate group to another.

We have a global customer base and we established a marketing and trading structure involving foreign subsidiaries, including Cameco Europe Limited (CEL), which entered into various intercompany arrangements, including purchase and sale agreements, 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.

For the years 2003 to 2011, CRA has shifted CEL's income (as recalculated by CRA) back to Canada and applied statutory tax rates, interest and instalment penalties, and, from 2007 to 2010, transfer pricing penalties. There has not yet been a decision regarding a transfer pricing penalty for 2011. The IRS is also proposing to allocate a portion of CEL's income for the years 2009 through 2012 to the US, resulting in such income being taxed in multiple jurisdictions. Taxes of approximately $350 million for the 2003 – 2016 years have already been paid in a jurisdiction outside Canada and the US. Bilateral international tax treaties contain provisions that generally seek to prevent taxation of the same income in both countries. As such, in connection with these disputes, we are considering our options, including remedies under international tax treaties that would limit double taxation; however, there is a risk that we will not be successful in eliminating all potential double taxation. The expected income adjustments under our tax disputes are represented by the amounts claimed by CRA and IRS and are described below.

CRA dispute

Since 2008, CRA has disputed our corporate structure and the related transfer pricing methodology we used for certain intercompany uranium sale and purchase agreements. To the end of 2015, we received notices of reassessment for our 2003 through 2010 tax returns, and, in the fourth quarter of 2016, we received a notice of reassessment for our 2011 tax year. We have recorded a cumulative tax provision of $58 million, where an argument could be made that, based on our methodology, our transfer price may have fallen outside of an appropriate range of pricing in uranium contracts for the period from 2003 through 2016. We are confident that we will be successful in our case and continue to believe the ultimate resolution of this matter will not be material to our financial position, results of operations and cash flows in the year(s) of resolution.

For the years 2003 through 2011, CRA issued notices of reassessment for approximately $4.1 billion of additional income for Canadian tax purposes, which would result in a related tax expense of about $1.2 billion. CRA has also issued notices of reassessment for transfer pricing penalties for the years 2007 through 2010 in the amount of $292 million. The Canadian income tax rules include provisions that 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. To date, under these provisions, after applying elective deductions, we have paid a net amount of $264 million in cash. In addition, we have provided $420 million in letters of credit (LC) to secure 50% of the cash taxes and related interest amounts reassessed after 2014. The amounts paid or secured are shown in the table below.

YEAR PAID ($ MILLIONS)	CASH TAXES	INTEREST AND INSTALMENT PENALTIES	TRANSFER PRICING PENALTIES	TOTAL	CASH REMITTANCE	SECURED BY LC
Prior to 2013	—	13	—	13	13	—
2013	1	9	36	46	46	—
2014	106	47	—	153	153	—
2015	202	71	79	352	20	332
2016	51	38	31	120	32	88
Total	**360**	**178**	**146**	**684**	**264**	**420**

Using the methodology we believe CRA will continue to apply, and including the $4.1 billion already reassessed, we expect to receive notices of reassessment for a total of approximately $8.1 billion of additional income taxable in Canada for the years 2003 through 2016, which would result in a related tax expense of approximately $2.4 billion. As well, CRA may continue to apply transfer pricing penalties to taxation years subsequent to 2010. As a result, we estimate that cash taxes and transfer pricing penalties for these years would be between $1.75 billion and $1.95 billion. In addition, we estimate there would be interest and instalment penalties applied that would be material to us. While in dispute, we would be responsible for remitting or otherwise providing security for 50% of the cash taxes and transfer pricing penalties (between $875 million and $975 million), plus related interest and instalment penalties assessed, which would be material to us.

Under the Canadian federal and provincial tax rules, the amount required to be paid or secured each year will depend on the amount of income reassessed in that year and the availability of elective deductions and tax loss carryovers. CRA has decided to disallow the use of any loss carry-backs for any transfer pricing adjustment, starting with the 2008 tax year. This does not impact the anticipated income tax expense for a particular year, but does impact the timing of any required security or payment. As noted above, beginning with the 2010 tax year, as an alternative to paying cash, we used letters of credit to satisfy our obligations related to the reassessed income tax and related interest amounts. We believe we will be able to continue to provide security in the form of letters of credit to satisfy these requirements. The estimated amounts summarized in the table below reflect actual amounts paid or secured and estimated future amounts owing based on the actual and expected reassessments for the years 2003 through 2016, and include the expected timing adjustment for the inability to use any loss carry-backs starting in 2008. We will update this table annually to include the estimated impact of reassessments expected for completed years subsequent to 2016.

$ MILLIONS	2003-2016	2017-2018	2019-2023	TOTAL
50% of cash taxes and transfer pricing penalties paid, secured or owing in the period				
Cash payments	187	65 - 90	145 - 170	390 - 445
Secured by letters of credit	319	10 - 35	150 - 175	480 - 530
Total paid[1]	**506**	**75 - 125**	**295 - 345**	**875 - 975**

1 These amounts do not include interest and instalment penalties, which totaled approximately $178 million to December 31, 2016.

In light of our view of the likely outcome of the case as described above, we expect to recover the amounts remitted, including the $684 million already paid or otherwise secured to date.

The trial related to the 2003, 2005 and 2006 reassessments commenced in October, 2016. Final arguments are expected in the second half of 2017. If this timing is adhered to, we expect to receive a Tax Court decision within six to 18 months after the trial is complete.

IRS dispute

We received Revenue Agents Reports (RARs) from the IRS for the 2009 though 2012 tax years, whereby the IRS has challenged the transfer pricing used under certain intercompany transactions pertaining to the above tax years for certain of our US subsidiaries. The RARs list the adjustments proposed by the IRS and calculate the tax and any penalties owing based on the proposed adjustments.

The audit position of the IRS is that a portion of the non-US income reported under our corporate structure and taxed in non-US jurisdictions should be recognized and taxed in the US on the basis that:

- the prices received by our US mining subsidiaries for the sale of uranium to CEL are too low
- the compensation earned by Cameco Inc., one of our US subsidiaries, is inadequate.

The proposed adjustments result in an increase in taxable income in the US of approximately $419 million (US) and a corresponding increased income tax expense of approximately $122 million (US) for the 2009 through 2012 taxation years, with interest being charged thereon. In addition, the IRS proposed cumulative penalties of approximately $8 million (US) in respect of the adjustment.

We believe that the conclusions of the IRS in the RARs are incorrect and we are contesting them in an administrative appeal, during which we are not required to make any cash payments. Until this matter progresses further, we cannot provide an estimation of the likely timeline for a resolution of the dispute.

We believe that the ultimate resolution of this matter will not be material to our financial position, results of operations and cash flows in the year(s) of resolution.

Overview of disputes

The table below provides an overview of some of the key points with respect to our CRA and IRS tax disputes.

	CRA	IRS
Basis for dispute	• Corporate structure/governance • Transfer pricing methodology used for certain intercompany uranium sale and purchase agreements • Allocates CEL income (as adjusted) for 2003 through 2011 to Canada (same income we paid tax on in foreign jurisdictions and includes income that IRS is proposing to tax)	• Income earned on sales of uranium by the US mines to CEL is inadequate • Compensation earned by Cameco Inc., one of our US subsidiaries, is inadequate • Allocates a portion of CEL's income for the years 2009 through 2012 to the US (a portion of the same income we paid tax on in foreign jurisdictions and which the CRA is proposing to tax)
Years under consideration	• CRA reassessed 2003 to 2011 • Auditing 2012 to 2014	• IRS has proposed adjustments for 2009 through 2012 • Auditing 2013 to 2015
Timing of resolution	• The trial related to the 2003, 2005 and 2006 reassessments commenced in October 2016, with final arguments expected in the second half of 2017 • Expect Tax Court decision six to 18 months after completion of trial	• Contesting proposed adjustments in an administrative appeal • We cannot yet provide an estimate as to the timeline for resolution
Required payments	• Expect to provide security in form of letters of credit and/or make cash payments for 50% of cash taxes, interest and penalties as reassessed • Paid $264 million in cash to date • Secured $420 million using letters of credit	• No security or cash payments required while under administrative appeal

Caution about forward-looking information relating to our CRA and IRS tax dispute

This discussion of our expectations relating to our tax disputes with CRA and IRS and future tax reassessments by CRA and IRS 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

- CRA will reassess us for the years 2012 through 2016 using a similar methodology as for the years 2003 through 2011, and the reassessments will be issued on the basis we expect
- we will be able to apply elective deductions and utilize letters of credit to the extent anticipated
- CRA will seek to impose transfer pricing penalties (in a manner consistent with penalties charged in the years 2007 through 2010) in addition to interest charges and instalment penalties
- we will be substantially successful in our dispute with CRA and the cumulative tax provision of $58 million to date will be adequate to satisfy any tax liability resulting from the outcome of the dispute to date
- IRS may propose adjustments for later years subsequent to 2012
- we will be substantially successful in our dispute with IRS

Material risks that could cause actual results to differ materially

- CRA reassesses us for years 2012 through 2016 using a different methodology than for years 2003 through 2011, or we are unable to utilize elective deductions or letters of credit to the extent anticipated, resulting in the required cash payments or security provided to CRA pending the outcome of the dispute being higher than expected
- the time lag for the reassessments for each year is different than we currently expect
- we are unsuccessful and the outcomes of our dispute with CRA and/or IRS result in significantly higher cash taxes, interest charges and penalties than the amount of our cumulative tax provision, which could have a material adverse effect on our liquidity, financial position, results of operations and cash flows
- cash tax payable increases due to unanticipated adjustments by CRA or IRS not related to transfer pricing
- IRS proposes adjustments for years 2013 through 2015 using a different methodology than for 2009 through 2012
- we are unable to effectively eliminate all double taxation

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 $22.62/kg U_3O_8 ($10.26/lb) and a 15% royalty is charged on profit in excess of $22.62/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 3.0% of the value of resource sales.

During the period from 2013 to 2015, transitional rules for the new profit royalty regime were applied whereby only 50% of capital costs were deductible. The remaining 50% was accumulated and was deductible beginning in 2016. In addition, the capital allowance related to Cigar Lake under the previous system was grandfathered and was also deductible beginning in 2016. As a result, only the first tier of the profit royalty (10%) applied in 2016 and we expect only the first tier (10%) to apply in 2017 as well. Beyond 2017, the applicable profit royalty tier(s) will depend on both profitability and the optional use of capital cost deductions.

Canadian income taxes

We are subject to federal income tax and provincial taxes in Saskatchewan and Ontario. Current income tax expense for 2016 was $3.45 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 $4.28 million (US) in taxes in 2016.

Our US subsidiaries are subject to US federal and state income tax. They may also be subject to the Alternative Minimum Tax (AMT) at a rate of 20%. We can carry forward AMT paid in prior years indefinitely, and apply it as credit against future regular income taxes.

Kazakhstan taxes

The resource use contract lists the taxes, duties, fees, royalties and other governmental charges JV Inkai has to pay, subject to changes due to the elimination of the tax stabilization provision in October 2009 noted below.

On January 1, 2009, a new tax code of the Republic of Kazakhstan went into effect that includes a number of changes to the taxation regime of subsoil users. The most significant changes involve eliminating the stable tax regime, imposing a mineral extraction tax and changing the payment rate for commercial discovery.

Tax stabilization eliminated

In October 2009, at the request of the Kazakhstan Ministry of Energy and Mineral Resources, JV Inkai signed an amendment to the resource use contract to adopt the new tax code, eliminating the tax stabilization provision. While we do not expect this to have a material impact on JV Inkai at this time, eliminating the tax stabilization provision could be material in the future. See page 56 for more information about the resource use contract.

Corporate income tax rate

JV Inkai is subject to corporate income tax at a rate of 20%.

Mineral extraction tax

The tax code includes a *Tax on Production of Useful Minerals*, a mineral extraction tax replacing the previous royalty. The mineral extraction tax must be paid on each type of mineral and certain other substances that are extracted. The rate used to calculate the mineral extraction tax on uranium is currently 18.5%.

Payment for commercial discovery

Under the resource use contract, a one-time commercial discovery bonus of 0.05% of the value of Kazakh-defined recoverable reserves is paid when there is confirmation that Kazakh-defined recoverable reserves are located in a particular licence area. Under the tax code, the rate increased to 0.1%.

Excess profits tax

The tax code has changed the calculation of excess profits tax. JV Inkai believes it will not have to pay this tax for the foreseeable future.

Risks that can affect our business

There are risks in every 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.

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 2016 MD&A.

Types of risk

Operational	100
Financial	105
Political	110
Regulatory	113
Environmental	114
Legal and other	115
Industry	116

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 required equipment, materials and supplies (including anhydrous hydrofluoric acid at our conversion facilities)
- transportation disruptions
- electrical power interruptions
- equipment failures
- catastrophic accident
- fires
- blockades or other acts of social or political activism
- regulatory constraints and non-compliance with laws and licences
- natural phenomena, such as inclement weather conditions, floods 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.

The operational changes we have made, and plan to make in 2017, 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 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 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 in all circumstances, 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. We may also be required to increase the amount of our insurance coverage due to changes in the regulation of the nuclear industry.

Not having the right insurance coverage or the right amount of coverage, or having to increase the amount of coverage or choosing not to insure against certain risks, could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Flooding at our Saskatchewan mines

All of our mines in Saskatchewan have had water inflows.

McArthur River

The sandstone that overlays the deposit and metasedimentary basement rock is water-bearing and more 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 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 April 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.

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 41 for details).

These water inflows have 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.

Rabbit Lake

We temporarily reduced our underground activities at Rabbit Lake in November 2007, because there was an increase in water flow from a mining area while an equipment upgrade was limiting surface water-handling system capacity. Rabbit Lake resumed normal mining operations in late December 2007, after the source of the water inflow was plugged. We suspended mining activities at Rabbit Lake in 2016.

There is no guarantee that there will not be water inflows at McArthur River, Cigar Lake or Rabbit 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 or remediation activities
- loss of mineral reserves
- a material increase in capital or operating costs.

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, radiation protection, ore-handling and transport and other mining-related challenges.

As we ramp up production at 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 and variable dilution, recovery values, chemical ore characteristics, performance of the water treatment system, mining productivity, and equipment reliability. There is a risk that the ramp up to full production may take longer than planned and that the full production rate may not be achieved on a sustained and consistent basis.

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 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 result in complications in attaining the effluent concentrations included in the licensing basis.

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.

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

With our Tier One strategy, our main sources of uranium production are our mines at McArthur River (47% of 2016 production), Cigar Lake (32% of 2016 production) and Inkai (13% of 2016 production). 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.

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.

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, introducing system security configuration standards and access control measures.

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 and that such security breaches will not occur or, if they do occur, that they will be adequately addressed in a timely manner.

Such a breach could result in unauthorized access to proprietary or sensitive information, destruction or corruption of data, disruption or delay in our business activities, and a negative effect on our reputation. 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

The McArthur River, Cigar Lake and Inkai mines are currently 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 as 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 AREVA 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:

- 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.

Generally development projects have no operating history that can be used to estimate future cash flows. We have to 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. Delays, additional costs or reduced 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 the development of new mines, or expand existing operations, economically or on a timely basis.

Aging facilities

Our Port Hope fuel services facilities are aging. This exposes us to a number of 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, fuel services 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 and train qualified successors for our senior and operating positions, it could 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. At December 31, 2016, we had 3,580 employees (including employees of our subsidiaries). This includes 830 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

- The collective agreements with the bargaining unit employees at our conversion facilities at Port Hope expires June 2019.
- The collective agreement with the bargaining unit employees at the McArthur River and Key Lake operations expires December 31, 2017.
- The collective agreement with the bargaining unit employees at CFM expires June 2018.

We cannot predict whether we 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 calibre 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 an 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, Kintyre 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 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.

Our joint venture participant in Kazakhstan is a state entity, 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 or results of operations.

Supplies and contractors

Supplies

We buy reagents and other production inputs and supplies from suppliers around the world. If there is a shortage 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.

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 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.

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.

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 deliver products on a timely basis.

Our activities could be negatively affected if 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 long and short-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
- forward contracts of U_3O_8 supplies for nuclear power plants
- political and economic conditions in countries producing and buying uranium
- reprocessing of used reactor fuel and the re-enrichment of depleted uranium tails
- sales of excess civilian and military inventories of uranium by governments and industry participants
- levels of uranium production and production costs
- significant interruptions in production or delays in expansion plans or new mines going into production
- investment and hedge fund activity in the uranium market.

We cannot predict the effect that any one or all of these factors will have on the price of U_3O_8 and uranium conversion services. Prices have fluctuated widely in the last several years, and there have been significant declines in U_3O_8 prices since 2011.

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

	2012	2013	2014	2015	2016
High	$52.13	$43.88	$39.50	$39.45	$34.70
Low	41.75	34.50	28.23	34.23	18.00

Spot UF_6 conversion values
US$/kg U

High	$10.50	$10.50	$ 8.25	$ 8.25	$ 6.88
Low	6.63	8.50	7.25	6.88	5.93

The next table shows the range in term prices over the last five years.

Range of term uranium prices
US$/lb of U_3O_8

	2012	2013	2014	2015	2016
High	$61.25	$57.00	$50.00	$49.50	$44.00
Low	56.50	50.00	44.00	44.00	30.00

Term UF_6 conversion values
US$/kg U

High	$16.75	$16.75	$16.00	$16.00	$12.75
Low	16.75	16.00	16.00	13.50	12.25

Notes

(1) Spot and term uranium prices are the average of prices published monthly by Ux Consulting and from The Nuexco Exchange Value, published by TradeTech.
(2) Spot and term UF_6 conversion values are the average of the North American prices published monthly by Ux Consulting 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. In 2016, we suspended production at Rabbit Lake and curtailed production at our US mines.

Declines in U_3O_8 prices could also delay or deter a decision to build or begin commercial production at one or more of our development projects, or adversely affect our ability to finance these development projects. Either of these 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 marketing strategy as a way 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 fixed-price 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$. In addition, this strategy has provided us with a measure of protection for our business through the low uranium prices experienced since 2011. Based upon our current contract portfolio and current level of production, we are heavily committed under long-term contracts through 2019, however those commitments begin to decrease starting in 2020. 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.

Through our uranium segment and NUKEM, we make purchases on the spot market and under long-term agreements so we can put material into higher priced 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. They dictate how much uranium concentrate we can produce, and for how many years.

The uranium mineral reserves and resources reported in this AIF are estimates, and are therefore subjective. 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 volume and grade of reserves we actually recover, and rates of production from our current mineral reserves, may be less than the estimate of the reserves. Fluctuations in the market price of uranium, 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 ultimately be reclassified as 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 reclassified as 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.

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
- 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 or 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 assume that development, mining and production plans proceed as expected
- Cigar Lake assume that development, mining 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
- natural phenomena, such as inclement weather conditions or floods
- labour shortages or strikes
- development, mining or production plans for McArthur River are delayed or do not succeed for any reason
- development, mining or production plans for Cigar Lake are delayed or do not succeed for any reason
- difficulties in milling Cigar Lake ore at McClean Lake
- development, mining or production plans for Inkai are delayed or do not succeed 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, 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, 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.

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. 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 and 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 the potential material negative impact of fluctuating exchange 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.

From 2017 through 2019, we expect:

- in our uranium segment, our five largest customers to account for 53% of our contracted supply of U_3O_8
- in our fuel services segment, our five largest UF_6 conversion customers to account for 51% 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 2016.

In addition, revenues in 2016 from one customer of our uranium, conversion and NUKEM segments represented $223 million (9%) of our total revenues from those businesses. Sales for the Bruce A and B reactors represent a substantial portion of our fuel manufacturing business.

We are currently involved in a dispute with TEPCO regarding its contract termination notice, alleging force majeure, with respect to a uranium supply agreement that it would not withdraw. See 2017 Major Developments on page 7 for details

If we lose any of our largest customers or if any of them curtails their purchases, 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
- 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 February 1, 2017, 97% of our forecast revenue under contract for the period 2017 to 2019 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

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 the projects we have planned for 2017. If we expand our projects or programs overall, we may need to raise additional financing through joint ventures, debt financing, equity financing or other means.

There is no assurance that we will obtain the financing we need, when we need it. Volatile uranium markets, a claim against us, an adverse decision by the court in our CRA litigation, 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.

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 becomes available or there is a change in expert opinion.

Pre-feasibility and feasibility studies contain estimated capital and operating costs, production and economic returns and other estimates that may be significantly different than actual results, and there is no assurance that they will not be different than anticipated or than what was disclosed in the studies. Our estimates may also be different from those of other companies, so they should not be used to project operating profit.

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 whether or not 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.

3 – Political risks

Foreign investments and operations

We do business in countries and jurisdictions outside of Canada and the United States, 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 the 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
- crime, corruption, making improper payments or providing benefits that may violate Canadian or United States 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
- royalty and tax increases or other claims by government entities, including retroactive claims
- expropriation and nationalization
- delays in obtaining the necessary permits or the 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, and 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
- 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 United States law or laws relating to foreign corrupt practices.

We enter into 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 assess the political risk associated with each of our foreign investments and have political risk insurance to mitigate part of the losses that can arise from some of these risks. From time to time, we assess the costs and benefits of maintaining this insurance and may decide not to buy this coverage in the future. There is no assurance that the insurance will be adequate to cover every loss related to our foreign investments, that coverage will continue to be available or that premiums will be economically feasible. These losses could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects if they are not adequately covered by insurance.

Kazakhstan

JV Inkai has a contract with the Kazakhstan government and was granted licences to conduct mining and exploration activities there. Its ability to conduct these activities, however, depends on licences being renewed and other government approvals being granted.

To maintain and increase production at Inkai, we need ongoing support, agreement and co-operation from Kazatomprom 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 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 all three Inkai blocks, as strategic deposits. The Kazakhstan government re-approved this list in 2011 and the three Inkai 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.

A new subsoil use law which went into effect in 2010 and was amended most recently in 2016 weakens the stabilization guarantee of the prior law. This development reflects increased political risk in Kazakhstan.

The Kazakhstan government is developing a new subsoil law to replace the current subsoil law. The December 2016 draft of the new law does not address licences issued and resource use contracts executed before its enactment. Therefore, the status of JV Inkai's resource use contract and licences under the proposed law is unclear. This development also reflects 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 assets 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 operations 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. There is no assurance that the laws in Kazakhstan protecting 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 of the risks described above.

2016 Implementation Agreement

In 2016, we signed the Implementation Agreement with Kazatomprom and JV Inkai to restructure and enhance Inkai. (See page 55 for details). The Implementation Agreement is subject to obtaining all required government approvals, including amendments to the resource use contract, which in February 2017, we estimated it would take 10 to 18 months to obtain. There is a risk that all required government approvals to close, or give effect to, the contemplated transactions, including approval of the amendments to the resource use contract from Kazakhstan state authorities, will not be received or will not be received on a timely basis. This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or prospects.

Block 3 Exploration Period Expiry

The block 3 exploration area at Inkai is governed by an exploration licence granted by the Kazakhstan government. Amendment No. 5 to JV Inkai's resource use contract granted an extension of the exploration period to July 13, 2018. There is a risk that JV Inkai may not complete the work on the final appraisal of block 3's mineral potential prior to July 13, 2018 and a further extension may be required. There is no assurance that a further extension will be granted or what the terms and conditions of such an extension would be. This may result in the loss of block 3 without compensation for the loss of JV Inkai's investment.

Cameco, through a subsidiary, advanced funds for JV Inkai's exploration and evaluation work on block 3 and, as of December 31, 2016, the principal and interest amounted to $168 million (US). Under the loan agreement, JV Inkai is to repay Cameco from the proceeds of the sale of its production. On January 20, 2017, a payment of $30 million (US) was received. If the loan remains outstanding on July 13, 2018, and an extension of the block 3 exploration period is required to complete the final appraisal, there is a risk we may not be repaid.

Cameco believes that the risk will be mitigated if the Implementation Agreement closes prior to July 13, 2018 as the Implementation Agreement provides, subject to closing, that the loan made by a Cameco subsidiary to JV Inkai to fund exploration and evaluation of block 3 will be restructured to provide payment on a priority basis.

See pages 57 to 60 for a more detailed discussion of the regulatory and political environment in Kazakhstan.

Australia

Western Australian Government's uranium policy

State governments in Australia have prohibited uranium mining or uranium exploration from time to time, and from 2002 to 2008, uranium mining was banned in Western Australia, where our Kintyre and Yeelirrie projects are located. 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.

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 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 our 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 have to obtain and maintain many approvals, licences and permits from the appropriate regulatory authorities, but there is no assurance that they will grant or renew them, approve any additional licences or permits for potential changes to our 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 aboriginal 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 our operations or prevent them from operating, 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 the 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 operations that have been closed. There is no assurance that we have been or will be in full compliance with all of 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, 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 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.

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 future 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 such 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 118 for more information.

We are currently involved in a dispute with TEPCO regarding its contract termination notice, alleging force majeure, with respect to a uranium supply agreement that it would not withdraw. See 2017 Major Developments on page 7 for details.

We are also currently involved in tax litigation with CRA and have received RARs from the IRS. See *Transfer pricing disputes* at pages 95 to 98. In addition, we are subject to the risk that CRA or the IRS may challenge or seek to reassess our income tax returns on a similar basis for other previously reported periods, and the risk that CRA, the IRS or other tax authorities in other countries may seek to challenge or reassess our income tax returns on a different basis for the same periods or other previously reported periods. Substantial success for CRA would be material, and other unfavourable outcomes of challenges or reassessments initiated by the IRS or the tax authorities in other countries could be material, to our cash flows, financial condition, results of operations or prospects.

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 the resource use contract for JV Inkai stipulates that any dispute between the parties is to be submitted to international arbitration. 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 exploit all of our material properties, and those rights are in good standing to the best of 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. Cameco has signed agreements, or is in negotiations, with the communities closest to our operations to help mitigate the risks associated with potential First Nations and Métis land or consultation claims that could impact our operations. These agreements provide substantial socioeconomic opportunities to these communities and also provide us with support for our 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.

Saskatchewan

Exploration, development, mining, milling and decommissioning activities at our various properties in Saskatchewan may be affected by claims by the First Nations and Métis, and related consultation issues.

We also face similar issues with our exploration 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.

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

Although the safety record of nuclear reactors has generally been very good, there have been accidents and other unforeseen problems in the former USSR, the United States, Japan and in other countries. The consequences of a major incident can be severe and include loss of life, property damage and environmental damage. An accident or other significant event at a nuclear plant could result in increased regulation, less public support for nuclear energy, lower demand for uranium and lower uranium prices. This could have a material and adverse effect on our earnings, cash flows, financial condition, results of operations or 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.

On March 11, 2011, a significant earthquake struck the northeast coast of Japan, producing a tsunami and causing massive damage and destruction along the Pacific coastline of Japan. This included damage to the Fukushima-Daiichi nuclear power plant, located in the town of Okuma, about 210 kilometres north of Tokyo. The plant suffered a series of power and equipment failures affecting the cooling water systems and released radioactive material into the environment. The incident at the Fukushima-Daiichi nuclear power plant has called into question public confidence in nuclear energy in Japan and elsewhere around the world. This had an immediate and sustained negative impact on uranium prices and the share price of companies involved in the uranium industry.

Prior to the events of March 11, 2011, Japan had 54 nuclear reactors, which represented 12% of global nuclear generating capacity. As of February 23, 2017, Japan has three reactors operating. Before any reactors can be restarted, they must demonstrate an ability to meet new safety standards that were developed by Japan's Nuclear Regulatory Authority (NRA). An additional nine reactors, as of February 23, 2017, are under various stages of review under these standards.

Germany has decided to revert to its previous phase out policy, shutting down eight of its reactors and plans to shut down the remaining nine reactors by 2022.

Lack of public acceptance of nuclear technology would have an adverse effect on the demand for nuclear power and potentially increase the regulation of the nuclear power industry. 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 of time, 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. 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 and hydro-electricity. These sources are somewhat interchangeable with nuclear energy, particularly over the longer term.

If lower prices of oil, natural gas, coal and hydro-electricity are sustained over time, it may result in lower demand for uranium concentrates and uranium conversion services, which could lead to lower uranium prices. Growth of the uranium and nuclear power industry will depend on continuing and growing acceptance of nuclear technology to generate electricity. Unique political, technological and environmental factors affect the nuclear industry, exposing it to the risk of public opinion, which could have a negative effect on the demand for nuclear power and increase the regulation of the nuclear power industry. An accident at a nuclear reactor anywhere in the world could affect the acceptance of nuclear energy and the future prospects for nuclear generation, which could have a material and adverse effect on our future 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 providing uranium conversion services, is highly competitive. We market uranium to utilities, and 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.

The supply of uranium is affected by a number of international trade agreements and policies. These and any similar future agreements, governmental 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. If we cannot supply uranium to these important markets, it could have a material and adverse effect on our earnings, cash flows, financial condition or results of operations.

For conversion services, we compete with three other 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.

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, 2016, in note 20 to the 2016 financial statements.

We are currently involved in a dispute with TEPCO regarding its contract termination notice, alleging force majeure, with respect to a uranium supply agreement it would not withdraw. See 2017 Major Developments on page 7 for details.

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.

As at December 31, 2016, we had 395,792,522 common shares outstanding. These were fully paid and non-assessable.

As of March 1, 2017, there were 9,302,291 stock options outstanding, which includes the grant on March 1, 2017, to acquire common shares of Cameco under the company's stock option plan with exercise prices ranging from $14.70 to $39.53.

In 2016, we granted the following stock options:

March 1, 2016 – 1,273,340 stock options to acquire common shares of Cameco at an exercise price of $16.38.

In 2017, we granted the following stock options:

March 1, 2017 – 1,373,040 stock options to acquire common shares of Cameco at an exercise price of $14.70.

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-chairman 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
- amalgamate, if it would require an amendment to Part 1 of Schedule B of the articles, or
- amend 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.

There have been instances in prior years, including 2016, when we have limited 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, in-depth 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 liquidity position.

The rating agencies may revise or withdraw these ratings if they believe circumstances warrant. A material downgrade in our credit ratings would likely increase our cost of funding significantly and our ability to access funding and capital through the capital markets could be reduced.

We have four series of senior unsecured debentures outstanding:

- $500 million of debentures issued on September 2, 2009 that have an interest rate of 5.67% per year and mature on September 2, 2019
- $400 million of debentures issued on November 14, 2012 that have an interest rate of 3.75% per year and mature on November 14, 2022
- $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.

We have a commercial paper program which is supported by a $1.25 billion unsecured revolving credit facility that matures November 1, 2020. As of December 31, 2016, 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 (high)**	**Stable**
S&P	**A-2[1]**	**Stable**
Senior Unsecured Debentures		
DBRS	**BBB (high)**	**Stable**
S&P	**BBB**	**Stable**

1 Canadian National Scale Rating. The Global Scale Rating is A-2.

DBRS provides guidance for the outlook of the assigned rating using the rating trend. The rating trend is an indication of the likelihood and direction that the rating could change in the future, should present tendencies continue, or in some cases, if challenges are not overcome.

S&P uses rating outlooks to assess the potential direction of a long-term credit rating over the intermediate term. The outlook is an indication of the likelihood that the rating could change in the future.

The rating agencies may revise or withdraw these ratings if they believe circumstances warrant. A change in our credit ratings could affect our cost of funding and our access to capital through the capital markets.

DBRS identified our current dispute with the CRA and de-stocking of customer inventories as a result of further delay of Japanese reactors re-starts, as factors giving rise to unusual risks. In addition, DBRS identified the high ore grade and challenging mining conditions at certain key operations as giving rise to higher project and development risks than those faced by other miners.

S&P identified our current dispute with the CRA and the company's financial risk profile being comparatively less stable with greater sensitivity to potential industry-related challenges as factors giving rise to unusual risks.

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 (high)**	• upper end of the R-2 category • represents "adequate credit quality" • fourth highest of 10 available credit ratings
S&P **rates commercial paper by categories ranging from a high of *A-1 (high)* to a low of *D***	**A-2**	• represents "satisfactory capacity to meet its financial commitments on the obligation" • fourth highest of eight available credit ratings

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 (high)**	• higher end of the BBB category • represents “adequate credit quality” • fourth highest of 10 available credit ratings • 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**	• middle of the BBB category • exhibits “adequate protection parameters” • fifth highest of 10 available credit ratings • adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity to meet financial commitment • “stable” outlook means the rating is not likely to be changed

Payments to Credit Rating Agencies

Over the last two years, we paid $399,000 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 *Fourth supplemental indenture* with CIBC Mellon Trust Company (CIBC Mellon) on September 2, 2009, relating to the issue of $500 million in unsecured debentures at an interest rate of 5.67% per year and due in 2019.

We entered into the *Fifth supplemental indenture* with CIBC Mellon on November 14, 2012, relating to the issue of $400 million in unsecured debentures at an interest rate of 3.75% per year and due in 2022.

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.

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.

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
CST Trust Company
P.O. Box 700, Station B
Montreal, Quebec H3B 3K3

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 2016.

2016	High ($)	Low ($)	Volume
January	17.03	15.06	21,091,548
February	17.19	14.56	22,176,338
March	17.67	15.50	24,986,546
April	17.00	15.52	22,626,246
May	15.73	14.75	19,312,997
June	15.75	13.62	22,723,955
July	14.39	12.31	19,797,466
August	12.82	11.94	24,791,811
September	12.30	11.05	25,151,681
October	11.31	9.88	22,741,126
November	12.65	9.93	32,458,485
December	14.63	12.41	34,559,454

Dividend

Our board of directors has established a quarterly dividend of $0.10 ($0.40 per year) per common share. The dividend is reviewed quarterly based on our cash flow, earnings, financial position, strategy and other relevant factors.

The table below shows the dividends per common share for the last three fiscal years.

	2016	2015	2014
Cash dividends	$0.40	$0.40	$0.40
Total dividends paid (millions)	$ 158	$ 158	$ 158

Governance

Directors

Director	Board committees	Principal occupation or employment
Ian Bruce Calgary, Alberta, Canada Director since 2012	Human resources and compensation (Chair) Audit and finance	Corporate director as of 2010 2010 to 2011 – Co-Chairman, Peters & Co. Limited
Daniel Camus Geneva, Switzerland Director since 2011	Audit and finance Human resources and compensation Nominating, corporate governance and risk	Corporate director as of 2011 2012 to present – Chief Financial Officer of The Global Fund to Fight Aids, Tuberculosis and Malaria 2005 to 2010 – Head of Strategy and International Activities of Electricité de France SA
John Clappison Toronto, Ontario, Canada Director since 2006	Audit and finance (Chair) Nominating, corporate governance and risk	Corporate director as of 2006

Director	Board committees	Principal occupation or employment
Donald Deranger Prince Albert, Saskatchewan, Canada Director since 2009	Reserves oversight Safety, health and environment	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 2001 to May 2013 – President of Points Athabasca Contracting LP 2003 to 2012 – Athabasca Vice Chief of the Prince Albert Grand Council
Catherine Gignac Mississauga, Ontario, Canada Director since 2014	Reserves oversight (Chair) Audit and finance Safety, health and environment	Corporate director as of 2011 September 2011 to 2015 – principal of Catherine Gignac & Associates April 2009 to September 2011 – mining equity research analyst with NCP Northland Capital Partners
Tim Gitzel Saskatoon, Saskatchewan, Canada Director since 2011	None	July 2011 to present – President and Chief Executive Officer May 2010 to June 2011 – President
James Gowans Surrey, British Columbia, Canada Director since 2009	Safety, health and environment (Chair) Nominating, corporate governance and risk Reserves oversight	January 2016 to present – President and CEO of Arizona Mining Inc., an exploration and development company August to December 2015 – Senior Advisor to the Chair of the Board of Barrick Gold Corporation July 2014 to August 2015 – Co-President of Barrick Gold Corporation January 2014 to July 2014 – Executive Vice-President and Chief Operating Officer of Barrick Gold Corporation January 2011 to January 2014 – Managing Director, Debswana Diamond Company
Kathryn Jackson Sewickley, Pennsylvania, USA Director since 2017	None	Corporate director as of 2008 2015 to present – Director, Energy & Technology Consulting, KeySource, Inc. 2014 to 2015 – Senior Vice-President and Chief Technology Officer of RTI International Metals Inc. 2008 to 2014 – Senior Vice-President and Chief Technology Officer of Westinghouse Electric Company
Donald Kayne Tsawwassen, British Columbia, Canada Director since 2016	Human resources and compensation Reserves oversight 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 Chief Executive Officer of Canfor Corporation 2000 – 2011 – Vice-President, Sales and Marketing, Canfor Corporation
Anne McLellan Edmonton, Alberta, Canada Director since 2006	Nominating, corporate governance and risk (Chair) Human resources and compensation	May 2015 to present – Chancellor of Dalhousie University July 2006 to present – Senior Advisor at Bennett Jones LLP July 2006 to June 2013 – Distinguished Scholar in Residence at Alberta Institute for American Studies, University of Alberta
Neil McMillan Saskatoon, Saskatchewan, Canada Director since 2002	Chair	Corporate director as of April 2014 2004 to March 2014 – President and Chief Executive Officer, Claude Resources Inc.

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
Neil McMillan Chair of the Board Saskatoon, Saskatchewan, Canada	Corporate director as of April 2014 2004 to March 2014 – President and Chief Executive Officer, Claude Resources Inc.
Tim Gitzel President and Chief Executive Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2011 May 2010 to June 2011 – President
Grant Isaac Senior Vice-President and Chief Financial Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2011 July 2009 to July 2011 – Senior Vice-President, Corporate Services
Sean Quinn Senior Vice-President, Chief Legal Officer and Corporate Secretary Saskatoon, Saskatchewan, Canada	Assumed current position April 2014 May 2004 to March 2014 – Vice-President, Law and General Counsel
Robert Steane Senior Vice-President and Chief Operating Officer Saskatoon, Saskatchewan, Canada	Assumed current position May 2010
Alice Wong Senior Vice-President and Chief Corporate Officer Saskatoon, Saskatchewan, Canada	Assumed current position July 2011 October 2008 to July 2011 – Vice-President, Safety, Health, Environment, Quality and Regulatory Relations

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 539,338 as at March 3, 2017. 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 who has been a director of Laricina Energy Limited (Laricina), a junior oilsands private company, since 2013. Laricina was under a CCAA protection order from March 26, 2015 to February 1, 2016.

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 four members: John Clappison (chair), Ian Bruce, Daniel Camus, and Catherine Gignac. 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

John Clappison, a corporate director, is the former managing partner of the Greater Toronto Area office of PricewaterhouseCoopers LLP (PwC). He is our committee chair and currently serves on the boards of two other publicly-traded companies, on one of which he is the chair of the audit committee. Mr. Clappison has over 35 years of experience as a practicing chartered accountant and was an audit partner at PwC. He serves on boards of other private and not-for-profit organizations. Mr. Clappison is a chartered accountant and a Fellow of the Chartered Professional Accountants of Ontario.

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. Mr. Bruce was a board member and chair of the Investment Industry Association of Canada, and also served as a director of the public companies Hardy Oil & Gas plc from 2008 to 2012 and Taylor Gas Liquids Ltd. from 1997 to 2008. He currently serves on the board of two other publicly-traded companies, on one of which he is the chair of the audit committee and one of which he is a member of the audit committee, and three private companies. 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 boards of two other publicly-traded companies, on one of which he is the chair of the audit committee. He is the 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 including, NCP Northland Capital Partners. She currently serves on the boards of two other publicly-traded companies, on one of which she is the chair of its board and on the other she is a member of its audit committee. 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.

Auditors' fees

The table below shows the fees we paid to the external auditors for services in 2016 and 2015:

	2016 ($)	% of total fees (%)	2015 ($)	% of total fees (%)
Audit fees				
Cameco	1,559,400	57.7	1,939,000	57.3
Subsidiaries	628,500	23.3	904,900	26.7
Total audit fees	2,187,900	81.0	2,843,900	84.0
Audit-related fees				
Translation services	—	—	—	0.0
Pensions and other	28,700	1.1	27,300	0.8
Total audit-related fees	28,700	1.1	27,300	0.8
Tax fees				
Compliance	158,000	5.8	150,500	4.5
Planning and advice	327,300	12.1	362,600	10.7
Total tax fees	485,300	17.9	513,100	15.2
All other fees	—	0.0	—	0.0
Total fees	2,701,900	100.00	3,384,300	100.00

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 2016 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 also 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 and employees of Cameco are listed under *Mineral reserves and resources* on page 74. 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 as delegated by the board, (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 deems necessary to carry out its duties effectively. The committee will meet separately in private with the external auditors, the internal auditor and 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 reserves oversight 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 international business conduct policy 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 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 authorised to review all such transactions and situations. At the next committee meeting, the chair shall report the results of such review. Ensure that political and charitable donations conform with policies and budgets approved by the board.

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 to it by the nominating, corporate governance and risk committee.

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 two-year business plan;

   (e) the activities of the corporation's trading group including financial results, compliance with approval limits, any significant breaches of policies, and risk measures on significant positions and the portfolio in aggregate;

   (f) the corporation's insurance program;

   (g) directors' and officers' liability insurance and indemnity agreements;

   (h) the annual approval to elect the end-user exception under Dodd Frank; and

   (i) 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 deems 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 deems 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.

EXHIBIT 99.2

Cameco Corporation

2016 Consolidated Audited Financial Statements

February 8, 2017



Cameco Corporation
2016 consolidated financial statements

February 8, 2017

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, 2016.

KPMG LLP has audited the consolidated financial statements in accordance with Canadian generally accepted auditing standards and 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, 2017

Original signed by Grant E. Isaac
Senior Vice-President and Chief Financial Officer
February 8, 2017

Independent auditors' report

To the Shareholders and Board of Directors of Cameco Corporation:

We have audited the accompanying consolidated financial statements of Cameco Corporation, which comprise the consolidated statements of financial position as at December 31, 2016 and December 31, 2015, the consolidated statements of earnings, comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's responsibility for the consolidated financial statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of Cameco Corporation as at December 31, 2016 and December 31, 2015 and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Original signed by KPMG LLP

Chartered Professional Accountants
February 8, 2017
Saskatoon, Canada

Consolidated statements of earnings

For the years ended December 31 ($Cdn thousands, except per share amounts)	Note	2016	2015
Revenue from products and services		$2,431,404	$2,754,378
Cost of products and services sold		1,596,235	1,744,815
Depreciation and amortization		371,689	312,518
Cost of sales		1,967,924	2,057,333
Gross profit		463,480	697,045
Administration		206,652	186,810
Impairment charges	8	361,989	215,488
Exploration		42,579	40,259
Research and development		4,952	6,587
Other operating income	15	(34,075)	—
Loss on disposal of assets	8	23,168	2,326
Earnings (loss) from operations		(141,785)	245,575
Finance costs	18	(111,906)	(103,615)
Gain (loss) on derivatives	25	34,407	(280,610)
Finance income		4,379	5,417
Share of loss from equity-accounted investees		—	(758)
Other income	19	60,671	54,723
Loss before income taxes		(154,234)	(79,268)
Income tax recovery	20	(94,355)	(142,630)
Net earnings (loss)		**$ (59,879)**	**$ 63,362**
Net earnings (loss) attributable to:			
Equity holders		(61,611)	65,286
Non-controlling interest		1,732	(1,924)
Net earnings (loss)		**$ (59,879)**	**$ 63,362**
Earnings (loss) per common share attributable to equity holders:			
Basic	21	**$ (0.16)**	**$ 0.16**
Diluted	21	**$ (0.16)**	**$ 0.16**

See accompanying notes to consolidated financial statements.

Consolidated statements of comprehensive income

For the years ended December 31 ($Cdn thousands)	Note	2016	2015
Net earnings (loss)		**$ (59,879)**	**$ 63,362**
Items that will not be reclassified to net earnings:			
Remeasurements of defined benefit liability [note 24] [1]		(2,109)	2,015
Items that are or may be reclassified to net earnings:			
Exchange differences on translation of foreign operations		(77,341)	182,089
Unrealized gains on available-for-sale assets[2]		3,790	22
Other comprehensive income (loss), net of taxes		**(75,660)**	**184,126**
Total comprehensive income (loss)		**$(135,539)**	**$247,488**
Other comprehensive income (loss) attributable to:			
Equity holders		$ (75,826)	$184,288
Non-controlling interest		166	(162)
Other comprehensive income (loss) for the year		**$ (75,660)**	**$184,126**
Total comprehensive income (loss) attributable to:			
Equity holders		$(137,437)	$249,574
Non-controlling interest		1,898	(2,086)
Total comprehensive income (loss) for the year		**$(135,539)**	**$247,488**

1 Net of tax (2016 - $834; 2015 - $(666))
2 Net of tax (2016 - $(399); 2015 - $(3))

See accompanying notes to consolidated financial statements.

Consolidated statements of financial position

As at December 31 ($Cdn thousands)	Note	2016	2015
Assets			
Current assets			
Cash and cash equivalents		$ 320,278	$ 458,604
Accounts receivable	6	242,482	246,865
Current tax assets		11,552	493
Inventories	7	1,287,939	1,285,266
Supplies and prepaid expenses		169,084	180,544
Current portion of long-term receivables, investments and other	10	10,498	12,193
Total current assets		2,041,833	2,183,965
Property, plant and equipment	8	4,655,586	5,228,160
Goodwill and intangible assets	9	203,310	217,130
Long-term receivables, investments and other	10	512,484	449,236
Investments in equity-accounted investees		—	2,472
Deferred tax assets	20	835,985	713,674
Total non-current assets		6,207,365	6,610,672
Total assets		**$8,249,198**	**$8,794,637**
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable and accrued liabilities	11	$ 312,900	$ 317,856
Current tax liabilities		36,413	56,494
Dividends payable		39,579	39,579
Current portion of other liabilities	14	60,744	241,113
Current portion of provisions	15	19,619	16,595
Total current liabilities		469,255	671,637
Long-term debt	13	1,493,327	1,492,237
Other liabilities	14	122,988	132,142
Provisions	15	889,163	918,163
Deferred tax liabilities	20	15,937	35,179
Total non-current liabilities		2,521,415	2,577,721
Shareholders' equity			
Share capital		1,862,646	1,862,646
Contributed surplus		216,213	209,115
Retained earnings		3,019,872	3,241,902
Other components of equity		159,640	233,357
Total shareholders' equity attributable to equity holders		5,258,371	5,547,020
Non-controlling interest		157	(1,741)
Total shareholders' equity		5,258,528	5,545,279
Total liabilities and shareholders' equity		**$8,249,198**	**$8,794,637**

Commitments and contingencies [notes 8, 15, 20]

See accompanying notes to consolidated financial statements.

Consolidated statements of changes in equity

($Cdn thousands)	Attributable to equity holders							
	Share capital	Contributed surplus	Retained earnings	Foreign currency translation	Available-for-sale assets	Total	Non-controlling interest	Total equity
Balance at January 1, 2016	$1,862,646	$ 209,115	$3,241,902	$233,918	$ (561)	$5,547,020	$ (1,741)	$5,545,279
Net earnings (loss)	—	—	(61,611)	—	—	(61,611)	1,732	(59,879)
Other comprehensive income (loss)	—	—	(2,109)	(77,507)	3,790	(75,826)	166	(75,660)
Total comprehensive income (loss)	—	—	(63,720)	(77,507)	3,790	(137,437)	1,898	(135,539)
Share-based compensation	—	14,101	—	—	—	14,101	—	14,101
Restricted and performance	—	—	—	—	—	—	—	—
share units released	—	(7,003)	—	—	—	(7,003)	—	(7,003)
Dividends	—	—	(158,310)	—	—	(158,310)	—	(158,310)
Balance at December 31, 2016	$1,862,646	$ 216,213	$3,019,872	$156,411	$ 3,229	$5,258,371	$ 157	$5,258,528
Balance at January 1, 2015	$1,862,646	$ 196,815	$3,333,099	$ 51,667	$ (583)	$5,443,644	$ 160	$5,443,804
Net earnings (loss)	—	—	65,286	—	—	65,286	(1,924)	63,362
Other comprehensive income (loss)	—	—	2,015	182,251	22	184,288	(162)	184,126
Total comprehensive income (loss)	—	—	67,301	182,251	22	249,574	(2,086)	247,488
Share-based compensation	—	16,853	—	—	—	16,853	—	16,853
Dividends	—	—	(158,313)	—	—	(158,313)	—	(158,313)
Restricted and performance share units released	—	(4,553)	—	—	—	(4,553)	—	(4,553)
Change in ownership interest in subsidiary	—	—	(185)	—	—	(185)	185	—
Balance at December 31, 2015	$1,862,646	$ 209,115	$3,241,902	$233,918	$ (561)	$5,547,020	$ (1,741)	$5,545,279

See accompanying notes to consolidated financial statements.

Consolidated statements of cash flows

For the years ended December 31 ($Cdn thousands)	Note	2016	2015
Operating activities			
Net earnings (loss)		$ (59,879)	$ 63,362
Adjustments for:			
Depreciation and amortization		371,689	312,518
Deferred charges		(95,873)	5,834
Unrealized loss (gain) on derivatives		(110,358)	92,166
Share-based compensation	23	14,101	16,853
Loss on sale of assets		23,168	2,326
Finance costs	18	111,906	103,615
Finance income		(4,379)	(5,417)
Share of loss in equity-accounted investees		—	758
Impairment charges	8	361,989	215,488
Other income	19	(1,630)	(54,409)
Other operating income	15	(34,075)	—
Income tax recovery	20	(94,355)	(142,630)
Interest received		1,838	3,922
Income taxes paid		(102,628)	(92,758)
Other operating items	22	(69,134)	(71,618)
Net cash provided by operations		**312,380**	**450,010**
Investing activities			
Additions to property, plant and equipment		(216,908)	(358,562)
Decrease (increase) in long-term receivables, investments and other		(3,080)	17,557
Proceeds from sale of property, plant and equipment		2,168	198
Net cash used in investing		**(217,820)**	**(340,807)**
Financing activities			
Decrease in debt		—	(10)
Interest paid		(70,446)	(69,507)
Dividends paid		(158,310)	(158,313)
Net cash used in financing		**(228,756)**	**(227,830)**
Decrease in cash and cash equivalents, during the year		(134,196)	(118,627)
Exchange rate changes on foreign currency cash balances		(4,130)	10,648
Cash and cash equivalents, beginning of year		458,604	566,583
Cash and cash equivalents, end of year		**$ 320,278**	**$ 458,604**
Cash and cash equivalents is comprised of:			
Cash		$ 79,730	$ 240,603
Cash equivalents		240,548	218,001
Cash and cash equivalents		**$ 320,278**	**$ 458,604**

See accompanying notes to consolidated financial statements.

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, 2016 comprise Cameco Corporation and its subsidiaries (collectively, the Company or Cameco) and the Company's interests in associates and joint arrangements. The Company is primarily engaged in the exploration for and the development, mining, refining, conversion, fabrication and trading of uranium for sale as fuel for generating electricity in nuclear power reactors in Canada and other countries.

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, 2017.

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
Available-for-sale financial assets	Fair value
Liabilities for cash-settled share-based payment arrangements	Fair value
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 transferred to 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.

F. 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.

G. 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.

H. 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.

I. Leased assets

Leases which result in the Company receiving substantially all the risks and rewards of ownership are classified as finance leases. Upon initial recognition, the leased asset is measured at an amount equal to the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to that asset. Minimum lease payments made under finance leases are apportioned between finance cost and the reduction of the outstanding liability. The finance cost is allocated to each period of the lease term to produce a constant periodic rate of interest on the remaining balance of the liability.

Lease agreements that do not meet the recognition criteria of a finance lease are classified and recognized as operating leases and are not recognized in the Company's consolidated statements of financial position. Payments made under operating leases are charged to income on a straight-line basis over the lease term.

J. Finance income and finance costs

Finance income comprises interest income on funds invested and gains on the disposal of available-for-sale financial assets. 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.

K. 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.

L. Impairment

i. Non-derivative financial assets

Financial assets not classified as fair value through profit and loss are assessed at each reporting date to determine whether there is objective evidence of impairment. Objective evidence that financial assets (including equity securities) are impaired can include default or delinquency by a debtor, 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 the disappearance of an active market for a security. In addition, for an investment in an equity security, a significant or prolonged decline in its fair value below its cost is objective evidence of impairment.

Impairment losses on available-for-sale financial assets are recognized by transferring the cumulative loss that has been recognized in other comprehensive income, and presented in equity, to earnings. The cumulative loss that is removed from other comprehensive income and recognized in earnings is the difference between the acquisition cost, net of any principal payment and amortization, and the current fair value, less any impairment loss previously recognized in earnings.

If, in a subsequent period, the fair value of an impaired available-for-sale debt security increases and the increase can be related objectively to an event occurring after the impairment loss was recognized in earnings, then the impairment loss is reversed through earnings, otherwise, it is reversed through other comprehensive income. Impairment losses on available-for-sale equity securities that are recognized in earnings are never reversed through earnings.

ii. Non-financial assets

The carrying amounts of Cameco's non-financial assets are reviewed at each reporting date 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 at each reporting date 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.

M. 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.

N. 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.

O. 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 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.

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.

P. Revenue recognition

Cameco supplies uranium concentrates and uranium conversion services to utility customers.

Cameco recognizes revenue on the sale of its nuclear products when the risks and rewards of ownership pass to the customer and collection is reasonably assured. Cameco's sales are pursuant to an enforceable contract that indicates the type of sales arrangement, pricing and delivery terms, as well as details related to the transfer of title.

Cameco has three types of sales arrangements with its customers in its uranium and fuel services businesses. These arrangements include uranium supply, toll conversion services and conversion supply (converted uranium), which is a combination of uranium supply and toll conversion services.

Uranium supply

In a uranium supply arrangement, Cameco is contractually obligated to provide uranium concentrates to its customers. Cameco-owned uranium is physically delivered to conversion facilities (Converters) where the Converter will credit Cameco's account for the volume of accepted uranium. Based on delivery terms in a 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, the risks and rewards of ownership have been transferred and Cameco invoices the customer and 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 this point, the risks and rewards of ownership have been transferred and Cameco invoices the customer and recognizes revenue for the toll conversion services.

Conversion supply

In a conversion supply arrangement, Cameco is contractually obligated to provide converted uranium of acceptable origins to its customers. Based on delivery terms in a sales contract with its customer, 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 risks and rewards of ownership have been transferred and Cameco invoices the customer and recognizes revenue for both the uranium supplied and the conversion service provided.

Q. 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.

i. Non-derivative financial assets and financial liabilities

At initial recognition, Cameco classifies each of its financial assets and financial liabilities into one of the following categories:

Fair value through profit or loss

A financial asset or liability is classified as at fair value through profit or loss if it is classified as held-for-trading or is designated as such on initial recognition. Cameco classifies a financial instrument as held-for-trading if it was acquired principally for the purpose of selling or repurchasing in the near term, or if it is part of a portfolio with evidence of a recent pattern of short-term profit taking. Directly attributable transaction costs are recognized in earnings as incurred. These financial assets and financial liabilities are measured at fair value, with any gains or losses on revaluation being recognized in earnings.

Held-to-maturity

Held-to-maturity investments are financial assets that an entity has the intention and ability to hold until maturity, provide fixed or determinable payments and contain a fixed maturity date. Assets in this category are initially measured at fair value plus any directly attributable transaction costs and subsequently measured at amortized cost using the effective interest method.

Loans and receivables

Loans and receivables are financial assets that provide fixed or determinable payments and are not quoted in an active market. Assets in this category are initially measured at fair value plus any directly attributable transaction costs and subsequently measured at amortized cost using the effective interest method.

Available-for-sale assets

Available-for-sale financial assets are non-derivative financial assets that are either designated in this category or not classified into any of the other categories. These assets are measured at fair value plus any directly attributable transaction costs with any gains or losses on re-measurement recognized in other comprehensive income. Accumulated changes in fair value are recorded as a separate component of equity until the asset is derecognized or impaired, then the cumulative gain or loss in other comprehensive income is transferred to earnings.

Other financial liabilities

This category consists of all non-derivative financial liabilities that do not meet the definition of held-for-trading liabilities, and that have not been designated as liabilities at fair value through profit or loss. These liabilities are initially recognized at fair value less any directly attributable transaction costs and are subsequently measured at amortized cost using the effective interest method. Transaction costs arising on the issue of equity instruments are recognized directly in equity. Transaction costs that are directly related to the probable issuance of a security that is classified as a financial liability is deducted from the amount of the financial liability when it is initially recognized, or recognized in earnings when the issuance is no longer probable.

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.

A financial liability is derecognized when its contractual obligations are discharged or cancelled, or expire.

ii. Derivative financial instruments

The Company holds derivative financial instruments to reduce exposure to fluctuations in foreign currency exchange rates and interest rates. Except for those designated as hedging instruments, all derivative financial instruments are recorded at fair value in the consolidated statements of financial position, with any directly attributable transaction costs recognized in earnings as incurred. Subsequent to initial recognition, changes in fair value are recognized in earnings.

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, 2016 and 2015.

Separable embedded derivatives

Derivatives may be embedded in other financial instruments or executory contracts (the “host instrument”). Embedded derivatives are treated as separate derivatives when their economic characteristics and risks are not clearly and closely related to those of the host instrument, the terms of the embedded derivative are the same as those of a stand-alone derivative, and the combined contract is not designated at fair value. These embedded derivatives are measured at fair value with subsequent changes recognized in earnings through gains or losses on derivatives.

R. 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 profits 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.

S. 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.

T. 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.

U. 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 Chief Executive Officer.

Segment capital expenditure is the total cost incurred during the period to acquire property, plant and equipment, and intangible assets other than goodwill.

3. Accounting standards

A. New standards and interpretations not yet adopted

A number of new standards and amendments to existing standards are not yet effective for the year ended December 31, 2016, and have not been applied in preparing these consolidated financial statements. Cameco does not intend to early adopt any of the following standards or amendments to existing standards, unless otherwise noted.

i. Revenue

In May 2014, the IASB issued IFRS 15, *Revenue from Contracts with Customers* (IFRS 15). IFRS 15 is effective for periods beginning on or after January 1, 2018 and is to be applied retrospectively. IFRS 15 clarifies the principles for recognizing revenue from contracts with customers. Cameco does not expect the standard to have a material impact on the financial statements.

ii. Financial instruments

In July 2014, the IASB issued IFRS 9, *Financial Instruments* (IFRS 9). IFRS 9 replaces the existing guidance in IAS 39, *Financial Instruments: Recognition and Measurement* (IAS 39). IFRS 9 includes revised guidance on the classification and measurement of financial assets, a new expected credit loss model for calculating impairment on financial assets and new hedge accounting requirements. It also carries forward, from IAS 39, guidance on recognition and derecognition of financial instruments.

IFRS 9 is effective for annual periods beginning on or after January 1, 2018, with early adoption of the new standard permitted. Cameco does not intend to early adopt IFRS 9. The extent of the impact of adoption of IFRS 9 has not yet been determined.

iii. Leases

In January 2016, the IASB issued IFRS 16, *Leases* (IFRS 16). IFRS 16 is effective for periods beginning on or after January 1, 2019, with early adoption permitted. IFRS 16 eliminates the current dual model for lessees, which distinguishes between on-balance sheet finance leases and off-balance sheet operating leases. Instead, there is a single, on-balance sheet accounting model that is similar to current finance lease accounting. The extent of the impact of adoption of IFRS 16 has not yet been determined.

iv. Disclosure initiative

In January 2017, the IASB issued *Disclosure Initiative* (Amendments to IAS 7). The standard applies prospectively and is effective for annual periods beginning on or after January 1, 2017, with earlier application permitted. The amendments require disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flow and non-cash changes. Cameco does not expect the amendments 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 8 - Property, plant and equipment

Note 9 - Goodwill and intangible assets

Note 23 - Share-based compensation plans

Note 25 - 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. Goodwill and intangible assets not yet available for use or with indefinite useful lives are tested for impairment annually. 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 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 factors such 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. If these judgments and estimates prove to be inaccurate, future earnings may be materially impacted.

E. Commencement of production stage

Until a mining property is declared as being in the production stage, all costs related to its development are capitalized. The determination of the date on which a mine enters the production stage is a matter of judgment that impacts when capitalization of development costs ceases and depreciation of the mining property commences and is charged to earnings. Refer to note 2 (g)(ii) for further information on the criteria used to make this assessment.

F. 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.

G. Purchase price allocations

The purchase price related to a business combination or asset acquisition is allocated to the underlying acquired assets and liabilities based on their estimated fair values at the time of acquisition. The determination of fair value requires Cameco to make assumptions, estimates and judgments regarding future events. The allocation process is inherently subjective and impacts the amounts assigned to individually identifiable assets and liabilities. As a result, the purchase price allocation impacts Cameco's reported assets and liabilities and future net earnings due to the impact on future depreciation and amortization expense and impairment tests.

H. Determination of joint control

Cameco conducts certain operations through joint ownership interests. Judgment is required in assessing whether Cameco has joint control over the investee, which involves determining the relevant activities of the arrangement and whether decisions around relevant activities require unanimous consent. Judgment is also required to determine whether a joint arrangement should be classified as a joint venture or joint operation. Classifying the arrangement requires us to assess our rights and obligations arising from the arrangement. Specifically, management considers the structure of the joint arrangement and whether it is structured through a separate vehicle and when the arrangement is structured through a separate vehicle, we also consider the rights and obligations arising from the legal form of the separate vehicle, the terms of the contractual arrangements and other facts and circumstances, when relevant. This judgment influences whether we equity account or proportionately consolidate our interest in the arrangement.

6. Accounts receivable

	2016	2015
Trade receivables	**$236,373**	$236,859
HST/VAT receivables	**3,968**	6,239
Other receivables	**2,141**	3,767
Total	**$242,482**	$246,865

The Company's exposure to credit and currency risks as well as impairment loss related to trade and other receivables, excluding harmonized sales tax (HST)/value added tax (VAT) receivables is disclosed in note 25.

7. Inventories

	2016	2015
Uranium		
Concentrate	**$ 989,202**	$ 887,083
Broken ore	**45,581**	41,722
	1,034,783	928,805
NUKEM	**141,040**	216,361
Fuel services	**112,116**	140,100
Total	**$1,287,939**	$1,285,266

In the second quarter of 2015, the production stage was reached at Cameco's Cigar Lake operation. Effective May 1, 2015, we commenced charging all production costs, including depreciation, to inventory and subsequently recognizing in cost of sales as the product is sold.

Cameco expensed $1,752,000,000 of inventory as cost of sales during 2016 (2015 - $1,935,000,000). Included in cost of sales is an $18,054,000 net write-down to reflect net realizable value (2015 - $3,400,000 net recovery).

NUKEM enters into financing arrangements where future receivables arising from certain sales contracts are sold to financial institutions in exchange for cash. These arrangements require NUKEM to satisfy its delivery obligations under the sales contracts, which are recognized as deferred sales (note 14). In addition, NUKEM is required to pledge the underlying inventory as security against these performance obligations. As of December 31, 2016, NUKEM had $4,884,000 ($3,637,000 (US)) of inventory pledged as security under financing arrangements ((2015 - $97,945,000 ($70,770,000 (US)).

8. Property, plant and equipment

At December 31, 2016

	Land and buildings	Plant and equipment	Furniture and fixtures	Under construction	Exploration and evaluation	Total
Cost						
Beginning of year	$4,862,160	$2,528,488	$121,299	$ 512,301	$1,147,100	$9,171,348
Additions	25,821	29,231	9,355	150,343	2,158	216,908
Transfers	168,784	126,871	3,410	(305,944)	6,879	—
Change in reclamation provision	(23,124)	—	—	—	—	(23,124)
Disposals	(27,311)	(34,611)	(38,233)	(15,490)	—	(115,645)
Effect of movements in exchange rates	(26,841)	(9,436)	(663)	(870)	(35,496)	(73,306)
End of year	**4,979,489**	**2,640,543**	**95,168**	**340,340**	**1,120,641**	**9,176,181**
Accumulated depreciation and impairment						
Beginning of year	**2,226,202**	**1,353,308**	**110,444**	**88,681**	**164,553**	**3,943,188**
Depreciation charge	196,564	129,892	6,957	—	198	333,611
Transfers	27,101	(26,770)	(331)	—	—	—
Disposals	(21,736)	(19,794)	(37,981)	(10,603)	—	(90,114)
Impairment charges[a][b]	97,152	28,677	2,011	2,596	231,553	361,989
Effect of movements in exchange rates	(17,071)	(4,360)	(508)	—	(6,140)	(28,079)
End of year	**2,508,212**	**1,460,953**	**80,592**	**80,674**	**390,164**	**4,520,595**
Net book value at December 31, 2016	**$2,471,277**	**$1,179,590**	**$ 14,576**	**$ 259,666**	**$ 730,477**	**$4,655,586**

At December 31, 2015

	Land and buildings	Plant and equipment	Furniture and fixtures	Under construction	Exploration and evaluation	Total
Cost						
Beginning of year	$3,423,736	$1,984,721	$120,072	$ 1,962,500	$1,084,715	$8,575,744
Additions	35,579	23,919	1,329	292,443	2,450	355,720
Transfers	1,245,941	508,007	5,950	(1,747,248)	(12,650)	—
Change in reclamation provision	26,348	—	—	—	—	26,348
Disposals	(7,491)	(38,077)	(9,198)	(2,476)	(229)	(57,471)
Effect of movements in exchange rates	138,047	49,918	3,146	7,082	72,814	271,007
End of year	**4,862,160**	**2,528,488**	**121,299**	**512,301**	**1,147,100**	**9,171,348**
Accumulated depreciation and impairment						
Beginning of year	1,769,526	1,164,969	104,101	91,621	154,506	3,284,723
Depreciation charge	232,179	133,655	12,925	—	192	378,951
Transfers	21,368	94	—	(21,462)	—	—
Disposals	(2,296)	(37,530)	(9,168)	—	—	(48,994)
Impairment charge[c]	120,343	70,827	108	18,522	—	209,800
Effect of movements in exchange rates	85,082	21,293	2,478	—	9,855	118,708
End of year	**2,226,202**	**1,353,308**	**110,444**	**88,681**	**164,553**	**3,943,188**
Net book value at December 31, 2015	**$2,635,958**	**$1,175,180**	**$ 10,855**	**$ 423,620**	**$ 982,547**	**$5,228,160**

Cameco has contractual capital commitments of approximately $51,000,000 at December 31, 2016. 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 2017.

(a) In the fourth quarter of 2016, Cameco recognized a $237,621,000 impairment charge relating to Kintyre, its uranium exploration project in Australia. Due to the weakening of the uranium market and the budget decision not to commit further expenditures to the project, the Company concluded it was appropriate to recognize an impairment charge. The charge was for the full carrying value of the CGU.

(b) In the second quarter of 2016, production was suspended at our Rabbit Lake operation in northern Saskatchewan. In accordance with the provisions of IAS 36, *Impairment of Assets*, Cameco considered this to be an indicator that the assets of the cash generating unit could potentially be impaired and accordingly, we were required to estimate the recoverable amount of these assets.

An impairment charge of $124,368,000 was recognized as part of the uranium segment. The charge was for the full carrying value of this cash generating unit. The recoverable amount of the mine and mill was based on a fair value less costs to sell model, which incorporated the future cash flows, including care and maintenance costs, expected to be derived from the operation. It was categorized as a non-recurring level 3 fair value measurement.

The discount rate used in the fair value less costs to sell calculation was 8% and was determined based on a market participant's incremental borrowing cost, adjusted for the marginal return that the participant would expect to use on an investment in the mine and mill. Other key assumptions included uranium price forecasts and operating and capital cost forecasts. Uranium prices applied in the calculation were based on approved internal price forecasts, which reflect management's expectation of prices that a market participant would use. Operating and capital cost forecasts were determined based on management's internal cost estimates.

(c) During 2015, Cameco recognized a $209,800,000 impairment charge relating to its Rabbit Lake mill in northern Saskatchewan, which is part of its uranium segment. Due to increased uncertainty around future production sources for the Rabbit Lake mill as a result of ongoing economic conditions, the Company concluded it was appropriate to recognize an impairment charge. The amount of the charge was determined as the excess of the carrying value over the recoverable amount. The recoverable amount of the mill was determined to be $68,971,000 based on a fair value less costs to sell model, which incorporated the future cash flows expected to be derived from the mill. It is categorized as a non-recurring level 3 fair value measurement.

The discount rate used in the fair value less costs to sell calculation was 8% and was determined based on a market participant's incremental borrowing cost, adjusted for the marginal return that the participant would expect to use on an investment in the mill. The recoverable amount is not sensitive to changes in the discount rate. Other key assumptions include operating and capital cost forecasts and the margin applied. Operating and capital cost forecasts have been determined based on management's internal cost estimates. A 10% increase in these cost assumptions decreases the recoverable amount by $7,900,000.

9. Goodwill and intangible assets

A. Reconciliation of carrying amount

At December 31, 2016

	Goodwill	Contracts	Intellectual property	Patents	Total
Cost					
Beginning of year	$122,314	$121,148	$ 118,819	$12,098	$374,379
Effect of movements in exchange rates	(3,650)	(3,615)	—	(361)	(7,626)
End of year	**118,664**	**117,533**	**118,819**	**11,737**	**366,753**
Accumulated amortization					
Beginning of year	—	108,809	45,430	3,010	157,249
Amortization charge	—	4,613	4,159	642	9,414
Effect of movements in exchange rates	—	(3,138)	—	(82)	(3,220)
End of year	**—**	**110,284**	**49,589**	**3,570**	**163,443**
Net book value at December 31, 2016	**$118,664**	**$ 7,249**	**$ 69,230**	**$ 8,167**	**$203,310**

At December 31, 2015

	Goodwill	Contracts	Intellectual property	Patents	Total
Cost					
Beginning of year	$102,526	$101,549	$ 118,819	$10,141	$333,035
Effect of movements in exchange rates	19,788	19,599	—	1,957	41,344
End of year	**122,314**	**121,148**	**118,819**	**12,098**	**374,379**
Accumulated amortization					
Beginning of year	—	88,978	40,992	1,963	131,933
Amortization charge	—	2,458	4,438	609	7,505
Effect of movements in exchange rates	—	17,373	—	438	17,811
End of year	**—**	**108,809**	**45,430**	**3,010**	**157,249**
Net book value at December 31, 2015	**$122,314**	**$ 12,339**	**$ 73,389**	**$ 9,088**	**$217,130**

B. Amortization

The intangible asset values relate to intellectual property acquired with Cameco Fuel Manufacturing Inc. (CFM), patents acquired with UFP Investments LLC (UFP) 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 patents acquired with UFP are being amortized to cost of products and services sold on a straight-line basis over their remaining life which expires in July 2029. The NUKEM 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. Approximately $640,000 of pre-tax earnings (in USD) relating to the amortization of the fair value allocated to the NUKEM contracts will be amortized in 2017 with the remaining balance being recognized fairly evenly each year through 2022.

C. Impairment test

For the purpose of impairment testing, goodwill is attributable to NUKEM, which is considered to be a CGU.

The recoverable amount of NUKEM was estimated based on a fair value less costs of disposal calculation, which involved discounting the future cash flows expected to be generated by the CGU. It is categorized as a non-recurring level 3 fair value measurement. The recoverable amount exceeded its carrying value by $34,000,000 (US) and therefore no impairment loss was recognized.

Five years of cash flows were included in the discounted cash flow model. Any cash flows expected to be generated beyond the initial five-year period were extrapolated using a terminal value growth rate. The projected cash flows included in the calculation were based upon NUKEM's approved financial forecasts and strategic plan, which incorporate NUKEM's current contract portfolio as well as sales volumes that a market participant could expect. The key assumptions used in the estimation of the value in use were as follows:

	2016
Discount rate	10.0%
Terminal value growth rate	1.6%

The discount rate was determined based on a market participant's incremental borrowing cost, adjusted for the marginal return that the participant would expect to earn on an investment in the entity. It represents a nominal, post-tax figure. The terminal value growth rate was determined based on management's expected average annual long-term growth in the uranium industry.

Other key assumptions include uranium price forecasts and perpetual cash flows. Uranium prices applied in the calculation were based on approved internal price forecasts, which reflect management's experience and industry expertise. These prices are consistent with expected long-term prices observed in the market. Perpetual cash flows have been determined based on the future business activity that a market participant could expect.

Cameco has validated the results of the fair value less costs of disposal calculation by performing sensitivity tests on its key assumptions. Holding all other variables constant, the decreases in recoverable amount created by marginal changes in each of the key assumptions are as follows:

	Change in assumption	Amount of decrease
Discount rate	1% increase	$ 20,364
Terminal value growth rate	1% decrease	15,304
Uranium prices	$1/lb decrease	3,881
Perpetual annual cash flow	$1 million (US) decrease	7,877

As a result of these tests, the Company believes that any reasonably possible changes in the key assumptions would not result in NUKEM's carrying amount exceeding its recoverable amount.

10. Long-term receivables, investments and other

	2016	2015
Investments in equity securities [note 25]	**$ 14,807**	$ 938
Derivatives [note 25]	**10,612**	11,143
Advances receivable from JV Inkai LLP [note 30]	**90,095**	87,188
Investment tax credits	**93,920**	93,972
Amounts receivable related to tax dispute [note 20]	**264,042**	232,614
Other	**49,506**	35,574
	522,982	461,429
Less current portion	**(10,498)**	(12,193)
Net	**$512,484**	$449,236

11. Accounts payable and accrued liabilities

	2016	2015
Trade payables	**$213,481**	$199,084
Non-trade payables	**85,632**	107,731
Payables due to related parties	**13,787**	11,041
Total	**$312,900**	$317,856

The Company's exposure to currency and liquidity risk related to trade and other payables is disclosed in note 25.

12. Short-term debt

Cameco borrows directly in the commercial paper market. At December 31, 2016 and 2015, there was no commercial paper outstanding.

NUKEM has a multicurrency revolving loan facility that is available until October 1, 2020. Total funds of € 75,000,000 are available under the facility, with the option to increase the facility by an additional € 25,000,000. Amounts can be drawn in either Euros or US dollars in the form of bank overdrafts, letters of credit, short-term loans or foreign exchange facilities. Any amounts drawn in Euros bear interest at a rate equal to the comparable EURIBOR on the draw date plus 0.6%, while amounts drawn in US dollars bear interest at a rate equal to the comparable LIBOR on the draw date plus 0.6%.

At December 31, 2016 and 2015, there were no amounts withdrawn against the facility. As of December 31, 2016, NUKEM has $107,000 (US) in letters of credit outstanding against the facility (2015 - $406,000 (US)).

The terms of the facility contain a financial covenant that requires NUKEM to maintain a minimum working capital to debt ratio of 1.35. The facility also stipulates Cameco as a guarantor for NUKEM's withdrawals and requires the Company to maintain a credit rating of at least BBB-. Failure to comply with these covenants could result in cancellation of the facility and accelerated payment of any outstanding amounts. As of December 31, 2016, NUKEM and Cameco were in compliance with the covenants and the Company does not expect its operating and investing activities in 2017 to be constrained by them.

13. Long-term debt

	2016	2015
Unsecured debentures		
Series D - 5.67% debentures due September 2, 2019	**$ 498,472**	$ 497,954
Series E - 3.75% debentures due November 14, 2022	**398,346**	398,097
Series F - 5.09% debentures due November 14, 2042	**99,256**	99,243
Series G - 4.19% debentures due June 24, 2024	**497,253**	496,943
Total	**$1,493,327**	$1,492,237

Cameco has a $1,250,000,000 unsecured revolving credit facility that is available until November 1, 2020. 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 $1,250,000,000 by increments no less than $50,000,000, to a total of $1,750,000,000. The facility ranks equally with all of Cameco's other senior debt. As of December 31, 2016 and 2015, there were no amounts outstanding under this facility.

Cameco has $1,658,727,000 (2015 - $1,490,809,000) in letter of credit facilities. Outstanding and committed letters of credit at December 31, 2016 amounted to $1,470,435,000 (2015 - $1,384,061,000), 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, 2016, Cameco was in compliance with the covenant and does not expect its operating and investing activities in 2017 to be constrained by it.

The table below represents currently scheduled maturities of long-term debt:

2017	2018	2019	2020	2021	Thereafter	Total
$—	—	498,472	—	—	994,855	**$ 1,493,327**

14. Other liabilities

	2016	2015
Deferred sales	**$ 29,423**	$ 132,904
Derivatives [note 25]	**58,885**	168,236
Accrued pension and post-retirement benefit liability [note 24]	**69,699**	64,135
Other	**25,725**	7,980
	183,732	373,255
Less current portion	**(60,744)**	(241,113)
Net	**$122,988**	$ 132,142

Deferred sales includes $6,143,000 ($4,575,000 (US)) of performance obligations relating to financing arrangements entered into by NUKEM (2015 - $110,749,000 ($80,021,000 (US))) (note 7).

15. Provisions

	Reclamation	Waste disposal	Total
Beginning of year	$ 917,034	$ 17,724	$934,758
Changes in estimates and discount rates			
Capitalized in property, plant and equipment	10,950	—	10,950
Recognized in earnings	(34,075)	(265)	(34,340)
Provisions used during the period	(11,117)	(2,391)	(13,508)
Unwinding of discount [note 18]	20,636	97	20,733
Effect of movements in exchange rates	(9,811)	—	(9,811)
End of period	**$ 893,617**	**$ 15,165**	**$908,782**
Current	$ 18,020	$ 1,599	$ 19,619
Non-current	875,597	13,566	889,163
	$ 893,617	**$ 15,165**	**$908,782**

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 future decommissioning and reclamation costs for its existing operating assets to be $1,037,302,000 (2015 - $974,785,000). The expected timing of these outflows is based on life-of-mine plans with the majority of expenditures expected to occur after 2022. These estimates are reviewed by Cameco technical personnel as required by regulatory agencies or more frequently as circumstances warrant. In connection with future decommissioning and reclamation costs, Cameco has provided financial assurances of $998,207,000 (2015 - $1,010,784,000) in the form of letters of credit to satisfy current regulatory requirements.

The reclamation provision relates to the following segments:

	2016	2015
Uranium	**$645,219**	$741,561
Fuel services	**248,398**	175,473
Total	**$893,617**	$917,034

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 future costs related to existing waste disposal to be $14,930,000 (2015 - $17,158,000). The majority of these expenditures are expected to occur within the next three 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, and
- One Class B share

A. Common Shares

Number issued (number of shares)	**2016**	**2015**
Beginning of year	**395,792,522**	395,792,522
Issued:		
Stock option plan [note 23]	**—**	—
Total	**395,792,522**	395,792,522

All issued shares are fully paid.

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, 2016, the dividend declared per share was $0.40 (December 31, 2015 - $0.40).

17. 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:

	2016	2015
Wages and salaries	**$379,620**	$397,730
Statutory and company benefits	**66,402**	65,936
Expenses related to defined benefit plans [note 24]	**5,128**	5,003
Expenses related to defined contribution plans [note 24]	**17,716**	17,961
Equity-settled share-based compensation [note 23]	**19,305**	22,148
Cash-settled share-based compensation [note 23]	**(822)**	(1,011)
Total	**$487,349**	$507,767

18. Finance costs

	2016	2015
Interest on long-term debt	**$ 73,434**	$ 74,969
Unwinding of discount on provisions [15]	**20,733**	21,428
Other charges	**16,860**	7,101
Interest on short-term debt	**879**	117
Total	**$111,906**	$103,615

No borrowing costs were determined to be eligible for capitalization during the year.

19. Other income (expense)

	2016	2015
Foreign exchange gains (losses)	**$ (5,935)**	$59,323
Contract settlements	**59,027**	—
Gain on change in investment accounting	**7,032**	—
Other	**547**	(4,600)
Total	**$60,671**	$54,723

During the year, Cameco agreed to terminate two long-term supply contracts with two of its utility customers that were effective for the years 2016 through 2020 and 2016 through 2021. The resulting gain on contract settlements was $59,027,000.

Also during the year, Cameco's share in one of its associates decreased such that equity accounting was no longer appropriate. As a result, the difference between its carrying value and fair value was recognized in other income. As an available-for-sale investment, future changes in fair value are being recognized in other comprehensive income.

20. Income taxes

A. Significant components of deferred tax assets and liabilities

	Recognized in earnings		As at December 31	
	2016	2015	2016	2015
Assets				
Property, plant and equipment	**$118,853**	$ —	**$118,853**	$ —
Provision for reclamation	**(11,001)**	1,572	**244,012**	253,821
Foreign exploration and development	**(43)**	(782)	**5,279**	5,322
Income tax losses	**(22,093)**	88,186	**402,550**	424,344
Defined benefit plan actuarial losses	**—**	—	**5,691**	5,184
Long-term investments and other	**(25,589)**	15,316	**56,093**	82,273
Deferred tax assets	**60,127**	104,292	**832,478**	770,944
Liabilities				
Property, plant and equipment	**(68,385)**	(111,080)	**—**	69,875
Inventories	**(10,144)**	1,984	**12,430**	22,574
Deferred tax liabilities	**(78,529)**	(109,096)	**12,430**	92,449
Net deferred tax asset	**$138,656**	$ 213,388	**$820,048**	$678,495

Deferred tax allocated as	2016	2015
Deferred tax assets	**$835,985**	$713,674
Deferred tax liabilities	**(15,937)**	(35,179)
Net deferred tax asset	**$820,048**	$678,495

Based on projections of future income, realization of these deferred tax assets is probable and consequently a deferred tax asset has been recorded.

B. Movement in net deferred tax assets and liabilities

	2016	2015
Net deferred tax asset at beginning of year	**$678,495**	$462,446
Recovery for the year in net earnings [(a)]	**138,656**	213,388
Recovery (expense) for the year in other comprehensive income	**435**	(669)
Effect of movements in exchange rates	**2,462**	3,330
End of year	**$820,048**	$678,495

(a) In 2015, we reversed amounts related to our deferred tax asset in the US totalling $72,600,000. We determined that it was no longer probable that there would be sufficient taxable profit in the future against which the operating losses and other tax deductions could be used.

C. Significant components of unrecognized deferred tax assets

	2016	2015
Income tax losses	**$284,338**	$194,045
Property, plant and equipment	**3,789**	1,904
Provision for reclamation	**40,749**	25,952
Long-term investments and other	**107,096**	107,305
Total	**$435,972**	$329,206

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:

	2016	2015
Loss before income taxes and non-controlling interest	**$(154,234)**	$ (79,268)
Combined federal and provincial tax rate	**26.9%**	26.9%
Computed income tax recovery	**(41,489)**	(21,323)
Increase (decrease) in taxes resulting from:		
Difference between Canadian rates and rates applicable to subsidiaries in other countries	**(175,092)**	(197,967)
Change in unrecognized deferred tax assets	**106,766**	111,575
Other taxes	**(2,278)**	2,172
Share-based compensation plans	**1,221**	1,528
Change in tax provision related to transfer pricing	**8,000**	(35,000)
Non-deductible (non-taxable) capital amounts	**—**	(2,362)
Other permanent differences	**8,517**	(1,253)
Income tax recovery	**$ (94,355)**	$(142,630)

E. Earnings and income taxes by jurisdiction

	2016	2015
Earnings (loss) before income taxes		
Canada	**$(463,946)**	$(959,661)
Foreign	**309,712**	880,393
	$(154,234)	$ (79,268)
Current income taxes		
Canada	**$ 3,454**	$ 14,617
Foreign	**40,847**	56,141
	$ 44,301	$ 70,758
Deferred income taxes (recovery)		
Canada	**$(120,519)**	$(291,363)
Foreign	**(18,137)**	77,975
	$(138,656)	$(213,388)
Income tax recovery	**$ (94,355)**	$(142,630)

F. Reassessments

Canada

In 2008, as part of the ongoing annual audits of Cameco's Canadian tax returns, Canada Revenue Agency (CRA) disputed the transfer pricing structure and methodology used by Cameco and its wholly owned Swiss subsidiary, Cameco Europe Ltd., in respect of sale and purchase agreements for uranium products. From December 2008 to date, CRA issued notices of reassessment for the taxation years 2003 through 2011, which in aggregate have increased Cameco's income for Canadian tax purposes by approximately $4,100,000,000. CRA has also issued notices of reassessment for transfer pricing penalties for the years 2007 through 2010 in the amount of $292,400,000. Cameco believes it is likely that CRA will reassess Cameco's tax returns for subsequent years on a similar basis and that these will require Cameco to make future remittances or provide security on receipt of the reassessments.

Using the methodology we believe that CRA will continue to apply and including the $4,100,000,000 already reassessed, we expect to receive notices of reassessment for a total of approximately $8,100,000,000 for the years 2003 through 2016, which would increase Cameco's income for Canadian tax purposes and result in a related tax expense of approximately $2,400,000,000. In addition to penalties already imposed, CRA may continue to apply penalties to taxation years subsequent to 2010. As a result, we estimate that cash taxes and transfer pricing penalties would be between $1,750,000,000 and $1,950,000,000. In addition, we estimate there would be interest and instalment penalties applied that would be material to Cameco. While in dispute, we would be responsible for remitting or otherwise securing 50% of the cash taxes and transfer pricing penalties (between $875,000,000 and $975,000,000), plus related interest and instalment penalties assessed, which would be material to Cameco.

Under Canadian federal and provincial tax rules, the amount required to be remitted each year will depend on the amount of income reassessed in that year and the availability of elective deductions. Recently, the CRA disallowed the use of any loss carry-backs to be applied to any transfer pricing adjustment, starting with the 2008 tax year. In light of our view of the likely outcome of the case, we expect to recover the amounts remitted to CRA, including cash taxes, interest and penalties totalling $264,042,000 already paid as at December 31, 2016 (December 31, 2015 - $232,614,000) (note 10). In addition to the cash remitted, we have provided $420,000,000 in letters of credit to secure 50% of the cash taxes and related interest.

The trial related to the 2003, 2005 and 2006 reassessments commenced in October, 2016. Final arguments are expected in the second half of 2017. If this timing is adhered to, we expect to have a Tax Court decision within six to 18 months after the trial is complete.

Having regard to advice from its external advisors, Cameco's opinion is that CRA's position is incorrect and Cameco is contesting CRA's position and expects to recover any amounts remitted or secured as a result of the reassessments. However, to reflect the uncertainties of CRA's appeals process and litigation, Cameco has recorded a cumulative tax provision related to this matter for the years 2003 through the current period in the amount of $58,000,000. While the resolution of this matter may result in liabilities that are higher or lower than the reserve, management believes that the ultimate resolution will not be material to Cameco's financial position, results of operations or liquidity in the year(s) of resolution. Resolution of this matter as stipulated by CRA would be material to Cameco's financial position, results of operations or liquidity in the year(s) of resolution and other unfavourable outcomes for the years 2003 to date could be material to Cameco's financial position, results of operations and cash flows in the year(s) of resolution.

Further to Cameco's decision to contest CRA's reassessments, Cameco is pursuing its appeal rights under Canadian federal and provincial tax rules.

United States

We have received Revenue Agent's Reports (RARs) from the Internal Revenue Service (IRS) for the taxation years 2009 to 2012, challenging the transfer pricing used under certain intercompany transactions. The RARs list the IRS' proposed adjustments to taxable income and calculate the tax and penalties owing based on the proposed adjustments.

The proposed adjustments reflected in the RARs are focused on transfer pricing in respect of certain intercompany transactions within our corporate structure. The IRS asserts that a portion of the non-US income reported under our corporate structure and taxed outside the US should be recognized and taxed in the US.

The proposed adjustments result in an increase in taxable income in the US of approximately $419,000,000 (US) and a corresponding increased income tax expense of approximately $122,000,000 (US) for the 2009 through 2012 taxation years, with interest being charged thereon. In addition, the IRS proposed cumulative penalties of approximately $8,000,000 (US) in respect of the adjustment. Having regard to advice from its external advisors, management believes that the conclusions of the IRS in the RARs are incorrect and is contesting them in an administrative appeal of the proposed adjustments. No cash payments are required while pursuing an administrative appeal. Management believes that the ultimate resolution of this matter will not be material to our financial position, results of operations or liquidity in the year(s) of resolution.

G. Income tax losses

At December 31, 2016, income tax losses carried forward of $2,432,772,000 (2015 - $2,177,332,000) are available to reduce taxable income. These losses expire as follows:

Date of expiry	Canada	US	Other	Total
2020	$ —	$ —	$ 1,194	$ 1,194
2023	—	—	9,236	9,236
2028	95,102	—	—	95,102
2029	—	27,591	—	27,591
2030	—	1,612	—	1,612
2031	101,572	23,532	—	125,104
2032	236,107	23,224	—	259,331
2033	282,856	39,590	—	322,446
2034	300,317	21,839	—	322,156
2035	332,826	15,196	—	348,022
2036	131,891	74,371	—	206,262
No expiry	—	—	714,716	714,716
	$1,480,671	**$226,955**	**$725,146**	**$2,432,772**

Included in the table above is $912,916,000 (2015 - $615,412,000) of temporary differences related to loss carry forwards where no future benefit has been recognized.

21. 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 2016 was 395,792,522 (2015 - 395,792,522).

	2016	2015
Basic earnings (loss) per share computation		
Net earnings (loss) attributable to equity holders	**$ (61,611)**	$ 65,286
Weighted average common shares outstanding	**395,793**	395,793
Basic earnings (loss) per common share	**$ (0.16)**	$ 0.16
Diluted earnings (loss) per share computation		
Net earnings (loss) attributable to equity holders	**$ (61,611)**	$ 65,286
Weighted average common shares outstanding	**395,793**	395,793
Dilutive effect of stock options	**—**	—
Weighted average common shares outstanding, assuming dilution	**395,793**	395,793
Diluted earnings (loss) per common share	**$ (0.16)**	$ 0.16

22. Statements of cash flows

	2016	2015
Changes in non-cash working capital:		
Accounts receivable	**$ 1,529**	$ 216,266
Inventories	**(73,833)**	(238,549)
Supplies and prepaid expenses	**10,867**	(46,620)
Accounts payable and accrued liabilities	**(17,989)**	(12,225)
Reclamation payments	**(13,507)**	(11,807)
Amortization of purchase price allocation	**27,848**	16,005
Other	**(4,049)**	5,312
Other operating items	**$(69,134)**	$ (71,618)

23. Share-based compensation plans

The Company has the following equity-settled 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 27,870,079 shares have been issued.

Stock option transactions for the respective years were as follows:

(Number of options)	2016	2015
Beginning of year	**8,503,238**	8,353,006
Options granted	**1,273,340**	965,823
Options forfeited	**(1,156,737)**	(297,461)
Options expired	**(599,530)**	(518,130)
End of year	**8,020,311**	8,503,238
Exercisable	**5,929,550**	6,475,811

Weighted average exercise prices were as follows:

	2016	2015
Beginning of year	**$26.04**	$28.22
Options granted	**16.38**	19.30
Options forfeited	**25.70**	29.60
Options expired	**38.81**	46.48
End of year	**$23.61**	$26.04
Exercisable	**$25.46**	$27.34

Total options outstanding and exercisable at December 31, 2016 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
$16.38 - 21.57	4,216,686	4.7	$ 19.11	2,356,058	$ 20.53
$21.58 - 54.38	3,803,625	3.2	$ 28.59	3,573,492	$ 28.71
	8,020,311			**5,929,550**	

The foregoing options have expiry dates ranging from March 15, 2017 to February 29, 2024.

Non-vested stock option transactions for the respective years were as follows:

(Number of options)	2016	2015
Beginning of year	**2,027,427**	2,533,754
Options granted	**1,273,340**	965,823
Options forfeited	**(143,719)**	(17,320)
Options vested	**(1,066,287)**	(1,454,830)
End of year	**2,090,761**	2,027,427

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 board's discretion, 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. Vesting of PSUs at the end of the three-year period will be based on total shareholder return over the three years, 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. As of December 31, 2016, the total number of PSUs held by the participants, after adjusting for forfeitures on retirement, was 892,895 (2015 - 791,071).

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. As of December 31, 2016, the total number of RSUs held by the participants was 557,957 (2015 - 479,320).

D. 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 of shares annually to each employee that is enrolled in the plan. Shares purchased with Company contributions and with dividends paid on such shares become unrestricted 12 months from the date on which such shares were purchased. At December 31, 2016, there were 3,356 participants in the plan (2015 - 3,659). The total number of shares purchased in 2016 with Company contributions was 404,550 (2015 - 309,251). In 2016, the Company's contributions totalled $5,204,000 (2015 - $5,295,000).

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:

	2016	2015
Stock option plan	**$ 4,588**	$ 5,610
Performance share unit plan	**5,572**	6,574
Restricted share unit plan	**3,941**	4,669
Employee share ownership plan	**5,204**	5,295
End of year	**$19,305**	$22,148

Fair value measurement of equity-settled plans

The fair value of the units granted through the PSU plan was determined based on Monte Carlo simulation and the fair value of options granted under the stock option plan was measured based on the Black-Scholes option-pricing model. 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 share-based payment plans were as follows:

	Stock option plan	PSU	RSU
Number of options granted	1,273,340	411,490	329,422
Average strike price	$ 16.38	—	$ 16.46
Expected dividend	$ 0.40	—	—
Expected volatility	32%	31%	—
Risk-free interest rate	0.7%	0.5%	—
Expected life of option	4.7 years	3 years	—
Expected forfeitures	7%	5%	8%
Weighted average grant date fair values	$ 3.49	$ 16.35	$ 16.46

In addition to these inputs, other features of the PSU grant were incorporated into the measurement of fair value. The market condition based on total shareholder return was incorporated by utilizing a Monte Carlo simulation. The non-market criteria relating to realized selling prices and operating targets have been incorporated into the valuation at grant date by reviewing prior history and corporate budgets.

The Company has the following cash-settled plans:

A. 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. 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, 2016, the total number of DSUs held by participating directors was 514,352 (2015 - 623,534).

B. Phantom stock option

Cameco makes annual grants of bonuses to eligible non-North American employees in the form of phantom stock options. 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, 2016, the number of options held by participating employees was 347,858 (2015 - 290,833) with exercise prices ranging from $16.38 to $39.53 per share (2015 - $19.30 to $39.53) and a weighted average exercise price of $24.13 (2015 - $26.05).

Cameco has recognized the following expenses (recoveries) under its cash-settled plans:

	2016	2015
Deferred share unit plan	**$(739)**	$(1,088)
Phantom stock option plan	**(83)**	77
	$(822)	$(1,011)

At December 31, 2016, a liability of $7,558,000 (2015 - $11,063,000) was included in the consolidated statements 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 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 phantom stock option plan at the grant and reporting dates were as follows:

	Grant date March 1, 2016	Reporting date December 31, 2016
Number of units	93,655	347,858
Average strike price	$ 16.38	$ 24.13
Expected dividend	$ 0.40	$ 0.40
Expected volatility	32%	33%
Risk-free interest rate	0.6%	0.9%
Expected life of option	4.5 years	3.4 years
Expected forfeitures	7%	7%
Weighted average measurement date fair values	$ 3.61	$ 1.06

24. 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 $1,671,000 in contributions and letter of credit fees to its defined benefit plans in 2017.

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 valuations for funding purposes on the registered defined benefit pension plans is January 1, 2015. The next planned effective date for valuations is January 1, 2018.

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	
	2016	2015	2016	2015
Fair value of plan assets, beginning of year	**$ 10,632**	$ 10,877	**$ —**	$ —
Interest income on plan assets	**403**	406	**—**	—
Return on assets excluding interest income	**(127)**	1,960	**—**	—
Benefits paid	**(2,254)**	(2,581)	**—**	—
Administrative costs paid	**(2)**	(30)	**—**	—
Fair value of plan assets, end of year	**$ 8,652**	$ 10,632	**$ —**	$ —
Defined benefit obligation, beginning of year	**$ 52,996**	$ 52,440	**$ 21,771**	$ 20,107
Current service cost	**1,634**	1,744	**1,153**	1,195
Interest cost	**1,842**	1,627	**900**	813
Actuarial loss (gain) arising from:				
- demographic assumptions	**—**	—	**—**	38
- financial assumptions	**677**	(1,007)	**373**	(1,228)
- experience adjustment	**1,605**	(195)	**161**	1,671
Benefits paid	**(2,970)**	(3,175)	**(937)**	(825)
Foreign exchange	**(854)**	1,562	**—**	—
Defined benefit obligation, end of year	**$ 54,930**	$ 52,996	**$ 23,421**	$ 21,771
Defined benefit liability [note 14]	**$(46,278)**	$(42,364)	**$(23,421)**	$(21,771)

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	
	2016	2015
Asset category[a]		
Canadian equity securities	**8%**	8%
Global equity securities	**15%**	16%
Canadian fixed income	**26%**	25%
Other[b]	**51%**	51%
Total	**100%**	100%

(a) The defined benefit plan assets contain no material amounts of related party assets at December 31, 2016 and 2015 respectively.

(b) Relates 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		Other benefit plans	
	2016	2015	2016	2015
Current service cost	**$ 1,634**	$ 1,744	**$1,153**	$1,195
Net interest cost	**1,439**	1,221	**900**	813
Administration cost	**2**	30	**—**	—
Defined benefit expense [note 17]	**3,075**	2,995	**2,053**	2,008
Defined contribution pension expense [note 17]	**17,716**	17,961	**—**	—
Net pension and other benefit expense	**$20,791**	$20,956	**$2,053**	$2,008

The total amount of actuarial losses (gains) recognized in other comprehensive income is:

	Pension benefit plans		Other benefit plans	
	2016	2015	2016	2015
Actuarial loss (gain)	**$ 2,282**	$ (1,202)	**$ 534**	$ 481
Return on plan assets excluding interest income	**127**	(1,960)	—	—
	$ 2,409	$ (3,162)	**$ 534**	$ 481

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		Other benefit plans	
	2016	2015	2016	2015
Discount rate - obligation	**3.9%**	3.9%	**3.9%**	4.0%
Discount rate - expense	**3.9%**	3.4%	**4.0%**	3.9%
Rate of compensation increase	**3.0%**	3.0%	**—**	—
Initial health care cost trend rate	**—**	—	**7.0%**	7.0%
Cost trend rate declines to	**—**	—	**5.0%**	5.0%
Year the rate reaches its final level	**—**	—	**2021**	2021
Dental care cost trend rate	**—**	—	**5.0%**	5.0%

At December 31, 2016, the weighted average duration of the defined benefit obligation for the pension plans was 19.6 years (2015 - 19.6 years) and for the other benefit plans was 15.2 years (2015 - 15.0 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		Other benefit plans	
	Increase	Decrease	Increase	Decrease
Discount rate	**$(6,748)**	$ 8,782	**$(3,213)**	$ 4,080
Rate of compensation increase	**2,624**	(2,379)	**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, 2016. 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 $1,294,000.

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.

25. 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.

Cameco is exposed to commodity price risk through its use of a uranium contract derivative. As of the reporting date, a 30% decrease in the price of uranium based on the Numerco forward uranium price curve, would result in a loss on this derivative of $9,907,000 ($7,379,000 (US)). A 30% increase would have an equal but opposite impact.

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	$ 41,733	$ 2,087
Accounts receivable	USD	222,627	11,131
Long-term receivables, investments and other	USD	95,061	4,753
Accounts payable and accrued liabilities	USD	(137,324)	(6,866)
Net foreign currency derivatives	USD	(25,166)	(57,266)

A 5% strengthening of the Canadian dollar against the currencies above at December 31, 2016 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, 2016, the proportion of Cameco's outstanding debt that carries fixed interest rates is 80% (2015 - 80%).

Cameco is exposed to interest rate risk through its interest rate swap contracts whereby fixed rate payments on a notional amount of $300,000,000 of the Series D senior unsecured debentures were swapped for variable rate payments. The swaps terminate on September 2, 2019. Under the terms of the swaps, Cameco makes interest payments based on the three-month Canada Dealer Offered Rate plus an average margin of 3.7% and receives fixed interest payments of 5.67%. At December 31, 2016, the fair value of Cameco's interest rate swap assets was $6,547,000 (2015 - $10,783,000).

Cameco is also exposed to interest rate risk on its loan facility with Inkai and on NUKEM's multicurrency revolving loan facility due to the variable nature of the interest rates contained in the terms therein.

Cameco measures its exposure to interest rate risk as the change in cash flows that would occur as a result of reasonably possible changes in interest rates, holding all other variables constant. As of the reporting date, the Company has determined the impact on earnings of a 1% increase in interest rate on variable rate financial instruments to be as follows:

	Gain (loss)
Interest rate contracts	$ (3,021)
Advances receivable from Inkai	892

No amounts were drawn against NUKEM's revolving loan facility as of December 31, 2016.

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. 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. To mitigate risks associated with certain financial assets, Cameco will hold positions with a variety of large creditworthy institutions.

The maximum exposure to credit risk, as represented by the carrying amount of the financial assets, at December 31 was:

	2016	2015
Cash and cash equivalents	**$320,278**	$458,604
Accounts receivable [note 6]	**238,514**	240,626
Advances receivable from Inkai [note 30]	**90,095**	87,188
Derivative assets [note 10]	**10,612**	11,143
Other	**4,966**	3,446

At December 31, 2016, 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. All accounts receivable at the reporting date are neither past due nor impaired.

Cameco has established programs for sales without recourse of trade accounts receivable to financial institutions. Through these programs, the Company surrenders the control, risks and benefits associated with the accounts receivable sold. The amount of receivables sold is recorded as a sale of financial assets and the balances are removed from the consolidated statement of financial position at the time of sale. The total amount of receivables sold under these programs and derecognized in accordance with IAS 39 during 2016 was $214,428,000 ($159,551,000 (USD)) (2015 - $201,992,000 ($152,410,000 (USD))).

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, 2016:

	Total amount	Outstanding and committed	Amount available
Unsecured revolving credit facility	$ 1,250,000	$ —	$ 1,250,000
Letter of credit facilities	1,658,727	1,470,435	188,292
NUKEM multicurrency revolving loan facility	106,268	143	106,125

The tables below present a maturity analysis of Cameco's financial liabilities, including principal and interest, based on the 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	$ 312,900	$ 312,900	$312,900	$ —	$ —	$ —
Dividends payable	39,579	39,579	39,579	—	—	—
Long-term debt	1,493,327	1,500,000	—	500,000	—	1,000,000
Foreign currency contracts	29,231	29,231	15,548	13,683	—	—
Other derivative liabilities	29,654	29,654	9,418	20,236	—	—
Total contractual repayments	**$1,904,691**	**$1,911,364**	**$377,445**	**$533,919**	**$ —**	**$1,000,000**

	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	**$474,990**	$69,390	$138,780	$ 82,080	$ 184,740

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, 2016

	Fair value through profit or loss	Loans and receivables	Available for sale	Other financial liabilities	Total
Financial assets					
Cash and cash equivalents	$ —	$ 320,278	$ —	$ —	$ 320,278
Accounts receivable [note 6]	—	242,482	—	—	242,482
Derivative assets [note 10]					
Foreign currency contracts	4,065	—	—	—	4,065
Interest rate contracts	6,547	—	—	—	6,547
Investments in equity securities [note 10]	—	—	14,807	—	14,807
Advances receivable from Inkai [note 30]	—	90,095	—	—	90,095
Other	—	4,966	—	—	4,966
	$ 10,612	**$ 657,821**	**$ 14,807**	**$ —**	**$ 683,240**
Financial liabilities					
Accounts payable and accrued liabilities [note 11]	$ —	$ —	$ —	$ 312,900	$ 312,900
Dividends payable	—	—	—	39,579	39,579
Derivative liabilities [note 14]					
Foreign currency contracts	29,231	—	—	—	29,231
Uranium contracts	29,654	—	—	—	29,654
Long-term debt [note 13]	—	—	—	1,493,327	1,493,327
	58,885	**—**	**—**	**1,845,806**	**1,904,691**
Net	**$ (48,273)**	**$ 657,821**	**$ 14,807**	**$(1,845,806)**	**$(1,221,451)**

At December 31, 2015

	Fair value through profit or loss	Loans and receivables	Available for sale	Other financial liabilities	Total
Financial assets					
Cash and cash equivalents	$ —	$ 458,604	$ —	$ —	$ 458,604
Accounts receivable [note 6]	—	246,865	—	—	246,865
Derivative assets [note 10]					
Foreign currency contracts	360	—	—	—	360
Interest rate contracts	10,783	—	—	—	10,783
Investments in equity securities [note 10]	—	—	938	—	938
Advances receivable from Inkai [note 30]	—	87,188	—	—	87,188
Other	—	3,446	—	—	3,446
	$ 11,143	**$ 796,103**	**$ 938**	**$ —**	**$ 808,184**
Financial liabilities					
Accounts payable and accrued liabilities [note 11]	$ —	$ —	$ —	$ 317,856	$ 317,856
Dividends payable	—	—	—	39,579	39,579
Derivative liabilities [note 14]					
Foreign currency contracts	167,420	—	—	—	167,420
Other	816	—	—	—	816
Long-term debt [note 13]	—	—	—	1,492,237	1,492,237
	168,236	**—**	**—**	**1,849,672**	**2,017,908**
Net	**$ (157,093)**	**$ 796,103**	**$ 938**	**$(1,849,672)**	**$(1,209,724)**

Cameco does not have any financial instruments classified as held-for-trading, or held-to-maturity as of the reporting date.

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, 2016

		Fair value		
	Carrying value	Level 1	Level 2	Total
Derivative assets [note 10]				
Foreign currency contracts	**$ 4,065**	$ —	$ 4,065	$ 4,065
Interest rate contracts	**6,547**	—	6,547	6,547
Investments in equity securities [note 10]	**14,807**	14,807	—	14,807
Derivative liabilities [note 14]				
Foreign currency contracts	**(29,231)**	—	(29,231)	(29,231)
Uranium contracts	**(29,654)**	—	(29,654)	(29,654)
Long-term debt [note 13]	**(1,493,327)**	—	(1,721,805)	(1,721,805)
Net	**$ (1,526,793)**	**$14,807**	**$(1,770,078)**	**$(1,755,271)**

As at December 31, 2015

		Fair value		
	Carrying value	Level 1	Level 2	Total
Derivative assets [note 10]				
Foreign currency contracts	**$ 360**	$ —	$ 360	$ 360
Interest rate contracts	**10,783**	—	10,783	10,783
Investments in equity securities [note 10]	**938**	938	—	938
Derivative liabilities [note 14]				
Foreign currency contracts	**(167,420)**	—	(167,420)	(167,420)
Share purchase options	**(816)**	—	(816)	(816)
Long-term debt [note 13]	**(1,492,237)**	—	(1,786,567)	(1,786,567)
Net	**$ (1,648,392)**	**$ 938**	**$(1,943,660)**	**$(1,942,722)**

The preceding tables exclude fair value information for financial instruments whose carrying amounts are a reasonable approximation of fair value. The carrying value of Cameco's cash and cash equivalents, accounts receivable and accounts payable and accrued liabilities approximates its fair value 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 0.8% to 2.3% (2015 - 0.6% to 2.2%).

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.

Uranium contract derivatives consist of written options and price swaps. The fair value of uranium options is measured based on the Black Scholes option-pricing model. The fair value of uranium price swaps is determined by discounting expected future cash flows from the contracts. The future cash flows are determined by measuring the difference between fixed purchases or sales under contracted prices, and floating purchases or sales based on Numerco forward uranium price 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:

	2016	2015
Non-hedge derivatives:		
Foreign currency contracts	**$(25,166)**	$(167,060)
Interest rate contracts	**6,547**	10,783
Contract derivatives	**(29,654)**	(816)
Net	**$(48,273)**	$(157,093)
Classification:		
Current portion of long-term receivables, investments and other [note 10]	**$ 4,119**	$ 3,823
Long-term receivables, investments and other [note 10]	**6,493**	7,320
Current portion of other liabilities [note 14]	**(24,966)**	(168,236)
Other liabilities [note 14]	**(33,919)**	—
Net	**$(48,273)**	$(157,093)

The following table summarizes the different components of the gains (losses) on derivatives included in net earnings:

	2016	2015
Non-hedge derivatives:		
Foreign currency contracts	**$ 59,398**	$(292,039)
Interest rate contracts	**(1,016)**	10,708
Uranium contracts	**(23,975)**	721
Net	**$ 34,407**	**$(280,610)**

26. Capital management

Cameco's capital structure reflects our vision and the environment in which we operate. We seek growth through development and expansion of existing assets by acquisition. Our capital resources are managed to support achievement of our goals. The overall objectives for managing capital in 2016 remained unchanged from the prior comparative period.

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.

The capital structure at December 31 was as follows:

	2016	2015
Long-term debt [note 13]	**$1,493,327**	$1,492,237
Cash and cash equivalents	**(320,278)**	(458,604)
Net debt	**1,173,049**	1,033,633
Non-controlling interest	**157**	(1,741)
Shareholders' equity	**5,258,371**	5,547,020
Total equity	**5,258,528**	5,545,279
Total capital	**$6,431,577**	$6,578,912

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, 2016, Cameco met these requirements.

The terms of NUKEM's revolving loan facility contain a financial covenant that places restrictions on total debt and working capital balances. The facility also requires Cameco, as guarantor, to maintain a minimum credit rating. As of December 31, 2016 the Company is in compliance with all requirements under this facility.

27. Segmented information

Cameco has three reportable segments: uranium, fuel services and NUKEM. 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. The NUKEM segment acts as a market intermediary between uranium producers and nuclear-electric utilities.

Cameco's reportable segments are strategic business units with different products, processes and marketing strategies.

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 - 2016

For the year ended December 31, 2016

	Uranium	Fuel services	NUKEM	Other	Total
Revenue	$1,717,896	$321,374	$391,402	$ 732	$2,431,404
Expenses					
Cost of products and services sold	993,012	223,991	380,695	(1,463)	1,596,235
Depreciation and amortization	281,159	33,951	38,273	18,306	371,689
Cost of sales	1,274,171	257,942	418,968	16,843	1,967,924
Gross profit (loss)	**443,725**	**63,432**	**(27,566)**	**(16,111)**	**463,480**
Administration	—	—	20,088	186,564	206,652
Impairment charges	361,989	—	—	—	361,989
Exploration	42,579	—	—	—	42,579
Research and development	—	—	—	4,952	4,952
Other operating income	(34,075)	—	—	—	(34,075)
Loss on disposal of assets	22,787	221	160	—	23,168
Finance costs	—	—	4,056	107,850	111,906
Gain on derivatives	—	—	(6,530)	(27,877)	(34,407)
Finance income	—	—	(396)	(3,983)	(4,379)
Other expense (income)	(56,219)	(10,372)	329	5,591	(60,671)
Earnings (loss) before income taxes	**106,664**	**73,583**	**(45,273)**	**(289,208)**	**(154,234)**
Income tax recovery					(94,355)
Net loss					**(59,879)**
Capital expenditures for the year	**$ 201,722**	**$ 13,983**	**$ 1,203**	**$ —**	**$ 216,908**

For the year ended December 31, 2015

	Uranium	Fuel services	NUKEM	Other	Total
Revenue	$1,866,198	$318,999	$553,665	$ 15,516	$2,754,378
Expenses					
Cost of products and services sold	989,239	226,854	516,880	11,842	1,744,815
Depreciation and amortization	269,084	30,670	(5,103)	17,867	312,518
Cost of sales	**1,258,323**	**257,524**	**511,777**	**29,709**	**2,057,333**
Gross profit (loss)	**607,875**	**61,475**	**41,888**	**(14,193)**	**697,045**
Administration	—	—	18,130	168,680	186,810
Impairment charges	215,488	—	—	—	215,488
Exploration	40,259	—	—	—	40,259
Research and development	—	—	—	6,587	6,587
Loss on disposal of assets	1,753	564	9	—	2,326
Finance costs	—	—	4,593	99,022	103,615
Loss (gain) on derivatives	—	—	(587)	281,197	280,610
Finance income	—	—	(3)	(5,414)	(5,417)
Share of loss from equity-accounted investees	758	—	—	—	758
Other expense (income)	4,600	—	1,899	(61,222)	(54,723)
Earnings (loss) before income taxes	**345,017**	**60,911**	**17,847**	**(503,043)**	**(79,268)**
Income tax recovery					(142,630)
Net earnings					**63,362**
Capital expenditures for the year	**$ 344,610**	**$ 13,952**	**$ —**	**$ —**	**$ 358,562**

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:

	2016	2015
United States	**$1,902,679**	$2,135,977
Canada	**347,536**	341,568
Germany	**181,189**	276,833
	$2,431,404	$2,754,378

The Company's non-current assets, excluding deferred tax assets and financial instruments, by geographic location are as follows:

	2016	2015
Canada	**$3,665,558**	$3,867,740
Australia	**420,448**	684,261
United States	**327,266**	429,815
Kazakhstan	**318,006**	327,847
Germany	**127,618**	135,627
	$4,858,896	$5,445,290

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 2016, revenues from one customer of Cameco's uranium, fuel services and NUKEM segments represented approximately $223,268,000 (2015 - $320,312,000), approximately 9% (2015 - 12%) 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.

28. Group entities

The following are the principal subsidiaries and associates of the Company:

	Principal place of business	Ownership interest 2016	2015
Subsidiaries:			
Cameco Fuel Manufacturing Inc.	Canada	100%	100%
Cameco Inc.	US	100%	100%
Power Resources, Inc.	US	100%	100%
Crow Butte Resources, Inc.	US	100%	100%
NUKEM Investments GmbH	Germany	100%	100%
Cameco Australia Pty. Ltd.	Australia	100%	100%
Cameco Europe Ltd.	Switzerland	100%	100%
Associate			
GE-Hitachi Global Laser Enrichment LLC	US	24.00%	24.00%

29. 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. The participants in the Inkai joint operation purchase uranium from Inkai and, in turn, derive revenue directly from the sale of such product to third-party customers. 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	2016	2015
Total assets				
McArthur River	Canada	69.81%	**$1,093,254**	$1,107,017
Key Lake	Canada	83.33%	**571,183**	629,075
Cigar Lake	Canada	50.03%	**1,591,489**	1,674,805
Inkai	Kazakhstan	60.00%	**408,077**	436,611
			$3,664,003	$3,847,508
Total liabilities				
McArthur River		69.81%	**$ 43,189**	$ 49,986
Key Lake		83.33%	**150,847**	174,654
Cigar Lake		50.03%	**37,888**	39,201
Inkai		60.00%	**175,725**	176,163
			$ 407,649	$ 440,004

Through unsecured shareholder loans, Cameco has agreed to fund the development of the Inkai project. Cameco eliminates the loan balances recorded by Inkai and records advances receivable (notes 10 and 30) representing its 40% share.

30. Related parties

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%.

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, other senior managers 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 24). Senior management and directors also participate in the Company's share-based compensation plans (note 23).

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:

	2016	2015
Short-term employee benefits	**$17,673**	$20,271
Share-based compensation	**10,464**	12,749
Post-employment benefits	**5,910**	5,787
Termination benefits	**608**	—
	$34,655	$38,807

(a) Excludes deferred share units held by directors (see note 23).

Other related party transactions

Through unsecured shareholder loans, Cameco has agreed to fund Inkai's project development costs as well as further evaluation on block 3. The limits of the loan facilities are $175,000,000 (US) and advances under these facilities bear interest at a rate of LIBOR plus 2%. At December 31, 2016, $167,750,000 (US) of principal and interest was outstanding (2015 - $157,492,000 (US)).

Cameco's share of outstanding principal and interest was $90,095,000 at December 31, 2016 (2015 - $87,188,000) (note 10). For the year ended December 31, 2016, Cameco recorded interest income of $2,155,000 relating to this balance (2015 - $2,007,000).

EXHIBIT 99.3

Cameco Corporation

2016 Management's Discussion and Analysis

February 9, 2017

Cameco

Management's discussion and analysis

February 9, 2017

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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, 2016. The information is based on what we knew as of February 8, 2017.

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, including NUKEM Energy GmbH (NUKEM), 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 3, 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 pages 2 and 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 expectations about 2017 and future global uranium supply, consumption, demand, contracting volumes, number of reactors and nuclear generating capacity, including the discussion under the headings *Market overview and 2016 developments*
- the discussion under the heading *Our strategy*
- our 2017 objectives
- our expectations for uranium deliveries in 2017
- the discussion of our expectations relating to our transfer pricing disputes, including our estimate of the amount and timing of expected cash taxes and transfer pricing penalties
- the discussion of our expectations relating to our dispute with Tokyo Electric Power Company Holdings, Inc. (TEPCO)
- our consolidated outlook for the year and the outlook for our uranium, fuel services and NUKEM segments for 2017
- our expectations for future tax payments and rates, including effective tax rates
- our expectations for future royalty payments
- our price sensitivity analysis for our uranium segment
- our expectation that existing cash balances and operating cash flows will meet our anticipated 2017 capital requirements without the need for any significant additional funding, other than temporary drawings on short-term liquidity during the course of the year
- our expectations for 2017, 2018 and 2019 capital expenditures
- our expectation that in 2017 we will be able to comply with all the covenants in our unsecured revolving credit facility
- our future plans and expectations for each of our uranium operating properties and projects under evaluation, and fuel services operating sites
- our expectations related to annual Rabbit Lake care and maintenance costs
- our mineral reserve and resource 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 or loss of market share to a competitor
- 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 estimates of production, purchases, costs, care and maintenance, decommissioning or reclamation expenses, or our tax expense estimates prove to be inaccurate
- 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, including lack of success in our disputes with tax authorities or with TEPCO
- we are unsuccessful in our dispute with Canada Revenue Agency (CRA) and this results in significantly higher cash taxes, interest charges and penalties than the amount of our cumulative tax provision
- we are unable to utilize letters of credit to the extent anticipated in our dispute with CRA
- there are defects in, or challenges to, title to our properties
- our mineral reserve and resource estimates are not reliable, or we face unexpected or challenging geological, hydrological or mining conditions
- we are affected by environmental, safety and regulatory risks, including increased regulatory burdens or delays
- we cannot obtain or maintain necessary permits or approvals from government authorities, including AREVA's renewal of the McClean Lake mill's operating licence, and our renewal of the Port Hope conversion facility's operating licence
- we are affected by political risks
- we are affected by terrorism, sabotage, blockades, civil unrest, social or political activism, accident or a deterioration in political support for, or demand for, nuclear energy

- 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
- there are changes to government regulations or policies that adversely affect us, including tax and trade laws and policies
- our uranium suppliers fail to fulfil delivery commitments, or our uranium purchasers fail to fulfil purchase 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
- any difficulties with the McClean Lake mill modifications or expansion or milling of Cigar Lake ore
- our expectations relating to Rabbit Lake care and maintenance costs prove to be inaccurate
- we are affected by natural phenomena, including inclement weather, fire, flood and earthquakes
- our 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

Material assumptions

- our expectations regarding sales and purchase volumes and prices for uranium and fuel services, and that the counterparties to our sales and purchase agreements will honour their commitments
- our expectations regarding the demand for uranium, 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 expected production level and production costs, including our expectations regarding the success of our cost reduction strategies
- the assumptions regarding market conditions upon which we have based our capital expenditures expectations
- our expectations regarding spot prices and realized prices for uranium, and other factors discussed under the heading *Price sensitivity analysis: uranium segment*
- our expectations regarding tax rates and payments, royalty rates, currency exchange rates and interest rates
- our expectations about the outcome of disputes with tax authorities and with TEPCO
- we are able to utilize letters of credit to the extent anticipated in our dispute with CRA
- our decommissioning and reclamation expenses
- 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 mines
- our McArthur River development, mining and production plans succeed
- our Cigar Lake development, mining and production plans succeed
- modification and expansion of the McClean Lake mill are completed as planned and the mill is able to process Cigar Lake ore as expected
- that annual Rabbit Lake care and maintenance costs will be as expected
- our ability to continue to supply our products and services in the expected quantities and at the expected times
- our ability to comply with current and future environmental, safety and other regulatory requirements, and to obtain and maintain required regulatory approvals, including AREVA's renewal of the McClean Lake mill's operating licence, and our renewal of the Port Hope conversion facility's operating licence
- our operations are not significantly disrupted as a result of political instability, nationalization, terrorism, sabotage, blockades, civil unrest, breakdown, natural disasters, 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

Our business

We are one of the world's largest uranium producers, with uranium assets on three continents. 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 fuel manufacturing.

Our head office is in Saskatoon, Saskatchewan.



URANIUM

Operations

We are one of the world's largest uranium producers, and in 2016 accounted for about 17% of the world's production. We have controlling ownership of the world's largest high-grade reserves.

Uranium Projects under Evaluation

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 resources as they are depleted by our production. Our active programs are focused on three continents, where our land holdings total about 1.5 million hectares (areas where we hold land are highlighted).

FUEL SERVICES

We are an integrated uranium fuel supplier, offering refining, conversion and fuel manufacturing services. We control 25% of world conversion capacity.

MARKETING

We sell uranium and fuel services to nuclear utilities in 13 countries, with sales commitments to supply about 150 million pounds of U_3O_8 and over 50 million kilograms of UF_6 conversion services.

NUKEM

NUKEM deals in the physical trading of uranium concentrates, conversion and enrichment services. Its trading strategy is nonspeculative and seeks to match quantities and pricing structures of long-term supply and delivery contracts, minimizing exposure to commodity price fluctuations and locking in profit margins.

OTHER FUEL CYCLE INVESTMENTS

ENRICHMENT

GE-Hitachi Global Laser Enrichment (GLE) is testing a third-generation technology that, if successful, will use lasers to commercially enrich uranium. We have a 24% interest in GLE, which is currently undergoing restructuring. Existing partners General Electric (51%) and Hitachi Ltd. (25%) have negotiated an arrangement providing Silex Systems Ltd. (the technology's licensor), with an exclusive option on their interests.

* Operation suspended/curtailed due to current market conditions

Advantages

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, clean and reliable energy.

With our extraordinary assets, long-term contract portfolio, employee expertise, comprehensive industry knowledge and financial strength, we are confident in our ability to increase shareholder value.



2016 performance highlights

Our focus throughout 2016 was to lower our costs and improve efficiency amid difficult uranium market conditions. We continue to anticipate a market shift as demand increases in the form of restarts and new reactors, while current and future supply decreases through curtailments and lack of investment. However, until we see signs of that shift emerging, we will continue to take the necessary actions intended to preserve shareholder value and position the company for long term success.

Financial performance

HIGHLIGHTS DECEMBER 31 ($ MILLIONS EXCEPT WHERE INDICATED)	2016	2015	CHANGE
Revenue	**2,431**	2,754	(12)%
Gross profit	**463**	697	(34)%
Net earnings (loss) attributable to equity holders	**(62)**	65	(195)%
$ per common share (diluted)	**(0.16)**	0.16	(194)%
Adjusted net earnings (non-IFRS, see page 24)	**143**	344	(58)%
$ per common share (adjusted and diluted)	**0.36**	0.87	(59)%
Cash provided by operations (after working capital changes)	**312**	450	(31)%

Net earnings attributable to equity holders (net earnings) and adjusted net earnings were lower in 2016 compared to 2015. See *2016 consolidated financial results* beginning on page 23 for more information.

Our uranium segment continued to outperform the market

In our uranium segment, we exceeded our annual production expectations, and realized a number of successes and new developments at our mining operations. Key highlights:

- annual production of 27.0 million pounds—5% higher than the guidance provided in our 2016 third quarter MD&A
- quarterly production of 7.1 million pounds in the fourth quarter—26% lower than in 2015 due to the suspension of production at Rabbit Lake, the curtailment of production at Cameco Resources' US operations, and lower production at Inkai
- exceeded planned production at the Cigar Lake mine and AREVA's McClean Lake mill
- we signed an agreement with our partner Kazatomprom and JV Inkai to restructure and enhance JV Inkai
- higher-cost production was suspended at our Rabbit Lake operation and curtailed at Cameco Resources' US ISR operations; by the end of August, 2016, Rabbit Lake was in a state of safe care and maintenance
- we received conditional environmental approval for our Yeelirrie uranium project in Western Australia, and we were granted a 10-year extension of the requirement to provide the government with a development proposal

See *Our operations and projects* beginning on page 51 for more information.

Updates on our other segments and investments

Production in 2016 from our fuel services segment was 13% lower than in 2015. We continue to face weak market conditions for conversion services, and we are continuing to operate Port Hope at a reduced production level.

HIGHLIGHTS			2016	2015	CHANGE
Uranium	Production volume (million lbs)		**27.0**	**28.4**	(5)%
	Sales volume (million lbs)[1]		**31.5**	**32.4**	(3)%
	Average realized price	($ US/lb)	**41.12**	**45.19**	(9)%
		($ Cdn/lb)	**54.46**	**57.58**	(5)%
	Revenue ($ millions)[1]		**1,718**	**1,866**	(8)%
	Gross profit ($ millions)		**444**	**608**	(27)%
Fuel services	Production volume (million kgU)		**8.4**	**9.7**	(13)%
	Sales volume (million kgU)[1]		**12.7**	**13.6**	(7)%
	Average realized price	($Cdn/kgU)	**25.37**	**23.37**	9%
	Revenue ($ millions)[1]		**321**	**319**	1%
	Gross profit ($ millions)		**63**	**61**	3%
NUKEM	Sales volume U_3O_8 (million lbs)[1]		**7.1**	**10.7**	(34)%
	Average realized price	($ Cdn/lb)	**47.90**	**48.82**	(2)%
	Revenue ($ millions)[1]		**391**	**554**	(29)%
	Gross profit (loss) ($ millions)		**(28)**	**42**	(167)%

1 Includes sales and revenue between our uranium, fuel services and NUKEM segments. Please see 2016 *Financial results by segment* beginning on page 42.

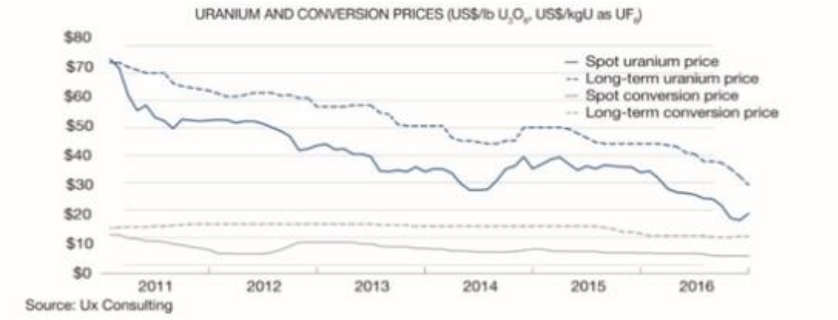
Industry prices

In 2016, the uranium spot price ranged from a high of $35 (US) per pound to a low of about $18 (US) per pound, averaging around $26 (US) for the year. Utilities continue to be well covered under existing contracts, and, given the current uncertainties in the market, we expect they and other market participants will continue to be opportunistic in their buying. As a result, contracting is expected to remain somewhat discretionary in 2017.

	2016	2015	CHANGE
Uranium ($US/lb U_3O_8)[1]			
Average annual spot market price	**25.64**	36.55	(30)%
Average annual long-term price	**39.00**	46.29	(16)%
Fuel services ($US/kgU as UF_6)[1]			
Average annual spot market price			
North America	**6.40**	7.35	(13)%
Europe	**6.91**	7.85	(12)%
Average annual long-term price			
North America	**12.58**	15.33	(18)%
Europe	**13.56**	16.38	(17)%

Note: the industry does not publish UO_2 prices.

1 Average of prices reported by TradeTech and Ux Consulting (Ux)



Also of note

On January 31, 2017, Tokyo Electric Power Company Holdings, Inc. (“TEPCO”) confirmed that it would not accept a uranium delivery scheduled for February 1, 2017, and would not withdraw the contract termination notice it provided to Cameco Inc. on January 24, 2017 with respect to a uranium supply agreement between TEPCO and Cameco Inc. TEPCO alleged that an event of “force majeure” has occurred because it has been unable to operate its nuclear reactors for 18 consecutive months due to the Fukushima nuclear accident in March 2011 and the resulting government regulations. Cameco Inc. sees no basis for terminating the agreement and will pursue all its legal rights and remedies against TEPCO.

Under the agreement, TEPCO has already received and paid for 2.2 million pounds of uranium since 2014. The termination would affect approximately 9.3 million pounds of uranium deliveries through 2028, worth approximately $1.3 billion in revenue to Cameco, including about $126 million in each of 2017, 2018 and 2019 based on 855,000 pounds of deliveries in each of those years. All estimates and uranium volumes are provided on a consolidated basis for Cameco using expected contract prices and an exchange rate of $1.00 (US) for $1.30 (Cdn) and do not reflect any resale of the cancelled deliveries under the contract with TEPCO.

In this MD&A, our 2017 financial outlook and other disclosures relating to our contract portfolio are presented on a basis that excludes this agreement with TEPCO, which is under dispute.

SHARES AND STOCK OPTIONS OUTSTANDING

At February 7, 2017, we had:

- 395,792,522 common shares and one Class B share outstanding
- 7,969,882 stock options outstanding, with exercise prices ranging from $16.38 to $54.38

DIVIDEND

Our board of directors has established a quarterly dividend of $0.10 ($0.40 per year) per common share. The dividend is reviewed quarterly based on our cash flow, earnings, financial position, strategy and other relevant factors.

Market overview and 2016 developments

Cautiously optimistic

Today's uranium market is challenging, but we are cautiously optimistic that we are starting to see some of the signposts required for a market recovery. The future uncovered uranium requirements of utilities due to low levels of long-term contracting over the past four years are increasing. There have been several announcements on both the supply and demand side that are expected to have a positive impact on the challenging market, and there is renewed interest in nuclear power and uranium from non-traditional market participants. However, we believe it will ultimately be the return of term contracting in a significant way that will signal that market dynamics have turned more positive.

TODAY: A STORY OF OVERSUPPLY

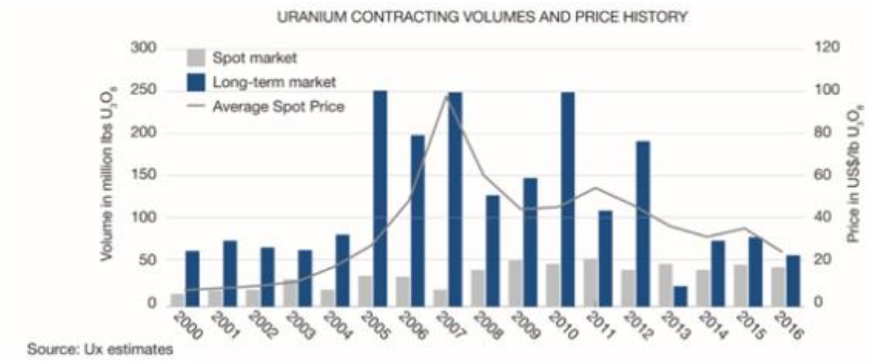
The uranium market continues to be in a state of oversupply. Market recovery has taken longer than anticipated as a result of a slower than expected pace of reactor restarts in Japan, unexpected reactor shutdowns in other regions, delays in reactor construction programs, and reactors under construction not yet consuming uranium. At the same time, supply has continued to perform well, adding to the delay in market improvement.

On the supply side, secondary supplies, consisting largely of government inventories and enricher underfeeding, continue to provide the industry with an exceptionally low-cost source of uranium supply, where the economics differ considerably from mined production. Similarly, several producers, whose production drivers are not always economic, such as large diversified miners and companies mining uranium for strategic or social purposes, negatively impact the supply-demand balance. The lowest cost – tier-one – production, including our own assets, continues to perform well, with cash costs that allow them to remain economic, even at current prices. Finally, higher-cost production, though sensitive to the uranium price, continues to be supported by higher prices under long-term contracts and/or advantageous foreign exchange rates.

The excess supply has impacted the market in a significant way. Abundant spot material has been available to satisfy utilities' appetite for low-priced pounds to meet near- to mid-term requirements. As a result, strategic inventories have grown across the industry and the need to sign significant long-term contracts has been deferred.

These industry dynamics make it difficult to predict the timing of a market recovery. However, given that Ux Consulting Company, LLC (UxC) reports that over the last four years only 245 million pounds have been locked-up in the long-term market, while over 635 million pounds have been consumed in reactors, we remain confident that utilities have a growing gap to fill. As annual supply adjusts and utilities' uncovered requirements grow, we believe the pounds available in the spot market won't be enough to satisfy the demand.

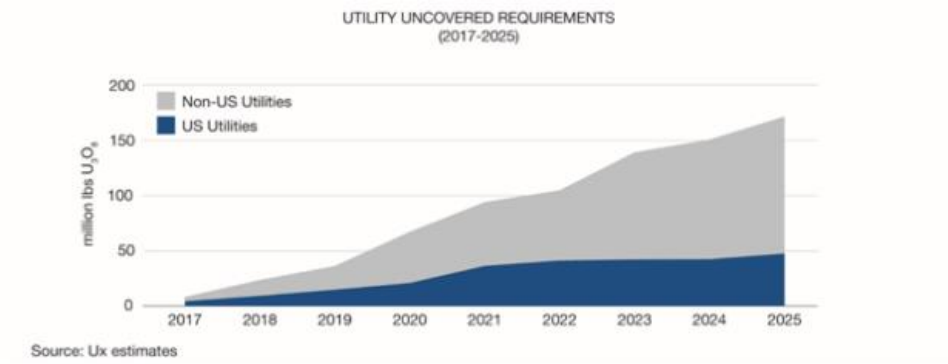
OPPORTUNITIES FOR THOSE WHO CAN WAIT



Source: Ux estimates

Like other commodities, the uranium industry is cyclical and the low level of contracting at low prices that we're seeing today is not new. When prices are low, there is no urgency to contract. The heavy contracting that took place during the previous price run, which drove investment in higher-cost sources of production, contributes to the perception that uranium is abundant and always will be. History demonstrates that the opposite tends to occur when prices rise. After years of low investment in supply, as has been the case so far this decade, security of supply tends to overtake price concerns at some point, and utilities re-enter the long-term market to ensure they have the reliable supply of uranium they need to run their reactors.

The backlog of future contracting needs created by the low-price environment presents a substantial opportunity for suppliers like us that can weather the low-price part of the cycle. As a low-cost producer, we plan our business with these price cycles in mind.



In our industry, customers don't come to the market right before they need to load uranium 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 it arrives at the power plant as a finished fuel bundle. At present, we believe there is a significant amount of uranium that needs to be contracted to keep reactors running into the next decade.

Estimates by industry consultants show cumulative uncovered requirements to be about 800 million pounds over the next nine years. While uncovered requirements do not ramp up significantly in the near-term, the longer the delay in the recovery of the long-term market, the less certainty there is around the availability of future supply to fill growing demand. Ultimately, we expect the current price-sensitive sentiment to give way to increasing concerns about the security of future supply.

SUPPLY IS NOT GUARANTEED

Economic difficulties are beginning to take a toll on the supply side. Producers who have been protected from the low market prices under long-term contracts, are beginning to emerge from that protection. As a result, it is not just future supply that is at risk – we are seeing evidence that even existing supply is at risk:

- most recently, Kazatomprom announced its intention to reduce 2017 output from Kazakhstan by 10%, citing market challenges due to the current oversupply situation
- Paladin has announced reduced production from their 75% owned Langer Heinrich mine and modification of the mine plan to reduce costs
- in the conversion space, Honeywell is making permanent adjustments to its operation and lowering nameplate capacity of their facility from 15 million kgU to 7 million kgU as UF_6
- some enrichers are retiring centrifuge capacity, reducing the excess capacity in the enrichment space that is contributing to broader oversupply via underfeeding and tails re-enrichment
- we have suspended and curtailed three operations in addition to taking cost-cutting measures that carry additional supply risk

Coupled with looming uncovered requirements, we expect the risks to future and existing supply could decrease the availability of spot material and increase the pressure for a return to long-term contracting.

DEMAND SIDE CHALLENGES

There was mixed news for the broader nuclear industry in 2016. On a regional demand basis, there were significant positive and negative developments:

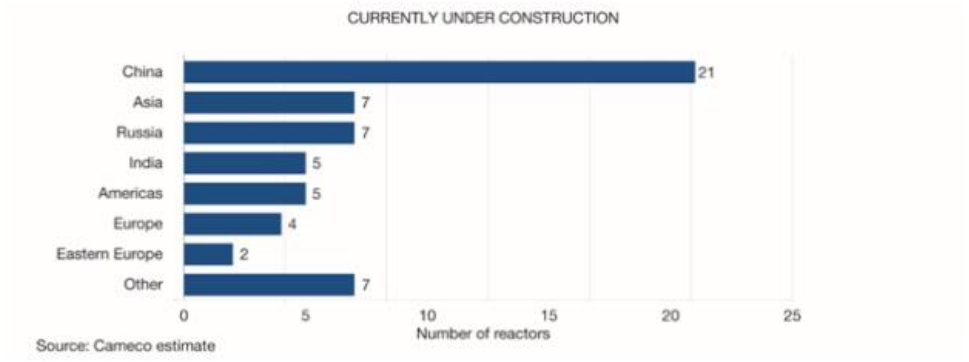
- China struggled with a lower economic growth forecast and excess capacity in the energy sector, although the country remains committed to a fast-paced and growing nuclear power program
- in Japan, a total of 10 reactors now meet the new regulatory standards; however, the pace of restarts continues to be slow
- India made strides in agreements with western nuclear vendors, including engineering and design work, and finalizing contractual arrangements, but the industry continues to face delays in achieving significant progress in nuclear power development
- Russia saw domestic challenges due to weaker demand for electricity, but continues to pursue an aggressive reactor export strategy
- US operators announced additional early reactor closures, but policy developments in some states targeted support for keeping at-risk reactors profitable
    - A number of additional reactors remain under threat of early closure subject to political and energy policy support
    - It remains to be seen what impact the new US administration will have on the success of their reactor program
- in the United Arab Emirates, construction of four units is proceeding smoothly, with the startup of the first unit expected in 2017, but continued growth remains uncertain
- the United Kingdom approved construction of Hinkley Point C, but the rest of Europe is expecting little to no growth in nuclear power in the next 10 years
- advances were also made in the potential growth of some other existing nuclear programs (South Korea, South Africa) and new nuclear programs (Bangladesh), while steps in the opposite direction occurred in other jurisdictions (Vietnam and Taiwan)
- in Canada, the Province of Ontario has shown a strong commitment to nuclear power for nearly 50 years, but continued support is subject to a successful refurbishment program
- several units in France's nuclear fleet were taken offline due to regulatory reviews linked to technical issues, though some have been cleared for restart. France is also showing signs of reversing a previously announced intention to reduce reliance on nuclear power.

While 2016 offered some welcome progress in bringing supply and demand closer to equilibrium, uncertainty persists.

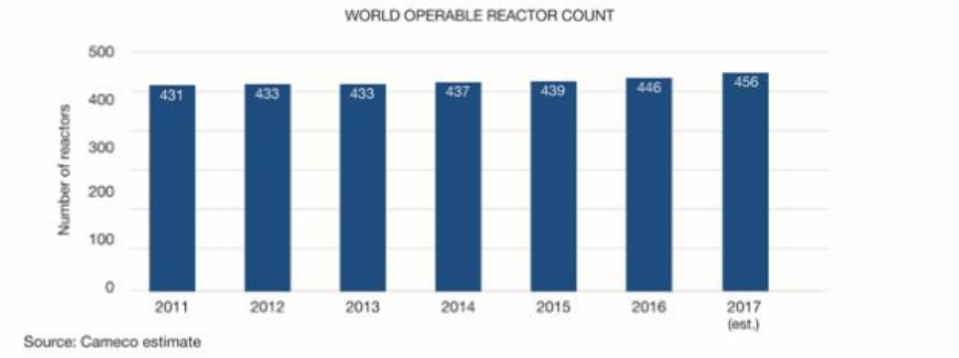
WHAT HAS TO CHANGE?

Ultimately, the industry needs to fill the demand gap left by forced and premature shut-downs since March of 2011 by continuing to safely bring reactors online. This means Japanese restarts, successful commissioning of new reactors under construction, and continued development of new construction plans. And we're seeing positive progress on all fronts:

- Japanese utilities have now successfully navigated through the new, rigorous safety inspection process
- 58 reactors are currently under construction around the world, the majority of which are expected to come online in the next three years



- the growth in nuclear power generation is real, with 10 new reactors connected to the grid in 2016



Global population is on the rise, and with the world's need for safe, clean, reliable baseload energy, nuclear remains an important part of the mix. We remain confident in the future of the nuclear industry, while at the same time recognizing that uncertainty persists.

With demand coming on in the form of restarts and new reactors, and supply falling on curtailments and lack of investment, we're continuing to expect a market shift. Until that time, we will continue to take the actions we believe are necessary to position the company for long-term success. Therefore, we will undertake contracting activity which aligns with the uncertain timing of a market recovery 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 deliver into a strengthening market.

Our strategy

Tier-one focus

Our strategy is set within the context of a challenging market environment, which we expect to give way to strong long-term fundamentals driven by increasing population and electricity demand.

We are a pure-play nuclear fuel supplier, 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 is to focus on our tier-one assets and profitably produce at a pace aligned with market signals in order to increase long-term shareholder value, and to do that 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 plan to focus on our tier-one assets and manage our supply according to market conditions in order to return the best value possible. During a prolonged period of uncertainty, our tier-one strategy helps to mitigate risk. As conditions improve, we expect to meet rising demand with production from our best margin operations.

In light of today's oversupplied market and the lingering uncertainty as to how long the weak market conditions will persist, we are focussing our resources on our lowest cost assets, on maintaining a strong balance sheet, and on efficiently managing the company in a low price environment. Consistent with this strategy, in 2016, we suspended production at our Rabbit Lake operation in northern Saskatchewan, we curtailed production at Cameco Resources' US operations by deferring wellfield development, and we reduced the workforce in our corporate office. In addition, actions we have planned for 2017, including a 10% reduction of the workforce at our McArthur River, Key Lake and Cigar Lake operations, changes to work rotation schedules, and changes to the commuter flight services at our sites, are all expected to further reduce costs and improve efficiency at our mining operations. See *Uranium – production overview* on page 55 for additional details

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. Our focus is on maintaining and optimizing profitability.

ENRICHMENT

We continue to explore opportunities in the second largest value driver of the fuel cycle. Having operational control of both uranium production and enrichment facilities would offer operational synergies that could enhance profit margins.

NUKEM

NUKEM's activities provide a source of profit and give us insight into market dynamics.

Capital allocation – focus on value

Delivering returns to our long-term shareholders is a top priority. We continually evaluate our investment options to ensure we allocate our capital in a way that we believe will:

- create the greatest long-term value for our shareholders
- allow us to maintain our investment grade rating
- ensure we execute on our dividend

To deliver value, free cash flow must be productively reinvested in the business or returned to shareholders, which requires good execution and disciplined allocation. We have a multidisciplinary capital allocation team that evaluates all possible uses of investable capital.

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.

Amid the uncertain times we are facing today, the objective of our strategy is to maximize cash flow, while maintaining our investment grade rating through close management of our balance sheet metrics, allowing us to self-manage risks. Risks like:

- a market that remains low for longer
- litigation risk related to the CRA and TEPCO disputes
- refinancing risk

With the metrics that inform that rating in mind, we have taken steps to improve margin and cash flow by focusing on our tier-one assets, and reduce operating, capital, and general and administrative spend in this time of low uranium prices.

REINVESTMENT

Before investable capital is reinvested 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 growth prospects internally or externally, this may result in residual investable capital, which we would then consider returning directly to shareholders.

RETURN

If we determine the best use of cash is to return it to shareholders, we can do that through a share repurchase or dividend—either a one-time special dividend or a dividend growth policy. When deciding between these options, we consider a number of factors, including generation of excess cash, growth prospects for the company, growth prospects for the industry, and the nature of the excess cash.

Share buyback: If we were generating excess cash while there were little 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: We view our dividend as a priority. It is evaluated by our board of directors on a quarterly basis with careful consideration of long-term sustainability. A re-assessment of our current dividend would require a significant fact change at the industry or company level.

Marketing strategy – balanced contract portfolio

As with our corporate strategy and approach to capital allocation, the purpose of our marketing strategy 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.

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 with suppliers, and 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 addition, we are active in the spot market, buying and selling uranium when it is beneficial for us. Our NUKEM business segment enhances our ability to participate, as they are one of the world's leading traders of uranium and uranium-related products. We undertake activity in the spot market prudently, looking at the spot price and other business factors to decide whether it is appropriate to purchase or sell into the spot market. Not only is this activity a source of profit, it gives us insight into underlying market fundamentals.

LONG-TERM CONTRACTING

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, geopolitical events, disruptions in planned supply and demand, and other market factors.

The objective of our contracting strategy is to:

- maximize realized price while reducing volatility of our future earnings and cash flow
- focus on meeting the nuclear industry's growing uncovered requirements with our future uncommitted supply while ensuring adequate regional diversity
- establish and grow market share with strategic customers

We target a ratio of 40% fixed-pricing and 60% market-related pricing in our portfolio of long-term contracts, including mechanisms 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 and put a floor on our average realized price, and deliver the best value to shareholders over the long term.

This strategy 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.

Fixed-price contracts: are typically based on the industry long-term price indicator at the time the contract is accepted and escalated over the term of the contract.

Market-related contracts: are different from fixed-price contracts in that they 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, all of which are escalated over the term of the contract.

Fuel services contracts: the majority of our fuel services contracts are at a fixed price per kgU, escalated over the term of the contract, and reflect the market at the time the contract is accepted.

OPTIMIZING THE CONTRACT PORTFOLIO

In today's weak market environment, we have been working with certain customers to optimize the value of our existing contract portfolio. In cases where a customer is seeking relief due to a challenging policy, operating, or economic environment, we evaluate their specific circumstances and assess their long-term sustainability. Where we deem the customer's long-term demand to be at risk, we may consider options that allow us to benefit from converting that uncertain future value into certain present value. In contrast, where the customer is considered to have a more certain and predictable future, we may offer relief, for example by blending in more market-related volumes in the near term, but only where the customer is willing to extend the terms and conditions of that contract out into the future, and only where it is beneficial to us.

CUSTOMER'S FUTURE OPERATING ENVIRONMENT

UNCERTAIN		OPTIMISTIC
Changing	**Policy**	Clear pathways
Challenges	**Regulatory**	Established
Unregulated	**Economic**	Benefits recognized
Future uncertainty for present certain value	**Resulting trade-off considerations**	Relief where it is beneficial for us

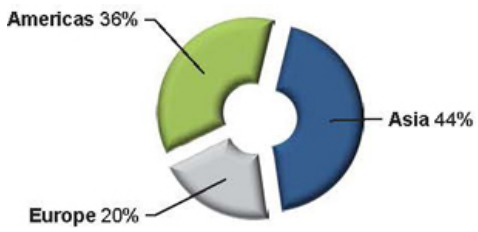
CONTRACT PORTFOLIO STATUS

Currently, our production is heavily committed under long-term uranium contracts through 2019, so we are being selective when considering new commitments and working to achieve our contracting objectives. We have commitments to sell approximately 150 million pounds of U_3O_8 with 40 customers worldwide in our uranium segment, and over 50 million kilograms as UF_6 conversion with 31 customers worldwide in our fuel services segment.

Customers – U_3O_8:

Five largest customers account for 52% of commitments

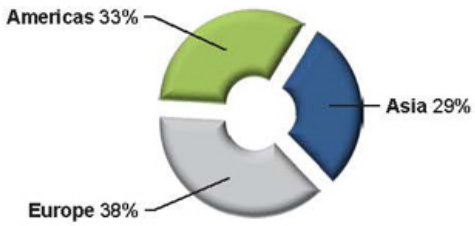
COMMITTED U_3O_8 SALES BY REGION



Customers – UF_6 conversion:

Five largest customers account for 56% of commitments

COMMITTED UF_6 SALES BY REGION



MANAGING OUR CONTRACT COMMITMENTS

To meet our delivery commitments, we use our uranium supply, which includes uranium obtained from:

- our existing production
- purchases under long-term agreements and in the spot market
- our existing inventory

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

- the level of sales commitments in our long-term contract portfolio (the annual average sales commitments over the next five years in our uranium segment is 24 million pounds, with commitment levels through 2019 higher than in 2020 and 2021)
- our production volumes
- purchases under existing and/or new arrangements
- discretionary use of inventories
- market opportunities

Focusing on cost efficiency

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.

2016 URANIUM OPERATING COSTS BY CATEGORY



Operating costs in our fuel services segment are mainly fixed. In 2016, labour accounted for about 52% of the total. The largest variable operating cost is for zirconium, followed by energy (natural gas and electricity), maintenance supplies, and anhydrous hydrogen fluoride.

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 and inventories, and we purchase material where it is beneficial to do so. 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.

FINANCIAL IMPACT

As greater certainty returns to the uranium market, based on our view that the market will transition from being supply-driven to being demand-driven, we expect uranium prices will rise to reflect the cost of bringing on new primary production to meet growing demand.

In addition, as we execute our strategy to focus on tier-one production, we expect to see more stability in the unit cost of sales for our uranium segment.

Sustainable development: A key part of our strategy

Social responsibility and environmental protection are top priorities for us, so much so that we have built our corporate objectives around them within our four measures of success: a safe, healthy and rewarding workplace, a clean environment, supportive communities, and outstanding financial performance. For us, sustainability isn't an add-on for our company; it's at the core of our company culture. It helps us:

- build trust, credibility and corporate reputation
- gain and enhance community support for our operations and plans
- attract and retain employees
- manage risk
- drive innovation and continual improvement to build competitive advantage

Because they are so important, we integrate sustainable development principles and practices at each level of our organization, from our overall corporate strategy to individual employee practice in day-to-day operations.

Consequently, we recognize that changes in our operations and support functions, including the suspension of production at Rabbit Lake, curtailment at Cameco Resources' US operations, and the reduction of the workforce at our northern Saskatchewan operations and at our corporate office, all have a significant impact on the communities where we operate. While we regret the negative impact that these carefully deliberated decisions have on affected employees and other stakeholders, these actions are deemed necessary for the long-term health of the company in a uranium market that continues to be weak and oversupplied. Improving operational efficiency is part of our strategy to effectively manage costs and remain competitive through these low times, while positioning the company and our stakeholders to benefit as the market improves.

SAFE, HEALTHY, REWARDING WORKPLACE

We are committed to living a strong safety culture, while looking to continually improve. As a result of this commitment, we have a long history of strong safety performance at our operations and across the organization.

2016 Highlights:

- several operations reached significant safety milestones, including the Blind River refinery and the Crow Butte operation passing 10 and 9 years respectively, without a lost time incident
- continued low average dose of radiation to workers while ramping up Cigar Lake
- awarded the John T Ryan National Safety award at McArthur River mine based on prior year performance for the third year in a row
- recognized for several top employer awards

A CLEAN ENVIRONMENT

We are committed to being a leading environmental performer. We strive to be a leader not only by complying with legal requirements, but also by keeping risks as low as reasonably achievable, and looking for opportunities to move beyond requirements.

We track our progress by monitoring the air, water and land near our operations, and by measuring the amount of energy we use and the amount of waste generated. We use this information to help identify opportunities to improve.

2016 Highlights:

- sustained the significantly reduced uranium-to-air emissions achieved at our Port Hope conversion facility in 2014
- continued to reduce low level radioactive waste stored at our Fuel Services division facilities
- improved effluent performance at the McArthur River mine
- successfully transitioned the Rabbit Lake operation into care and maintenance with no significant environmental incident
- continued to carry out industry leading research and innovation in groundwater restoration at our US in situ recovery operations

SUPPORTIVE COMMUNITIES

Gaining the trust and support of our communities, indigenous people, and governments is necessary to sustain our business. We earn support and trust through excellent safety and environmental performance, by proactively engaging our stakeholders in an open and transparent way, and by making a difference in communities wherever we operate. These efforts are critical to obtaining and maintaining the necessary regulatory approvals.

2016 Highlights:

- over $210 million in procurement from locally owned northern Saskatchewan companies (80% of total)
- 1,088 local personnel from northern Saskatchewan (704 Cameco employees, 384 contractors)
- signed a Collaboration Agreement, our third in the region, with the seven communities of the Athabasca, including three First Nations
- community engagement activities at all of our operations
- continued work on groundwater restoration with five universities, Los Alamos National Laboratory, and the United States Geological Survey

OUTSTANDING FINANCIAL PERFORMANCE

Long-term financial stability and profitability are essential to our sustainability as a company. We firmly believe that sound governance is the foundation for strong corporate performance.

2016 Highlights:

- continue to achieve an average realized price that outperforms the market
- ranked 23rd out of 231 Canadian companies by Globe and Mail in governance practices

MONITORING AND MEASUREMENT

We take the integration of sustainable development and measurement of our performance seriously. We have been producing a Sustainable Development (SD) Report since 2005, using the Global Reporting Initiative's Sustainability Framework (GRI). It is our report card to our stakeholders. It tells them how we're performing against globally recognized key indicators that measure our social, environmental and economic impacts in the areas that matter most to them. It provides information about our goals, where we've met, exceeded or struggled with them, and how we plan to do better. Our most recent SD Report was released in August, 2016 and we expect to release our next full report in 2018.

All of our operating sites are ISO 14001 compliant. In addition, we have now transitioned from individual site-based ISO 14001 certifications to a single corporate certification. We have begun to roll our operations into this single certification.

Achievements

We are a five-time Gold award winner through the Progressive Aboriginal Relations program as judged by the Canadian Council for Aboriginal Business. We are also proud to have been named one of Canada's Top 100 Employers, Saskatchewan's Top Employers, and Canada's Best Diversity Employers for eight years running, and one of Canada's Top Employers for Young People for the seventh year. We are a leading employer of indigenous peoples in Canada, and have procured nearly $3.5 billion in services from local suppliers in northern Saskatchewan since 2004.

We encourage you to review our SD report at cameco.com/about/sustainability which outlines our commitment to people and the environment in more detail.

A STRATEGIC FOCUS ON
TIER-ONE ASSETS

Our strategy is to focus on our tier-one assets and profitably produce at a pace aligned with market signals, while maintaining the ability to respond to market conditions as they evolve.

COMMITTED TO OUR VALUES

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

SAFETY AND ENVIRONMENT

The safety of people and protection of the environment are the foundations of everything we do, locally and globally.

PEOPLE

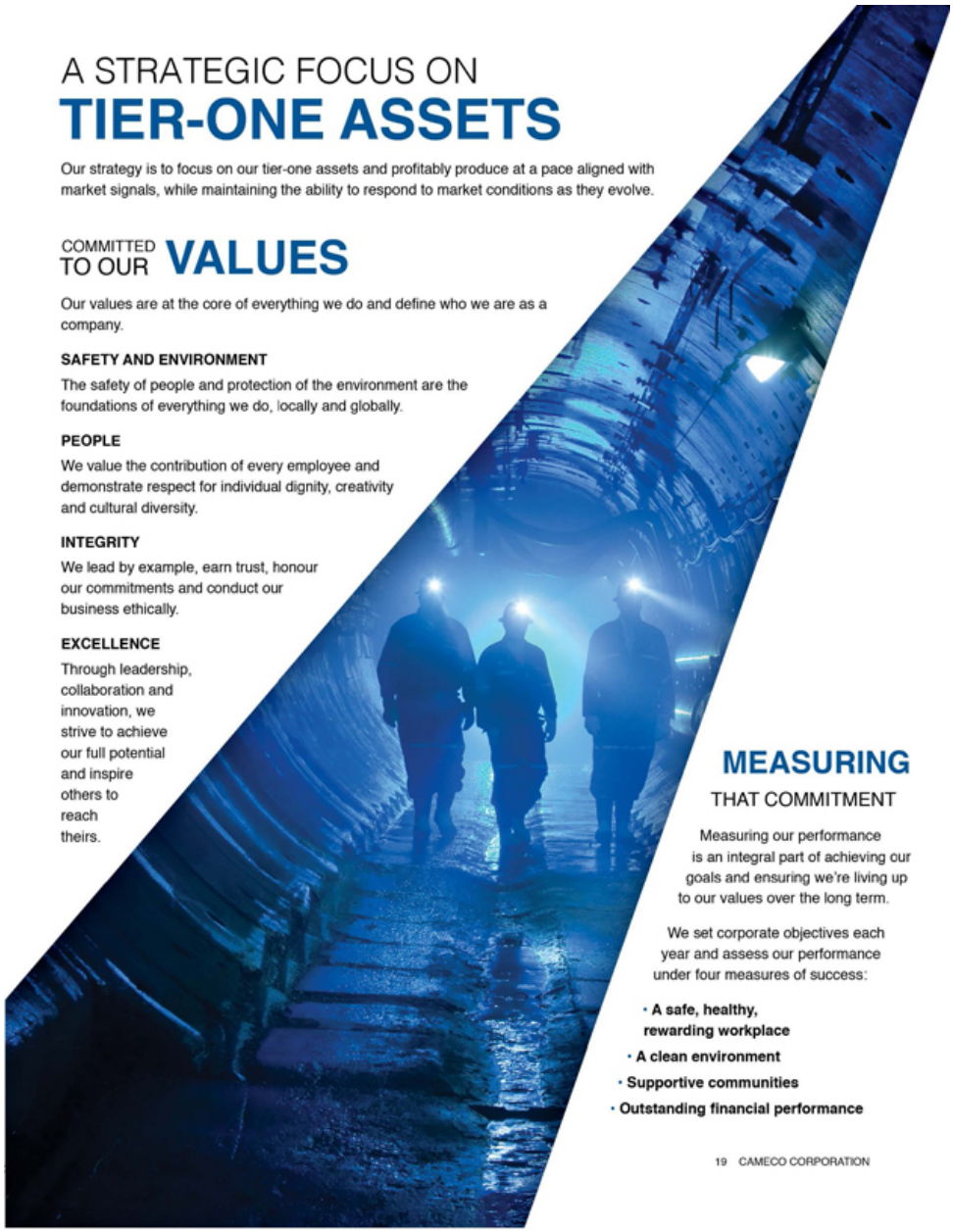
We value the contribution of every employee and demonstrate respect for individual dignity, creativity and cultural diversity.

INTEGRITY

We lead by example, earn trust, honour our commitments and conduct our business ethically.

EXCELLENCE

Through leadership, collaboration and innovation, we strive to achieve our full potential and inspire others to reach theirs.



MEASURING THAT COMMITMENT

Measuring our performance is an integral part of achieving our goals and ensuring we're living up to our values over the long term.

We set corporate objectives each year and assess our performance under four measures of success:

- **A safe, healthy, rewarding workplace**
- **A clean environment**
- **Supportive communities**
- **Outstanding financial performance**

Measuring our results

Each year, we set corporate objectives that are aligned with our strategic plan. These objectives fall under our four measures of success, and 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.

2016 OBJECTIVES[1]	TARGET	RESULTS	
OUTSTANDING FINANCIAL PERFORMANCE			
Earnings measures	Achieve targeted adjusted net earnings and cash flow from operations (before working capital changes).	**Did not achieve**	• adjusted net earnings was below the minimum target • cash flow from operations was below the minimum target
Capital management measures	Execute capital projects within the approved scope, cost and schedule.	**Achieved**	• cost performance was under budget (better than the target) • project milestones were achieved largely on schedule
Cigar Lake measure	Average daily production rate.	**Exceeded**	• the average daily production rate mined from Cigar Lake in 2016 was higher than the target
SAFE, HEALTHY AND REWARDING WORKPLACE			
Workplace safety measures	Strive for no injuries at all Cameco-operated sites. Maintain a long-term downward trend in combined employee and contractor injury frequency and severity, and radiation doses.	**Partially Achieved**	• injury rates were stable but did not meet one of the two planned reduction targets for the year • average radiation doses remained low and stable
Rewarding workplace measures	Attract and retain the employees needed to support operations.	**Partially achieved**	• diversity and inclusion strategy development milestones were achieved on schedule • turnover rate for new hires during the first year of employment was higher than the target (higher turnover)
CLEAN ENVIRONMENT			
Environmental performance measures	Achieve divisional environmental aspect improvement targets.	**Achieved**	• performance was within the targeted range • there were no significant environmental incidents in 2016
SUPPORTIVE COMMUNITIES			
Stakeholder support measures	Implement Collaboration Agreements by supporting northern business development opportunities and build corporate reputation.	**Exceeded**	• sourcing of northern services from Northern Saskatchewan vendors was above the target • sourcing of capital projects construction services from Northern Saskatchewan vendors was above the target • public support index scoring was slightly above our target

1 Detailed results for our 2016 corporate objectives and the related targets will be provided in our 2017 management proxy circular prior to our Annual Meeting of Shareholders on May 11, 2017.

2017 objectives

OUTSTANDING FINANCIAL PERFORMANCE

- Achieve targeted adjusted net earnings and cash flow from operations.

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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2016 consolidated financial results

On February 1, 2017, we announced that on January 31, 2017, TEPCO, alleging force majeure, confirmed that it would not withdraw a contract termination notice it provided to Cameco Inc. with respect to a uranium supply agreement, which affects approximately 9.3 million pounds of uranium deliveries through 2028, worth approximately $1.3 billion in revenue to Cameco, including about $126 million in 2017. We see no basis for terminating the agreement. In this MD&A, our 2017 financial outlook and other disclosures relating to our contract portfolio are presented on a basis which excludes this agreement with TEPCO, which is under dispute.

HIGHLIGHTS DECEMBER 31 ($ MILLIONS EXCEPT WHERE INDICATED)	2016	2015	2014[1]	CHANGE FROM 2015 TO 2016
Revenue	**2,431**	2,754	2,398	(12)%
Gross profit	**463**	697	638	(34)%
Net earnings (loss) attributable to equity holders	**(62)**	65	185	(195)%
$ per common share (basic)	**(0.16)**	0.16	0.47	(194)%
$ per common share (diluted)	**(0.16)**	0.16	0.47	(194)%
Adjusted net earnings (non-IFRS, see page 24)	**143**	344	412	(58)%
$ per common share (adjusted and diluted)	**0.36**	0.87	1.04	(59)%
Cash provided by operations (after working capital changes)	**312**	450	480	(31)%

1 On January 31, 2014, we announced the sale of our 31.6% limited partnership interest in Bruce Power Limited Partnership (BPLP) and related entities for $450 million. The sale closed on March 27, 2014, and was accounted for as being completed effective January 1, 2014.

Net earnings

Our net loss attributable to equity holders (net loss) in 2016 was $62 million ($0.16 per share diluted) compared to earnings of $65 million ($0.16 per share diluted) in 2015, mainly due to:

- lower gross profit from our uranium and NUKEM segments
- higher administration costs
- higher impairment charges ($362 million in 2016; $215 million in 2015)
- higher loss on disposal of assets
- higher foreign exchange losses compared to gains in 2015
- lower tax recovery. See *Income taxes* on page 28 for details.

partially offset by:

- higher gross profit from our fuel services segment
- gain from remeasurement of Rabbit Lake reclamation obligation
- mark-to-market gains on foreign exchange derivatives compared to losses in 2015. See *Foreign exchange* on pages 32 and 33 for details.
- gain from termination of long-term contracts

THREE-YEAR TREND

Our net earnings normally trend with revenue, but, in recent years, have been significantly influenced by unusual items.

In 2015, our net earnings were $120 million lower than in 2014 primarily due to:

- higher administration costs
- higher losses on foreign exchange derivatives due to the weakening of the Canadian dollar. See *Foreign exchange* on pages 32 and 33 for details.
- lower income tax recovery

partially offset by:

- higher earnings from all segments
- a decrease in impairment charges ($215 million in 2015; $327 million in 2014)
- a reduction the provision related to our CRA litigation

In addition, in 2014 there were a number of one-time items that contributed to the higher net earnings in 2014 compared to 2015, including:

- a $127 million gain on the sale of our interest in BPLP in 2014
- a favourable settlement of $66 million in 2014 in a dispute regarding a long-term supply contract with a utility customer

partially offset by:

- payment of an early termination fee of $18 million incurred as a result of our toll conversion agreement with Springfields Fuels Limited (SFL), and settlement costs of $12 million with respect to early termination of our Series C debentures
- the write-off of $41 million of assets under construction in 2014 as a result of changes made to the scope of a number of projects

Impairment charges

Production was suspended at our Rabbit Lake operation in the second quarter and as a result, we recognized an impairment charge for the full carrying value of $124 million during the second quarter.

During the fourth quarter of 2016, we recorded a $238 million write-down of the full carrying value of our interest in Kintyre, our uranium exploration project in Australia. Due to the weakening of the uranium market since the asset was purchased in 2008, and the budget decision not to allocate any further spend to the project, we concluded it was appropriate to recognize a further impairment charge for this asset. See note 8 to the financial statements.

Non-IFRS measures

ADJUSTED NET EARNINGS

Adjusted net earnings is a measure that does not have a standardized meaning or a consistent basis of calculation under IFRS (non-IFRS measure). We use this measure as a more meaningful way to compare our financial performance from period to 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 our net earnings attributable to equity holders, adjusted to better reflect the underlying financial performance for the reporting period. The adjusted earnings measure reflects the matching of the net benefits of our hedging program with the inflows of foreign currencies in the applicable reporting period, and is adjusted for impairment charges, the write-off of assets, NUKEM purchase price inventory recovery, Rabbit Lake reclamation provision adjustment, gain on interest in BPLP (after tax), and income taxes on adjustments.

Adjusted net earnings is non-standard supplemental information 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 2016, 2015 and 2014.

($ MILLIONS)	2016	2015	2014
Net earnings (loss) attributable to equity holders	**(62)**	65	185
Adjustments			
Adjustments on derivatives	**(130)**	166	47
NUKEM purchase price inventory recovery	**(6)**	(3)	(5)
Impairment charges	**362**	215	327
Write-off of assets	**—**	—	41
Rabbit Lake reclamation provision adjustment	**(34)**	—	—
Income taxes on adjustments	**13**	(99)	(56)
Gain on interest in BPLP (after tax)	**—**	—	(127)
Adjusted net earnings	**143**	344	412

The following table shows what contributed to the change in adjusted net earnings for 2016.

($ MILLIONS)		
Adjusted net earnings – 2015		**344**
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	(16)
	Lower realized prices ($US)	(129)
	Foreign exchange impact on realized prices	30
	Higher costs	(49)
	change – uranium	(164)
Fuel services	Lower sales volume	(4)
	Higher realized prices ($Cdn)	25
	Higher costs	(19)
	change – fuel services	2
NUKEM	Gross profit	(71)
	change – NUKEM	(71)
Other changes		
Higher administration expenditures		(20)
Higher exploration expenditures		(2)
Higher loss on disposal of assets		(21)
Lower loss on derivatives		19
Higher foreign exchange losses		(65)
Gain on customer contract settlements		59
Higher income tax recovery		63
Other		(1)
Adjusted net earnings – 2016		**143**

THREE-YEAR TREND

Our adjusted net earnings decreased from 2014 to 2015, and decreased again from 2015 to 2016.

The 17% decrease from 2014 to 2015 resulted from:

- greater losses on foreign exchange derivatives due to the weakening of the Canadian dollar, see *Foreign exchange* on page 32 for more information
- lower tax recoveries, primarily due to the write-off of our deferred tax asset in the US. See *Income taxes* on page 28 for details.

partially offset by:

- higher earnings in our uranium and fuel services segments mainly due to a higher average realized price
- higher earnings from our NUKEM segment mainly due to higher sales volumes and a higher average realized price
- a reduction of the provision related to our CRA litigation, see *Income taxes* on page 28 for details

In addition, in 2014 there was a favourable settlement of $66 million with respect to a dispute regarding a long-term supply contract with a utility customer that contributed to the higher adjusted net earnings in 2014 compared to 2015. The impact of the settlement was partially offset by an early termination fee of $18 million incurred as a result of the cancellation of our toll conversion agreement with SFL and settlement costs of $12 million with respect to the early redemption of our Series C debentures in 2014.

The 58% decrease from 2015 to 2016 resulted from:

- lower gross profit from our uranium and NUKEM segments
- higher administration costs
- higher loss on disposal of assets
- higher foreign exchange losses compared to gains in 2015

partially offset by:

- higher gross profit from our fuel services segment
- lower losses on foreign exchange derivatives. See *Foreign exchange* on page 32 for details.
- gain from termination of long-term contracts
- higher tax recovery. See *Income taxes* on page 28 for details.

Average realized prices

		2016	2015	2014	CHANGE FROM 2015 TO 2016
Uranium[1]	$US/lb	**41.12**	45.19	47.53	(9)%
	$Cdn/lb	**54.46**	57.58	52.37	(5)%
Fuel services	$Cdn/kgU	**25.37**	23.37	19.70	9%
NUKEM	$Cdn/lb	**47.90**	48.82	44.90	(2)%

1 Average realized foreign exchange rate ($US/$Cdn): 2016 – 1.32, 2015 – 1.27 and 2014 – 1.10.

Revenue

The following table shows what contributed to the change in revenue for 2016.

($ MILLIONS)	
Revenue – 2015	**2,754**
Uranium	
Lower sales volume	(50)
Lower realized prices ($Cdn)	(98)
Change in intersegment sales	1
Fuel services	
Lower sales volume	(23)
Higher realized prices ($Cdn)	25
Change in intersegment sales	(1)
NUKEM	
Change in revenue	(162)
Change in intersegment sales	23
Other	(38)
Revenue – 2016	**2,431**

See 2016 *Financial results by segment* on page 42 for more detailed discussion.

THREE-YEAR TREND

In 2015, revenue increased by 15% compared to 2014 due to significant weakening of the Canadian dollar during the year, which resulted in record annual consolidated revenue and record annual revenue for our uranium segment. The realized foreign exchange rate was 1.27 compared to 1.10 in 2014. In addition, we had higher revenues in our NUKEM segment as a result of higher sales volumes, which were driven by increased market activity.

In 2016, revenue decreased by 12% compared to 2015 due to lower sales revenues in all of our operating segments as a result of reduced sales volumes in response to market conditions. In addition, we had lower revenues in our uranium and NUKEM segments as a result of the lower US dollar average realized price which was due to lower prices on market-related contracts. This was partially offset by further weakening of the Canadian dollar exchange rate realized on sales during 2016. The realized foreign exchange rate was 1.32 compared to 1.27 in 2015.

Revenue Outlook for 2017

We expect consolidated revenue to decrease in 2017 (outlook of $1,950 million to $2,080 million), based on currently committed sales volumes, due to a decrease in average realized prices in our uranium segment as a result of lower prices under both fixed and market related contracts, TEPCO contract dispute, and an expected decrease in NUKEM sales volumes. If we make additional sales with deliveries in 2017, we would expect our revenue outlook to increase.

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 2017 to be weighted to the second half of the year 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.



Corporate expenses

ADMINISTRATION

($ MILLIONS)	2016	2015	CHANGE
Direct administration	**195**	173	13%
Stock-based compensation	**12**	14	(14)%
Total administration	**207**	187	11%

Direct administration costs in 2016 were $22 million higher than in 2015 due mainly to:

- one-time costs related to collaboration agreements
- charges related to the consolidation of office space
- legal costs as we prepared the CRA case for trial, which began in October, 2016
- restructuring of our NUKEM segment, and
- costs related to our reduction of staffing levels at our corporate office

We recorded $12 million in stock-based compensation expenses in 2016 under our stock option, restricted share unit, deferred share unit, performance share unit and phantom stock option plans, compared to $14 million in 2015. See note 23 to the financial statements.

Administration outlook for 2017

We expect administration costs (not including stock-based compensation) to be approximately 20% lower compared to 2016 (outlook between $150 million to $160 million) due to the actions that we took during 2016 to reduce costs.

EXPLORATION

Our 2016 exploration activities remained focused on Canada and Australia. Our spend increased from $40 million in 2015 to $43 million in 2016.

Exploration outlook for 2017

We expect exploration expenses to be about $30 million in 2017 due to an overall decrease in activity on our regional exploration projects.

FINANCE COSTS

Finance costs were $112 million compared to $104 million in 2015. The increase from last year was mainly a result of increased letter of credit fees. See note 18 to the financial statements.

FINANCE INCOME

Finance income was $4 million compared to $5 million in 2015, reflecting lower average cash balances in 2016.

GAINS AND LOSSES ON DERIVATIVES

In 2016, we recorded $34 million in gains on our derivatives compared to losses of $281 million in 2015. The gains reflect the strengthening of the Canadian dollar compared to the US dollar from the exchange rate at the end of 2015. See *Foreign exchange* on page 32 and note 25 to the financial statements.

INCOME TAXES

We recorded an income tax recovery of $94 million in 2016 compared to a recovery of $143 million in 2015. The decrease in recovery was primarily due to the change in the distribution of earnings between jurisdictions compared to 2015. In addition, in 2015, the tax recovery included a $73 million write-off of our deferred tax asset in the US, partially offset by a $42 million reduction in the provision related to the CRA litigation. See note 20 to the financial statements.

In 2016, we recorded losses of $464 million in Canada compared to $960 million in 2015, while earnings in foreign jurisdictions decreased to $310 million from $880 million. The tax rate in Canada is higher than the average of the rates in the foreign jurisdictions in which our subsidiaries operate.

On an adjusted earnings basis, we recognized a tax recovery of $107 million in 2016 compared to a recovery of $44 million in 2015. Our effective tax rate was a recovery of 282% in 2016, compared to a recovery of 15% in 2015. The table below presents our adjusted earnings and adjusted income tax expenses attributable to Canadian and foreign jurisdictions.

($ MILLIONS)	2016	2015
Pre-tax adjusted earnings[1]		
Canada	**(504)**	(578)
Foreign	**542**	877
Total pre-tax adjusted earnings	**38**	299
Adjusted income taxes[1]		
Canada	**(128)**	(177)
Foreign	**21**	133
Adjusted income tax recovery	**(107)**	(44)
Effective tax rate (%)	**(282)%**	(15)%

1 Pre-tax adjusted earnings and adjusted income taxes are non-IFRS measures. Our IFRS-based measures have been adjusted by the amounts reflected in the table in adjusted net earnings (non-IFRS measures on page 24).

TRANSFER PRICING DISPUTES

We have been reporting on our transfer pricing disputes with CRA since 2008, when it originated, and with the United States Internal Revenue Service (IRS) since the first quarter of 2015. Below, we discuss the general nature of transfer pricing disputes and, more specifically, the ongoing disputes we have.

Transfer pricing is a complex area of tax law, and it is difficult to predict the outcome of cases like ours. However, tax authorities generally test two things:

- the governance (structure) of the corporate entities involved in the transactions
- the price at which goods and services are sold by one member of a corporate group to another

We have a global customer base and we established a marketing and trading structure involving foreign subsidiaries, including Cameco Europe Limited (CEL), which entered into various intercompany arrangements, including purchase and sale agreements, 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.

For the years 2003 to 2011, CRA has shifted CEL's income (as recalculated by CRA) back to Canada and applied statutory tax rates, interest and instalment penalties, and, from 2007 to 2010, transfer pricing penalties. There has not yet been a decision regarding a transfer pricing penalty for 2011. The IRS is also proposing to allocate a portion of CEL's income for the years 2009 through 2012 to the US, resulting in such income being taxed in multiple jurisdictions. Taxes of approximately $350 million for the 2003 – 2016 years have already been paid in a jurisdiction outside Canada and the US. Bilateral international tax treaties contain provisions that generally seek to prevent taxation of the same income in both countries. As such, in connection with these disputes, we are considering our options, including remedies under international tax treaties that would limit double taxation; however, there is a risk that we will not be successful in eliminating all potential double taxation. The expected income adjustments under our tax disputes are represented by the amounts claimed by CRA and IRS and are described below.

CRA dispute

Since 2008, CRA has disputed our corporate structure and the related transfer pricing methodology we used for certain intercompany uranium sale and purchase agreements. To the end of 2015, we received notices of reassessment for our 2003 through 2010 tax returns, and, in the fourth quarter of 2016, we received a notice of reassessment for our 2011 tax year. We have recorded a cumulative tax provision of $58 million, where an argument could be made that, based on our methodology, our transfer price may have fallen outside of an appropriate range of pricing in uranium contracts for the period from 2003 through 2016. We are confident that we will be successful in our case and continue to believe the ultimate resolution of this matter will not be material to our financial position, results of operations and cash flows in the year(s) of resolution.

For the years 2003 through 2011, CRA issued notices of reassessment for approximately $4.1 billion of additional income for Canadian tax purposes, which would result in a related tax expense of about $1.2 billion. CRA has also issued notices of reassessment for transfer pricing penalties for the years 2007 through 2010 in the amount of $292 million. The Canadian income tax rules include provisions that 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. To date, under these provisions, after applying elective deductions, we have paid a net amount of $264 million in cash. In addition, we have provided $420 million in letters of credit (LC) to secure 50% of the cash taxes and related interest amounts reassessed after 2014. The amounts paid or secured are shown in the table below.

YEAR PAID ($ MILLIONS)	CASH TAXES	INTEREST AND INSTALMENT PENALTIES	TRANSFER PRICING PENALTIES	TOTAL	CASH REMITTANCE	SECURED BY LC
Prior to 2013	—	13	—	**13**	13	—
2013	1	9	36	**46**	46	—
2014	106	47	—	**153**	153	—
2015	202	71	79	**352**	20	332
2016	51	38	31	**120**	32	88
Total	**360**	**178**	**146**	**684**	**264**	**420**

Using the methodology we believe CRA will continue to apply, and including the $4.1 billion already reassessed, we expect to receive notices of reassessment for a total of approximately $8.1 billion of additional income taxable in Canada for the years 2003 through 2016, which would result in a related tax expense of approximately $2.4 billion. As well, CRA may continue to apply transfer pricing penalties to taxation years subsequent to 2010. As a result, we estimate that cash taxes and transfer pricing penalties for these years would be between $1.75 billion and $1.95 billion. In addition, we estimate there would be interest and instalment penalties applied that would be material to us. While in dispute, we would be responsible for remitting or otherwise providing security for 50% of the cash taxes and transfer pricing penalties (between $875 million and $975 million), plus related interest and instalment penalties assessed, which would be material to us.

Under the Canadian federal and provincial tax rules, the amount required to be paid or secured each year will depend on the amount of income reassessed in that year and the availability of elective deductions and tax loss carryovers. CRA has decided to disallow the use of any loss carry-backs for any transfer pricing adjustment, starting with the 2008 tax year. This does not impact the anticipated income tax expense for a particular year, but does impact the timing of any required security or payment. As noted above, beginning with the 2010 tax year, as an alternative to paying cash, we used letters of credit to satisfy our obligations related to the reassessed income tax and related interest amounts. We expect to be able to continue to provide security in the form of letters of credit to satisfy these requirements. The estimated amounts summarized in the table below reflect actual amounts paid or secured and estimated future amounts owing based on the actual and expected reassessments for the years 2003 through 2016, and include the expected timing adjustment for the inability to use any loss carry-backs starting in 2008. We will update this table annually to include the estimated impact of reassessments expected for completed years subsequent to 2016.

$ MILLIONS	2003-2016	2017-2018	2019-2023	TOTAL
50% of cash taxes and transfer pricing penalties paid, secured or owing in the period				
Cash payments	187	65 - 90	145 - 170	390 - 445
Secured by letters of credit	319	10 - 35	150 - 175	480 - 530
Total paid[1]	**506**	**75 - 125**	**295 - 345**	**875 - 975**

1 These amounts do not include interest and instalment penalties, which totaled approximately $178 million to December 31, 2016.

In light of our view of the likely outcome of the case as described above, we expect to recover the amounts remitted, including the $684 million already paid or otherwise secured to date.

The trial related to the 2003, 2005 and 2006 reassessments commenced in October, 2016. Final arguments are expected in the second half of 2017. If this timing is adhered to, we expect to receive a Tax Court decision within six to 18 months after the trial is complete.

IRS dispute

We received Revenue Agents Reports (RARs) from the IRS for the 2009 though 2012 tax years, whereby the IRS has challenged the transfer pricing used under certain intercompany transactions pertaining to the above tax years for certain of our US subsidiaries. The RARs list the adjustments proposed by the IRS and calculate the tax and any penalties owing based on the proposed adjustments.

The audit position of the IRS is that a portion of the non-US income reported under our corporate structure and taxed in non-US jurisdictions should be recognized and taxed in the US on the basis that:

- the prices received by our US mining subsidiaries for the sale of uranium to CEL are too low
- the compensation earned by Cameco Inc., one of our US subsidiaries, is inadequate

The proposed adjustments result in an increase in taxable income in the US of approximately $419 million (US) and a corresponding increased income tax expense of approximately $122 million (US) for the 2009 through 2012 taxation years, with interest being charged thereon. In addition, the IRS proposed cumulative penalties of approximately $8 million (US) in respect of the adjustment.

We believe that the conclusions of the IRS in the RARs are incorrect and we are contesting them in an administrative appeal, during which we are not required to make any cash payments. Until this matter progresses further, we cannot provide an estimation of the likely timeline for a resolution of the dispute.

We believe that the ultimate resolution of this matter will not be material to our financial position, results of operations and cash flows in the year(s) of resolution.

Overview of disputes

The table below provides an overview of some of the key points with respect to our CRA and IRS tax disputes.

	CRA	IRS
Basis for dispute	• Corporate structure/governance	• Income earned on sales of uranium by the US mines to CEL is inadequate
	• Transfer pricing methodology used for certain intercompany uranium sale and purchase agreements	• Compensation earned by Cameco Inc., one of our US subsidiaries, is inadequate
	• Allocates Cameco Europe Ltd. (CEL) income (as adjusted) for 2003 through 2011 to Canada (same income we paid tax on in foreign jurisdictions and includes income that IRS is proposing to tax)	• Allocates a portion of CEL's income for the years 2009 through 2012 to the US (a portion of the same income we paid tax on in foreign jurisdictions and which the CRA is proposing to tax)
Years under consideration	• CRA reassessed 2003 to 2011	• IRS has proposed adjustments for 2009 through 2012
	• Auditing 2012 to 2014	• Auditing 2013 to 2015
Timing of resolution	• The trial related to the 2003, 2005 and 2006 reassessments commenced in October 2016, with final arguments expected in the second half of 2017	• Contesting proposed adjustments in an administrative appeal
		• We cannot yet provide an estimate as to the timeline for resolution
	• Expect Tax Court decision six to 18 months after completion of trial	
Required payments	• Expect to provide security in form of letters of credit and/or make cash payments for 50% of cash taxes, interest and penalties as reassessed	• No security or cash payments required while under administrative appeal
	• Paid $264 million in cash to date	
	• Secured $420 million using letters of credit	

Caution about forward-looking information relating to our CRA and IRS tax dispute

This discussion of our expectations relating to our tax disputes with CRA and IRS and future tax reassessments by CRA and IRS 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

- CRA will reassess us for the years 2012 through 2016 using a similar methodology as for the years 2003 through 2011, and the reassessments will be issued on the basis we expect
- we will be able to apply elective deductions and utilize letters of credit to the extent anticipated
- CRA will seek to impose transfer pricing penalties (in a manner consistent with penalties charged in the years 2007 through 2010) in addition to interest charges and instalment penalties
- we will be substantially successful in our dispute with CRA and the cumulative tax provision of $58 million to date will be adequate to satisfy any tax liability resulting from the outcome of the dispute to date
- IRS may propose adjustments for later years subsequent to 2012
- we will be substantially successful in our dispute with IRS

Material risks that could cause actual results to differ materially

- CRA reassesses us for years 2012 through 2016 using a different methodology than for years 2003 through 2011, or we are unable to utilize elective deductions or letters of credit to the extent anticipated, resulting in the required cash payments or security provided to CRA pending the outcome of the dispute being higher than expected
- the time lag for the reassessments for each year is different than we currently expect
- we are unsuccessful and the outcomes of our dispute with CRA and/or IRS result in significantly higher cash taxes, interest charges and penalties than the amount of our cumulative tax provision, which could have a material adverse effect on our liquidity, financial position, results of operations and cash flows
- cash tax payable increases due to unanticipated adjustments by CRA or IRS not related to transfer pricing
- IRS proposes adjustments for years 2013 through 2015 using a different methodology than for 2009 through 2012
- we are unable to effectively eliminate all double taxation

Tax outlook for 2017

On an adjusted net earnings basis, we expect a tax recovery of $10 to $20 million in 2017 from our uranium, fuel services and NUKEM segments.

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 2016, many of the existing intercompany purchase and sale arrangements in our portfolio expired. We have started to replace these contracts and will continue to put new intercompany arrangements in place, which, as the existing arrangements did, will reflect the market at the time they are signed.

As a result, in 2018, we expect our consolidated tax rate will transition to a modest expense, and trend toward a tax expense of approximately 20% over the next five years. 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, 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 permits us to hedge 35% to 100% of our expected net exposure over a rolling 60-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. See *Revenue, adjusted net earnings, and cash flow sensitivity analysis* on page 35 for more information on how a change in the exchange rate will impact our revenue, cash flow, adjusted net earnings (ANE), and gains and losses on derivatives, presented on an ANE basis.

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 our hedging activities, so we make adjustments in calculating our ANE to better reflect the benefits 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 2017, 2018 and 2019 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 24.

The table below provides a summary of our hedge portfolio at December 31, 2016. You can use this information to estimate the expected gains or losses on derivatives for 2017 on an ANE basis. However, if we add contracts to the portfolio that are designated for use in 2017 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, 2016 ($ MILLIONS)		2017	2018	2019	AFTER 2019	TOTAL
US dollar forward contracts	($ millions)	403	290	50	—	743
Average contract rate [1]	(US/Cdn dollar)	1.31	1.31	1.31	—	1.31
US dollar option contracts	($ millions)	50	20	40	—	110
Average contract rate range[1]	(US/Cdn dollar)	1.30 to 1.35	1.29 to 1.34	1.28 to 1.35	—	1.29 to 1.35
Total US dollar hedge contracts	**($ millions)**	**453**	**310**	**90**	**—**	**853**
Effective Hedge Rate range[2]	**(US/Cdn dollar)**	**1.19 to 1.20**	**1.20 to 1.21**	**1.20 to 1.21**	**—**	**1.20 to 1.21**
Hedge ratio[3]		**50%**	**32%**	**11%**	**0%**	**21%**

1 The average contract rate is the average of the rates stipulated in the outstanding contracts.
2 The effective hedge rate is the exchange rate on the original hedge contract at the time it was established and designated for use. Therefore the effective hedge rate range shown reflects an average of contract exchange rates at the time of designation.
3 Hedge ratio is calculated by dividing the amount (in foreign currency) of outstanding derivative contracts by estimated future net exposures.

At December 31, 2016:

- The value of the US dollar relative to the Canadian dollar was $1.00 (US) for $1.34 (Cdn), down from $1.00 (US) for $1.38 (Cdn) at December 31, 2015. The exchange rate averaged $1.00 (US) for $1.32 (Cdn) over the year.
- The mark-to-market loss on all foreign exchange contracts was $25 million compared to a $167 million loss at December 31, 2015.

We manage counterparty risk associated with hedging by dealing with highly rated counterparties and limiting our exposure. At December 31, 2016, 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 25 to the financial statements.

Outlook for 2017

Our strategy is to focus on our tier-one assets and profitably produce at a pace aligned with market signals, while maintaining the ability to respond to conditions as they evolve.

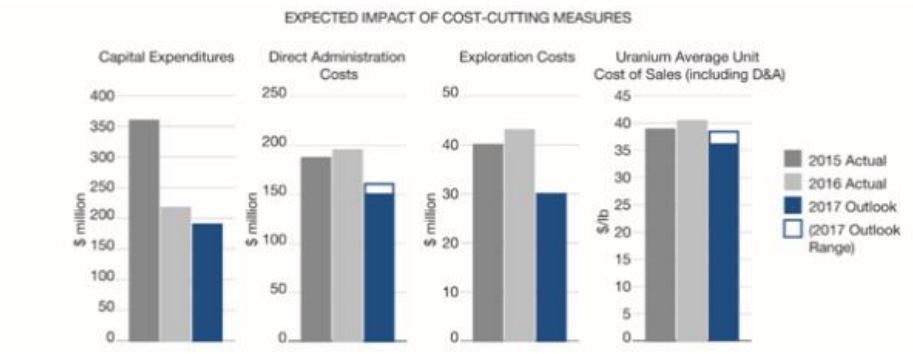
Our outlook for 2017 reflects the expenditures necessary to help us achieve our strategy and is based on the assumptions found below the table, including a given uranium spot price, uranium term price, and foreign exchange rate. For more information on how changes in the exchange rate or uranium prices can impact our outlook see *Revenue, adjusted net earnings, and cash flow sensitivity analysis* on page 35, and *Foreign exchange* on page 32. Our 2017 financial outlook, and other disclosures relating to our contract portfolio, have been presented on a basis that excludes our contract with TEPCO, which is under dispute. We do not provide an outlook for the items in the table that are marked with a dash.

See 2016 Financial results by segment on page 42 for details.

2017 FINANCIAL OUTLOOK

	CONSOLIDATED	URANIUM	FUEL SERVICES	NUKEM
EXPECTED CONTRIBUTION TO GROSS PROFIT	100%	84%	15%	1%
Production	—	25.2 million lbs	8 to 9 million kgU	—
Sales volume[1]	—	30 to 32 million lbs[2]	11 to 12 million kgU	5 to 6 million lbs U_3O_8
Revenue ($ million)[1]	1,950 to 2,080	1,470 to 1,570[3]	300 to 330	—
Average realized price[3]	—	$ 49.00/lb[2]	—	—
Average unit cost of sales (including D&A)	—	$36.00-38.00/lb[4]	$21.60-22.60/kgU	—
Gross profit	—	—	—	3% to 4%
Direct administration costs[5]	$150-160 million	—	—	—
Exploration costs	—	$ 30 million	—	—
Expected loss on derivatives - ANE basis[3]	$ 45-50 million	—	—	—
Tax recovery - ANE basis[6]	$ 10-20 million	—	—	—
Capital expenditures	$ 190 million	—	—	—

1 Our 2017 outlook for sales volume and revenue does not include sales between our uranium, fuel services and NUKEM segments.
2 Based on the volumes we currently have commitments to deliver under contract in 2017.
3 Based on a uranium spot price of $26.00 (US) per pound (the Ux spot price as of February 6, 2017), a long-term price indicator of $30.00 (US) per pound (the Ux long-term indicator on January 30, 2017) and an exchange rate of $1.00 (US) for $1.30 (Cdn).
4 Based on the expected unit cost of sales for produced material and committed long-term purchases. If we make discretionary purchases in 2017, then we expect the overall unit cost of sales may be affected.
5 Direct administration costs do not include stock-based compensation expenses. See page 27 for more information.
6 Our outlook for the tax recovery is based on adjusted net earnings and the other assumptions listed in the table. If other assumptions change then the expected recovery may be affected.



REVENUE, ADJUSTED NET EARNINGS, AND CASH FLOW SENSITIVITY ANALYSIS

FOR 2017 ($ MILLIONS)	CHANGE	IMPACT ON: REVENUE	ANE	CASH FLOW
Uranium spot and term price [1]	**$5(US)/lb increase**	65	46	55
	$5(US)/lb decrease	(43)	(29)	(33)
Value of Canadian dollar vs US dollar	**One cent decrease in CAD**	14	6	5
	One cent increase in CAD	(14)	(6)	(5)

1 Assuming change in both Ux spot price ($26.00 (US) per pound on February 6, 2017) and the Ux long-term price indicator ($30.00 (US) per pound on January 30, 2017)

PRICE SENSITIVITY ANALYSIS: URANIUM SEGMENT

The following 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. It is designed to indicate how the portfolio of long-term contracts we had in place on February 1, 2017 would respond to different spot prices. In other words, we would realize these prices only if the contract portfolio remained the same as it was on February 1, 2017, and none of the assumptions we list below change.

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

(rounded to the nearest $1.00)

SPOT PRICES ($US/lb U_3O_8)	$20	$40	$60	$80	$100	$120	$140
2017	Provided above in financial outlook table and in revenue, adjusted net earnings, and cash flow sensitivity analysis						
2018	37	45	57	68	78	87	95
2019	34	44	56	66	75	83	89
2020	36	45	57	66	75	82	88
2021	33	44	58	68	77	86	94

The table illustrates the mix of long-term contracts in our February 1, 2017 portfolio, and is consistent with our marketing strategy. It has been updated to reflect contracts entered into up to February 1, 2017, and it excludes our contract under dispute with TEPCO.

Our portfolio includes a mix of fixed-price and market-related contracts, which we target at a 40:60 ratio. Those that are fixed at lower prices or have low ceiling prices will yield prices that are lower than current market prices.

Our portfolio is affected by more than just the spot price. We made the following assumptions (which are not forecasts) to create the table:

Sales

- sales volumes on average of 24 million pounds per year, with commitment levels in 2017 through 2019 higher than in 2020 and 2021
- excludes sales between our uranium, fuel services and NUKEM segments
- excludes the contract under dispute with TEPCO

Deliveries

- deliveries include best estimates of requirements contracts and contracts with volume flex provisions

Annual inflation

- is 2% in the US

Prices

- the average long-term price indicator is the same as the average spot price for the entire year (a simplified approach for this purpose only). Since 1996, the long-term price indicator has averaged 20% higher than the spot price. This differential has varied significantly. Assuming the long-term price is at a premium to spot, the prices in the table and graph will be higher.

Liquidity and capital resources

Our financial objective is to ensure we have the cash and debt capacity to fund our operating activities, investments and growth.

At the end of 2016, we had cash and short-term investments of $320 million in a mix of short-term deposits, while our total debt amounted to $1.5 billion.

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 provide a solid revenue stream for years to come.

We expect to continue investing in maintaining our tier-one production capacity and flexibility over the next several years. 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. Due to the cyclical nature of our business, we may need to temporarily draw on our short-term liquidity during the course of the year. However, apart from these short-term fluctuations, we expect our cash balances and operating cash flows to meet our capital requirements during 2017.

We have an ongoing transfer pricing dispute with CRA. See page 28 for more information. Until this dispute is resolved, we expect to pay cash or provide security in the form of letters of credit for future amounts owing to the Government of Canada for 50% of the cash taxes payable and the related interest and penalties. We have provided an estimate of the amount and timing of the expected cash taxes and transfer pricing penalties paid, secured or owing in the table on page 30.

FINANCIAL CONDITION

	2016	2015
Cash position ($ millions) (cash and cash equivalents)	**320**	459
Cash provided by operations ($ millions) (net cash flow generated by our operating activities after changes in working capital)	**312**	450
Cash provided by operations/net debt (net debt is total consolidated debt, less cash position)	**27%**	44%
Net debt/total capitalization (total capitalization is net debt and equity)	**18%**	16%

CREDIT RATINGS

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. Our investment grade credit ratings reflect the current financial strength of our company.

Third-party ratings for our commercial paper and senior debt as of February 8, 2017:

SECURITY	DBRS	S&P
Commercial paper	R-2 (high)	A-1 (low)[1]
Senior unsecured debentures	BBB (high)	BBB+
Rating trend / rating outlook	Stable	Stable[2]

1 Canadian National Scale Rating. The Global Scale Rating is A-2.
2 On January 19, 2017, S&P confirmed Cameco's outlook as stable, but placed Cameco on Credit Watch Negative.

DBRS provides guidance for the outlook of the assigned rating using the rating trend. The rating trend represents their assessment of the likelihood and direction that the rating could change in the future, should present tendencies continue, or in some cases, if challenges are not overcome.

S&P uses rating outlooks to assess the potential direction of a long-term credit rating over the intermediate term. Their outlook indicates the likelihood that the rating could change in the future.

The rating agencies may revise or withdraw these ratings if they believe circumstances warrant. A change in our credit ratings could affect our cost of funding and our access to capital through the capital markets.

Liquidity

($ MILLIONS)	2016	2015
Cash and cash equivalents at beginning of year	**459**	567
Cash from operations	**312**	450
Investment activities		
Additions to property, plant and equipment and acquisitions	**(217)**	(359)
Other investing activities	**(1)**	18
Financing activities		
Interest paid	**(71)**	(70)
Dividends	**(158)**	(158)
Exchange rate on changes on foreign currency cash balances	**(4)**	11
Cash and cash equivalents at end of year	**320**	459

CASH FROM OPERATIONS

Cash from operations was 31% lower than in 2015. This was primarily due to lower profits in our uranium and NUKEM segments partially offset by the settlement and rollover of contracts in our hedge portfolio which required less cash during 2016 compared to 2015. Not including working capital requirements, our operating cash flows in the year were down $140 million. See note 22 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.

CAMECO'S SHARE ($ MILLIONS)	2016 PLAN[1]	2016 ACTUAL	2017 PLAN
Sustaining capital			
McArthur River/Key Lake	30	18	**15**
Cigar Lake	20	18	**15**
Rabbit Lake	10	12	**—**
US ISR	5	2	**5**
Inkai	5	1	**5**
Fuel services	15	12	**20**
Other	5	5	**5**
Total sustaining capital	**90**	**68**	**65**
Capacity replacement capital			
McArthur River/Key Lake	40	39	**45**
Cigar Lake	20	19	**50**
US ISR	5	8	**—**
Inkai	10	12	**15**
Total capacity replacement capital	**75**	**78**	**110**
Growth capital			
McArthur River/Key Lake	35	29	**10**
Cigar Lake	30	35	**—**
Inkai	10	4	**5**
Fuel services	5	3	**—**
Total growth capital	**80**	**71**	**15**
Total uranium & fuel services	**245** [1]	**217**	**190**

1 Capital spending outlook was updated to $245 million (from $320 million) in our third quarter MD&A.

Outlook for investing activities

CAMECO'S SHARE ($ MILLIONS)	2018 PLAN	2019 PLAN
Total uranium & fuel services	**200-250**	**200-250**
Sustaining capital	70-90	85-105
Capacity replacement capital	110-125	100-115
Growth capital	20-35	15-30

We expect total 2017 capital expenditures for uranium and fuel services to be about 12% lower than in 2016.

Major sustaining, capacity replacement and growth expenditures in 2017 include:

- McArthur River/Key Lake – the expansion of freeze capacity and mine development.
- Cigar Lake – work to expand freezing capacity and underground development make up the largest portion of capital at the Cigar Lake site.

Our expectation to spend between $200 million and $250 million in 2018 remains unchanged.

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 2 and 3. 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)	2017	2018 AND 2019	2020 AND 2021	2022 AND BEYOND	TOTAL
Long-term debt	—	500	—	1,000	1,500
Interest on long-term debt	69	139	82	185	475
Provision for reclamation	18	95	82	842	1,037
Provision for waste disposal	2	12	1	—	15
Other liabilities	—	—	—	70	70
Capital commitments	51	—	—	—	51
Total	**140**	**746**	**165**	**2,097**	**3,148**

We have contractual capital commitments of approximately $51 million at December 31, 2016. 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 unsecured lines of credit of about $2.8 billion, which include the following:

- A $1.25 billion unsecured revolving credit facility that matures November 1, 2020. Each year on the anniversary date, and upon mutual agreement, the facility can be extended for an additional year. In addition to borrowing directly from this facility, we can use up to $100 million of it to issue letters of credit and we may use it to provide liquidity for our commercial paper program, as necessary. We may increase the revolving credit facility above $1.25 billion, by increments of no less than $50 million, up to a total of $1.75 billion. The facility ranks equally with all of our other senior debt. At December 31, 2016, there were no amounts outstanding under this facility.
- At December 31, 2016, we had approximately $1.5 billion outstanding in letters of credit 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 $1.5 billion in senior unsecured debentures outstanding:

- $500 million bearing interest at 5.67% per year, maturing on September 2, 2019
- $400 million bearing interest at 3.75% per year, maturing on November 14, 2022
- $500 million bearing interest at 4.19% per year, maturing on June 24, 2024
- $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 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, 2016, we complied with all covenants, and we expect to continue to comply in 2017.

NUKEM financing arrangements

NUKEM enters into financing arrangements with third parties where future receivables arising from certain sales contracts are sold to financial institutions in exchange for cash. These arrangements require NUKEM to satisfy its delivery obligations under the sales contracts, which are recognized as deferred sales (see notes 7 and 14 to the financial statements for more information). In addition, NUKEM is required to pledge the underlying inventory as security against these performance obligations. As of December 31, 2016, we had $4.9 million ($3.6 million (US)) of inventory pledged as security under financing arrangements, compared with $97.9 million ($70.8 million (US)) at December 31, 2015.

OFF-BALANCE SHEET ARRANGEMENTS

We had three kinds of off-balance sheet arrangements at the end of 2016:

- 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. These commitments include a mix of fixed price and market-related contracts, and are with entities that buy and sell uranium and uranium-related products. 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 purchase. The table below is based on our purchase commitments at February 1, 2017. We will update this table as required in our MD&A to reflect changes to our purchase commitments and changes in the prices used to estimate our commitments under market-related contracts.

FEBRUARY 1, 2017 ($ MILLIONS)	2017	2018 AND 2019	2020 AND 2021	2022 AND BEYOND	TOTAL
Purchase commitments[1]	340	436	145	70	991

1 Denominated in US dollars, converted to Canadian dollars at the rate of 1.30.

As of February 1, 2017, we had committed to $991 million (Cdn) for the following:

- approximately 21 million pounds of U_3O_8 equivalent from 2017 to 2028
- approximately 2 million kgU as UF_6 in conversion services from 2017 to 2019
- about 0.3 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

Standby letters of credit mainly 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 letters of credit to various regulatory agencies until decommissioning and reclamation activities are complete. We are also providing letters of credit until the CRA dispute is resolved. Letters of credit are issued by financial institutions for a one-year term. At December 31, 2016 our financial assurances totaled $1.5 billion compared to $1.4 billion at December 31, 2015. The increase is mainly due to obligations relating to the CRA dispute.

Other arrangements

We use factoring arrangements where receivables arising from certain sales contracts are sold to a financial institution. Upon the sale, we assign the rights to the accounts receivable to the financial institution without recourse. This arrangement provides immediate access to cash and requires we collect payment from our customers and remit the payments to the financial institution. Expenses incurred under the arrangement are recognized within finance costs in the consolidated statement of earnings.

In addition, NUKEM enters into arrangements with third parties where receivables arising from certain sales contracts are sold to financial institutions in exchange for cash. Upon the sale, NUKEM assigns the rights to the accounts receivable to the financial institution without recourse. These arrangements require NUKEM to satisfy its delivery obligations under the sales contracts; however, the customer is responsible for making payment directly to the financial institution. The discount at which the financial institution purchases the receivable is offset against the revenue NUKEM records on delivery of the product to the customer.

BALANCE SHEET

DECEMBER 31, ($ MILLIONS EXCEPT PER SHARE AMOUNTS)	2016	2015	2014	CHANGE 2015 TO 2016
Inventory	**1,288**	1,285	902	—
Total assets	**8,249**	8,795	8,473	(6)%
Long-term financial liabilities	**2,459**	2,500	2,448	(2)%
Dividends per common share	**0.40**	0.40	0.40	—

Total product inventories did not change significantly from 2015. Higher levels of inventory in our uranium segment were offset by lower levels in our fuel services and NUKEM segments. In the uranium segment, the quantities sold were lower than the quantities produced and purchased for the year. In 2016, total volume of product inventories for this segment increased by 18% while the average cost of inventory decreased by 6% due to the impact of higher production rates at Cigar Lake, and curtailment of higher cost production. This was somewhat offset by material purchased during the year at rates higher than the average cost of inventory. At December 31, 2016, our average cost for uranium was $34.69 per pound, down from $36.72 per pound at December 31, 2015. As of December 31, 2016, we held an inventory of 28.5 million pounds of U_3O_8 equivalent in our uranium segment (excluding broken ore).

At the end of 2016, our total assets amounted to $8.2 billion, a decrease of $0.5 billion compared to 2015, primarily due to a decrease in property, plant and equipment due to asset impairments. In 2015, the total asset balance increased by $0.3 billion compared to 2014, primarily due to higher inventory and an increase in our deferred tax assets.

The major components of long-term financial liabilities are long-term debt, the provision for reclamation, deferred sales and financial derivatives. Our balance did not change significantly in 2016 or 2015.

2016 financial results by segment

Uranium

HIGHLIGHTS		2016	2015	CHANGE
Production volume (million lbs)		**27.0**	28.4	(5)%
Sales volume (million lbs)[1]		**31.5**	32.4	(3)%
Average spot price	($US/lb)	**25.64**	36.55	(30)%
Average long-term price	($US/lb)	**39.00**	46.29	(16)%
Average realized price	($US/lb)	**41.12**	45.19	(9)%
	($Cdn/lb)	**54.46**	57.58	(5)%
Average unit cost of sales (including D&A)	($Cdn/lb)	**40.39**	38.83	4%
Revenue ($ millions)[1]		**1,718**	1,866	(8)%
Gross profit ($ millions)		**444**	608	(27)%
Gross profit (%)		**26**	33	(21)%

1 Includes sales and revenue between our uranium, fuel services and NUKEM segments (nil in 2016, 32,000 pounds in sales and revenue of $1.0 million in 2015).

Production volumes in 2016 decreased by 5% compared to 2015. Planned lower production at McArthur River/Key Lake, Rabbit Lake and our US operations was partially offset by higher than expected production at Cigar Lake and slightly higher production at Inkai. See *Uranium – production overview* on page 55 for more information.

Uranium revenues this year were down 8% compared to 2015 due to a decrease of 5% in the Canadian dollar average realized price and a decrease in sales volumes of 3%. The spot price for uranium averaged $25.64 (US) per pound in 2016, a decline of 30% compared to the 2015 average price of $36.55 (US) per pound. Our Canadian dollar average realized price decreased by only 5% due to our contract portfolio and the effects of foreign exchange. The realized foreign exchange rate was $1.32 compared to $1.27 in 2015. Overall prices were lower than the prior year mainly due lower prices under market related contracts.

Total cost of sales (including D&A) increased by 1% ($1.27 billion compared to $1.26 billion in 2015) due to higher unit cost of sales offset by lower sales volumes. The higher unit cost of sales was mainly the result of care and maintenance costs and severance costs related to the curtailment of production at Rabbit Lake and our US operations.

The net effect was a $164 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 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)	2016	2015	CHANGE
Produced			
Cash cost	**17.01**	20.62	(18)%
Non-cash cost	**11.81**	11.51	3%
Total production cost	**28.82**	32.13	(10)%
Quantity produced (million lbs)	**27.0**	28.4	(5)%
Purchased			
Cash cost	**49.33**	46.02	7%
Quantity purchased (million lbs)	**8.4**	12.5	(33)%
Totals			
Produced and purchased costs	**33.69**	36.38	(7)%
Quantities produced and purchased (million lbs)	**35.4**	40.9	(13)%

The average cash cost of production was 18% lower in the year than in 2015. The change was primarily due to the rampup of lower cost production from Cigar Lake, and the impact of our second quarter actions to curtail production from Rabbit Lake and our US operations, where production costs are higher.

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 $49.33 (Cdn), or $36.21 (US) per pound, compared to $36.57 (US) per pound in the same period in 2015.

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 2016 and 2015 as reported in our financial statements.

CASH AND TOTAL COST PER POUND RECONCILIATION

($ MILLIONS)	2016	2015
Cost of product sold	**993.0**	989.2
Add / (subtract)		
Royalties	**(115.3)**	(116.5)
Other selling costs	**(8.9)**	(13.8)
Care and maintenance and severance costs	**(69.6)**	—
Change in inventories	**74.5**	301.8
Cash operating costs (a)	**873.7**	1,160.7
Add / (subtract)		
Depreciation and amortization	**281.2**	269.1
Change in inventories	**37.7**	58.1
Total operating costs (b)	**1,192.6**	1,487.9
Uranium produced & purchased (million lbs) (c)	**35.4**	40.9
Cash costs per pound (a ÷ c)	**24.68**	28.38
Total costs per pound (b ÷ c)	**33.69**	36.38

URANIUM SEGMENT OUTLOOK

We expect to produce 25.2 million pounds in 2017 and have commitments under long-term contracts to purchase approximately 5.0 million pounds at an average price of $43.80/lb, based on the uranium price and foreign exchange rate assumptions used in our outlook table on page 34.

Based on the contracts we have in place, and not including sales between our segments, we expect to deliver between 30 and 32 million pounds of U_3O_8 in 2017. We expect the unit cost of sales to be lower than in 2016 (outlook between $36.00/lb to $38.00/lb), primarily due to decreased costs for care and maintenance, and severance. If we make additional discretionary purchases in 2017 at a cost different than our other sources of supply, then we expect the overall unit cost of sales to be affected.

We expect revenue to be lower than in 2016 as a result of lower average realized price (outlook $1,470 million to $1,570 million).

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 $22.62/kg U_3O_8 ($10.26/lb) and a 15% royalty is charged on profit in excess of $22.62/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.

During the period from 2013 to 2015, transitional rules for the new profit royalty regime were applied whereby only 50% of capital costs were deductible. The remaining 50% was accumulated and was deductible beginning in 2016. In addition, the capital allowance related to Cigar Lake under the previous system was grandfathered and was also deductible beginning in 2016. As a result, only the first tier of the profit royalty (10%) applied in 2016 and we expect only the first tier (10%) to apply in 2017 as well. Beyond 2017, the applicable profit royalty tier(s) will depend on both profitability and the optimal use of capital cost deductions.

Fuel services

(includes results for UF_6, UO_2 and fuel fabrication)

HIGHLIGHTS		2016	2015	CHANGE
Production volume (million kgU)		**8.4**	9.7	(13)%
Sales volume (million kgU)[1]		**12.7**	13.6	(7)%
Average realized price	($Cdn/kgU)	**25.37**	23.37	9%
Average unit cost of sales (including D&A)	($Cdn/kgU)	**20.36**	18.87	8%
Revenue ($ millions)[1]		**321**	319	1%
Gross profit ($ millions)		**63**	61	3%
Gross profit (%)		**20**	19	5%

1 Includes sales and revenue between our uranium, fuel services and NUKEM segments (65,000 kgU in sales and revenue of $0.5 million in 2016, 339,000 kgU in sales and revenue of $2.9 million in 2015).

Total revenue increased by 1% due to a 9% increase in the realized price, partially offset by a 7% decrease in sales volumes.

The total cost of products and services sold (including D&A) remained relatively stable compared to 2015 at $258 million, as a 7% decrease in sales volumes was offset by an 8% increase in the average unit cost of sales (including D&A). When compared to 2015, the average unit cost of sales was 8% higher due to the mix of fuel services products sold.

The net effect was a $2 million increase in gross profit.

FUEL SERVICES OUTLOOK

In 2017, we plan to produce 8 to 9 million kgU, and we expect sales volumes, not including intersegment sales, to be 11 to 12 million kgU. Overall revenue is expected to remain similar to 2016 (outlook $300 million to $330 million) with the lower sales volume offset by a higher expected average realized price. We expect the average unit cost of sales (including D&A) to increase to between $21.60/kgU and $22.60/kgU.

NUKEM

HIGHLIGHTS		2016	2015	CHANGE
Sales volume U_3O_8 (million lbs)[1]		**7.1**	10.7	(34)%
Average realized price[2]	($Cdn/lb)	**47.90**	48.82	(2)%
Cost of product sold (including D&A)		**419**	512	(18)%
Revenue ($ millions)[1]		**391**	554	(29)%
Gross profit (loss) ($ millions)		**(28)**	42	(167)%
Gross profit (loss) (%)		**(7)**	8	(188)%

1 Includes sales and revenue between our uranium, fuel services and NUKEM segments (nil in 2016, 0.9 million pounds in sales and revenue of $19.3 million in 2015).
2 Includes U_3O_8, UF_6, and SWU.

During 2016, NUKEM delivered 7.1 million pounds of uranium, a decrease of 3.6 million pounds compared to the previous year due to very light market activity with a lack of profitable opportunities. Revenues from NUKEM amounted to $391 million, 29% lower than in 2015 as a result of lower sales volumes and a decline in the average realized price. Gross loss percentage was 7% for 2016, compared to a gross profit of 8% for 2015.

The net effect was a $70 million decrease in gross profit. Included in the 2016 gross loss is an $18 million net write-down of inventory compared to a $3 million net recovery in 2015. The write-down in 2016 was a result of a decline in the spot price during the year.

NUKEM OUTLOOK

For 2017, NUKEM expects to deliver between 5 and 6 million pounds of uranium. The overall gross profit percentage is expected to be higher than 2016 at 3% to 4%.

Fourth quarter financial results
Consolidated results

HIGHLIGHTS ($ MILLIONS EXCEPT WHERE INDICATED)	THREE MONTHS ENDED DECEMBER 31 2016	2015	CHANGE
Revenue	**887**	975	(9)%
Gross profit	**157**	282	(44)%
Net loss attributable to equity holders	**(144)**	(10)	(1340)%
$ per common share (basic)	**(0.36)**	(0.03)	(1100)%
$ per common share (diluted)	**(0.36)**	(0.03)	(1100)%
Adjusted net earnings (non-IFRS, see page 24)	**90**	151	(40)%
$ per common share (adjusted and diluted)	**0.23**	0.38	(39)%
Cash provided by operations (after working capital changes)	**255**	503	(49)%

NET EARNINGS

In the fourth quarter of 2016, our net loss was $144 million ($(0.36) per share diluted), a decrease of $134 million compared to a net loss of $10 million ($(0.03) per share diluted) in 2015, mainly due to:

- lower gross profit from all segments
- higher impairment charges ($238 million in 2016; $210 million in 2015)
- higher loss on disposal of assets
- lower tax recovery. See *Income taxes* on page 28 for details.

partially offset by:

- gain from remeasurement of Rabbit Lake reclamation obligation
- lower mark to market losses on foreign exchange derivatives compared to 2015. See *Foreign exchange* on page 32 for details.
- higher foreign exchange gains compared to gains in 2015

ADJUSTED NET EARNINGS

On an adjusted basis, our earnings this quarter were $90 million ($0.23 per share diluted) compared to $151 million ($0.38 per share diluted) (non-IFRS measure, see page 24) in 2015, mainly due to:

- lower gross profit from all segments
- higher loss on disposal of assets
- lower tax recovery. See *Income taxes* on page 28 for details.

partially offset by:

- higher foreign exchange gains compared to 2015.

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 24 for more information. The following table reconciles adjusted net earnings with our net earnings.

($ MILLIONS)	THREE MONTHS ENDED DECEMBER 31 2016	2015
Net loss attributable to equity holders	**(144)**	(10)
Adjustments		
Adjustments on derivatives	**23**	10
Impairment charges	**238**	210
Rabbit Lake reclamation provision adjustment	**(28)**	—
Income taxes on adjustments	**1**	(59)
Adjusted net earnings	**90**	151

ADMINISTRATION

($ MILLIONS)	THREE MONTHS ENDED DECEMBER 31 2016	2015	CHANGE
Direct administration	**49**	51	(4)%
Stock-based compensation	**6**	4	50%
Total administration	**55**	**55**	**—**

Direct administration costs were $49 million in the quarter, $2 million lower than the same period last year due to cost reduction actions, offset by higher legal costs related to our CRA trial, which began in October. Stock-based compensation expenses were $2 million higher than the fourth quarter of 2015. See note 23 to the financial statements.

Quarterly trends

HIGHLIGHTS ($ MILLIONS EXCEPT PER SHARE AMOUNTS)	2016 Q4	Q3	Q2	Q1	2015 Q4	Q3	Q2	Q1
Revenue	**887**	670	466	408	975	649	565	566
Net earnings (loss) attributable to equity holders	**(144)**	142	(137)	78	(10)	(4)	88	(9)
$ per common share (basic)	**(0.36)**	0.36	(0.35)	0.20	(0.03)	(0.01)	0.22	(0.02)
$ per common share (diluted)	**(0.36)**	0.36	(0.35)	0.20	(0.03)	(0.01)	0.22	(0.02)
Adjusted net earnings (non-IFRS, see page 24)	**90**	118	(57)	(7)	151	78	46	69
$ per common share (adjusted and diluted)	**0.23**	0.30	(0.14)	(0.02)	0.38	0.20	0.12	0.18
Cash provided by (used in) operations (after working capital changes)	**255**	385	(51)	(277)	503	(121)	(65)	134

Key things to note:

- Our financial results are strongly influenced by the performance of our uranium segment, which accounted for 66% of consolidated revenues in the fourth quarter of 2016 and 70% of consolidated revenues in the fourth quarter of 2015.
- 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 24 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)	2016 Q4	Q3	Q2	Q1	2015 Q4	Q3	Q2	Q1
Net earnings (loss) attributable to equity holders	**(144)**	142	(137)	78	**(10)**	(4)	88	(9)
Adjustments								
Adjustments on derivatives	**23**	(27)	(10)	(116)	**10**	112	(57)	101
NUKEM purchase price inventory recovery	**—**	—	(6)	—	**—**	—	—	(3)
Impairment charges	**238**	—	124	—	**210**	—	—	6
Rabbit Lake reclamation provision adjustment	**(28)**	(6)	—	—	**—**	—	—	—
Income taxes on adjustments	**1**	9	(28)	31	**(59)**	(30)	15	(26)
Adjusted net earnings (losses) (non-IFRS, see page 24)	**90**	118	(57)	(7)	**151**	78	46	69

Fourth quarter financial results by segment

Uranium

HIGHLIGHTS		THREE MONTHS ENDED DECEMBER 31 2016	2015	CHANGE
Production volume (million lbs)		**7.1**	9.6	(26)%
Sales volume (million lbs)[1]		**11.7**	11.2	4%
Average spot price	($US/lb)	**19.00**	35.45	(46)%
Average long-term price	($US/lb)	**32.83**	44.00	(25)%
Average realized price	($US/lb)	**38.04**	46.36	(18)%
	($Cdn/lb)	**50.51**	61.24	(18)%
Average unit cost of sales (including D&A)	($Cdn/lb)	**38.29**	38.25	—
Revenue ($ millions)[1]		**589**	687	(14)%
Gross profit ($ millions)		**143**	257	(44)%
Gross profit (%)		**24**	37	(35)%

1 Includes sales and revenue between our uranium, fuel services and NUKEM segments (nil in Q4 2016, 17,000 pounds in sales and revenue of $0.5 million in Q4 2015).

Production volumes this quarter were 26% lower compared to the fourth quarter of 2015, mainly as a result of lower production at Inkai, and planned lower production at Rabbit Lake and our US operations, partially offset by an increase in Cigar Lake production. See *Uranium – production overview* on page 55 for more information.

Uranium revenues were down 14% due to an 18% decrease in the average realized price partially offset by a 4% increase in sales volumes. Our US and Canadian dollar average realized price decreased due to lower average spot and long term prices, which affected our market-related contracts.

Total cost of sales (including D&A) increased by 4% ($447 million compared to $429 million in 2015). This was the result of a 4% increase in sales volumes. Average unit cost of sales remained stable, as the effects of care and maintenance were offset by lower production costs related to the curtailment of higher cost production.

The net effect was a $114 million decrease in gross profit for the quarter.

The following table shows the costs of produced and purchased uranium incurred in the reporting periods (which are non-IFRS measures, see the paragraphs below the table). These costs do not include 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 2016	2015	CHANGE
Produced			
Cash cost	**15.00**	16.04	(6)%
Non-cash cost	**10.74**	10.96	(2)%
Total production cost	**25.74**	27.00	—
Quantity produced (million lbs)	**7.1**	9.6	(26)%
Purchased			
Cash cost	**50.49**	43.65	16%
Quantity purchased (million lbs)	**2.2**	3.2	(31)%
Totals			
Produced and purchased costs	**31.59**	31.16	1%
Quantities produced and purchased (million lbs)	**9.3**	12.8	(27)%

The average cash cost of production was 6% lower for the quarter than in the comparable period in 2015.

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 $50.49 (Cdn) per pound, or $37.61 (US) per pound in US dollar terms, compared to $33.79 (US) per pound in the fourth quarter of 2015.

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 fourth quarters of 2016 and 2015.

CASH AND TOTAL COST PER POUND RECONCILIATION

	THREE MONTHS ENDED DECEMBER 31	
($ MILLIONS)	2016	2015
Cost of product sold	**338.4**	328.3
Add / (subtract)		
Royalties	**(38.0)**	(49.5)
Other selling costs	**(0.3)**	(6.7)
Care and maintenance and severance costs	**(10.8)**	—
Change in inventories	**(71.7)**	21.5
Cash operating costs (a)	**217.6**	293.6
Add / (subtract)		
Depreciation and amortization	**108.1**	100.9
Change in inventories	**(31.9)**	4.3
Total operating costs (b)	**293.8**	398.8
Uranium produced & purchased (million lbs) (c)	**9.3**	12.8
Cash costs per pound (a ÷ c)	**23.40**	22.94
Total costs per pound (b ÷ c)	**31.59**	31.16

Fuel services

(includes results for UF_6, UO_2 and fuel fabrication)

HIGHLIGHTS		THREE MONTHS ENDED DECEMBER 31 2016	2015	CHANGE
Production volume (million kgU)		**1.9**	3.4	(44)%
Sales volume (million kgU)[1]		**4.0**	4.5	(11)%
Average realized price	($Cdn/kgU)	**26.03**	21.88	19%
Average unit cost of sales (including D&A)	($Cdn/kgU)	**21.17**	17.18	23%
Revenue ($ millions)[1]		**104**	99	5%
Gross profit ($ millions)		**19**	21	(10)%
Gross profit (%)		**18**	21	(14)%

1 Includes sales and revenue between our uranium, fuel services and NUKEM segments (nil in Q4 2016, 339,000 kgU in sales and revenue of $2.9 million in Q4 2015).

Total revenue increased by 5% due to a 19% increase in average realized price, partially offset by an 11% decrease in sales volumes. The increase in average realized price was due to the mix of products sold.

The total cost of sales (including D&A) increased by 9% ($85 million compared to $78 million in the fourth quarter of 2015) mainly due to an increase of 23% in the average unit cost of sales, primarily as a result of the mix of products sold, partially offset by an 11% decrease in sales volumes.

The net effect was a $2 million decrease in gross profit.

NUKEM

HIGHLIGHTS		THREE MONTHS ENDED DECEMBER 31 2016	2015	CHANGE
Uranium sales (million lbs)[1]		**3.1**	3.7	(16)%
Average realized price	($Cdn/lb)	**46.63**	52.22	(11)%
Cost of product sold (including D&A)[2]		**195**	186	5%
Revenue ($ millions)[1,2]		**194**	192	1%
Gross profit (loss) ($ millions)[2]		**(1)**	6	(117)%
Gross profit (loss) (%)[2]		**(1)**	3	(133)%

1 There were no significant intersegment transactions in the periods shown.
2 Includes U_3O_8, UF_6, and SWU.

NUKEM delivered 3.1 million pounds of uranium, a decrease of 0.6 million pounds compared to 2015. NUKEM revenues amounted to $194 million compared to $192 million in 2015 due to sales of UF_6 and SWU in the quarter, partially offset by the decrease in uranium volumes delivered and lower average realized price for uranium.

Gross profit percentage was a loss of 1% in the fourth quarter of 2016, compared to gross profit of 3% in the fourth quarter of 2015.

The net effect was a $7 million decrease in gross profit.

Our operations and projects

This section of our MD&A is an overview of each of our operations, 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. 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. The policy establishes clear accountabilities for enterprise risk management. We use a common risk matrix throughout the company and consider any risk that has the potential to significantly affect our ability to achieve our corporate objectives or strategic plan as an enterprise risk. However, there is no assurance we will be successful in preventing the harm any of these risks and hazards could cause. We recommend you read our most recent management proxy circular for more information about our risk oversight.

Below we list the regulatory, environmental and operational risks that generally apply to all of our operations and projects under evaluation. 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.

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 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, 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 make any significant change 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's review of environmental and regulatory processes "to restore public trust" is now firmly underway. This includes reviews of the Canadian Environmental Assessment Act, 2012, along with the Fisheries Act and Navigation Protection Act. Changes to this legislation could impact any future planned projects.
    - Environment Canada has brought forward a national recovery plan for woodland caribou that has the potential to impact economic and social development in northern Saskatchewan. Additional research work has resulted in a recent report indicating the range in which our northern Saskatchewan operations are located, hosts a secure and self-sustaining population of woodland caribou, perhaps one of the most secure boreal caribou populations in Canada. The research should lead Environment and Climate Change Canada to revise the national recovery plan to recognize the sustainability of the species in northern Saskatchewan; however, potential habitat protection measures could still have an impact on our Saskatchewan operations and projects under evaluation.
    - Environment Canada has been reviewing the Metal Mining Effluent Regulations (MMER). This review could result in new limits for existing MMER substances and proposed limits for new substances that could impact our Saskatchewan operations.
    - The U.S. Environmental Protection Agency (EPA) proposed adding new health and environmental protection standards that could impact Cameco Resources. Particularly concerning is the proposed requirement that groundwater must be monitored for 30 years after restoration. In early 2017, the EPA withdrew its rule, but then proposed a new rule for public comment, which is less onerous though still has a number of problematic aspects. Ultimately, the decision on moving forward with EPA's new proposal will be decided by the new administration.
    - In late 2016, EPA released a proposed rule that would impose additional financial responsibility requirements on owners and operators, along with various recordkeeping and notification requirements. If finalized as proposed, it would apply to Crow Butte and Smith Ranch-Highland, and the amount of Cameco Resources' financial responsibility could be material.

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 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 conceptual decommissioning plans for our operating sites and use them to estimate our decommissioning costs. Regulators review our conceptual 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.

At the end of 2016, our estimate of total decommissioning and reclamation costs was $1.04 billion. This is the undiscounted value of the obligation and is based on our current operations. We had accounting provisions of $894 million at the end of 2016 (the present value of the $1.04 billion). Since we expect to incur most of these expenditures at the end of the useful lives of the operations they relate to, 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 to regulatory authorities, as required. We had a total of about $1.0 billion in letters of credit supporting our reclamation liabilities at the end of 2016. All of our North American operations have letters of credit in place that provide financial assurance 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. For example, we are addressing issues related to historic soil and groundwater contamination at Port Hope.

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 environmental risks.

In 2016, we invested:

- $80 million in environmental protection, monitoring and assessment programs, slightly more than in 2015
- $27 million in health and safety programs, or 13% less than 2015 due to major safety improvement programs being completed in 2015

Spending on environmental and health and safety programs is expected to decrease in 2017 as a result of the decisions to transition Rabbit Lake into care and maintenance, and to curtail production at our US operations.

Operational risks

Other operational risks and hazards 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 required materials, supplies and equipment
- transportation disruptions
- electrical power interruptions
- equipment failures
- non-compliance with laws and licences
- catastrophic accidents
- fires
- blockades or other acts of social or political activism

- natural phenomena, such as inclement weather conditions, floods and earthquakes
- 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 7.1 million pounds, 26% lower compared to the same period in 2015 due to lower production at Inkai, and planned lower production at Rabbit Lake and our US operations, partially offset by an increase in Cigar Lake production. Production for the year was 27.0 million pounds, 5% lower than in 2015 due to the strategic decisions made to suspend production at Rabbit Lake, curtail production at Cameco Resources' US operations, and reduce production at McArthur River/Key Lake, partially offset by higher than expected production at Cigar Lake. See *Uranium - operating properties* starting on page 56 for more information.

Uranium production

CAMECO SHARE (MILLION LBS)	THREE MONTHS ENDED DECEMBER 31		YEAR ENDED DECEMBER 31			
	2016	2015	2016	2015	2016 PLAN[1]	2017 PLAN
McArthur River/Key Lake	**3.8**	3.8	**12.6**	13.3	12.6	12.6
Cigar Lake	**2.5**	2.3	**8.7**	5.7	8.0	9.0
Inkai	**0.7**	1.1	**3.4**	3.4	3.0	3.1
Rabbit Lake	**—**	2.0	**1.1**	4.2	1.1	— [2]
Smith Ranch-Highland	**0.1**	0.3	**0.9**	1.4	0.9	0.4 [2]
Crow Butte	**—**	0.1	**0.3**	0.4	0.2	0.1 [2]
Total	**7.1**	9.6	**27.0**	28.4	25.8	25.2

1 We reduced our initial 2016 production plan to 25.8 million pounds (from 30.0 million pounds) when we announced our operational changes and production curtailment decisions in April, 2016.

2 The Rabbit Lake operation is 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. Please see *Uranium – curtailed operations* beginning on page 68 for more information.

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 is to focus on our tier-one assets and profitably produce at a pace aligned with market signals in order to increase long-term shareholder value.

We plan to:

- ensure continued safe, reliable, low-cost production from our tier-one assets – McArthur River/Key Lake, Cigar Lake and Inkai
- complete ramp up of production at Cigar Lake
- continue to evaluate all sources of supply and supply expansion opportunities in our portfolio, in order to retain the flexibility to respond to market signals and take advantage of value adding opportunities
- focus on maximizing margins through cost management, productivity improvements, and supply discipline

Uranium – operating properties

McArthur River mine / Key Lake mill



2016 Production (our share)

12.6M lbs

2017 Production Outlook (our share)

12.6M lbs

Estimated Reserves (our share)

258.1M lbs

Estimated Mine Life

2037

Proportion of 2016 U production



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, which means it can produce more than 18 million pounds per year by mining only 150 to 200 tonnes of ore per day. We are the operator of both the mine and mill.

McArthur River is one of our three material uranium properties.

Location		Saskatchewan, Canada
Ownership		McArthur River – 69.805% Key Lake – 83.33%
Mine type		Underground
Mining methods		Primary: raiseboring, blasthole stoping Secondary: boxhole boring
End product		Uranium concentrate
Certification		ISO 14001 certified
Estimated reserves		258.1 million pounds (proven and probable), average grade U_3O_8: 9.60%
Estimated resources		3.4 million pounds (measured and indicated), average grade U_3O_8: 3.65% 7.7 million pounds (inferred), average grade U_3O_8: 5.20%
Licensed capacity		Mine and mill: 25.0 million pounds per year
Licence term		Through October, 2023
Total packaged production:	**2000 to 2016**	309.1 million pounds (McArthur River/Key Lake) (100% basis)
	1983 to 2002	209.8 million pounds (Key Lake) (100% basis)
2016 production		12.6 million pounds (18.0 million pounds on 100% basis)
2017 production outlook		12.6 million pounds (18.0 million pounds on 100% basis)
Estimated decommissioning cost		$48 million – McArthur River (100% basis) $218 million – Key Lake (100% basis)

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

BACKGROUND

Mine description

McArthur River currently has six zones with delineated mineral reserves and resources (zones 1 to 4, zones A and B) and one additional area with delineated mineral resources (McArthur north). We are currently mining zone 2 and zone 4.

Zone 2 has been actively mined since production began in 1999. The ore zone was initially divided into three freeze panels (panels 1-2, 3 and 5). 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. The majority of the remaining zone 2 mineral reserves are in the upper portion of panel 5.

Zone 4 is divided into three mining areas: north, central, and south. We are actively mining the lower central, and north areas. The upper central area is currently in the ground freezing stage, which is expected to be complete in 2017. Similar to zone 2, the inner connecting freeze walls are decommissioned as new panels are brought on line in order to maximize ore recovery.

Zone 1 is under development and freeze hole drilling is in progress. Production from zone 1 is expected to begin in 2020.

We have successfully extracted over 310 million pounds (100% basis) since we began mining in 1999.

Mining methods and techniques

We use a number of innovative methods to mine the McArthur River deposit:

Ground freezing

The sandstone that overlays the deposit and metasedimentary basement rocks is water-bearing and more permeable, which results in significant water pressure at mining depths. In order to isolate the high-pressure water, ground freezing is used to form an impermeable wall around the area being mined. This prevents water from entering the mine, and helps stabilize weak rock formations. To date, we have isolated six mining areas with freeze walls and a seventh mining area is expected to be isolated mid-2017.

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. It involves:

- establishing a drill chamber above the ore and an extraction chamber below the ore
- setting up a raisebore drill in the drill chamber, drilling a pilot hole down to the extraction chamber, attaching a 3-metre wide reaming head to the drill string, and pulling it back up through the ore zone
- collecting the high-grade broken ore at the bottom of the raises using line-of-sight remote-controlled scoop trams, and transporting it to an underground grinding circuit
- filling each raisebore hole with concrete
- when a series of overlapping raisebore holes in a chamber is complete, removing the equipment and filling the entire chamber with concrete
- starting the process again in an adjacent raisebore chamber

Blasthole stoping

Our use of blasthole stoping began in 2011 and has expanded; the majority of ore extraction is now carried out with blasthole stoping. The use of this method has allowed the site to improve operating costs by significantly reducing waste rock handling, backfill dilution, and backfill placement.

Similar to raiseboring, blasthole stoping requires establishing drill access above the ore and extraction access below the ore. Each stope begins with a single raisebore hole (explained above). The stope is then formed by expanding the circumference of the raise by drilling longholes around the raisebore hole and blasting the ore. The blasted material funnels into the raisebore hole and drops to the extraction level below. The broken rock is collected on the lower level and removed by line-of-sight remote-controlled scoop trams, and transported to the underground grinding circuit. Once a stope is mined out, it is backfilled with concrete to maintain ground stability and allow the next stope and/or raise to be mined. This mining method has been used extensively in the mining industry, including uranium mining.

Boxhole boring

Boxhole mining was tested at McArthur River between 2012 and 2015 and though it is approved for use as a mining method, the related costs are higher and it is not being actively used. Boxhole boring is similar to the raisebore method, but the drilling machine is located below the ore, so development is not required above the mineralization.

Initial processing

We carry out initial processing of the extracted ore at McArthur River:

- the underground circuit grinds the ore and mixes it with water to form a slurry
- the slurry is pumped 680 metres to the surface and stored in one of four ore slurry holding tanks

- it is blended and thickened, removing excess water
- the final slurry, at an average grade of 15% U_3O_8, is pumped into transport truck containers and shipped to Key Lake mill on an 80 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.

Tailings capacity

We expect to have sufficient tailings capacity at Key Lake 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.

2016 UPDATE

Production

Production from McArthur River/Key Lake was 18.0 million pounds; our share was 12.6 million pounds. This was 6% lower than 2015 and 10% lower than our initial forecast for the year due to our decision to reduce production amid weak market conditions.

Key Lake mill upgrades

The Key Lake mill began operating in 1983 and we have continually upgraded circuits with new technology to simplify operations, improve environmental performance, and allow the mill's nominal annual production rate to closely follow production from the McArthur River mine. As part of the mill upgrades, a new calciner was installed at the Key Lake mill to accommodate an eventual annual production increase to 25 million pounds. However, reliability issues were encountered with the new equipment during commissioning. Since market conditions do not currently support a decision to increase production, and as part of our continuing efforts to reduce costs, in 2016, we suspended the commissioning of and transition to the new calciner. We are assessing the cost to resolve the issues and expect to complete commissioning if we determine that there is financial and operational value in adding new calcining capacity. The existing calciner has sufficient capacity to meet our 2017 production target of 18 million pounds (12.6 million pounds our share).

New mining areas

We must bring on new mining zones to sustain production, and two new areas are currently under active development: the upper central portion of zone 4, and zone 1. In order to support the development of these zones, infrastructure expansions are required related to freeze capacity and ventilation. In 2016, we completed the upgrade of our surface electrical infrastructure as part of our plan to address current and future needs. We also continued construction of the next freeze plant, which is scheduled to begin freezing the south end of the orebody (zone 4) in 2017.

The mine life of McArthur River/Key Lake has been extended from 2033 to 2037 as a result of changes to the annual production assumptions in our mine plan, and the work completed to upgrade resources to reserves in zone A. See *Mineral reserves and resources* on page 76 for more information.

Exploration

In 2016, we began underground infill definition drilling of zone B in order to provide the information required for more detailed mining plans.

PLANNING FOR THE FUTURE

Production

Given the current state of oversupply in the uranium market, we plan to produce 18.0 million pounds in 2017; our share is 12.6 million pounds.

In alignment with our continued efforts to reduce costs, our 2017 production plan for the McArthur River and Key Lake operations includes an extended shut-down during the third quarter, which is expected to result in reduced flight and camp costs. The shut-down will consist of a four-week vacation period, followed by a two-week maintenance period at McArthur River and a four-week maintenance period at Key Lake, with production planned to restart before the end of the third quarter.

We have also planned additional actions for 2017, including a 10% reduction of the workforce at McArthur River and Key Lake, and changes to the commuter flight services at our sites, which are expected to further reduce costs and improve efficiency at the operations.

Expansion potential

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. Once the market signals that new supply is needed and a decision is made to begin increasing annual production, we will optimize the capacity of both the McArthur River mine and Key Lake mill with a view to achieving annual licensed capacity of 25 million pounds per year (100% basis). We expect that this paced approach will allow us to extract maximum value from the operation as the market transitions.

MANAGING OUR RISKS

Production at McArthur River/Key Lake poses many challenges: control of groundwater, weak rock formations, radiation protection, water inflow, mine area transitioning, and regulatory approvals. Operational experience gained since the start of production has resulted in a significant reduction in risk.

Operational changes

The operational changes we have made, and plan to make in 2017, which are intended to achieve cost savings and improve efficiency, carry with them increased risk of production disruption.

Labour relations

The collective agreement with the United Steelworkers local 8914 expires in December 2017. We plan to begin contract negotiations prior to the expiration of the current agreement. There is a risk to our 2018 production if we are unable to reach agreement and there is a labour dispute.

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.

Water inflow risk

The greatest risk is production interruption from water inflows. A 2003 water inflow resulted in a three-month suspension of production. We also had a small water inflow in 2008 that did not impact production.

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 the following steps to reduce the risk of inflows, but there is no guarantee that these will be successful:

- Ground freezing: Before mining, we drill freezeholes and freeze the ground to form an impermeable freeze wall around the area being mined. Ground freezing reduces but does not 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: Our standard for this project 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 beginning work on any new zone.

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 52 to 54.

Uranium – operating properties

Cigar Lake



2016 Production (our share)

8.7M lbs

2017 Production Outlook (our share)

9.0M lbs

Estimated Reserves (our share)

107.6M lbs

Estimated Mine Life

2028

Proportion of 2016 U production



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 AREVA's McClean Lake mill.

Cigar Lake is one of our three material uranium properties.

Location	Saskatchewan, Canada
Ownership	50.025%
Mine type	Underground
Mining method	Jet boring system
End product	Uranium concentrate
Certification	ISO 14001 certified
Estimated reserves	107.6 million pounds (proven and probable), average grade U_3O_8: 15.90%
Estimated resources	42.3 million pounds (measured and indicated), average grade U_3O_8: 16.17% 10.4 million pounds (inferred), average grade U_3O_8: 7.36%
Licensed capacity	18.0 million pounds per year (our share 9.0 million pounds per year)
Licence term	Through June, 2021
Total packaged production: 2014 to 2016	28.9 million pounds (100% basis)
2016 production	8.7 million pounds (17.3 million pounds on 100% basis)
2017 production outlook	9.0 million pounds (18.0 million pounds on 100% basis)
Estimated decommissioning cost	$49 million (100% basis)

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

We have begun development below the mineralization and we are currently mining in the eastern part of the ore body (referred to as Phase 1), and surface delineation drilling continues for the western portion (Phase 2).

Mining method

Bulk ground freezing

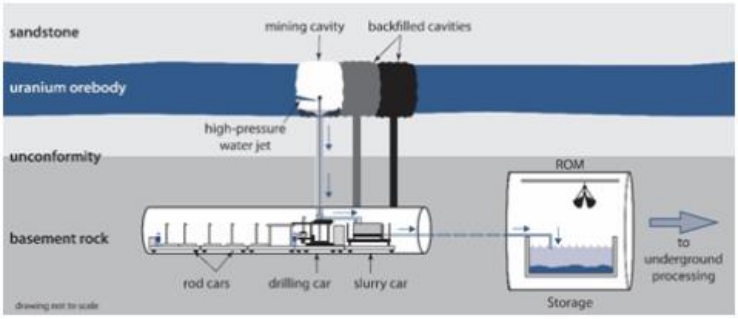
The sandstone that overlays the deposit and basement rocks is water-bearing, and to prevent water from entering the mine, help stabilize weak rock formations, and meet our production schedule, the ore zone and surrounding ground in the area to be mined must meet specific ground freezing requirements before we begin jet boring.

During construction, development and remediation of the underground infrastructure, we employed a hybrid ground freezing approach using a combination of underground and surface freezing. The costs related to each technique are similar; however, there are significant advantages to freezing the ground from the surface. With surface freezing, less mine development is required, which results in less waste rock and greater ground stability, since freeze tunnels are not required between production tunnels. In addition, congestion is reduced and underground development for freeze infrastructure is no longer a critical path mine activity. Based on these advantages, we have elected to proceed exclusively using surface freezing to mine current mineral reserves at Cigar Lake.

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 full annual production rate of 18 million pounds. One JBS machine will be located below each frozen panel and the three JBS machines required are currently in operation. Two machines can be actively mining 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 16% 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 AREVA. Given the McClean Lake mill's capacity, it is able to:

- operate at Cigar Lake's targeted annual production level of 18 million pounds U_3O_8
- 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 18.0 million pounds (100% basis) per year. In 2016, AREVA's application to increase the licensed capacity of the McClean Lake mill from 13 million to 24 million pounds of annual production was approved by the CNSC.

2016 UPDATE

Production

Total packaged production from Cigar Lake was 17.3 million pounds U_3O_8; our share was 8.7 million pounds. The operation exceeded our forecast of 16 million pounds (100% basis) as a result of higher productivity and our intention to adjust annual production as necessary, based on our operating experience during rampup.

During the year, we:

- discontinued use of the underground freeze infrastructure and backfilled two redundant crosscuts related to underground freezing
- completed a freeze pad extension to enable surface freeze drilling to resume in 2017
- advanced the freeze plant expansion project through the prefeasibility stage

Underground development

In 2016, we began advancing two new production crosscuts tunnels to ensure we maintain continuous access to frozen ore inventory once mining in the current crosscuts is complete.

McClean Lake mill update

Upgrades to the tails neutralization circuit were substantially completed in 2016, and the mill has sufficient capacity to produce 18 million pounds annually.

Exploration

In 2016, we completed 29,000 metres of diamond drilling as part of the first year of a three-year, 65,000-metre surface drilling program to confirm and upgrade mineral resources contained in the western portion of the deposit (Phase 2). The objective of the program is to complete a detailed geological and geotechnical interpretation, a mineral resource estimate, and a prefeasibility study for Phase 2.

PLANNING FOR THE FUTURE

Production

In 2017, we expect to produce 18.0 million packaged pounds at Cigar Lake; our share is 9.0 million pounds.

In alignment with our continued efforts to reduce costs, our 2017 production plan for the Cigar Lake mine includes an extended shut-down during the third quarter, which is expected to result in reduced flight and camp costs. The shut-down will consist of a four-week vacation period, followed by a two-week maintenance period with mine start-up planned before the end of the third quarter.

We have also planned additional actions for 2017, including a 10% reduction of the workforce at Cigar Lake, changes to the shift rotation schedule, and changes to the commuter flight services at the site, which are expected to further reduce costs and improve efficiency at the operation

In 2017, we expect to:

- resume surface freeze drilling and advance planning for freeze plant infrastructure expansion in support of future production
- Complete development and outfitting of two additional production crosscuts tunnels according to the mine plan, and backfill two crosscut tunnels where production is complete

McClean Lake mill relicensing

In 2017, AREVA will begin the CNSC relicensing proceedings for its McClean Lake mill. Its existing 8-year licence term ends on June 30, 2017, and it has requested a 12-year licence term as part of its renewal process.

MANAGING OUR RISKS

Cigar Lake is a challenging deposit to develop and mine. These challenges include control of groundwater, weak rock formations, radiation protection, 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.

Operational changes

The operational changes we have made, and plan to make in 2017, which are intended to achieve cost savings and improve efficiency, carry with them increased risk of production disruption.

McClean Lake mill relicensing

The McClean Lake mill's eight year operating licence ends on June 30, 2017, and AREVA has applied for a 12-year renewal. There is risk to our 2017 production if AREVA is unable to secure the licence renewal.

Limited mining experience of the deposit

Although we have now successfully mined a number of cavities, producing a total of 28.9 million pounds, these may not be representative of the deposit as a whole. As we ramp up production, 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 and variable dilution, recovery values, chemical ore characteristics, and mining productivity. There is a risk that the ramp up to full production may take longer than planned and that the full production rate may not be achieved on a sustained and consistent basis. We are confident we will be able to solve challenges that may arise, but failure to do so would have a significant impact on our business.

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 new 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.

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 project 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 52 to 54.

Uranium – operating properties

Inkai



2016 Production (our share)

3.4M lbs

2017 Production Outlook (our share)

3.1M lbs

Estimated Reserves (our share)

46.3M lbs

Estimated Mine Life

2030[1] *(based on licence term)*

Proportion of 2016 U production



Inkai is a very significant uranium deposit, located in Kazakhstan. There are two production areas (blocks 1 and 2) and an exploration area (block 3). The operator is joint venture Inkai limited liability partnership, which we jointly own (60%) with Kazatomprom (40%)[1].

Inkai is one of our three material uranium properties.

Location	South Kazakhstan
Ownership	60%[1]
Mine type	In situ recovery (ISR)
End product	Uranium concentrate
Certifications	BSI OHSAS 18001 ISO 14001 certified
Estimated reserves	46.3 million pounds (proven and probable), average grade U_3O_8: 0.06%
Estimated resources	81.3 million pounds (measured and indicated), average grade U_3O_8: 0.06% 86.2 million pounds (inferred), average grade U_3O_8: 0.05%
Licensed capacity (wellfields)	5.2 million pounds per year (our share 3.0 million pounds per year)[1]
Licence term	Block 1: 2024[1], Block 2: 2030[1], Block 3: 2030[1]
Total packaged production: 2009 to 2016	40.1 million pounds (100% basis)
2016 production	3.4 million pounds (6.0 million pounds on 100% basis)
2017 production outlook	3.1 million pounds (5.4 million pounds on 100% basis)
Estimated decommissioning cost (100% basis)	$10 million (US) (100% basis)

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

1 We signed an agreement with our partner Kazatomprom and JV Inkai to restructure and enhance JV Inkai. As part of the agreement, subject to closing, our ownership share will be gradually reduced to 40% as production increases, production is expected to increase over time, and the license term for blocks 1, 2 and 3 will be extended, giving JV Inkai the right to produce from all three blocks until 2045. See below for more information.

BACKGROUND

Mine description

The Inkai uranium deposit is a roll-front type orebody within permeable sandstones. The more porous and permeable sand and silt units host several stacked and relatively continuous, sinuous “roll-fronts” of low-grade uranium. There are several uranium deposits and active uranium mines developed along a regional system of superimposed mineralization fronts.

The property is divided into three main areas: two production areas (block 1 and block 2), and an exploration area (block 3):

- The mineralization in block 1 is at a depth of about 500 metres, occurring in a sandstone unit that has a surface projection of about 31 kilometres in length, with an average width of 160 metres
- In block 2, mineralization is mainly in a slightly shallower sandstone unit found between 350 and 420 metres below the surface, with an overall length of about 66 kilometres and an average width of 160 metres
- Exploration work and test wellfield development on block 3 has identified extensive mineralization hosted by several units, traced along a 25 kilometre area beyond block 2.

Mining and milling method

Inkai uses conventional, well-established, and very efficient in-situ recovery (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 production from Inkai was 6.0 million pounds; our share was 3.4 million pounds, the same as in 2015. The subsoil use law in Kazakhstan allows producers to produce within 20% (above or below) their licensed capacity in a year and as a result, production was 13% higher than its licensed capacity.

Project funding

We are currently advancing funds for Inkai's work on block 3 and, as of December 31, 2016, the principal and interest amounted to $168 million (US). Under the loan agreement, Inkai is to repay us from the sales proceeds from the sale of its production. On January 20, 2017, a payment of $30 million (US) was received.

2016 JV Inkai Restructuring Agreement

We signed an agreement with our partner Kazatomprom and JV Inkai to restructure and enhance JV Inkai. We currently own a 60% share of JV Inkai while Kazatomprom holds 40%. Based on previous agreements with Kazatomprom, our current interest in production from JV Inkai is 57.5%. The new agreement replaces the memorandum of agreement we signed with Kazatomprom in September 2012 and, subject to closing, provides as follows:

- JV Inkai will have the right to produce 4,000 tonnes of uranium (10.4 million pounds of U_3O_8) per year (our share 4.2 million pounds), an increase from the current 5.2 million pounds (our share 3.0 million pounds)
- subject to further adjustments tied to the refinery as described below, our ownership interest in JV Inkai will be adjusted to 40%, with Kazatomprom's share increasing to 60%. However, the agreement ensures that during production rampup, our share of annual production remains at 57.5% on the first 5.2 million pounds. As annual production increases above 5.2 million pounds, we will be entitled to 22.5% of any incremental production, to the maximum annual share of 4.2 million pounds. Once the rampup to 10.4 million pounds annually is complete, our interest in production will be adjusted to match our ownership interest at 40%.
- JV Inkai will have the right to produce from blocks 1, 2 and 3 until 2045 (currently, the lease terms are to 2024 for block 1 and to 2030 for blocks 2 and 3)
- a governance framework that provides protection for us as a minority owner
- the current boundaries of blocks 1, 2 and 3 will be adjusted to match the agreed production profile for JV Inkai to 2045
- the loan that our subsidiary made to JV Inkai to fund exploration and evaluation of block 3 will be restructured to provide for priority repayment

This agreement is subject to obtaining all required government approvals, including certain amendments to JV Inkai's existing Resource Use Contract, which is expected to take 10 to 18 months. The government approvals are conditional upon submission of certain technical reports and other documents. The agreement provides for annual production at the Inkai operation to be ramped up to 10.4 million pounds U_3O_8 over three years following receipt of required approvals. Since signing the agreement, we have been working with Kazatomprom and JV Inkai to prepare the various documents required to obtain the necessary government approvals.

We, along with our partner Kazatomprom, will also complete a feasibility study for the purpose of evaluating the design, construction and operation of a uranium refinery in Kazakhstan. The agreement includes provisions that would make our proprietary uranium refining technology available to Kazatomprom on a royalty-free basis, and grants Kazatomprom a five-year option to license our proprietary uranium conversion technology for purposes of constructing and operating a UF_6 conversion facility in Kazakhstan.

If Cameco and Kazatomprom decide to build the refinery, the agreement also provides that:

- our respective ownership interests in the limited liability partnership that will own the refinery will be 71.67% for Kazatomprom and 28.33% for Cameco
- Kazatomprom will have the option to obtain UF_6 conversion services at Cameco's Port Hope facility for a period of 10 years and receive other commercial support
- our ownership interest in JV Inkai is increased to 42.5% upon commissioning of the refinery

Depending on the level of commercial support we provide, our interest in JV Inkai may be increased to 44% and our ownership stake in the refinery partnership would also be adjusted from 28.33% to 29.33%

Caution about forward-looking information relating to the JV Inkai Restructuring Agreement

This discussion of our expectations relating to the JV Inkai restructuring agreement 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

- all required governmental approvals will be received to close and give effect to the contemplated transactions, including approval of the Resource Use Contract amendments from Kazakhstan state authorities, and that these approvals will be received on a timely basis
- JV Inkai will be able to achieve its future annual production targets
- anticipated operations and planned exploration, development and production activities are achieved

Material risks that could cause actual results to differ materially

- all required governmental approvals to close, or give effect to, the contemplated transactions, including approval of the Resource Use Contract amendments from Kazakhstan state authorities, are not received or not received on a timely basis
- JV Inkai is unable to achieve its future annual production targets
- anticipated operations and planned exploration, development and production activities, including any ramp up of JV Inkai's uranium production, are delayed or not achieved for any reason, including due to operating or technical difficulties, regulatory requirements, or political risk

Block 3 exploration

In 2016, Inkai continued to operate the test leach facility and test wellfields on block 3, which resulted in drummed production of 380,000 pounds (not included in Inkai's annual production). An amendment to the Resource Use Contract was signed in November, 2016, extending the block 3 exploration period through July 13 2018. Inkai continued working on the final appraisal of the mineral potential of block 3 according to Kazakhstan standards.

PLANNING FOR THE FUTURE

Production

We expect total production from blocks 1 and 2 to be 5.4 million pounds in 2017; our share is 3.1 million pounds.

JV Inkai Restructuring

In 2017, we will continue working with Kazatomprom and JV Inkai to prepare the documents required to close the 2016 JV Inkai Restructuring Agreement. We expect to submit a request for the necessary government approvals in the second half of the year.

Block 3 exploration

In 2017, Inkai expects to continue with pilot production from the test leach facility and to continue working on a final appraisal of the mineral potential according to Kazakhstan standards.

MANAGING OUR RISKS

Political risk

Kazakhstan declared itself independent in 1991 after the dissolution of the Soviet Union. Our Inkai investment and plans to increase production are subject to the 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. To maintain and increase Inkai production, we need ongoing support, agreement and co-operation from our partner and the government.

The principal legislation governing subsoil exploration and mining activity in Kazakhstan is the Subsoil Use Law dated June 24, 2010, as amended (new subsoil law). It replaces the Law on the Subsoil and Subsoil Use, dated January 27, 1996.

In general, Inkai's licences are governed by the version of the subsoil law that was in effect when the licences were issued in April 1999, and new legislation applies to Inkai only if it does not worsen Inkai's position. Changes to legislation related to national security, among other criteria, however, are exempt from the stabilization clause in the resource use contract. The Kazakh government interprets the national security exemption broadly.

With the new subsoil law, the government continues to weaken its stabilization guarantee. The government is broadly applying the national security exception to encompass security over strategic national resources.

The resource use contract contains significantly broader stabilization provisions than the new subsoil law, and these contract provisions currently apply to us.

To date, the new subsoil law has not had a significant impact on Inkai. We continue to assess the impact. See our annual information form for an overview of this change in law.

We also manage the risks listed on pages 52 to 54.

Uranium – curtailed operations

Rabbit Lake

Located in Saskatchewan, Canada, our 100% owned Rabbit Lake operation, which opened in 1975, is the longest operating uranium production facility in North America, and the second largest uranium mill in the world. Given current market conditions, and our belief they will continue to be depressed in the near term, we suspended production at Rabbit Lake during the second quarter of 2016.

PRODUCTION AND PRODUCTION SUSPENSION

Prior to the decision to suspend production, the operation produced 1.1 million pounds in 2016. The facilities are now in a state of safe and sustainable care and maintenance.

The transition to care and maintenance was completed in August, 2016. Care and maintenance costs for the year totaled $55.4 million and related severance totaled $10.6 million, both of which are included in our cost of sales.

A workforce of 120 (down from 650) continues to maintain the facilities, manage ongoing treatment and release of site water effluent, and sustain environmental monitoring and reclamation activities.

We are continually weighing the value of maintaining the operation in standby, against the cost of doing so. However, as long as production is suspended, we expect care and maintenance costs to range between $35 million and $40 million annually for the first few years. The estimated decommissioning cost for the Rabbit Lake mine site is $203 million, based on the preliminary decommissioning cost estimate that has been accepted by the Province of Saskatchewan and the CNSC.

IMPAIRMENT

Production was suspended at our Rabbit Lake operation during the second quarter, requiring us to determine the excess carrying value of the mine and mill over the fair value less costs to sell. As a result, we have recognized an impairment charge for the full carrying value of $124 million.

Smith Ranch-Highland & Satellite Facilities, Crow Butte

We operate Crow Butte, and Smith Ranch-Highland. They each have their own processing facilities, but the Highland plant is currently idle.

PRODUCTION AND CURTAILMENT

At Smith Ranch-Highland, production for the year was 36% lower than in 2015. At Crow Butte, 2016 production was 25% lower than in 2015. Production at both operations was lower due to the decision to curtail production in 2016.

The curtailment of Cameco Resources' US ISR operations resulted in a reduction of 85 positions, including employees and long-term contractors, with a workforce of 160 remaining to operate the sites. The severance cost was $3.6 million, which is included in our cost of sales. The estimated decommissioning costs for our ISR operations are as follows:

- Crow Butte - $46 million (US)
- Smith Ranch-Highland - $188 million (US)
- North Butte - $23 million (US)

The licence for Crow Butte has been renewed. The Nuclear Regulatory Commission license renewal for Smith Ranch - Highland continues.

FUTURE PRODUCTION

Although we have now taken actions to curtail production, due to the nature of ISR mining and our wellfield restoration requirements, production at Smith Ranch-Highland and at Crow Butte is expected to continue, but at a decreasing rate over time as head grade and flow rate declines. In 2017, we expect to produce 0.4 million pounds at Smith Ranch-Highland and 0.1 million pounds at Crow Butte.

MANAGING OUR RISKS

We manage the risks listed on pages 52 to 54.

Uranium – projects under evaluation

Work on our projects under evaluation 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. In 2012, we paid $150 million to acquire AREVA's 27.94% interest in the project, bringing our interest in the project to 69.9%. We are the operator.

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

In 2012, we paid $430 million (US) (as well as $22 million (US) in stamp duty) to acquire the Yeelirrie uranium deposit. 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	70%
End product	Uranium concentrates
Potential mine type	Open pit
Estimated resources (our share)	37.5 million pounds (indicated), average grade U_3O_8: 0.62% 4.2 million pounds (inferred), average grade U_3O_8: 0.53%

BACKGROUND

In 2008, we paid $346 million (US) to acquire a 70% interest in Kintyre. In 2012, we recorded a $168 million write-down of the carrying value of our interest, due to a weakened uranium market. In 2016, we recorded a further write-down of $238 million for the full carrying value due to weakening of the uranium market since the asset was purchased in 2008, and due to the decision to not allocate any further spending to the project.

The Kintyre deposit is amenable to open pit mining techniques. We are the operator.

2016 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 uranium production from our tier-one assets. We continue to await a signal from the market that additional production is needed prior to making any new development decisions.

This year, on our projects under evaluation we:

- continued to assess the technical, environmental and financial aspects of each project

- The Western Australian government granted state environmental approval for the Yeelirrie project, subject to a range of conditions that are considered implementable. We continue to advance the project through the federal environmental assessment process.
- The term of the Yeelirrie State Agreement was extended for a period of 10 years. We now have until 2028 to submit the required mine development and infrastructure proposal to the Western Australian government

PLANNING FOR THE FUTURE

2017 Planned activity

At Yeelirrie, we will undertake efforts to engage agencies in planning research options for subterranean fauna, and implement environmental management plans related to the conditions laid out by Western Australia's government in their environmental approval of the Yeelirrie project.

At Millennium, no work is planned, as regulatory activity related to our final environmental impact statement continues to be on hold. Further progress towards a development decision is not expected until market conditions improve.

We have no work planned at Kintyre. Although environmental approvals are in place, further progress towards a development decision is not expected until market conditions improve

MANAGING THE RISKS

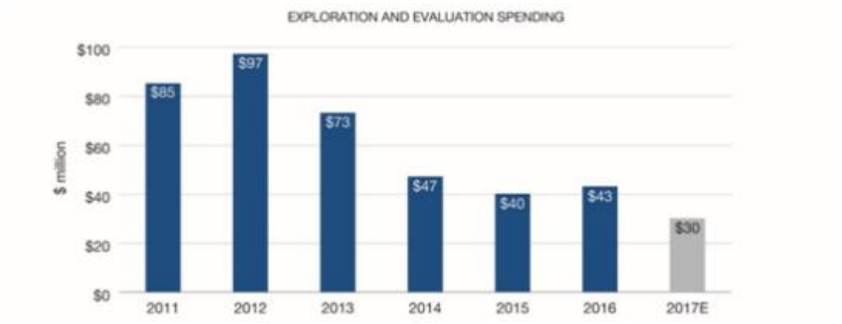
For all of our projects under evaluation, we manage the risks listed on pages 52 to 54.

Uranium – exploration and corporate development

Our exploration program is directed at replacing mineral resources as they are depleted by our production, and is key to sustaining our business. We have maintained an active program even during periods of weak uranium prices, which has helped us secure land with exploration and development prospects that are among the best in the world, mainly in Canada, Australia, Kazakhstan and the US. Globally, our land holdings total 1.5 million hectares (3.6 million acres). In northern Saskatchewan alone, we have direct interests in 650,000 hectares (1.6 million acres) of land covering many of the most prospective exploration areas of the Athabasca Basin. Many of our prospects are located close to our existing operations where we have established infrastructure and capacity to expand.

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.

In 2016, we continued our exploration strategy of focusing on the most prospective projects in our portfolio. Exploration is key to ensuring our long-term growth.



2016 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 2016, we spent about $10 million on brownfields and projects under evaluation in Saskatchewan and Australia. At Inkai and our US operations we spent $2 million.

Regional exploration

We spent about $31 million on regional exploration programs (including support costs), primarily in Saskatchewan and Australia.

PLANNING FOR THE FUTURE

We plan to reduce our regional exploration spending by over 35%. We will maintain an active uranium exploration program and continue to focus on our core projects in Saskatchewan under our long-term exploration strategy.

ACQUISITION PROGRAM

We have a dedicated team looking for acquisition opportunities within the nuclear fuel cycle that could further add to our supply, support our sales activities, and complement and enhance our business in the nuclear industry. We will invest 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.

An acquisition opportunity is never assessed in isolation. Acquisitions must compete for investment capital with our own internal growth opportunities. They are subject to our capital allocation process described in the strategy section, starting on page 13. Currently, given the conditions in the uranium market, and our extensive portfolio of reserves and resources, our focus is on our tier-one assets. 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.

Fuel services

Refining, conversion and fuel manufacturing

We control about 25% of world UF_6 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 of UO_3

Licence renewal in

Feb, 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 (this updated estimate is currently under regulatory review)

Port Hope Conversion Services



Licensed Capacity

12.5M kgU of UF_6

2.8M kgU of UO_2

Licence renewal in

Feb, 2017

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, 2017
Estimated decommissioning cost	$129 million (this updated estimate is currently under regulatory review)

Cameco Fuel Manufacturing Inc. (CFM)

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 as finished bundles
Licence term	Through February, 2022
Estimated decommissioning cost	$21 million (this updated estimate is currently under regulatory review)

2016 UPDATE

Production

Fuel services produced 8.4 million kgU, 13% lower than 2015. This was a result of our decision to decrease production in response to weak market conditions.

Port Hope conversion facility cleanup and modernization (Vision in Motion)

The Vision in Motion project completed the feasibility stage and was part of the relicensing process in 2016. The project will now be undergoing detailed engineering work and some early implementation aspects of the project in 2017.

Labour relations

Approximately 230 unionized employees at the Port Hope conversion facility accepted a new collective agreement. The employees, represented by United Steelworkers locals 13173 and 8562, agreed to a three-year contract that includes a 7% wage increase over the term of the agreement. The previous contract expired on June 30, 2016.

PLANNING FOR THE FUTURE

Production

The market continues to be weak and as a result, we plan to maintain production between 8 million and 9 million kgU in 2017.

Regulatory

The current operating licence for the Port Hope conversion facility expires in February 2017. The CNSC relicensing process was completed in 2016 and our request for a 10-year operating licence is currently under regulatory review, with the results expected before the end of the current licence term.

MANAGING OUR RISKS

Port Hope conversion facility relicensing

The Port Hope conversion facility's operating licence ends on February 28, 2017, and we have applied for a 10-year licence renewal. There is a risk to our 2017 conversion production if we are unable to secure the licence renewal.

We also manage the risks listed on pages 52 to 54.

NUKEM GmbH

Offices	Alzenau, Germany (NUKEM GmbH) Connecticut, US (Subsidiary, NUKEM Inc.)
Ownership	100%
Activity	Trading of uranium and uranium-related products
2016 sales[1]	7.1 million pounds U_3O_8
2017 forecast sales	5 to 6 million pounds U_3O_8

BACKGROUND

In 2013, we acquired NUKEM, one of the world's leading traders of uranium and uranium-related products. On closing, we paid €107 million ($140 million (US)) and assumed NUKEM's net debt of about €84 million ($111 million (US)).

NUKEM has access to contracted volumes and inventories in diverse geographic locations as well as scope for opportunistic trading of uranium and uranium-related products. This enables NUKEM to provide a wide range of solutions to its customers that may fall outside the scope of typical uranium sourcing and selling arrangements. Its trading strategy is nonspeculative and seeks to match quantities and pricing structures of its long-term supply and delivery contracts, minimizing exposure to commodity price fluctuations and locking in profit margins.

NUKEM's main customers are commercial nuclear power plants using enriched uranium fuel, typically large utilities that are either government owned, or large-scale utilities with multibillion-dollar market capitalizations and strong credit ratings. NUKEM also trades with converters, enrichers, other traders and investors.

NUKEM's business model

NUKEM's purchase contracts are with long-standing supply partners and its sales contracts are with blue-chip utilities which have strong credit ratings.

MANAGING OUR RISKS

NUKEM manages the risks associated with trading and brokering nuclear fuels and services. It participates in the uranium spot market, making purchases to place material in higher price contracts. There are risks associated with these spot market purchases, including the risk of losses. NUKEM is also subject to counterparty risk of suppliers not meeting their delivery commitments and purchasers not paying for the product delivered. If a counterparty defaults on a payment or other obligation or becomes insolvent, this could significantly affect NUKEM's contribution to our earnings, cash flows, financial condition or results of operations.

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 our 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.

We estimate and disclose mineral reserves and resources in five categories, using the definitions adopted by the Canadian Institute of Mining, Metallurgy and Petroleum, 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 demonstrated 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, except for Inkai which is based on our interest in potential production (57.5%), which differs from our ownership interest (60%). 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 pattern. 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
- *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

We use current geological models, constant dollar average uranium prices of $40 to $50 (US) per pound U_3O_8, depending on the varying production schedules and the annual forecast realized prices, 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.

Our share of uranium in the mineral reserves table below is based on our respective ownership interests, except for Inkai which is based on our interest in planned production (57.5%) assuming an annual production rate of 5.2 million pounds, which differs from our ownership interest (60%).

PROVEN AND PROBABLE (P+P) RESERVES, MEASURED AND INDICATED (M+I) RESOURCES, INFERRED RESOURCES (SHOWING CHANGE FROM 2015)
at December 31, 2016



Changes this year

Our share of proven and probable mineral reserves increased from 410 million pounds U $_3O_8$ at the end of 2015, to 415 million pounds at the end of 2016. The change was primarily the result of:

- new and updated mining plans for two zones at McArthur River, which contributed 8 million pounds to proven mineral reserves and 33 million pounds to probable mineral reserves
- revised mineral reserve and resource classifications in Kazakhstan, which resulted in an increase of 27 million pounds in proven mineral reserves, and a decrease of 20 million pounds in probable mineral reserves

partially offset by:

- production, which removed 28 million pounds from our mineral inventory
- conversion of 16 million pounds of reserves to resources, due to economic considerations related to our curtailed US and Rabbit Lake operations

Measured and indicated mineral resources increased from 377 million pounds U $_3O_8$ at the end of 2015, to 487 million pounds at the end of 2016. Our share of inferred mineral resources is 248 million pounds U_3O_8, a decrease of 133 million pounds from the end of 2015. The variance in mineral resources was mainly the result of:

- revised mineral reserve and resource classifications in Kazakhstan, which resulted in increases of 32 million pounds and 19 million pounds in measured and indicated resources respectively, and a decrease of 58 million pounds in inferred resources
- surface delineation drilling at Cigar Lake, resulting in the re-classification of 41 million pounds from inferred to indicated
- delineation drilling at McArthur River to increase geological knowledge, moving 33 million pounds from the inferred to the indicated mineral resources category, subsequently converted to probable reserves
- the reclassification of 16 million pounds of reserves as 18 million pounds of resources, due to economic considerations related to our curtailed US and Rabbit Lake operations

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

- Alain G. Mainville, director, mineral resources management, Cameco
- Greg Murdock, mine manager, McArthur River, Cameco
- Baoyao Tang, technical superintendent, McArthur River, Cameco
- Thomas Saruchera, technical superintendent, Key Lake, Cameco

CIGAR LAKE

- Alain G. Mainville, director, mineral resources management, Cameco
- Leslie Yesnik, general manager, McArthur River/Key Lake, Cameco
- Scott Bishop, manager, technical services, Cameco

INKAI

- Alain G. Mainville, director, mineral resources management, Cameco
- Robert Sumner, principal metallurgist, technical services, Cameco
- Bryan Soliz, principal geologist, Cameco Resources

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 2 for information about forward-looking information.

Please see our mineral reserves and resources section of our 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

While the terms measured, indicated and inferred mineral resources are recognized and required by Canadian securities regulatory authorities, the US Securities and Exchange Commission (SEC) does not recognize them. Under US standards, mineralization may not be classified as a 'reserve' unless it has been determined at the time of reporting that the mineralization could be economically and legally produced or extracted. US investors should not assume that:

- any or all of a measured or indicated mineral resource will ever be converted into proven or probable mineral reserves
- any or all of an inferred mineral resource exists or is economically or legally mineable, or will ever be upgraded to a higher category. Under Canadian securities regulations, estimates of inferred resources may not form the basis of feasibility or pre-feasibility studies. Inferred resources have a great amount of uncertainty as to their existence and economic and legal feasibility.

The requirements of Canadian securities regulators for identification of 'reserves' are also not the same as those of the SEC, and mineral reserves reported by us in accordance with Canadian requirements may not qualify as reserves under SEC standards.

Other information concerning descriptions of 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 US domestic mining companies, including Industry Guide 7.

Mineral reserves

As at December 31, 2016 (100% basis – 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	209.6	19.86	91.8	403.8	13.84	123.2	613.4	15.90	215.0	**107.6**	98.5
Key Lake	OP	61.1	0.52	0.7	—	—	—	61.1	0.52	0.7	**0.6**	98.7
McArthur River	UG	1,184.9	9.57	250.1	562.5	9.64	119.5	1,747.4	9.60	369.7	**258.1**	98.7
Crow Butte	ISR	583.0	0.03	0.4	—	—	—	583.0	0.03	0.4	**0.4**	85
Inkai	ISR	33,193.4	0.07	48.6	30,717.0	0.05	32.0	63,910.3	0.06	80.6	**46.3**	85
North Butte - Brown Ranch	ISR	364.5	0.08	0.7	—	—	—	364.5	0.08	0.7	**0.7**	60
Smith Ranch - Highland	ISR	444.7	0.10	1.0	34.2	0.13	0.1	478.9	0.10	1.1	**1.1**	80
Total		**36,041.2**	**—**	**393.3**	**31,717.5**	**—**	**274.8**	**67,758.7**	**—**	**668.1**	**414.7**	**—**

(UG – underground, OP – open pit, ISR – in situ recovery, totals may not add up due to rounding.

Note that the estimates in the above table:

- use constant dollar average uranium prices, varying over time, from $40 to $50 (US)/lb U_3O_8
- are based on an average exchange rate of $1.00 US=$1.20 to $1.25 Cdn

Our estimate of mineral reserves and mineral resources may be positively or negatively affected by the occurrence of one or more 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 - operating properties* starting on page 56

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 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 at December 31, 2016 (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	1.3	4.71	0.1	235.7	16.24	84.4	84.5	42.3	128.4	7.36	20.8	10.4
Fox Lake	—	—	—	—	—	—	—	—	386.7	7.99	68.1	53.3
Kintyre	—	—	—	3,897.7	0.62	53.5	53.5	37.5	517.1	0.53	6.0	4.2
McArthur River	43.4	4.36	4.2	16.8	1.79	0.7	4.8	3.4	95.9	5.20	11.0	7.7
Millennium	—	—	—	1,442.6	2.39	75.9	75.9	53.0	412.4	3.19	29.0	20.2
Wheeler River	—	—	—	166.4	19.13	70.2	70.2	21.1	842.5	2.38	44.1	13.2
Rabbit Lake	—	—	—	2,281.5	0.79	39.7	39.7	39.7	2,631.4	0.58	33.6	33.6
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	1,418.2	0.21	6.6	1,354.9	0.29	8.6	15.2	15.2	1,135.2	0.12	2.9	2.9
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	34,855.4	0.07	55.3	77,914.4	0.05	86.0	141.3	81.3	151,583.1	0.05	149.9	86.2
North Butte-Brown Ranch	604.2	0.08	1.1	5,530.3	0.07	8.4	9.4	9.4	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	3,354.0	0.10	7.1	14,338.1	0.05	16.9	24.0	24.0	6,861.0	0.05	7.7	7.7
Total	**68,225.8**	**—**	**172.3**	**127,020.2**	**—**	**514.1**	**686.4**	**487.0**	**168,805.5**	**—**	**382.0**	**247.9**

Totals may not add up due to rounding.

Note that mineral resources:

- do not include amounts that have been identified as mineral reserves
- do not have demonstrated economic viability

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.

Commencement of production stage

When we determine that a mining property has reached the production stage, capitalization of development ceases, and depreciation of the mining property begins and is charged to earnings. Production is reached when management determines that the mine is able to produce at a consistent or sustainably increasing level. This determination is a matter of judgment. See note 2 to the financial statements for further information on the criteria that we used to make this assessment.

Purchase price allocations

The purchase price related to a business combination or asset acquisition is allocated to the underlying acquired assets and liabilities based on their estimated fair values at the time of acquisition. The determination of fair value requires us to make assumptions, estimates and judgments regarding future events. The allocation process is inherently subjective and impacts the amounts assigned to individually identifiable assets and liabilities. As a result, the purchase price allocation impacts our reported assets and liabilities and future net earnings due to the impact on future depreciation and amortization expense and impairment tests.

Determination of joint control

We conduct certain operations through joint ownership interests. Judgment is required in assessing whether we have joint control over the investee, which involves determining the relevant activities of the arrangement and whether decisions around relevant activities require unanimous consent. Judgment is also required to determine whether a joint arrangement should be classified as a joint venture or joint operation. Classifying the arrangement requires us to assess our rights and obligations arising from the arrangement. Specifically, management considers the structure of the joint arrangement and whether it is structured through a separate vehicle. When structured through a separate vehicle, we also consider the rights and obligations arising from the legal form of the separate vehicle, the terms of the contractual arrangements and other facts and circumstances, when relevant. This judgment influences whether we equity account or proportionately consolidate our interest in the arrangement.

Controls and procedures

We have evaluated the effectiveness of our disclosure controls and procedures and internal control over financial reporting as of December 31, 2016, 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, 2016. We have not made any change to our internal control over financial reporting during the 2016 fiscal year that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

New standards and interpretations not yet adopted

A number of new standards and amendments to existing standards are not yet effective for the year ended December 31, 2016, and have not been applied in preparing these consolidated financial statements. Cameco does not intend to early adopt any of the following standards or amendments to existing standards, unless otherwise noted.

IFRS 15, *Revenue from Contracts with Customers* (IFRS 15) – In May 2014, the IASB issued IFRS 15 which is effective for periods beginning on or after January 1, 2018 and is to be applied retrospectively. IFRS 15 clarifies the principles for recognizing revenue from contracts with customers. Cameco does not expect the standard to have a material impact on the financial statements.

IFRS 9, *Financial Instruments* (IFRS 9) – In July 2014, the IASB issued IFRS 9. IFRS 9 replaces the existing guidance in IAS 39, *Financial Instruments: Recognition and Measurement* (IAS 39). IFRS 9 includes revised guidance on the classification and measurement of financial assets, a new expected credit loss model for calculating impairment on financial assets and new hedge accounting requirements. It also carries forward, from IAS 39, guidance on recognition and derecognition of financial instruments.

IFRS 9 is effective for annual periods beginning on or after January 1, 2018, with early adoption of the new standard permitted. Cameco does not intend to early adopt IFRS 9. The extent of the impact of adoption of IFRS 9 has not yet been determined.

IFRS 16, *Leases* (IFRS 16) – In January 2016, the IASB issued IFRS 16 which is effective for periods beginning on or after January 1, 2019, with early adoption permitted. IFRS 16 eliminates the current dual model for lessees, which distinguishes between on-balance sheet finance leases and off-balance sheet operating leases. Instead, there is a single, on-balance sheet accounting model that is similar to current finance lease accounting. The extent of the impact of adoption of IFRS 16 has not yet been determined.

In January 2017, the IASB issued Disclosure Initiative (Amendments to IAS 7). The standard applies prospectively and is effective for annual periods beginning on or after January 1, 2017, with earlier application permitted. The amendments require disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flow and non-cash changes. Cameco does not expect the amendments to have a material impact on the financial statements.

EXHIBIT 99.4

For fiscal years ended December 31, 2016 and December 31, 2015, KPMG LLP and its affiliates were paid by Cameco Corporation and its subsidiaries the following fees:

(Cdn$)	2016	% of Total Fees	2015	% of Total Fees
Audit Fees:				
Cameco	$1,559,400	57.7%	$1,939,000	57.3%
Subsidiaries	628,500	23.3%	904,900	26.7%
Total Audit Fees	$2,187,900	81.0%	$2,843,900	84.0%
Audit-Related Fees:				
Translation services	—	0.0%	—	0.0%
Pensions and other	28,700	1.1%	27,300	0.8%
Total Audit-Related Fees	$ 28,700	1.1%	$ 27,300	0.8%
Tax Fees:				
Compliance	$ 158,000	5.8%	$ 150,500	4.5%
Planning and advice	327,300	12.1%	362,600	10.7%
Total Tax Fees	$ 485,300	17.9%	$ 513,100	15.2%
All Other Fees:	—	0.0%	—	0.0%
Total Fees:	**$2,701,900**	**100.0%**	**$3,384,300**	**100.0%**

Pre-Approval Policies and Procedures

As part of Cameco Corporation's corporate governance practices, under its committee charter, the audit and finance committee is required to pre-approve the audit and non-audit services performed by the external auditors. The audit and finance 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 and finance committee or audit and finance committee chair, or in the absence of the audit and finance 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 and finance committee at its next meeting. The audit and finance committee has adopted a written policy to provide procedures to implement the foregoing principles. For each of the years ended December 31, 2016 and 2015, 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.

Contractual Cash Obligations

As at December 31, 2016 (Cdn$ millions)	Total	Due in less than 1 Year	Due in 1 – 3 Years	Due in 4 – 5 Years	Due after 5 Years
Long-term debt	**1,500**	—	500	—	1,000
Interest on long-term debt	**475**	69	139	82	185
Provision for reclamation	**1,037**	18	95	82	842
Provision for waste disposal	**15**	2	12	1	—
Other liabilities	**70**	—	—	—	70
Capital commitments	**51**	51	—	—	—
Unconditional product purchase commitments[1] [2]	**991**	340	436	145	70
Total contractual cash obligations	**4,139**	480	1,182	310	2,167

1 Denominated in US dollars. Converted to Canadian dollars at the December 31, 2016 rate of Cdn $1.30.
2 As at February 1, 2017.

Commercial Commitments

As at December 31, 2016 (Cdn$ millions)	Total Amounts Committed
Standby letters of credit [1]	1,470
Total commercial commitments	1,470

1 The standby letters of credit maturing in 2016 were issued with a one-year term and will be automatically renewed on a year-by-year basis until the underlying obligations are resolved. These obligations are primarily the decommissioning and reclamation of our operating sites which are expected to remain outstanding well into the future and our obligations under the CRA dispute which are expected to remain outstanding until the dispute is resolved.

EXHIBIT 99.6

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Cameco Corporation

We have audited Cameco Corporation's internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Cameco Corporation'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 management's discussion and analysis. Our responsibility is to express an opinion on Cameco Corporation's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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 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.

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.

In our opinion, Cameco Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated statements of financial position of Cameco Corporation as of December 31, 2016 and December 31, 2015, and the related consolidated statements of earnings, comprehensive income, changes in equity, and cash flows for the years then ended, and our report dated February 8, 2017 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP

Chartered Professional Accountants

Saskatoon, Canada

February 8, 2017

EXHIBIT 99.7

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Cameco Corporation

We have audited the accompanying consolidated statements of financial position of Cameco Corporation as of December 31, 2016 and December 31, 2015 and the related consolidated statements of earnings, comprehensive income, changes in equity and cash flows for the years then ended. These consolidated financial statements are the responsibility of Cameco Corporation's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Cameco Corporation as of December 31, 2016 and December 31, 2015, and its consolidated financial performance and its consolidated 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), Cameco Corporation's internal control over financial reporting as of December 31, 2016, based on the 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, 2017 expressed an unqualified opinion on the effectiveness of Cameco Corporation's internal control over financial reporting.

/s/ KPMG LLP

Chartered Professional Accountants

Saskatoon, Canada

February 8, 2017

EXHIBIT 99.8

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors of Cameco Corporation

We consent to the use of our reports, included in this annual report on Form 40-F, each dated February 8, 2017, with respect to:

- our Independent Auditors' Report on the consolidated statements of financial position of Cameco Corporation (the "Corporation") as at December 31, 2016 and December 31, 2015, and the consolidated statements of earnings, comprehensive income, changes in equity and cash flows for each of the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information;
- our Report of Independent Registered Public Accounting Firm in accordance with the standards of the Public Company Accounting Oversight Board (United States) on the consolidated statements of financial position of the Corporation as at December 31, 2016 and December 31, 2015, and the consolidated statements of earnings, comprehensive income, changes in equity and cash flows for each of the years then ended; and
- our Report of Independent Registered Public Accounting Firm on the effectiveness of the Corporation's internal control over financial reporting as of December 31, 2016.

We also consent to the incorporation by reference of such reports in the registration statements (Nos. 333-11736, 333-6180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan, registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan and registration statement (No. 333-200678) on Form F-10.

/s/ KPMG LLP

Chartered Professional Accountants

Saskatoon, Canada

March 23, 2017

EXHIBIT 99.9

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 23, 2017

/s/ Tim Gitzel

Name: Tim Gitzel
Title: President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 99.10

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 23, 2017

/s/ Grant Isaac

Name: Grant Isaac
Title: Senior Vice-President and Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 99.11

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, 2016, 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 23, 2017

EXHIBIT 99.12

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, 2016, 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 23, 2017

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 Operating Properties – McArthur River/Key Lake", "Operations and Projects – Uranium Operating Properties – Cigar Lake", "Operations and Projects – Uranium Operating Properties – Inkai", "Mineral Reserves and Resources " and "Governance – Interest of Experts" in the Corporation's Annual Information Form for the year ended December 31, 2016 dated March 23, 2017 for the McArthur River/Key Lake, Cigar Lake and Inkai properties; and

(b) under the headings "Our Operations and Projects - Uranium Operating Properties – McArthur River mine/Key Lake mill", "Our Operations and Projects – Uranium Operating Properties – Cigar Lake", "Our Operations and Projects – Uranium Operating Properties – Inkai", and "Mineral Reserves and Resources" in Management's Discussion and Analysis of Financial Condition and Results of Operation for the year ended December 31, 2016 dated February 9, 2017 for the McArthur River/Key Lake, Cigar Lake and Inkai properties,

(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, 333-6180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan, registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan and registration statement (No. 333-200678) on Form F-10.

Sincerely,

/s/ *Alain G. Mainville*

Name: Alain G. Mainville, P. Geo.
Title: Director, Mineral Resources Management, Cameco Corporation

Date: March 23, 2017

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 Operating Properties – Cigar Lake", "Mineral Reserves and Resources " and "Governance – Interest of Experts" in the Corporation's Annual Information Form for the year ended December 31, 2016 dated March 23, 2017 for the Cigar Lake property; and

(b) under the headings " Our Operations and Projects – Uranium Operating Properties – Cigar Lake" and "Mineral Reserves and Resources" in Management's Discussion and Analysis of Financial Condition and Results of Operation for the year ended December 31, 2016 dated February 9, 2017 for the Cigar Lake property,

(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, 333-6180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan, registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan and registration statement (No. 333-200678) on Form F-10.

Sincerely,

/s/ *C. Scott Bishop*

Name: C. Scott Bishop, P. Eng.
Title: Manager, Technical Services, Cameco Corporation

Date: March 23, 2017

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 Operating Properties – McArthur River/Key Lake", "Operations and Projects – Uranium Operating Properties – Cigar Lake", "Mineral Reserves and Resources " and "Governance – Interest of Experts" in the Corporation's Annual Information Form for the year ended December 31, 2016 dated March 23, 2017 for the McArthur River/Key Lake and Cigar Lake properties; and

(b) under the headings "Our Operations and Projects – Uranium Operating Properties – McArthur River mine/Key Lake mill, "Our Operations and Projects – Uranium Operating Properties – Cigar Lake" and "Mineral Reserves and Resources" in Management's Discussion and Analysis of Financial Condition and Results of Operation for the year ended December 31, 2016 dated February 9, 2017 for the McArthur River/Key Lake and Cigar Lake properties,

(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, 333-6180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan, registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan and registration statement (No. 333-200678) on Form F-10.

Sincerely,

/s/ *Leslie (Les) D. Yesnik*

Name: Leslie (Les) D. Yesnik, P. Eng.
Title: General Manager, McArthur River and Key Lake, Cameco Corporation

Date: March 23, 2017

EXHIBIT 99.16

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:

> under the headings "Operations and Projects – Uranium Operating Properties – Inkai", "Mineral Reserves and Resources " and "Governance – Interest of Experts" in the Corporation's Annual Information Form for the year ended December 31, 2016 dated March 23, 2017 for the Inkai property

(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, 333-6180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan, registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan and registration statement (No. 333-200678) on Form F-10.

Sincerely,

/s/ *Darryl Clark*

Name: Darryl Clark, PhD, P. Geo.
Title: Managing Director, Cameco Kazakhstan LLP

Date: March 23, 2017

EXHIBIT 99.17

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 Operating Properties – Inkai", "Mineral Reserves and Resources " and "Governance – Interest of Experts" in the Corporation's Annual Information Form for the year ended December 31, 2016 dated March 23, 2017 for the Inkai property; and

(b) under the headings "Our Operations and Projects – Uranium Operating Properties – Inkai" and "Mineral Reserves and Resources" in Management's Discussion and Analysis of Financial Condition and Results of Operation for the year ended December 31, 2016 dated February 9, 2017 for the Inkai property,

(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, 333-6180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan, registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan and registration statement (No. 333-200678) on Form F-10.

Sincerely,

/s/ *Robert J. Sumner*

Name: Robert J. Sumner, PhD, P. Eng.
Title: Principal Metallurgist, Technology Group,
Cameco Corporation

Date: March 23, 2017

EXHIBIT 99.18

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 Operating Properties – Inkai", "Mineral Reserves and Resources " and "Governance – Interest of Experts" in the Corporation's Annual Information Form for the year ended December 31, 2016 dated March 23, 2017 for the Inkai property; and

(b) under the headings "Our Operations and Projects – Uranium Operating Properties – Inkai" and "Mineral Reserves and Resources" in Management's Discussion and Analysis of Financial Condition and Results of Operation for the year ended December 31, 2016 dated February 9, 2017 for the Inkai property,

(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, 333-6180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan, registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan and registration statement (No. 333-200678) on Form F-10.

Sincerely,

/s/ *Stuart B. Soliz*

Name: Stuart B. Soliz, P. Geo.
Title: Principal Geologist, Power Resources, Inc.
(operating as Cameco Resources)

Date: March 23, 2017

EXHIBIT 99.19

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 Operating Properties – McArthur River/Key Lake", "Mineral Reserves and Resources " and "Governance – Interest of Experts" in the Corporation's Annual Information Form for the year ended December 31, 2016 dated March 23, 2017 for the McArthur River/Key Lake properties; and

(b) under the headings "Our Operations and Projects – Uranium Operating Properties – McArthur River mine/Key Lake mill" and "Mineral Reserves and Resources" in Management's Discussion and Analysis of Financial Condition and Results of Operation for the year ended December 31, 2016 dated February 9, 2017 for the McArthur River/Key Lake properties,

(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, 333-6180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan, registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan and registration statement (No. 333-200678) on Form F-10.

Sincerely,

/s/ *Baoyao Tang*

Name: Baoyao Tang, P. Eng.
Title: Technical Superintendent, McArthur River, Cameco Corporation

Date: March 23, 2017

EXHIBIT 99.20

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 Operating Properties – McArthur River/Key Lake", "Mineral Reserves and Resources " and "Governance – Interest of Experts" in the Corporation's Annual Information Form for the year ended December 31, 2016 dated March 23, 2017 for the McArthur River/Key Lake properties; and

(b) under the headings "Our Operations and Projects – Uranium Operating Properties – McArthur River mine/Key Lake mill" and "Mineral Reserves and Resources" in Management's Discussion and Analysis of Financial Condition and Results of Operation for the year ended December 31, 2016 dated February 9, 2017 for the McArthur River/Key Lake properties,

(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, 333-6180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan, registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan and registration statement (No. 333-200678) on Form F-10.

Sincerely,

/s/ *Gregory M. Murdock*

Name: Gregory M. Murdock, P. Eng.
Title: Operations Manager, McArthur River, Cameco Corporation

Date: March 23, 2017

EXHIBIT 99.21

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 Operating Properties – McArthur River/Key Lake", "Mineral Reserves and Resources " and "Governance – Interest of Experts" in the Corporation's Annual Information Form for the year ended December 31, 2016 dated March 23, 2017 for the McArthur River/Key Lake properties; and

(b) under the headings "Our Operations and Projects – Uranium Operating Properties – McArthur River mine/Key Lake mill" and "Mineral Reserves and Resources" in Management's Discussion and Analysis of Financial Condition and Results of Operation for the year ended December 31, 2016 dated February 9, 2017 for the McArthur River/Key Lake properties,

(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, 333-6180 and 333-139165) on Form S-8 for the Cameco Corporation Stock Option Plan, registration statement (No. 333-196422) on Form S-8 for the Cameco Corporation Employee Share Ownership Plan and registration statement (No. 333-200678) on Form F-10.

Sincerely,

/s/ *Thomas Saruchera*

Name: Thomas Saruchera, P. Eng.
Title: Technical Superintendent, Key Lake, Cameco Corporation

Date: March 23, 2017